

City of Ann Arbor, MI
East Medical Center Drive Bridge Rehabilitation & Widening Project
RFP #22-76
Submission Date: November 17, 2022

Technical Proposal

The background image shows a concrete bridge structure supported by several pillars. The pillars are heavily covered in colorful graffiti. Below the bridge, there are railroad tracks on a gravel bed. The scene is set against a clear blue sky. A street light is visible on the right side of the bridge.

Qualifications, Experience and Accountability - 20 Points

1. Qualifications and experience of the bidder and of key persons, management, and supervisory personnel to be assigned by the bidder.
 - See Attached Appendix A (Qualifications, Experience, Accountability Documentation) containing potential Project Manager, Project Engineer, Project Supervisor, our Director of Project Management and our Director of Field Operations.
2. References from individuals or entities the bidder has worked for within the last five (5) years including information regarding records of performance and job site cooperation.
 - C.A. Hull is a recognized MDOT prequalified contractor with over 81 years' experience building and rehabilitating bridges in the State of Michigan.
3. Evidence of quality assurance program and results of such program on bidders previous projects.
 - For all concrete placements C.A. Hull will contract with an MDOT prequalified concrete testing agency. A QA/QC plan will be submitted prior to concrete placement for approval of the owner (city of Ann Arbor)
4. A statement from the bidder as to any major subcontractors it expects to engage including the name, work and amount.
 - C.A. Hull intends to pull potential subcontractors from an extensive list of MDOT pre-qualified subcontractors for any work that is not self-performed.
 - Subcontracted work for this project will include: Asphalt, Foundation Piling, Electrical, Reinforcing Steel Installation, Concrete Paving, Pavement Markings, Epoxy Overlay, Fence, Traffic Control, Clearing, Guardrail Installation, Slope Restoration & Audio Video.

Workplace Safety - 20 Points

1. Documentation of an on-going, Michigan OSHA approved safety training program for employees to be used on the proposed jobsite.
 - See Attached Appendix B (Workplace Safety Documentation)
2. Evidence of bidder's workplace compensation Experience Modification Rating (EMR)
 - C.A. Hull Co., Inc. 2019-2020 EMR rating was 0.49, the 2021-2022 rating is 0.73. These are industry leading EMR ratings in the State of Michigan.
3. Evidence that all craft labor that will be employed by the bidder for the project has, or will have prior to project commencement, completed at least the OSHA 10-hour training course for safety established by the U.S. Department of Labor, Occupational Safety & Health Administration.
 - See Attached Appendix B (Workplace Safety Documentation) for employees already OSHA 10hr trained.
 - All employees not already OSHA 10 hour trained will receive the required training before arrival to the project site.
4. The safety record of bidder and major subcontractors including OSHA, MIOSHA or other safety violations.
 - C.A. Hull Co., Inc. has had 9 MIOSHA inspections on jobsites since 2018 and received only 3 minor violations.

Workplace Development - 20 Points

1. The ratio of masters or journeypersons to apprentices proposed to be used on the construction project jobsite if apprentices are to be used on the project.
 - See attached Appendix C (Workplace Development Documentation) for names of potential apprentices that may be onsite.
 - C.A. Hull currently has 9 Carpenter Apprentices in the Carpenter Apprenticeship Program and 3 Painters in the Painter/Industrial coating apprenticeship program. It is expected that up to two of these apprentices will be on the jobsite during the duration of the project. C.A. Hull Co., has an estimated 300 journeypersons and apprentices company wide at the height of the construction season.
2. Documentation as to bidders pay rates, health insurance, pension or other retirement benefits, paid leave or other fringe benefits to its employees.
 - See attached Appendix C (Workplace Development Documentation) for rates above.
3. Documentation that the bidder participates in a Registered Apprenticeship Program that is registered with the United States Department of Labor Office of Apprenticeship or by a State Apprenticeship Agency recognized by the USDOL Office of Apprenticeship.
 - See attached Appendix D (Social Equity and Sustainability documentation) for names of potential apprentices that may be onsite and registered program names
4. Documentation of how the bidder assesses the skills and qualifications of any employees who do not have master or journeyperson certification or status, or are not participants in a Registered Apprenticeship Program.
 - C.A. Hull Co., Inc is signatory to the Labor, Operator, Finisher, Painter and Carpenter unions. All employees onsite will be either journeypersons or in an approved apprenticeship program.

Social Equity and Sustainability - 20 Points

1. A statement from the bidder as to what percentage of its workforce resides in the City of Ann Arbor and in Washtenaw County, Michigan. The City will consider in evaluating which bids best serve its interests, the extent to which responsible and qualified bidders are able to achieve this goal.
 - Currently C.A. Hull estimates that 0% of it's workforce, scheduled to work on this project, resides in the City of Ann Arbor and Washtenaw Co, Michigan.
2. Evidence of Equal Employment Opportunity Programs for minorities, women, veterans, returning citizens, and small businesses.
 - See attached Appendix D (Social Equity and Sustainability Documentation)
3. Evidence that the bidder is an equal opportunity employer and does not discriminate on the basis of race, sex, pregnancy, age, religion, national origin, marital status, sexual orientation, gender identity or expression, height, weight, or disability.
 - See attached Appendix D (Social Equity and Sustainability Documentation)
4. The bidder's proposed use of sustainable products, technologies, or practices for the project, which reduce the impact on human health and the environment, including raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and waste management.
 - None available
5. The bidder's environmental record, including findings of violations and penalties imposed by government agencies.
 - C.A. Hull Co., has no environmental violations imposed by government agencies.

APPENDIX A

QUALIFICATIONS, EXPERIENCE, ACCOUNTABILITY DOCUMENTATION

Martha Owen

C.A. Hull Project Manager



With over 18 years of experience in a construction management role, Ms. Owen possesses the knowledge and experience to coordinate activities with designers, engineers, and clients while directing subcontractors and other construction related personnel. As Project Manager, Ms. Owen is responsible for all aspects of the project including, relationship with the owner, directing all Hull supervision, coordination of subcontractors and suppliers, equipment management, cost accounting and maintaining expedited schedules, traffic and union relationships. As a Project Engineer, Ms. Owen was responsible for tracking materials, quantities, pay items and estimates. Her duties also included updating job costs, schedules and maintaining required documentation with MDOT. Ms. Owen worked closely with PM's and Superintendents to coordinate materials, subcontractors, equipment and project documentation.

EDUCATION

- Bachelor of Science in Construction Management, Michigan State University (1995)

LICENSES / CERTIFICATIONS / MEMBERSHIPS

- Member of Michigan Infrastructure Transportation Association (MITA)
- FMI Project Management Academy
- Member of various Advisory Committees
- OSHA 30 Certified

PROFESSIONAL EXPERIENCE

- C.A. Hull Co., Inc. - Project Manager 2014 – Present
- C.A. Hull Co., Inc. - Project Engineer 2011 - 2014
- City of Leslie DPW - DPW Director 2007 - 2010
- Great Lakes Engineering Group – Engineering Technician 2002 - 2007
- Jones and Henry Engineers – Engineering Technician 2001 - 2002
- O’Harrow Construction Co. – Assistant Project Manager 1998 - 2001
- City of Jackson – Engineering Technician 1997 - 1998
- Champagne-Webber Bridge – Assistant to the Project Manager 1992 - 1997

PROJECT EXPERIENCE

2011 SB I-275 over Van Born Rd MDOT Project 82292-110939

Project Engineer Bridge rehabilitation consisting of structural steel repairs, partial painting, and maintaining traffic on M-10 under 9 Mile Road and on I-375 under the Madison Avenue on and off ramps in the cities of Southfield and Detroit.

2011 M-59 over Clinton River Trail MDOT Project 63043-55658

Project Engineer 4.16 mi of pavement patching, hot mix asphalt overlay, minor geometric improvements, bridge rehabilitation, landscaping, and guardrail replacement on M-59 from Opdyke

Road easterly to Crooks Road and the M-59 eastbound and westbound bridges over Rails to Trails east of I-75 in the cities of Pontiac, Auburn Hills and Rochester Hills.

2011 17 Bridges on I-75 from I-69 to Dodge Rd; Genesee Co. MDOT Project 25032-00664

Project Engineer Bridge rehabilitation including deep concrete and epoxy overlay, deck patching, joint replacement, steel repair, pin, hanger, partial deck, and pier cap replacement, substructure repair, minor widening, railing replacement, and steel cleaning and coating on 16 structures on the I-75 corridor from I-69 to Dodge Road.

2011 4 Bridges over I-69: Genesee County MDOT Project 25085-89236

Project Engineer Bridge rehabilitation including expansion joint replacement, epoxy overlay, deck and sidewalk patching, substructure repair, pin and hanger replacement, and cleaning and coating structural steel on Grand Traverse Street, Church Street, Beach Street, and Saginaw Street over I-69 in Flint.

2011 Vet's Highway over SB I-675: Saginaw County MDOT Project 73101-79971

Project Engineer Deck replacement with minor widening, modification of existing girders, cleaning and coating of the structural steel, approach roadway reconstruction, and hot mix asphalt cold milling and resurfacing on Veterans Memorial Highway over I-675 in the city of Saginaw.

2011-12 US-23 Reconstruct; Livingston County MDOT Project 47013-79897

Project Engineer 3.63 mi of hot mix asphalt overlay, reconstruction of 8 ramps, surfacing of Silver Lake carpool lot, rehabilitation of 11 structures, and 22.63 mi of median cable barrier on Grand River Avenue over southbound and northbound US-23, on US-23 from Silver Lake Road to the CSX railroad and to the north Livingston county line, on US-23 northbound over Silver Lake Road, under Lee Road, and northbound and southbound over Hyne Road, and on Spencer Road over US-23.

2012 John Beers over I-94; Berrien County MDOT Project 11015-88086

Project Engineer Shallow concrete overlay, barrier repair, cleaning and coating of structural steel, substructure repair, approach work, and maintaining traffic on John Beers Road over I-94 in the village of Stevensville

2012 5 Bridges on I-475; Genesee Co MDOT Project 25132-107124

Project Engineer Deck patching, epoxy overlay, expansion joint replacement, pin and hanger replacement, diaphragm replacement, cleaning and coating structural steel, substructure patching, concrete surface coating, approach work and approach sidewalk replacement, and soundwall repairs on I-475 under Third Street, I-475 under Kearsley Street, I-475 under Eastbound Robert T. Longway Boulevard, I475 under Westbound Robert T. Longway Boulevard, and I-475 from sta 424+10.37 to sta 440+72.18.

2012 US-131 over CSX RR & Hall St. Grand Rapids; Kent Co MDOT Project 41131-90208

Project Engineer Deep overlay, partial deck replacement, bridge barrier replacement, partial cleaning and coating of structural steel, joint replacement, substructure patching, bearing replacement, beam end repairs, approach work, utility work and maintaining traffic on US-131 over CSX Railroad and under Hall Street in Grand Rapids.

2012 Leonard St over I-96; Kent Cty MDOT Project 41025-106267

Project Engineer Deck patching, joint replacement, pin and hanger replacement, substructure repairs, rocker realignments, partial structural steel coating, and minor approach work on I-96 under Leonard Street in Grand Rapids.

2012 5 Structures @ US-127; Clare Cty MDOT Project 18033-106307

Project Engineer Deck patching, joint replacement, pin and hanger replacement, substructure repairs, rocker realignments, partial structural steel coating, and minor approach work on I-96 under Leonard Street in Grand Rapids.

2012 Willow and Bemis over US-23; Washtenaw Cty MDOT Project 81076-105931

Project Engineer Deck patching, joint replacement, pin and hanger replacement, substructure repairs, rocker realignments, partial structural steel coating, and minor approach work on I-96 under Leonard Street in Grand Rapids.

2013 US-127 @Lake Lansing; Ingham& Clinton Cty MDOT Project 33172-105914

Project Engineer Deep concrete overlay, deck patching, epoxy overlay, joint replacement, full and partial painting, pin and hanger replacement, bridge railing replacement, signal upgrades, approach work, and maintaining traffic on US-127 at Lake Lansing Road and Conrail Railroad Access Road in Lansing.

2013 Nine Bridges, US-31; Berrien Cty MDOT Project 11057-113245

Project Engineer Epoxy overlay, bridge deck crack sealing, concrete bridge approach, shoulder gutter, curb, gutter and spillway, and guardrail on US-31BR over Saint Joseph River, on US-31 over Pipestone Creek, on Pipestone Road over US-31, on Meadowbrook Road over US-31, and on Napier Avenue over US-31.

2013 M-43 @US-131; Kalamazoo Cty MDOT Project 39014-111189

Project Engineer Deep concrete overlay, deck joint replacements, sidewalk addition, bridge railing replacement, pin and hanger replacement, cleaning and coating of structural steel, and substructure repair on US-131 under M-43.

2013 5 bridges @ I-194, Battle Creek; Calhoun Cty MDOT Project 13033-103272

Project Engineer 3.79 mi of freeway signing upgrades, replace tower lighting, freeway fixtures, concrete barrier, deep concrete overlay, pin and hanger replacement, beam end repair, painting, joint replacement, and approach work on I-194 over Fountain Street, Grand Trunk Railroad, Dickman Road, Conrail Railroad and Kalamazoo River in Battle Creek.

2013 US-131 over Little Muskegon River; Mecosta Cty MDOT Project 54013-110459

Project Engineer Deck patching, healer/sealer, joint replacement, pin and hangers, steel repair, partial painting, riprap, approach curb and gutter, and maintaining traffic on US-131 northbound and southbound over Little Muskegon River.



2013 US-31 Winston Rd; Oceana Cty MDOT Project 64014-109868

Project Engineer 0.43 mi of hot mix asphalt removal, resurfacing mainline and ramp terminals, geometric improvements, bridge rehabilitation including deck replacement, full painting, pin and hanger replacement, steel repair, substructure repair, concrete surface coating, backwall replacement, slope paving repair, approach work, guardrail placement, and maintaining traffic on US-31 under Winston Road.

2013 M-50 over I-69, Charlotte; Eaton Co MDOT Project 23051-113272

Project Manager/Estimator 0.70 mi of hot mix asphalt widening and reconstruction, concrete ramp, sidewalk, curb, gutter and pavement repairs, watermain, storm sewer, pavement markings, epoxy overlay, substructure patching, and bridge approach shoulder work on M-50 from I-69BL easterly to I-69 and on M-50 over I-69 in Charlotte.

2013 Baldwin & Maple Rds over I-75; Genesee Co MDOT Project 25131-115877

Project Engineer Partial superstructure replacement, full-depth deck patching, epoxy overlay, railing and H-bearing replacement, structural steel repair, partial cleaning and coating of structural steel, substructure repair, slope paving repair, approach work, and maintaining traffic on Baldwin Road over I-75 and on Maple Avenue over I-75

2014-15 I-196 & US-31 South Haven; Allegan & Van Buren Co MDOT Project 03033-113249

Project Manager Deep and shallow concrete overlays, pin and hanger replacements, structural steel repairs, painting, concrete surface coating, substructure repairs, railing replacements, pier cap replacements, prestressed concrete I-beam end repair, joint replacement, and approach work on I-196BL (North Shore Drive) over I-196/US-31, on I-196/US-31 over 32nd Avenue (County Road 378), on M-43 and M-140 over I-196/US-31 and on Old US-31 over I-196/US-31.

2014 US-127 from Holt Rd to Bellevue; Ingham Co MDOT Project 33032-105903

Project Manager Deep concrete overlay, joint replacement, steel beam repairs, heat straightening structural steel, pin and hanger replacement, substructure repairs, thrie beam retrofit, and approach work on nine bridges located on US-127 from Holt Road to Bellevue Road.

2014 US-127 @ I-94; Jackson Co MDOT Project 38111-118478

Project Manager Deck replacement, structural steel repairs, heat straightening, cleaning and coating of structural steel, concrete surface coating, approach work, maintaining traffic, ramp work, guardrail, and drainage on US-127 over I-94.

2014 7 Bridges on US-131; Kent Co MDOT Project 41131-112942

Project Manager Miscellaneous bridge rehabilitation and approach work on US-131 at 7 locations in the city of Grand Rapids

2014 I-96 @ Grand River and Market; Ionia Co MDOT Project 34044-118561

Project Manager Application of penetrating healer/sealer to existing bridge deck, deck patching, joint replacement, bearing stiffener replacement, partial cleaning and coating of the existing structural steel, Pier 1 cap and column replacement, substructure patching, slope paving repairs, and approach reconstruction on I-96 over the Grand River and Market Street.

2014 I-94 Over the St. Joseph River; Berrien Co MDOT Project 11016-118685

Project Manager Bridge rehabilitation including deck patching, epoxy overlay, railing replacement, minor deck widening, partial painting, beam end repair, placing scour countermeasures, and approach work on I-94 eastbound and westbound over the St. Joseph River.

2015 US-10 4 bridges MDOT Project 09101-115898-2

Project Manager 0.20 mi of bridge rehabilitation on US-10 westbound over North Union Road, on US-10 eastbound over Patrick Road, and on US-10 eastbound and westbound over the Huron and Eastern Railroads.

2015 Hudson St. over the Grand River; Kent Co MDOT Project 41013-118529

Project Manager Concrete deck overlay, deck joint replacement, and approach work on Hudson Street over Grand River.

2015 3 Bridges over the Huron River; Washtenaw Co MDOT Project 81014-118688

Project Manager Hot mix asphalt paving, concrete pavement, curb, gutter, spillway, barrier, and patching, epoxy overlay, aggregate base, riprap, guardrail, and pavement markings on Zeeb Road over the Huron River, on North Territorial Road over the Huron River, and on Dixboro Road over Conrail and over the Huron River.

2015 I-75 BL Castle Rock, St. Ignace; Mackinac Co MDOT Project 49025-113189

Project Manager 0.77 mi of hot mix asphalt cold milling and resurfacing, pavement removal, drainage, guardrail, concrete curb and gutter, deep concrete overlay, railing, substructure repair, and pavement marking on I-75BL from south of Mackinac Trail northerly to north of the Castle Rock interchange.

2015 M-14@ I-96 and 275; Wayne Co MDOT Project 82102-118749

Project Manager 4.70 mi of hot mix asphalt cold milling and resurfacing, pavement markings, drainage structure cleaning, bridge approach patching and healer sealer, abutment repairs, and substructure repairs on M-14/I-96 from Sheldon Road easterly to Newburgh Road in the city of Livonia.

2015 3 bridges over Cass River; Tuscola Co MDOT Project 79020-118521-2

Project Manager Hot mix asphalt removal, bridge deck waterproofing and repaving, removal of expansion joint, pin and hanger removal and replacement, patching, and repaving approaches on Caine Road over the Cass River, on East Dayton Road over the Cass River, and on Dodge Road over the Cass River.

2015 Genesee Ave @ Saginaw River; City of Saginaw MDOT Project 73007-118501

Project Manager Steel beam repairs with partial painting and riprap on Genesee Avenue over the Saginaw River in the city of Saginaw.

2015 Stewart Ave@ CSX; City of Flint MDOT Project 25019-112189

Project Manager Expansion joint and pin and hanger replacement and partial painting of steel beams on Stewart Avenue over CSX Railroad in the city of Flint.

2015 I-75 over 13,14, Livernois; Oakland Co

MDOT Project 63174-126564

Project Manager PCI beam end repairs, substructure repairs including partial pier cap replacement, abutment repairs, installation of pressure relief joints, and maintaining traffic at I-75 over 13 Mile Road, over 14 Mile Road, and over Livernois Road in the cities of Madison Heights and Troy.

2015 Bridge Span A Phase 1; GM Milford Proving Grounds

Project Manager Bridge rehabilitation at GM's Milford Proving Grounds as a sub to Ideal Contracting. Expansion joint replacement, P&H replacement, slide bearing replacement, down spout replacement, approach work at Span A over the Circle Track

2015-2016 9 Structures on I-96 Lansing; Ingham Cty MDOT Project 33083-102843

Project Manager Deep overlay, full-depth patching, deck patches, joint replacement, structural steel repairs, railing and fascia replacement or repair, structural steel repairs, substructure repairs, slope paving repairs, bearing replacements, concrete surface coating, and approach work at various locations on I-96.

2016 10 Structures on I-94 Jackson; Jackson Cty MDOT Project 38101-110027

Project Manager Deck patching, joint replacement, epoxy overlay, partial painting, steel and concrete beam high-load hit repairs, shallow and deep concrete overlays, concrete T-beam, substructure and bridge railing repairs, ITS, and approach work on 10 structures located on I-94.

2017 I-75 & I-675; Saginaw Co MDOT Project 73112-90238

Project Manager 0.95 mi of roadway reconstruction, bridge rehabilitation and bridge reconstruction on I-75 and I-675 at various locations.

2017 Bridge Span A Phase 2; GM Milford Proving Grounds

Project Manager Bridge rehabilitation. Replace deck, expansion joints and concrete barrier railing. Replace bearings, minor steel repair and full paint on Span A over the Circle Track at GM's Milford Proving Grounds

2017 Wheeler and Wilder Rd over M-13; Bay Co MDOT Project 09111-128443

Project Manager Epoxy overlay, railing replacement, joint and pin & hanger, structural steel and substructure repairs, and concrete surface coating on Wilder Road and Wheeler Road over the M-13 Connector.

2017 Bridge Span B & Well No. 7, GM MPG

Project Manager Minor bridge rehabilitation at GM's Milford Proving Grounds as a sub to Ideal Contracting. Replace approaches and underdrain. Replace slide bearings and down spouts at Bridge Span B. At Well 7 install safety railing, small bolster, minor substructure patching and crack injection, add spillways on the slopes and replace sections of curb and gutter

2017 Bridge Span C & North-South, GM MPG

Project Manager Minor bridge rehabilitation at GM's Milford Proving Grounds as a sub to Ideal Contracting. Add a retrofit barrier wall strengthening at Bridge Span C. At N-S Straightaway patch substructure, crack injection, clearing on slopes add new guardrail and adjusted catch basin.

2017 ***D-B; I-75 West Branch; Ogemaw Co*** ***MDOT Project 65041-125856***

Project Manager Rehabilitation of 4 structures in Ogemaw Co. Expansion joint replacement, deck patching and barrier wall patching.

2017 ***12 Mile over the Rouge, City of Southfield: Oakland Co*** ***MDOT Project 63000-129367***

Project Manager Bridge preventive maintenance on two structures including partial painting and concrete repairs on 12 Mile Road over the Rouge River in the city of Southfield.

2017 ***8 Mile over I-75; Wayne Co*** ***MDOT Project 82252-116467***

Project Manager Bridge deck patching, installation of wood decking, rocker alignment and installation of roadway pressure relief joint on M-102 (8 Mile Road) over I-75 and I-75 Service Drive in the cities of Detroit and Hazel Park.

2018 ***Miller and Rotunda, Wayne County*** ***Wayne Co Project IFB 37-18-012***

Project Manager Road improvements along 2.83 miles of Outer Drive-W Road from Six Mile Road to Schaefer Hwy including cold milling the existing asphalt surface and resurfacing the x-lane wide pavement, pavement rehabilitation, drainage structure adjustment, concrete sidewalk and ADA sidewalk ramps, pavement markings; and all together with necessary related work.

2018 ***7 Bridges on I-75 and I-375; Wayne Co*** ***MDOT Project 82195-129387***

Project Manager Rehabilitation of 7 structures including shallow deck patching repairs, healer/sealer to deck, replacement of expansion joints, substructure patching repairs and approach work at 7 locations in the city of Detroit.

2018 ***Dix Toledo Rd over Allen & Penn. Wayne Co.*** ***MDOT Project 82000-132679***

Project Manager Bridge rehabilitation including deck overlay, painting, barrier, approach reconstruction, guardrail, hot mix asphalt resurfacing and pavement marking on Dix Toledo Road over Allen Road and Pennsylvania Road, Wayne County.

2019 ***Glenlord & Cleveland over I-94; Berrien Co*** ***MDOT Project 11015-126888***

Project Manager Bridge rehabilitation including deck patching, epoxy overlay, deep overlay, painting bearings, concrete beam, patching, substructure repair, steel beam end repair, pin and hanger replacement, thrie beam retrofit, concrete surface coating, full paint, approach work and maintaining traffic on I-94 at Glenlord Road and at Cleveland Avenue, Berrien County.

2019 ***100th Street over the Thornapple River*** ***Kent Co Project Caledonia Bridge No. 30***

Project Manager Joint replacment, deck patching, substructure repair, rip rap on 100th Street over the Thornapple river, Kent. Co

2019 ***M-37 over the Muskegon River; Newaygo Co.*** ***MDOT Project 62031-204754***

Project Manager Pin and hanger replacement, partial joint replacement and healer/sealer on M-37 over Muskegon River in the city of Newaygo, Newaygo County



2019 *Mill Run over Grand River, City of Eaton Rapids* *MDOT Project 23045-126675*

Project Manager Replacement of bridge railing, prestressed concrete deck fascia beam, bituminous wearing surface and waterproofing membrane, concrete curb and gutter, sidewalk, drainage, guardrail and approach work on Hall Street over Mill Race in the city of Eaton Rapids, Eaton County

2019 *US-127 at Trowbridge* *MDOT Project 33045-205983*

Project Manager Abutment repair, pier cap replacement and repair, slope paving repair and rocker realignment on two structures on I-496/US-127 over Trowbridge Road and CSX Railroad in the city of East Lansing, Ingham County.

2019 *I-96 Billwood Hwy* *MDOT Project 23151-204756*

Project Manager Structural steel repairs, pin and hanger replacement, substructure repairs, pressure relief joints, and deck patching on I-96 over Grand River and Billwood Highway, Eaton County.

2020 *I-96, Hagadorn to Wallace* *MDOT Project 33084-130133*

Project Manager Bridge rehabilitation including deep overlay, deck patching, expansion joint replacement, epoxy overlay, healer/sealer, pin and hanger replacement, rocker realignment, partial painting, beam end repair, substructure repair, slope protection repair, approach pavement replacement and pavement marking on 9 bridges along I-96 from Hagadorn Road to Wallace Road, Ingham County.

2020 *Crowner Drive over CN/GTW Railroad* *DTMB 171/19179.CDP*

Project Manager Repairs to Crowner Dr. Bridge over CN/GTW Railroad State of Michigan Secondary Complex Eaton County, Michigan

2021 *I-75 and US-23, 16 Bridges Flint to Fenton* *MDOT Project 25031-129185-2*

Project Manager Bridge rehabilitation including deck patching, full depth deck patching, joint replacement, barrier replacement, steel repair, rocker realignment, heat straightening, partial deck replacement, guardrail work, approach work and pavement marking on 16 bridges along US-23 and I-75, Genesee County.

2021 *Leroy, Caroline and Torrey Rd City of Fenton* *MDOT Project 25000-211752*

Project Manager Bridge rehabilitation includes epoxy overlays, joint sealing and deck patching on Leroy Street, Caroline Street and Torrey Road in the city of Fenton, Genesee County.

Ben Stachnik

C.A. Hull Project Manager



As Project Manager, at C.A. Hull, Mr. Stachnik is involved in the daily operations of bridge rehabilitation projects. With over three years of experience in the civil construction industry, Mr. Stachnik possesses the knowledge and problem-solving skills to accomplish tasks in the field. He works closely with Site Superintendent to build a strong relationship with designers, engineers, and clients while coordinating construction activities with subcontractors and other construction-related personnel.

EDUCATION

- Bachelor of Science in Construction Management, Ferris State University (2016)

LICENSES / CERTIFICATIONS / MEMBERSHIPS

- Member of Michigan Infrastructure Transportation Association (MITA)
- MDOT Level 1 Aggregate Testing
- OSHA 30 Certified

PROFESSIONAL EXPERIENCE

- | | |
|---|---------------|
| ▪ C.A. Hull Co., Inc.- Project Manager | 2019- Present |
| ▪ C.A. Hull Co., Inc.- Project Engineer | 2016 – 2019 |
| ▪ Payne & Dolan Inc.- Internship | Summer 2015 |
| ▪ Barrett Paving Materials Inc. | Summer 2014 |

PROJECT EXPERIENCE

2021 US-127 Roscommon 72014-208468

Project Manager- \$1.4M: Expedited project which involved substructure repairs with temporary supports, bridge deck concrete repairs, approach replacements, epoxy overlays, guardrail improvements and drainage upgrades at five structures over US-127 & I-75. This project was provided a short construction duration to complete the majority of the work by the 4th of July Holiday to minimize impact to the motoring public traveling to the northern part of Michigan.

2020 US-127 Mt Pleasant 37013-130105

Project manager \$16.7M: As prime contractor, the scope of the project included 26 lane miles of HMA resurfacing, under-clearance improvements at five locations on US-127, full bridge painting at three structures, partial deck replacements at two structures and a full deck replacement on a fly over ramp over



Southbound US-127. Project challenges were maintenance of traffic revisions to reduce staging of the under-clearance improvements, new bridge deck overlay techniques, structural steel repairs that were added to the project.

2019 I-94 Jackson MDOT 38101-115861

Assistant Project Manager- \$113.2M: C.A. Hull's portion of work was to build three structure, one at Cooper St over I-94 and a pair of mainline, 750' six span bridges. The Cooper St. structure consisted of substructure units on spread footing, simulated stone texture on abutment and pier walls, concrete bulb tee beams, and new bridge deck. The mainline bridges were built on H Pile supported substructure units, 72" Michigan 1800 beams.

2018 I-75 Blakely Drain to Northline Rd, MDOT 82191-119197

Project Engineer- \$25.8M: Schedule critical project which involved 11 structures on I-75. Watermain utility installation, roadway reconstruction, bridge widenings and structural steel repairs were the main focal point of the work performed by C.A. Hull.

2017-2018 Miller & Rotunda, Wayne County #1017-02-460

Project Engineer- \$3.5M: This rehabilitation project consisted of approximately 500 temporary supports and close to 50 beam end repairs. A methodical approach was needed to coordinate field measurements, shop drawing approvals, and fabrication of materials. During the project, attention was needed to protect the multiple railroad under the structure and regional critical utilities during bridge deck joint replacements and excavation for the temporary supports.

2017 US-23 from M-14 to Whitmore Lake, MDOT Project 81075-115398

Project Engineer - \$104.1M project Schedule critical project with a multitude of complex tasks. Project included a micro-pile foundation to widen a structure on northbound US-23 to maintain two lanes of traffic each direction. Following stages consisted of two new structures on US-23 over the Great Lakes Central Railroad, new structure over US-23 at 6 Mile Rd, bridge rehabilitation work and box culvert extensions with retaining walls. The project duration was from December of 2017 thru October of 2018.



Robert Grifka

C.A. Hull Site Superintendent

As Site Superintendent at C. A. Hull with more than 20 years of professional experience, Mr. Grifka is responsible for all day-to-day activities on the jobsite, including all C.A. Hull manpower, coordinating material deliveries, and scheduling subcontractors.

EDUCATION

- Ugly High School, Ugly MI - Diploma

LICENSES / CERTIFICATIONS / MEMBERSHIPS

- Member of Michigan Infrastructure Transportation Association (MITA)
- OSHA 30 Certified
- FMI Supervisor training – New York
- CPR/First Aid certification

PROFESSIONAL EXPERIENCE

- | | |
|---|----------------|
| ▪ C.A. Hull Co., Inc. - Site Foreman | 2000-2010 |
| ▪ C.A. Hull Co., Inc. - Site Superintendent | 2010 - Present |

PROJECT EXPERIENCE

2020 4 Bridges over M-10 and Novi over I-96, Oakland County

Site Superintendent – CAH Prime – A \$6.7M project in Oakland County, MI. The project was expedited with complex Maintenance of Traffic and included rehabilitation of 5 structures. The Project included full and partial deck chipping and patching, epoxy overlay, sidewalk replacements, steel repairs, beam repairs, rocker replacements, expansion joint replacements, partial painting and approach replacements. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Robert was also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2020 M-10 near Outer Drive – Retaining Wall Construction, Detroit, Wayne Co.

Site Superintendent – CAH prime – A \$4.9M project in Wayne Co. The Project included removal and replacement of a 1500 lft retaining wall on M-10 in the city of Detroit. The project included 26,000sft of earth retention (sheeting) and included replacement of the failing retaining wall and barrier. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Robert was also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2019 6 Structures on I-94 – Detroit

Site Superintendent - A \$19.2M project CAH subcontractor to Ajax Paving. The Project included rehabilitation of 6 structures including removal and replacement of the center pier at the CSX RR over I-94 requiring close coordination with the railroad. It also included span replacements on Warren Ave over I94, substructure patching, deck patching and epoxy overlay on I94 under 24th Street, I-94 under CN/GTWRR and I94 under CR RR. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2019 I-94 from I-275 to Beech Daly

Site Superintendent – CAH Prime – A 15.5M project on I94 from I275 to Beech Daly Rd. The project included major rehabilitation on an expedited schedule on 12 structures with I94 pavement rehabilitation. The Project was on an expedited schedule with complicated Maintenance of Traffic near the Detroit Metro Airport. Work included full and partial deck patching with epoxy overlays, bridge barrier replacements, pier replacements utilizing temporary supports, substructure patching, beam repairs and steel repairs on all structures in this corridor. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Robert was also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2018 I-75 Blakely Drain to Northline, MDOT 82191-119187

Site Superintendent – A \$24.7 million dollar project. Project included 4.46 mi of rehabilitation and reconstruction, CPM work and approach work on 11 structures over I-75 in Wayne County. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2017 Martin Luther King over M-10 – Design Build; MDOT 82111-122288

Site Superintendent – A \$13.3 million Design-Build project. Included bridge reconstruction of Martin Luther King Blvd over M-10. Ramp widening, deceleration lane and retaining wall construction. Project also included 1.85 miles of milling and HMA pavement resurfacing, ADA ramps and utility relocations. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2017 Summerfield Road at US-23; MDOT 58034-113252

Site Superintendent – \$4.3 Million bridge and freeway reconstruction. Project included 1.04 mi HMA reconstruction, four ramp reconstructions and MSE walls. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2017 US-23 from M-14 to Whitmore Lake (Sub to Dan's Excavating); MDOT 81075-115398

Site Superintendent – \$91 million (\$14.5 million) bridge replacement and widening. Project included bridge replacement, permanent and temporary bridge widening, culvert extension, retaining wall, epoxy overlay, deck patching, barrier replacement, concrete beam end repair, substructure patching, concrete surface coating and rehabilitation at various locations on US-23. . Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2017 US-23 at Lee Rd to White Lake Rd; MDOT 47014-128409

Site Superintendent – A \$2.2 million bridge rehabilitation project of 7 bridges including deck patching, deck overlay, joint and pier cap replacement, concrete beam repair, substructure patching, heat straightening, structural steel repair, partial painting, concrete surface coating, slope paving repair and replacement, and approach work. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2016 NB I-275 over CSX, Schoolcraft & M-14; PO # 591N6603095

Site Superintendent – A \$331,000 rehabilitation of 3 structures on NB I-275 including deck patching, epoxy overlay, bridge railing patching, resealing hot poured joints, concrete surface coating of bridge railing, substructure patching and maintenance of traffic. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2016 Crooks-Seymour Lake-Orion Roads; MDOT 63125-126629

Site Superintendent – A \$291,000 project which included concrete patching, deck sealing, hot mix asphalt overlay and concrete sealer on Crooks Road over Clinton River, on Seymour Lake Road over Paint Creek and on Orion Road over Paint Creek. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2016 Franklin Street over US-131, US-131 NB ramps at Franklin Street; MDOT 41131-123098

Site Superintendent – A \$1.5 million bridge rehabilitation project which included concrete pavement, substructure, patching, curb, gutter and sidewalk ramps, aggregate base, beam end repair, temporary support and pavement markings. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2016 Leonard Street over the Grand River; MDOT 41014-112936

Site Superintendent – A \$670,000 project which included joint, pin and hanger replacement, zone painting, substructure patching, and approach work. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2015 Multiple Structures on I-69; MDOT 41014-112936

Site Superintendent – A \$4.7 million bridge rehabilitation project which included approach work and maintaining traffic on multiple structures. . Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2015 I-75 Pier Replacement; MDOT 82024-127257



Site Superintendent – A \$292,000 project which included partial replacement, cleaning and coating of bearings, and expansion joint replacement at pier 2 on 1-75 under I-94 eastbound to the 1-75 northbound ramp. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2015 Fuller Road over Amtrak Railroad and Maiden Lane over Huron River; MDOT 81001-123008

Site Superintendent – A \$1.7 million project which included bridge overlay, replacing expansion joints, structural steel repairs, cleaning and coating structural steel, substructure repairs and pavement markings. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2015 M-14/I-96 from Sheldon Road to Newburgh Road (sub to Cadillac Asphalt); MDOT 82102-118749

Site Superintendent – A \$5.4 million (???) project which included 4.70 mi of hot mix asphalt cold milling and resurfacing, pavement markings, drainage structure cleaning, bridge approach patching and healer sealer, abutment repairs, and substructure repairs. . Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2014 I-94 over St. Joseph River; MDOT 11016-118685

Site Superintendent – A \$4.2 million bridge rehabilitation project which included deck patching, epoxy overlay, railing replacement, minor deck widening, partial painting, beam end repair, placing scour countermeasures, and approach work. . Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2014 I-96 over the Grand River and Market Street; MDOT 34044-118561

Site Superintendent – A \$1.1 million project which included application of penetrating healer/sealer to existing bridge deck, deck patching, joint replacement, bearing stiffener replacement, partial cleaning and coating of the existing structural steel, Pier 1 cap and column replacement, substructure patching, slope paving repairs, and approach reconstruction. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2014 I-69 over Newark Road and Winslow Road; MDOT 44044-113543

Site Superintendent – A \$908,000 project which included epoxy overlay, deck patching, railing repair, substructure patching, joint replacement, full painting, slope repair, and approach work on 4 structures. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2014 NB I-475 under Canadian National/Grand Trunk Wester RR and I-475 NB under I-69; MDOT 25132-123338



Site Superintendent – A \$164,000 project which included heat straightening, structural steel repairs, partial painting, and maintaining traffic. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

2014 7 Bridges on US-131; MDOT 41131-112942

Site Superintendent – A \$2.9 million bridge rehabilitation project which included miscellaneous bridge rehabilitation and approach work on US-131 at 7 locations. Robert was responsible for coordination of on-site field operations for CA Hull as well as all subcontractors. Also responsible for communication with field inspectors ensuring a quality product and maintaining the project schedule. Time spent on project: 100%

Paul Louzecky

C.A. Hull Director of Health and Safety



Mr. Louzecky has been employed by C.A. Hull full-time for five years and is currently working on achieving his CHST certification through BCSP (Board of Certified Safety Professionals). Prior to that, Mr. Louzecky worked for Clayco Construction for over 10 years as a Safety Engineer and MW Builders as a Safety Engineer for one year.

EDUCATION

- Oakland Community College (2004)
- University of South Florida OSHA Institute

LICENSES / CERTIFICATIONS / MEMBERSHIPS

- Member of Michigan Infrastructure Transportation Association (MITA)
- Member of C.A. Hull's Safety Committee
- OSHA 30 Certified; OSHA 500 trainer; OSHA 510 Certificate; SSPC Certified; OSHA 30 Hr Certificate; EM 385 40 Hr Certificate; OSHA 10 Hr Road Construction Certificate; First Aid & CPR Certificate; Excavation Safety Certificate; Fall Protection Training/ Trainer; Lead / Asbestos Abatement Training; Scaffolding Safety Certificate; OSHA Crane Safety Certificate; Confined Space Safety Certificate; Electrical Safety Training; Respiratory Protection Certificate; OSHA 300 Reporting & Record Keeping Certificate; C2 Ergonomics Certificate; OSHA 10-Hr Refresher Course; DOT / ANSI; OICC MC East Camp Lejeune Safety Of The Year Award For 2010

PROFESSIONAL EXPERIENCE

- | | |
|---|----------------|
| ▪ C.A. Hull Co., Inc. - Director of Health and Safety | 2012 – Present |
| ▪ Clayco Construction - Safety Engineer | 2002 – 2012 |
| ▪ MW Builders - Safety Engineer | 2002 - 2003 |

PROJECT EXPERIENCE

2012 – Present C.A. Hull Safety Department

Director of Health and Safety - Oversees all aspects of company health, safety and training. Manages and provides oversight of C.A. Hull's health and safety program. Provides appropriate accident prevention and safety training for managers, supervisors and field employees. Conducts C.A. Hull's extensive N.E.S.T. training for all new employees. Assists project teams in the identification of hazards and gives appropriate prompt corrections. Conducts weekly safety audits of projects and work practices. Performs all injury, incident and near-miss investigations and develops measures to prevent recurrences. Manages all safety systems and notification processes.

2012 Army Reserve Center

Safety Engineer - Responsible for the safety aspects of field construction (five buildings totaling 84,574 sq. ft.). Developed and implemented safety programs in compliance with NVOSHA/ OSHA Regulations, ARMY CORP (EM-385), ANSI Standards, and Corporate Safety Policies. Director in-charge of safety and health for over 200 + employees including subcontractors, MW employees and owner's reps. Project worked 748 days without a lost time accident. OSHA inspection, ZERO issues found with outstanding remarks. Designed/Conducted extensive site orientations for new employees. Chief reviewer of Subcontractor AHA's, Confined Space Entry Plans, Fall Protection Plans, Fire Prevention Plans, and any other site-specific safety submittals for GDA approval. Provided process improvements by streamlining daily Activity Hazard Analysis inspections corporately known as the W.A.T.C.H. (Workers Acting To Correct Hazards) Program. Conducted and documented weekly Safety meetings to discuss safety, construction progress, and other important topics with subcontractors and owner's representatives. Designer/ Implementer of MW's "Focus Five" site training due to them being the leading cause of injuries in construction today. Conducted weekly safety evaluation checklists and track all site near-misses to evaluate training and awareness for all employees.

2011 - 2012 Design Build for DOW/ KOKAM

Safety Engineer – Director in-charge of safety and health for a workforce of over 400 employees and over 200 Korean foreign nationals. Responsible for all safety aspects of field construction for 400,000 square foot battery plant. Developed and implemented safety programs in compliance with MIOSHA/ OSHA Regulations, DOW/ KOKAM, ANSI Standards, and Corporate Safety Policies. Conducted daily safety coordination meetings for 12 safety assistants. Designed and conducted extensive site orientations for new employees. Designed and implemented the "Listen-up Speak-up" training course teaching employees how to give and receive constructive criticism pertaining to safety. Scheduled safety coverage for crews working around the clock due to a driving schedule. Assisted Clayco Construction in achieving OSHA's VPP accreditation.

2008 - 2009 Renovation of a 170,000-sq. ft. USPS Post Office LEED Certified Silver

Safety Engineer – Chief oversight of any safety related activities achieving Zero Lost Time Injuries. Optimized production with large labor force and maintained a safe work environment. Adapted to USPS Construction Standards while incorporating other agency standards to apply the most stringent regulations. Coordinated with owner's representative maintaining a partnered approach from ground breaking to building turnover. Assumed Project Engineer duties when needed to review O&M Manuals, Warranties, As-Builts, and other closeout documentation. Conducted and documented weekly meetings to discuss safety, construction progress, and other important topics.

2007 - 2008 Construct New 12,000 sq. ft. Marshall Community Credit Union

Safety Engineer – Responsible for safety and construction progress with a challenging workforce. Overcame obstacles with small subcontracting firms lacking safety culture and the adequate training necessary to perform DFW. Conducted extensive weekly meetings and safety briefings for each subcontractor prior to starting work known as Pre-Task Safety Planning. Adapted to challenging local ordinances with regards to environmental requirements and local building restrictions. Briefed subcontractors for corporate safety policies and compliance with OSHA regulations. Applied effective conflict resolution in a timely manner due to owner's accelerated schedule request. Provided QC support in Mechanical and Electrical Systems to include DDC and TABs, Concrete Structures and Pavement, Elevators, Hardware, and Structural Steel.

2006 - 2007 Chevron's 300,000 sq. ft. Gulf of Mexico Headquarters Building

Safety Engineer – Responsible for safety and construction progress for a time constrained contract and highly visible project. Supervised safety for over 300 employees during peak production and occasionally scheduled 24-hour shifts for special construction activities. Chevron required compliance with local building codes and company specific construction guidelines. Challenged by a large project team to include more than 20 Clayco Construction laborers, 20 Clayco Construction representatives, and 30 owner's representatives comprised of engineers and safety officers. Construction Phase responsibilities included: Coordinating subcontractor's phases of work to enforce continuous progress. Review plans and specification during the job duration for quality control purposes. Aid field personnel with design issues occurring during construction by correspondence with engineers, architects, and owners or owner representatives. Tracking submittals and material delivery dates and enforce job completion by contract date. Compile cost proposals for changes in the job scope or additional items requested using quality subcontractor's feedback. Post Construction responsibilities included: Submitting all final documentation such as As-Built drawings, O&M Manuals, Warranties, and checking for punch list completion prior to final inspection.

2005 - 2006 188,000 sq. ft. Fed Ex Distribution Center that obtained LEED Certified Gold

Safety Engineer – Post Construction responsibilities included: Submitting all final documentation such as As-Built drawings, O&M Manuals, Warranties, and checking for punch list completion prior to final inspection. Performed Quality Control Management support during all installations maintaining contract compliance. Provided construction project schedule input for tracking progress and accurate preparation of monthly invoices. Assisted the Quality Control Manager during increased production periods to maintain workmanship despite the critical completion date. Completed the project with a 3-person project team from Clayco Construction despite the project's large work area. Assisted in critical inspections to reduce re-work for work activities such as Mechanical, Electrical, and Life Safety Systems. Challenges to safety on the project site were the enormous square footage of roof work and the rooftop mechanical equipment set by aircraft. Approval of this activity from a safety process included OSHA regulations, Clayco Construction Policies, and FAA approval.

2004 - 2005 305,000 sq. ft. Conference Center, Novi Expo Center

Safety Engineer – This challenging project is now the largest privately-owned Convention and Banquet Center in Michigan. Project team included a joint venture contractor supporting cost management and Clayco performed safety and program management. Supervised the progress and safety for over 240 employees while providing documentation required by owner’s representatives and Clayco Construction’s internal production reports. Increased production despite inadequate soil and delay due to extreme weather while maintaining safety requirements. The Tilt Up Panel Construction required many extra safety precautions and extensive inspection process prior to starting additional activities.

2003 - 2004 American Axle & Manufacturing 248,000 sq. ft. Seven Story Office Complex- World Headquarters + 600 Car Parking Deck

Safety Engineer – Project Challenges: Extensive excavation due to underground parking and coordination to meet all safety requirements for MIOSHA/Clayco. Overcame obstacles with large workforce lacking safety culture to achieve overall superb safety results. Extensive planning and coordination for all DFOW along with Life Safety. Coordinating meetings with all Sub-Contractors from start to completion of project. Assisted on QC for extensive high-end millwork. Stringent fire rating for mid-rise building. Coordinated with owner’s representative and sub-contractors for installation of the commercial kitchen. Coordination and installment of satellite communication between their Mexico and Detroit plants that were fed straight to HQ. Critical task planning along with safety coordination for installation of the 7-story dumb-waiter after building turnover.

Jim Reed

C.A. Hull Director of Project Management



Mr. Reed has over twenty five years of experience working in the Heavy Highway/Bridge and Steel Coatings Industry. Throughout this time most of his projects have been on expedited schedules, in high traffic areas where mobility is critical. His experience working in areas such as Detroit, Boston, Pittsburgh, Philadelphia and most recently the Sault Ste. Marie International Bridge, provide a high level of knowledge on how to construct the work while minimizing user delays. This experience, coupled with multiple Design Build/CMGC projects, brings a solid understanding of the value of teamwork between the Contractor and Owner to provide the safest and most economical project. As Director of Project Management, he has direct involvement in all C.A. Hull projects, working with Hull Teams to provide the best service and final product to the MDOT. Throughout his career, Mr. Reed has worked on several historical preservation projects providing him with the ability to recognize potential project issues and provide solid solutions that are best for the project.

EDUCATION

- Bachelor of Science in Engineering Technology, Lawrence Technological University (1995)

LICENSES / CERTIFICATIONS / MEMBERSHIPS

- Member of Michigan Infrastructure Transportation Association (MITA)
- Member of various Advisory Committees
- Member Society of Steel Protective Coatings (SSPC)
- Certified SSPC C-3 Supervisor in Lead Abatement

PROFESSIONAL EXPERIENCE

▪ C.A. Hull Co., Inc.	Director of Project Management	2016 – Present
	Executive Project Manager	2012 - 2016
▪ Atsalis Brothers Painting, Inc.	Project Manager / Estimator	2006 – 2012
▪ E.C. Korneffel Co., Inc.	Project Manager / Estimator	2000 – 2006
▪ A.J. Williams Co., Inc.	Project Manager / Estimator	1995 – 2000

PROJECT EXPERIENCE

2017 – Present

All C.A. Hull Contracts – MDOT

Director of Project Management - Responsible for guiding and directing all Project Teams in resource planning, project management, ensuring safety, compliance with project specifications, quality standards and applicable laws and regulations. Actively building onto the C.A. Hull and MDOT relationship through partnering and innovation to provide the best overall value.

Notable 2019 Projects:	M55 over Manistee River	51021-202864
	I94, M10 to Warren	82023-79788
	International Bridge CMGC	17034-M00233
	I75, M13 to Beaver	09035-123642

2017-2018 I-75 Over Rouge and Goddard, MDOT Project 82194-116287

Director of Project Management - Two-year expedited bridge rehabilitation project of the I-75 over Rouge River and I-75 over Fort St. bridges, as well as full reconstruction of the I-75 over Sexton Kilfoil Drain and I-75 over Goddard Road. Responsible for the management coordination to complete the project on time. Directly involvement working with MDOT to provide solutions to construction issues. Overall management of Project Performance Plans for traffic management, noise and air quality.

2017 MLK over M-10 Design Build, MDOT Project 82111-122288

Project Manager - \$13.3M bridge replacement, ramp reconstruction and roadway improvement project. Expedited project in heavy traffic area. Worked with MDOT on all phase from design to final construction. Project consisted of multiple critical utility relocations while maintaining traffic and access to high value stakeholders.

2016 M-14; I-94 to US-23 in Ann Arbor, MDOT Project 81075-109761A

Project Manager – A \$10.3 million project consisting of bridge repair and coatings of M14 over Huron River and 5 other structures. Mr. Reed provided specialty assistant in the design and installation of worker platforms for repair and coatings work. Worked with MDOT to resolve complex steel repairs issues in most schedule and cost-effective manner.

2015 US-10 over I-75 Design-Build, MDOT Project 09034-122868

Project Manager – A \$6.4 million design build bridge replacement project. Worked with MDOT and design teams through design to project close out. Direct involvement in implementing schedules and demolition plans to meet expedited schedules.

2014 I-96 Reconstruction, MDOT Project 82122-89095

Project Manager – A \$143.9 million freeway and bridge reconstruction project. Project included freeway reconstruction and replacement and rehabilitation of 37 bridges. Worked with partners, Ajax Paving and Dan's Excavating and MDOT to successfully complete project in expedited manner.

2012-2013 I-94 between Weir and Trumbull, MDOT 82023-111686A

Project Manager – Responsible for all aspects of the project including relationship with the owner, directing all C.A. Hull supervision, coordination of subcontractors and suppliers, equipment management, cost accounting, maintaining expedited schedule, negotiating extras, maintaining traffic and maintaining union relationships.

2012 Larned over I-375, MDOT 82111-115226

Project Manager – Responsible for all aspects of the project including relationship with the owner, directing all C.A. Hull supervision, coordination of subcontractors and suppliers, equipment management, cost accounting, maintaining expedited schedule, negotiating extras, maintaining traffic and maintaining union relationships.

2006-2012 Bridge Cleaning and Coating - 46 Projects; \$75,650,000.00 Total Cost

Project Manager/Estimator (Atsalis) – Responsible for the management of projects involving the removal of lead based paint and the cleaning and coating of steel structures, consisting of bridges, tanks and dams. Direct involvement in all suspended platform access design/ installation and marine access plans. Direct responsibility for the scheduling and coordination on expedited projects and claim negotiations. Managed operations in the states of Massachusetts, Pennsylvania, Vermont and New Hampshire.

2000-2006 Bridge and Driven Pile Projects - 22 Projects: \$46,122,500 Total Cost

Project Manager/Estimator (Korneffel) – Responsible for estimation and project management of projects including driven pile foundations, earth retention systems, state highway bridge projects and government marine facilities. Other duties include contract administration, subcontract evaluation, scheduling, value engineering, safety analysis and claim negotiation. Experienced in labor relations and partnering with local and federal agencies.

1995-2000 Bridge and Driven Pile Projects - 22 Projects: \$32,110,000 Total Cost

Project Manager/Estimator (A.J. Williams) – Responsibilities included estimation and project management on projects ranging from driven pile foundations to state highway bridge projects. Experienced with design-build highway bridge projects and contractor designed foundations. Other duties included contract administration, subcontract evaluation, scheduling, value engineering, claim negotiation and engineered drawings.

Randy Rossow

C.A. Hull Director of Field Operations



As Director of Field Operations for C.A. Hull and with more than 35 years of professional experience, Mr. Rossow brings a unique combination of valuable field and management experience to every project. He specializes in bridge construction on complex freeway/interchange projects with expedited schedules. He has been responsible for all aspects of bridge work during the construction phase, from partnering and communicating with MDOT, to managing the schedule and resources. His experience also includes heavy involvement in the pre-construction phase of projects by lending his expertise in scoping and planning the bridge work. Mr. Rossow's vast experience includes working in the I-96/I-696 area and on some of Michigan's most unique bridges, such as the Zilwaukee Bridge, Mackinac Bridge, and the I-75 Rouge River Bridge.

EDUCATION

- Swan Valley High School, Saginaw

LICENSES / CERTIFICATIONS / MEMBERSHIPS

- Member of Michigan Infrastructure Transportation Association (MITA)
- Member of various Advisory Committees
- OSHA 30 Certified

PROFESSIONAL EXPERIENCE

- | | | |
|-----------------------|--------------------------------|----------------|
| ▪ C.A. Hull Co., Inc. | - Director of Field Operations | 2017 - Present |
| | - Project Manager | 1996 – 2017 |
| ▪ Champagne & Webber. | - Superintendent | 1987-1996 |

PROJECT EXPERIENCE

2017 – Present

All C.A. Hull Contracts – MDOT

Director of Field Operations - Responsible for guiding and directing all superintendents on all our Project jobs. This includes making sure jobs have enough resources and equipment needs to complete jobs on schedule, includes all safety aspects of the workplace and quality on our projects. Coordinate our specialty equipment which includes hydro demolition, latex equipment, and shotcrete operations. Working with MDOT to keep our relationship and partnering strong.

Notable 2019 Projects:	M55 over Manistee River	51021-202864
	I94, M10 to Warren	82023-79788
	International Bridge CMGC	17034-M00233
	I75, M13 to Beaver	09035-123642

2017

I-75 Over Rouge and Goddard, MDOT Project 82194-116287



Project Manager/Director of Field Operations - \$149.9M, two-year project to reconstruct the superstructure of the I-75 over Rouge River and I-75 over Fort St. bridges, as well as the full reconstruction of the I-75 over Sexton Kilfoil Drain and I-75 over Goddard Rd. Work included extensive bridge deck demolition and reconstruction, earthwork with drainage system reconstruction, structural steel blasting and painting work, pin and hanger replacements, and various structural steel repairs. Responsibilities included consultation with the engineering firm to develop a detailed demolition plan for Rouge and Fort St. structures, atypical bridge deck forming and fascia overhang system implementation, overall project schedule, coordination with subcontractors, and equipment and crew selection. Worked with client (MDOT) to address stakeholder and local community concerns via a technical proposal and frequent town hall meetings. *Time on Project: 100%*.

2016 M-14; I-94 to US-23 in Ann Arbor, MDOT Project 81075-109761A

Lead Project Manager – A \$10.3 million project consisting of bridge repair and coatings of M-14 over Huron River and five other structures. Project included structural steel repairs, including gusset plate replacements and bearing repairs, partial painting and extensive superstructure repairs. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality & safety. Worked pre-bid with C.A. Hull estimators. Time spent on project: 75%.

Worked pre-bid with estimators and was lead project manager during the construction of this project.

2016 Evergreen Rd over I-96 & CSX RR, MDOT Project 82122-122645

Lead Project Manager - A \$4.7 million project consisting of replacement of the bridge deck on Evergreen road over I96. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations, and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators. Time spent on project: 25%.

2015 I-75 Reconstruction, Monroe, MDOT Project 58152-110616

Lead Project Manager – A \$101.8 million freeway reconstruction project. Project included 5.6 miles of freeway reconstruction, bridge reconstruction/widening of five structures, box culverts, drainage, concrete barrier, freeway lighting, ITS and traffic signals. Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations, and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators and with partners Ajax Paving and Dan's Excavating during construction. Time spent on project: 100%.

2015 EB I-69 Reconstruction, MDOT Project 77023-80912

Lead Project Manager – A \$47.4 million freeway reconstruction project. Project included 11 miles of concrete and hot mix asphalt reconstruction, culvert drainage, guardrail, signing, ITS and bridge

rehabilitations on I-69 in St. Clair County. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with CA Hull estimators and with partners Ajax Paving and Dan's Excavating during construction. Time spent on project: 100%.

2014 I-69 Reconstruction, I-475 to M-15, MDOT Project 25084-87660-2

Lead Project Manager – A \$34.8 million freeway and bridge reconstruction project. Project included 10.5 miles of mainline and ramp reconstruction, bridge replacements, bridge widening and rehabilitation, storm sewer, concrete joint repair, diamond grinding and grooving, freeway lighting, traffic signals, signs and pavement markings. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with CA Hull estimators and with partners Ajax Paving and Dan's Excavating during construction. Time spent on project: 100%.

2013 I-96 Reconstruct, MDOT Project 82122-89095

Lead Project Manager – A \$143.9 million freeway and bridge reconstruction project. Project included freeway mainline reconstruction, base crushing and shaping, aggregate base, storm and sanitary sewer, watermain, concrete barrier, sidewalk, curb/gutter, guardrail, fence, landscaping, signs, pavement marking, freeway lighting, ITS, pump station rehabilitation and bridge replacement and rehabilitation on 37 bridges. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators and with partners Ajax Paving and Dan's Excavating during construction. Time spent on project: 100%.

2013 US-10 Concrete Overlay, MDOT Project 56045-106848-2 – Alternate Bid Project

Lead Project Manager – A \$21.1 million project with 6.95 miles of mainline and ramp rehabilitation, bridge rehabilitation of eight structures, and drainage and safety upgrades on US-10 from the Midland/Isabella county line easterly to M-18, Midland and Isabella Counties. . Responsible for the successful completion of the project, overall project planning & scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality and safety. Worked pre-bid with C.A. Hull estimators and with partners Ajax Paving during construction. Time spent on project: 50%.

2013 Zilwaukee Bridge, MDOT Project 73112-87569A – CMGC Project

Lead Project Manager – ? Amount?As a subcontractor on this CMGC project, C.A. Hull performed the bridge deck and barrier wall patching work and managed the penetrating bridge deck healer sealer work. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators. Time spent on project: 10%.

2012 I-275 from 6 Mile to Hannah, MDOT Project 82292-79694

Lead Project Manager – A \$23.5 million bridge rehabilitation and asphalt resurfacing project with 34 bridges and 5.2 miles of paving on I-275 from 6 Mile Road to I-94 in Wayne County. Work included deck overlays, joint replacements, deck patching, pin and hanger replacements, substructure and steel repairs, etc. Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Time spent on project: 100%.

Worked pre-bid with estimators and with partner Ajax Paving during construction.

2012 I-275 under Ecorse Rd, MDOT Project 82292-113306

Lead Project Manager – A \$4.7 million bridge rehabilitation and interchange improvement project with three bridges including deep overlay, rail replacement, reconstruction of approaches, earthwork, drainage, concrete box culvert, concrete pavement, pavement patches and shoulder repairs on the Ecorse Road and I-275 interchange in Wayne County.. Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked with partner Dan's Excavating during construction. Time spent on project: 50%.

2011 US-23, MDOT Project 47013-79897

Lead Project Manager – A \$18.5 million project consisting of 3.63 miles of hot mix asphalt overlay, reconstruction of eight ramps, rehabilitation of 11 bridges, including nine bridge rehabilitations with deep overlay, deck patching, joint replacement, steel, substructure and railing repairs on US-23 from Silver Lake Road to Hyne Road in Livingston County. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators and with partners Ajax Paving and Dan's Excavating during construction. Time spent on project: 50%.

2010 I-75 from I-69 to Dodge Road, MDOT Project 25032-100664

Lead Project Manager – A \$11.0 million project with bridge rehabilitation on 16 structures on I-75 from I-69 to Dodge Road. Bridge work included deep concrete and epoxy overlay, deck patching, joint replacement, steel repair, pin and hanger, partial deck and pier cap replacement, substructure repair, minor widening, railing replacement, and steel cleaning and coating in Genesee County. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators and with partners Ajax Paving and Dan's Excavating during construction. Time spent on project: 50%.

2010 M-59 over Clinton River Trail, MDOT Project 63043-55658

Lead Project Manager – A \$16.1 million hot mix asphalt overlay and bridge rehabilitation project with 4.16 miles of pavement patching and hot mix asphalt overlay on M-59 from Opdyke Road to Crooks Road and two bridge rehabilitations on M-59 eastbound and westbound over Rails to Trails in Oakland County. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Time spent on project: 50%.

2010 I-475 Genesee Co, MDOT Project 25132-90105

Lead Project Manager – A \$8.0 million bridge rehabilitation project on 20 bridges on I-475. Bridge work and included joint replacement, full depth deck repairs, deck patching, pin & hanger replacement, pedestrian fence, cleaning and coating of structural steel and substructure repairs in Flint, Genesee County. Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Time spent on project: 50%.

2009 I-696 from Drake to Campbell, MDOT Project 63101-89759

Lead Project Manager – Scotia Road in Oakland County. Included 42 bridge rehabilitations and 12.93 miles of concrete pavement repair. Bridge work consisted of deck patching, joint replacements, substructure and barrier repairs, concrete beam repairs, crack repairs, bridge deck healer/sealer, deck replacement, and bridge approach work in Oakland County. Worked pre-bid with estimators and coordinated with partners Dan's Excavating and Ajax Paving on I-96/I-696 project.

2009 I-675 Saginaw, MDOT Project 73101-84019

Lead Project Manager – A \$41.6 million bridge rehabilitation project on 27 bridges on I-675 from the I-75 south junction to the I-75 north junction in Saginaw. Bridge work included deep overlays, deck patching, joint replacements, pin and hanger replacement, substructure and steel repairs, deck replacement, pedestrian bridge replacement and bridge approach work, along with 7.9 miles of concrete patches, shoulder resurfacing, signing, lighting, drainage work and pavement markings. Worked with estimators pre-bid and was the lead project manager on this expedited A+B project.

2008 I-75 from Giddings to M-15, MDOT Project 63174-84568

Lead Project Manager – A \$17.1 million bridge rehabilitation project on 23 bridges on I-75 from Giddings Road to M-15 in the cities of Troy and Auburn Hills, Oakland County. Bridge work included deep, shallow and thin overlays, beam end and substructure repairs and painting, along with 9.8 miles of hot mix asphalt resurfacing and full depth concrete pavement repairs. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators. Time spent on project: 100%.

2007 I-696 & I-75 Interchange, MDOT Project 63103-59292

Lead Project Manager – A \$16.6 million bridge rehabilitation project on 26 bridges from the I-696/I-75 interchange to the M-102 Service Drive in Oakland and Wayne Counties. Bridge work included deep overlays, joint replacement, modular joint replacement, deck patching, epoxy overlays, substructure repairs and bridge approach work, along with 3.5 miles of full-depth concrete pavement patching, resealing of transverse expansion joints and drainage structure cleaning on I-696 from Scotia Avenue easterly to John R Road. . Responsible for the successful completion of the project, overall project planning and scheduling, resource allocation, project accounting, technical support for field operations and ensuring compliance with specifications, quality, and safety. Worked pre-bid with C.A. Hull estimators and with partners Ajax Paving on this expedited project. Time spent on project: 100%.

APPENDIX B

WORKPLACE SAFETY DOCUMENTATION

**C.A. Hull Co., Inc.
8177 Goldie Road
Walled Lake, MI 48390
(248) 694-8029**

CORPORATE HEALTH AND SAFETY PLAN

Prepared: May 7, 2017

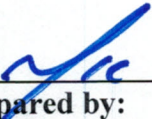
by:

MB Environmental Consulting, Inc.

13362 Irving Street

Alden, NY 14004

(716) 902-4253


Prepared by:
Mitchell Blum CSP, CHMM

SAFETY MANUAL REVISION AND REVIEW LOG

Revision or Review	Affected Section	Affected Pages	Date	Notes	EHS Initials
Example: Annual Review	All	All	1/1/17	Updated standards, grammatical corrections, Annual Review.	BBB
Revision	19.0	96	06/08/18	Grammatical corrections	PL
Revision	13.16 / Appendix 20	49/254	Dec/05/2018	Revised for updated lead standard	PL
Review	None	None	01/05/2019	Annual Review	PL
Revision	Appendix 20 ENOBM		09/12/2019	Revised for Lead standard	PL
Review	None	None	01/05/2020	Annual Review	PL
Revision	COVID-19		03/19/2020	Revised for health standard	PL/ CN
Review	None	None	01/08/2021	Annual Review	PL
Review	None	None	01/10/2022	Annual Review	PL

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Alden, NY 14004
(716) 902-4253

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By signing the Safety Commitment on page ii, and/ or by using this Plan for any means, C.A. Hull and its Owner's agree not to provide copies to other contractors for their use. C.A. Hull may utilize the Corporate Health and Safety Plan on their projects for a period of one year from the date the Plan was issued. It shall be C.A. Hull's responsibility to use the proper forms to make the Plan site specific, to enforce the provisions of this Plan and to allow all employees access to this Plan.

This Corporate Health and Safety Plan was prepared by Mr. Mitchell Blum CSP, CHMM, CHST of MB Environmental Consulting, Inc., for C.A. Hull. This Plan is designed to be used by corporate management, the Safety Director, project supervisors and foreman in their efforts to provide an safe and healthy work environment for their employees, themselves and visitors. This Plan was written to comply with the current OSHA Construction Standards 29 CFR 1926 and OSHA General Industry Standards 29 CFR 1910. This Plan is intended to supplement OSHA standards and does not replace the OSHA standards. Where there are differences between this plan and other Federal, State or Local standards or manufacturer's safe operating procedures, the more stringent standard shall apply. C.A. Hull shall be responsible for ensuring that all projects, where this Plan is in use, comply with the Plan, Federal, State and Local regulations.

MB Environmental Consulting does not exercise any oversight responsibilities and shall not be responsible or liable for the enforcement of this Plan. MB Environmental Consulting shall not exercise direct or indirect control of C.A. Hull, nor have direct or indirect oversight of its employees.

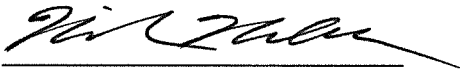
Prior to starting any project, a pre-job hazard analysis must be performed. Then corporate management must complete the site specific safety plan documenting which sections of this plan will apply on the project and what training and personal protective equipment will be required.

SAFETY COMMITMENT

Safe and healthy work environments are a priority for C.A. Hull for its employees and visitors. In order to accomplish a safe and healthy work environment, all C.A. Hull's employees will receive appropriate training and be provided the required safety equipment. Additionally, this Corporate Health and Safety Plan has been established and its implementation is mandatory.

C.A. Hull also recognizes the hazards imposed to both its employees and the environment by certain materials and processes during the course of its operations. C.A. Hull implements appropriate engineering controls and measures as required by its health and safety programs, OSHA regulations and project specifications to reduce and minimize the impact of these hazards. C.A. Hull follows all health and safety regulations established by OSHA, EPA and state and local government.

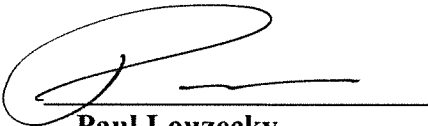
The management of C.A. Hull acknowledges its total support and the need to ensure the health and safety of its employees and other personnel involved at its job sites. C.A. Hull also authorizes its project competent person(s) to take prompt corrective measures to correct safety, health and environmental issues.



Mike Malloure
President

01/10/2022

Date



Paul Louzecky
Safety Director

01/10/2022

Date

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1.0 INTRODUCTION

This Corporate Safety Plan is established to provide C.A. Hull management, supervisors and employees with guidelines and rules that will be established and followed at all project locations. At the time of the writing, the Plan is written based upon the latest Occupational Health and Safety (OSHA) regulations and is intended to supplement the OSHA regulations. Where there exists Federal, State or Local regulation that conflict with this Plan, the more stringent regulation will be followed. C.A. Hull shall be responsible for making this Plan site specific, enforcing the provisions of this Plan and allowing employees access to this Plan.

1.1 SITE SPECIFIC SAFETY PLAN

Prior to starting work at any C.A. Hull project location, a site specific safety plan is required. The plan will address state and local regulations in addition to OSHA and federal regulations. All personnel will be made aware of the site specific Health and Safety Plan and the requirements it contains. The Plan will be created by a Safety Consultant with knowledge of the industry or the Safety Director and submitted to management for review and approval. Prior to starting work on any project, employees will receive site specific training which will include the site specific safety plan and then sign an acknowledgment of the training . Employees will receive site specific training for each project they work.

1.2 HAZARD IDENTIFICATION AND RISK ASSESSMENT

Prior to starting any project, a pre-job hazard analysis (JHA) will be conducted by the Safety Consultant and/or Safety Director and may include the assistance of a Safety Professional and management. Employees and if sub-contractor are used, they are encouraged to participate in the pre-job hazard analysis. The analysis will include a review of the project specifications, project location(s), equipment to be used, methods to be used and personal to be assigned to the project. The pre-job hazard analysis will also include a review of routine and non-routine job tasks.

To conduct a pre-job hazard analysis, the following steps should be included:

1. Identify the job tasks or categories
2. Identify the hazards of each task or category
3. Identify the engineering and/ or administrative controls for each task or category
4. Identify the personal protective equipment required for each task or category
5. Identify the training required for each task or category
6. Review each of the above steps
7. All hazards identified will be classified as to its severity and probability.

During the project, the project competent person will re-assess the project to determine if new tasks, procedures or hazards will be encountered. If so, the competent person will complete an additional pre-job hazard analysis and the employees will be informed of any additional engineering, administrative, personal protective equipment or training required.

After corrective measures have been implemented, the project competent person will review the measures to ensure that no new hazards have been created, and if there are new hazards, the steps to mitigate the hazards.

Employees will be trained in the risk/ hazard identification process.

1.3 SAFETY PLAN REVIEW

The Corporate Safety Plan will be reviewed on an annual basis. The Plans may be reviewed and revised more frequently if new regulations affecting the company or its project are promulgated. Management, the Safety Professional and any interested employees will conduct the review. This review should take into account new projects, methods and regulations that may affect the company in the future. In addition, the review will consider new technology and/or enacting more stringent company regulations to protect the company and its employees.

1.4 OTHER CONTRACTORS HEALTH & SAFETY REQUIREMENTS

General Contractors, subcontractors or other company's personnel on a C.A. Hull project will be required to comply with this Plan and the Site Specific Safety Plan, with the C.A. Hull, and all rules and regulations concerning health and safety of its workers.

1.4.1 GENERAL CONTRACTORS

On projects where C.A. Hull is the subcontractor, the General Contractor is ultimately responsible for its employees. C.A. Hull will provide the General Contractor with the Site Specific Safety Plan and a description of work area(s) that are to be avoided due to hazardous work such as lead abatement.

1.4.2 SUBCONTRACTORS

Any employee from a subcontractor found in violation of the Site Specific Safety Plan will be subject to C.A. Hull's Discipline Program. All subcontractor's employees working in or near a work site where potential exposures exist, must sign an acknowledgment that they have received and will comply with all instructions and directions given to them by C.A. Hull.

When C.A. Hull uses a sub-contractor, the sub-contractor will submit their Corporate Health and Safety Plan, current OSHA training relevant to the project, OSHA 300A for the previous three years and workers compensation experience modification rate (EMR) for the previous three years. C.A. Hull's Safety Director will review the above. The criteria for an acceptable sub-contractor is for the to be 0.9 or less and the loss days with injury or illness to be 75% or lower than the industry standard for the sub-contractor's type of work.

Sub-contractors will be required to attend a pre-job safety meeting held by C.A. Hull. On a weekly basis, the sub-contractor employees will be required to attend a safety meeting held by C.A. Hull.

At the conclusion of each project, C.A. Hull's Safety Director will conduct a review of the sub-contractor's work and its performance.

1.4.3 OTHER SITE PERSONNEL

C.A. Hull does not exercise any control of Owner's representative such as Inspectors and does not have the authority to remove these people for C.A. Hull work areas. Most project specifications authorize the Owner's representative to enter hazardous work areas at any time.

1.5 REFERENCES

- a. 29 CFR 1926 OSHA Standards for the Construction Industry
- b. 29 CFR 1910 OSHA Standards for General Industry
- c. 29 CFR Part 1904
- d. Various OSHA Instructions such as CPL 2-2.58, CPL 2-1.23, CPL 2-0.12
- e. Various OSHA letters of interpretation
- f. 42 CFR part 84
- g. SSPC 93-02 Industrial Lead Paint Removal Handbook, 2nd Edition, Volume I
- h. SSPC 95-06 Project Design, Industrial Lead Paint Removal Handbook, Volume II
- i. 49 CFR 171-179
- j. Various ANSI standards
- k. Various manufacturer safe operating procedures

2.0 CORPORATE DISCIPLINE POLICY

C.A. Hull has established two levels of safety infractions, minor and major. A minor violation is a violation where the worker is not at immediate risk of serious injury. Minor violations may include failure to wear a hard hat or failure to wear a safety vest. A major violation is a violation where the worker is at risk of serious injury or death or places co-workers at risk of injury or death. Major violations include failure to tie-off at 6 feet for fall protection, failure to tie-off when using an aerial lift or failure to use a spotter when backing a vehicle in a work zone. The Safety Director, foreman and competent person will determine if a violation is major or minor.

2.1 MAJOR VIOLATION

Worker(s) committing a major violation of the safety rules as specified by the Corporate Health and Safety Plan and the Site Specific Safety Plan will be issued a written warning (Appendix 3). Examples of major violations include: not using fall protection, horse play, backing a vehicle without a spotter, and any other infraction which could cause bodily harm or death to a worker or co-worker. The second violation, the worker may be suspended for up to three days without pay and the third violation may be grounds for permanent termination from all C.A. Hull operations. Violations must occur within a six month period to determine if there are sufficient grounds for suspension or termination. The President, Safety Director, Foreman and Competent Person will make the determination if the violations is cause for suspension or termination. Likewise, if the Competent Person is at fault for not properly supervising the workers, the Competent Person will be subjected to the same disciplinary program. Any worker who puts himself or others in imminent danger will be terminated from the project immediately.

Violation

Disciplinary Action

1st

Written warning

2nd

Written warning, up to 3 days off

3rd

Written warning with possible termination of employment

Imminent danger

Immediate termination

2.2 MINOR VIOLATION

Worker(s) committing a minor violation of the safety rules as specified by the Corporate Health and Safety Plan and the Site Specific Safety Plan will be given a verbal warning the first time they are found breaking the rules. Examples of minor violations include: failure to wear a hard hat, failure to wear a respirator properly, failure to clean PPE as required and any other non-life threatening violation. If a verbal warning is given to a worker, the Competent Person will document the specific details of the warning in the job site Health and Safety log book. Written warning will be issue after the first violation (Appendix 3). The third violation, the worker may be suspended for up to three days without pay and the forth violation may be grounds for permanent termination from all C.A. Hull operations. Violations must occur within a three month period to determine if there are sufficient grounds for suspension or termination. The President, Safety Director, Foreman and Competent Person will make the determination if the violations is cause for suspension or termination.

Violation

Disciplinary Action

1st

Verbal warning - documented in field log book

2nd

Written warning

3rd

Written warning, up to 3 days off

4th

Written warning with possible termination of employment

3.0 ORGANIZATION AND RESPONSIBILITIES

3.1 CORPORATE MANAGEMENT SAFETY RESPONSIBILITIES

1. Eliminate potential hazards by providing appropriate safeguards, removing or minimizing personal exposures to hazardous materials and providing personal protective equipment.
2. Assign and support a company Safety Director.
3. Provide training for all hazards encountered at the job sites.
4. Enforce Health and Safety regulations for all employees.
5. Make available to all employees copies of their medical records as well as health and safety plans.
6. Assign a competent person for each project who has the authority to implement the safety plan and take corrective actions as necessary.

3.2 SAFETY DIRECTOR RESPONSIBILITIES

1. Monitor project locations to ensure that the corporate safety programs are being carried out.
2. Ensure the most recent safety regulations are distributed to field personnel supervisors and competent persons.
3. Review all accident records, check OSHA logs for completeness, and review safety and loss programs
4. Confirm project locations are complying with federal, state and local regulations.
5. Implement and oversee the Respiratory Protection Program
6. Review project specifications for any new health, safety or environmental regulations that are required, and informing the President of the changes.
7. Ensure availability, distribution and maintenance of quality control inspection equipment, Personal Protective Equipment (PPE), and Protective Work Clothing (PWC) at all project sites.
8. Ensure field personnel working on hazardous paint removal projects participate in the appropriate medical surveillance programs.
9. Monitor the company Health and Safety Programs, assuring that the programs are up to date and site safety inspections are routinely conducted.
10. Review all accident reports and conducting follow-up interviews as necessary.
11. Ensure that the project's competent person is properly trained, is conducting the required inspections, and is filing the proper form through phone conversations and project reviews.
12. Stay abreast of health, safety and environmental regulations. If new regulations affect company business, discuss the changes with management and distribute the changes to supervisors and competent person.

3.3 SUPERINTENDENT/FOREMAN RESPONSIBILITIES

1. Know job safety rules and regulations and confirm employees in your charge understand the safety rules that apply to them. Immediately correct any unsafe act.
2. Act as the primary or secondary project competent person.
3. Eliminate unsafe working conditions and unsafe acts by employees as soon as possible, inform the Competent Person.
4. Set a good example for your employees.
5. Identify and evaluate job hazards and take the precautions necessary.
6. Instruct employees in the proper use and care of equipment.
7. Closely supervise employees and issue detailed instructions concerning work performance and personal conduct during the job.
8. Explain in detail the duties required of new employees. New employees will be carefully supervised to ensure qualification before the start of regularly assigned duties.

3.4 SAFETY CONSULTANT (INDUSTRIAL HYGIENIST)

1. Be available for consultation with management and the Safety Director on matters pertaining to health and safety.
2. Coordinate the development of the Corporate Health and Safety Plan.
3. At management's request, conduct job site audits and inspections.
4. The industrial hygienist will be a Certified Industrial Hygienist (CIH) and/ or Certified Safety Professional (CSP) with at least five years experience in the bridge painting industry.

3.5 OCCUPATIONAL PHYSICIAN

An Occupational Physician who is Board Certified, will be retained by C.A. Hull on projects which have specific OSHA health and safety standards. Criteria for this certification will be based on OSHA regulations and hazards encountered at each specific project location. The Physician will be available for consultation after acute exposure to toxic or hazardous substances or after an employee sustains exposure to an occupational injury or illness. The physician will administer pre-employment physicals as required to all site workers involved in hazardous operations, and certify that each worker is able to work in a hazardous environment, wear respiratory protection and other protective equipment specified for their jobs.

3.6 COMPETENT PERSON

The basic definition for a Competent Person is, one who is capable of identifying existing and predictable hazards which are unsanitary, hazardous or dangerous to employees and who have the authorization to take prompt corrective measures to eliminate them.

3.7 TRAINING REQUIREMENTS FOR THE COMPETENT PERSON

1. Lead Competent Person will have completed the Society for Protective Coatings (SSPC) C-3 Supervisor/Competent Person for Deleading of Industrial Structures class and has current refresher training (SSPC C-5) within the previous year. Also will have two years of experience on industrial lead abatement projects.
2. Fall Protection Competent Person will have at least five years of fall protection experience. It is recommended that this person have completed a OSHA 10 hour in Construction class or a fall protection class.
3. Scaffold Competent Person will have at least five years of scaffold erection, modification and dismantling experience. It is recommended that this person have completed a OSHA 10 hour in Construction class or a scaffold training class.
4. Confined Space Supervisor will have completes confined space training and rescue procedures.

3.8 COMPETENT PERSON FOR TOXIC METALS

The Competent Person reports directly to the President of C.A. Hull, has the ability to recognize hazards, and has the authority to take corrective actions. The Competent Person will:

1. Ensure the effectiveness and the continued integrity of environmental controls.
2. Monitor airborne and biological exposures and report results to employee.
3. Ensure implementation of the Hazard Communication program.
4. Implement applicable training for site personnel.
5. Ensure workers entering contaminated zones are properly protected and trained in the use of personal protective equipment (PPE), exposure control methods, personal hygiene facilities, and decontamination practices.
6. Verify the proper functioning and operation of the engineering controls.
7. Ensure emissions to air, water and soil and all waste streams are minimized and in compliance with applicable federal, state and local regulations.
8. Control access to the site and designate contaminated work zones.
9. Maintain project documentation as required by C.A. Hull.
10. Implement and oversee all site specific health and safety programs as directed by the Safety Director and Industrial Hygienist.
11. Conduct daily and weekly site inspections. Inspect job site conditions and workers personal protective equipment.
11. Oversee daily implementation and enforcement of the hazardous waste management procedures.
12. Set a good example for workers on the project.
13. If there are any safety, health or environmental problems, questions or concerns, contact the Safety Director.

If the Competent Person is unavailable during lead or other toxic metal exposure operations, either an alternate Competent Person will be onsite or other operations not involving lead exposure operations will be performed.

3.8.1 COMPETENT PERSON - OTHER THAN TOXIC METALS

C.A. Hull will have a competent person responsible during all other operations that require a competent person such as fall protection, scaffold erection, modification and dismantling and confined space operations. This person may be the same as the competent person for lead or other toxic metal operations. The competent person will have completed an OSHA 10 hour Construction Industry class and will have at least two years experience on similar types of projects. In addition, the competent person will:

1. Set a good example for workers on the project.
2. Ensure workers are trained for each hazard.
3. Ensure workers have the appropriate personal protective equipment.
4. Conduct daily and weekly inspections of personal protective equipment.
5. Conduct daily job site inspections.
6. If there are any safety problems, questions or concerns, contact the Safety Director.

3.9 WORKERS RESPONSIBILITIES

1. Report unsafe working conditions or unsafe acts to your foreman or Competent Person as soon as possible.
2. Report all accidents and near-misses to your foreman or Competent Person.
3. If injured, get first-aid promptly.
4. Use all prescribed safety equipment and personal protective equipment and maintain in good working condition. Any defective equipment will be taken out of service immediately. The use of safety equipment is mandatory and failure to use it will result in disciplinary actions.
5. Clean your equipment (i.e respirator, hard hat, safety vest) when required.
6. Always use the right tool for the job. Only use tools you are familiar with or get instruction and training from your foreman.
7. Always maintain good housekeeping practices.
8. Bringing or using drugs and alcohol are forbidden at the job site and is cause for immediate termination.
9. Arriving to a job site under the influence of drugs and/ or alcohol is prohibited and is cause for immediate termination.
10. The use of company vehicles is strictly for company business. Company vehicles shall not be used for personal business. If assigned a company vehicle, do not allow another employee to use the vehicle without management's authorization.
11. Compliance with the Corporate Health and Safety Plan and Site Specific safety Plans are a condition of employment. Violations of safety rules will be documented and may be cause for termination of employment.

4.0 SANITATION

In accordance with OSHA 29 CFR 1926.51 the following sanitation rules will apply for each project locations.

4.1 POTABLE WATER

1. An adequate supply of potable water will be provided at each project location.
2. Potable containers for drinking water will be capable of being tightly sealed and have a tap.
3. Each container will be clearly marked as drinking water.
4. Do not use a common drinking cup.
5. Trash receptacles for used drinking cups will be provided.
6. Potable water will meet the standards in 42 CFR part 72.

4.2 TOILETS

1. Toilets at construction sites will be provided as a minimum.

Number of Employees	Minimum Number of Facilities
20 or less	1
20 or more	1 toilet seat and 1 urinal per 40 workers
200 or more	1 toilet seat and 1 urinal per 50 workers

2. When working on a short duration project of less than two days, if a toilet facility is near-by (within ten minutes) of the work area, and no hazardous work is being performed (i.e. lead abatement operations), then an onsite portable toilet facility is not required.
3. When working a short duration project of less than two days, and hazardous work is being performed, toilet facilities will be required onsite.

4.3 HAND WASHING FACILITIES

1. Hand washing facilities are required during painting, coating and abatement of hazardous or toxic materials.
2. The hand wash facility will have the following:
 - a. Maintained in a sanitary condition.
 - b. Cold and hot or tepid running water.
 - c. Hand soap or a similar cleansing agent.
 - d. Individual hand towels (paper towels), air driers or clean individual sections of continuous cloth toweling.

4.4 SHOWERS

1. Where showers are required by an OSHA standard or project specifications the following will apply:
 - a. One shower will be provided for each 10 employees of each sex.
 - b. Soap will be provided in each shower.
 - c. Hot and cold running water will be provided.
 - d. Individual clean towels will be provided for each employee.
 - e. The shower facility will be cleaned either prior to or after each shift which requires a shower.
 - f. During cold weather, the shower facility will be heated.

5.0 ILLUMINATION

The primary requirements for industrial lighting are sufficient quantity and high quality of illumination on all work areas. All areas on the job site in which workers will be expected to work will be lighted in accordance with OSHA 29 CFR 1926.56, to not less than the OSHA minimum illumination intensities listed in the table below. Areas will be periodically measured by the Competent Person using a light meter to assure compliance with these requirements.

MINIMUM ILLUMINATION INTENSITIES
IN FOOT-CANDLES

Foot Candles	Area or Operation
3	Waste areas, accessways, active storage areas,
5	General site areas, indoors, corridors, hallways and
10	Locker or dressing rooms, indoor toilets, dining
30	First aid station and offices

6.0 INSPECTIONS AND SAFETY MEETINGS

6.1 INSPECTIONS

Regular safety inspections will be conducted by the Competent Person, supervisor or foreman to check compliance with policy and standards; also to detect and correct violations of unsafe actions or conditions and ensure that sub-contractors are in compliance. In addition, outside agencies such as insurance carriers or safety consultants may be requested to conduct audits of C.A. Hull project safety.

6.1.1 DAILY SITE INSPECTIONS DURING ABRASIVE BLAST OPERATIONS

The Competent Person will conduct a site inspection during abrasive blast operations to verify compliance with health and safety regulations. During other operations, the competent person will maintain a log book and document information in the log book.

6.1.2 WEEKLY SITE INSPECTIONS

Weekly site inspections on lead abatement or other toxic metal abatement projects will be documented by the Competent Person using. If the project does not involve a toxic hazard, another site specific form may be created and used in addition to a project site log book.

6.2 NEW HIRE ORIENTATION

Upon hire, new employees will receive training on C.A. Hull's Corporate Health and Safety Plan, Safe Operating Procedures (SOP) of equipment that the employee may be required to use, medical requirements and any other information required for the individual to fulfill their duties. The new hire orientation will be conducted by the Safety Director or other designated person. This training will be repeated on an annual basis.

6.3 PRE-JOB SAFETY MEETING

Prior to starting work on any project, all employees must receive site specific safety training. The training will be based upon the hazards of the project, engineering controls, personal protective equipment that may be use, medical requirements and any other site specific information. The site specific training will be conducted by the project Competent Person, foreman or other designated person.

6.4 WEEKLY SAFETY MEETINGS

Prior to starting any project, the Competent Person will conducted a pre-job safety meeting with all employees. The meeting will detail all recognized hazards such as toxic metal, location of emergency facilities, details of the site specific safety plan and any other information necessary for the project. Prior to any new employee starting the project, the new employee will receive the same pre-job safety meeting.

Safety meetings will be conducted weekly by the site Competent Person, foreman, technical service representative or other knowledgeable persons. Safety meetings may discuss sections of the Health and Safety Plan, discrepancies at the job site, accidents or other information that the crew may need to know in order to work safely. The meetings will be recorded and maintained in project records. The Safety Director will review these records quarterly to ensure that employees are receiving the appropriate safety meetings and will add new topics as necessary.

Example of safety meeting topics are:

1. Hazard Communication- employees right to know, location of SDS, chemicals on the job
2. Lead- exposures, engineering controls, housekeeping
3. Respirators- how to clean, protection factors, change schedule of filters and cartridges
4. Fall Protection- harnesses and lanyards, safety cables, aerial lifts
5. Aerial Lifts- tie-off, how to use, Safe Operating Procedures
6. Safe Operating Procedures- blasting, painting, compressor, dust collector, etc.
7. Ladder- 3 foot over working surface, tie-off at the top, foot the ladder
8. Personal Protective Equipment
9. Overhead Utilities
10. Working over Water

A good practice would be to copy a section or sections of this Corporate Health and Safety Plan or the Site Specific Safety Plan to the back of the safety meeting or use pre-written safety meetings from trade organizations or prepare a detailed written safety meeting. By having a detailed safety meeting, outside auditors can be assured of what information was relayed to employees.

7.0 EMPLOYEE ACCESS TO MEDICAL RECORDS

In accordance with 29 CFR 1910.1020, employees have the right to access their medical and exposure records. C.A. Hull will provide access to employees records within 15 days of a written or verbal request.

7.1 EMPLOYEE RECORDS INCLUDE:

1. Monitoring results of workplace air or measurements of toxic substances or harmful physical agents in the workplace. The monitoring may have been on an employee performing the same job task.
2. Biological monitoring results.
3. Safety Data Sheets (SDS) containing information about a substance's hazards to human health.
4. Descriptions of treatments and prescriptions.
5. Employee medical complaints.
6. Medical and employment questionnaires or histories.

7.2 ACCESS CAN BE PROVIDED BY:

1. Employee's may be provided copies of their records.
2. Employee's may be provided facilities to copy their records.
3. Employee's may be loaned their records and would be required to return the original.

7.3 RECORDS WILL BE MAINTAINED FOR:

1. Employee medical records will be maintained for the duration of employment plus 30 years.
2. Employee exposure records will be maintained for the duration of employment plus 30 years.
3. Analysis using medical or exposure records for the duration of employment plus 30 years.

8.0 INCLEMENT WEATHER

The Foreman/ Competent Person will keep track of the weather conditions for outdoor projects by using radio, television, newspaper or other methods on a daily basis. Since weather conditions can and do change frequently during the day, the Foreman/ Competent Person will keep an eye on current weather conditions. If adverse conditions do occur, work will be stopped or curtailed as necessary.

8.1 ADVERSE CONDITIONS INCLUDE

1. Rain, snow, sleet or high winds.
2. Electrical storms.
3. When working from a platform, scaffold, aerial lift, platform truck, scissor lift or other scaffolds, work will be stopped when winds exceed 30 miles per hour (mph). The only exception, is when a scaffold or platform is specifically designed by an Engineer to withstand winds higher than 30 mph.
4. Tornado or hurricane.
5. Flooding.
6. Icing or slippery work surfaces.

9.0 PROTECTIVE WORK EQUIPMENT

Personal protective equipment (PPE) is to be provided by C.A. Hull, used in a manner as required by the manufacturer and maintained in a sanitary and reliable condition. If an employee uses his own personal equipment, the equipment will be inspected by the Competent Person and will be required to be maintained in a sanitary and reliable condition. Each type of PPE will be selected for each employee and will be fitted for the employee. If defective, damaged or unsanitary PPE is found either by an employee or the Competent Person, it will be removed from service.

9.1 PERSONAL PROTECTIVE EQUIPMENT ASSESSMENT

Prior to starting any project or new job task, a certified hazard assessment/ Personal Protective Equipment (PPE) assessment is to be conducted and documented. The assessment will be conducted by the Safety Director at the start of the project and the project competent person during the project when a new job task is being performed or if the PPE that has been assigned is deemed inadequate. PPE is selected for each hazard and for each affected employee.

9.2 HARD HATS

Employees working in areas where there is the possibility of falling objects, head injury, impact or electrical shock or burns will be issued hard hats as required by OSHA standard 29 CFR 1926.100. The hard hat will meet ANSI Z89.1 for falling or flying objects or Z89.2 for high voltage electrical shock. The Project Supervisor/ Competent Person will establish areas where hard hats will be required and will ensure that all workers wear hard hats in the designated area.

9.3 EYE AND FACE PROTECTION

C.A. Hull requires eye protection to be worn at all times on its projects. Eye protection may include, but is not limited to: safety glasses, goggles, full-face respirator or blast helmet.

Eye and face protection will be used during cutting, painting, hammering, power tool operations as required by OSHA standard 29 CFR 1926.102 and as required by the Competent Person or Owner specifications and will meet ANSI Z87.1-1989. Specific protective equipment for each job task will be determined by the Competent Person at the start of the project.

The following table will be used as a guide in the selection of face and eye protection for the hazards and operations noted.

Operations	Hazards	Recommended Protectors
Acetylene- burning Acetylene- cutting Acetylene- welding	sparks, harmful rays, molten metal, flying particles	7,8,9
Chemical handling	splash, acid burns, fumes	2,10 (for severe exposure add 10 over 2)
Chipping	flying particles	1,3,4,5,6,7A,8A
Electric (arc) welding	sparks, intense rays, molten metal	7,8,9 (for severe exposure add 10)
Grinding-light	flying particles	1,3,4,5,6,10
Grinding- heavy	flying particles	1,3,7A,8A (for severe exposure add 10)
Laboratory	chemical splash, glass breakage	2 (10 when in combination with 4,5,6)
Machining	flying particles	1,3,4,5,6,10
Molten metals	heat, glare sparks splash	7,8 (10 in combination with 4,5,6 in tinted lenses)
Spot welding	flying particles, sparks	1,3,4,5,6,10

Recommended Eye Protectors

- | | |
|---|---|
| 1. Goggles, flexible fitting, regular ventilation | 2. Goggles, flexible fitting, hooded ventilation |
| 3. Goggles, cushioned fitting, rigid body | 4. Safety glasses, metal frame with side shields |
| 5. Safety glasses, plastic frame with side shields | 6. Safety glasses, metal-plastic frame with side shields |
| 7. Welding goggles, eyecup type, tinted lenses | 7A. Chipping goggles, eyecup type, clear safety lenses |
| 8. Welding goggles, coverspec type, tinted lenses | 8A. Chipping goggles, coverspec type, clear safety lenses |
| 9. Welding goggles, coverspec type, tinted plate lens | 10. Face shield |
| 11. Welding helmet | |

9.4 FOOT PROTECTION

Each affected employee will wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where employee's feet are exposed to electrical hazards.

Safety shoes and boots provide both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection. In some work situations, metatarsal protection should be provided, and in other special situations electrical conductive or insulating safety shoes would be appropriate.

Safety shoes or boots with impact protection will be required for carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and, for other activities where objects might fall onto the feet. Safety shoes or boots with compression protection will be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet. Safety shoes or boots with puncture protection would be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing a foot injury.

9.5 HAND PROTECTION

Hand protection is required when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.

Skin contact is a potential source of exposure to toxic materials; it is important that the proper steps be taken to prevent such contact. Gloves should be selected on the basis of the material being handled, the particular hazard involved, and their suitability for the operation being conducted. One type of glove will not work in all situations.

Most accidents involving hands and arms can be classified under four main hazard categories: chemicals, abrasions, cutting, and heat. There are gloves available that can protect workers from any of these individual hazards or combination of hazards.

Gloves should also be worn whenever it is necessary to handle rough or sharp-edged objects, and very hot or very cold materials. The type of glove materials to be used in these situations include leather, welder's gloves, aluminum-backed gloves, and other types of insulated glove materials.

Selection of hand PPE will be based on an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified. Gloves are often relied upon to prevent cuts, abrasions, burns, and skin contact with chemicals that are capable of causing local or systemic effects following dermal exposure. There is no glove that provides protection against all potential hand hazards, and commonly available glove materials provide only limited protection against many chemicals.

9.6 PPE TRAINING

Employees will be trained on the use of personal protective clothing. the training will include:

1. Why is PPE necessary.
2. When and what is PPE necessary.
3. How to don and doff the PPE.
4. Limitations of PPE.
5. Care and maintenance of PPE.
6. Useful life and disposal of PPE.

Retraining will be required when there is a change in the work environment, the type of PPE required changes or if an employee is demonstrates improper or lack of use.

The training will be documented and records maintained by C.A. Hull.

9.7 SELECTION OF PERSONAL PROTECTIVE EQUIPMENT BY TYPICAL PAINT REMOVAL JOB TASKS

The following table is designed to allow Management, the Safety Director and site personnel to select protective equipment based upon the job task. This table represents the minimum requirements and should not be construed to reflect every job and job task. Prior to starting any project, a hazard assessment will be performed to verify what types of personal protective equipment is required for each job task.

Job Task	Head Protection ¹	Eye Protection ²	Hearing Protection ³	Foot Protection	Work Clothing ⁴
Abrasive blaster	blast helmet	blast helmet	ear plugs or canal caps	leather shoes with steel toes	two layers of protective clothing
Vacuum during abrasive blasting	blast helmet	blast helmet	ear plugs or canal caps	leather shoes with steel toes	two layers of protective clothing
Vacuum after abrasive blasting	hard hat	full face respirator or safety glasses	ear plugs, canal caps or ear muffs	leather shoes with steel toes	one layer of protective clothing
Spray Painting	hard hat	full face respirator or goggles	may not be required	appropriate foot wear	one layer of protective clothing
Brush and roll painting	hard hat	full face respirator or goggles	may not be required	appropriate foot wear	one layer of protective clothing
Equipment operator during abrasive blasting	hard hat	safety glasses	ear plugs, canal caps or ear muffs	leather shoes with steel toes	one layer of protective clothing
Power tool cleaning worker	hard hat	full face respirator, safety glasses or face shield	ear plugs, canal caps or ear muffs	appropriate foot wear	one layer of protective clothing
Hand tool worker	hard hat	safety glasses	may not be required	appropriate foot wear	one layer of protective clothing

1 - verify the blast helmet meets ANSI standards

2 - most full-face respirators do not meet ANSI standards for eye protection

3 - conduct a sound level survey to verify the proper level of hearing protection

4 - during abrasive blast operations, all personnel inside the blast area must wear cloth coverall or similar heavy duty clothing that does not rip easily

10.0 RESPIRATORY PROTECTION

10.1 INTRODUCTION

The C.A. Hull Respiratory Protection Program is written to comply with the OSHA Standard 29 CFR 1910.134 Respiratory Protection.

Occupational injuries and diseases caused by contaminated breathing air will be controlled whenever possible through the use of engineering control measures. If engineering controls are not feasible, then respiratory protection will be selected and used pursuant to the guidelines in this section.

Respirators, training and medical evaluations are to be provided to the employee at no cost to the employee.

10.2 DEFINITIONS

This is only a partial list of the definitions included in 29 CFR 1910.134, for additional definitions reference the standard.

Air Purifying Respirator: A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Atmospheric Supplying Respirator: A respirator that supplies the user with breathing air from a source independent of the ambient atmosphere.

Fit Test: The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.

High Efficiency Particulate Air Filter (HEPA): A filter that is at least 99.97% efficient in removing particles of 0.3 micrometers in diameter, The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100 and P100.

Immediately Dangerous to Life and Health (IDLH): An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individuals ability to escape from a dangerous atmosphere.

NIOSH: National Institute for Occupational Safety and Health

Negative Pressure Respirator: A respirator in which the pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Oxygen Deficient Atmosphere: An atmosphere with an oxygen content below 19.5% by volume.

Physician or other Licensed Health Care Professional (PLHCP): An individual whose legally permitted scope of practice allows him or her to independently provide health care services as required by 29 CFR 1910.134.

Qualitative Fit Test (QLFT): A Pass/Fail test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative fit test (QNFT): an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

User Seal Check: an action conducted by the respirator user to determine if the respirator is properly sealed to the face.

10.3 SAFE WORK CONDITIONS

Safe work operations during respirator use include the following guidelines. Use these guidelines to assist you in maintaining a safe working environment, and to protect your health and safety.

1. Use your respirator whenever you are directed to do so.
2. Clean and store your respirator to ensure that it remains sanitary.
3. Never alter your respirator in any way.
4. Inspect your respirator whenever you put it on and take it off.
5. Do not remove your respirator while you are in a respirator required work area.
6. Do not enter a work area that could contain a hazardous atmosphere, unless it has been cleared by the Respirator Administrator or his designee.
7. Never assume that a work location is safe, even if it has been before. Always check the work area for potential hazards before the start and prior to resuming work.
8. Understand what the potential hazard(s) is, and use the appropriate equipment. If you are unsure, contact the Respirator Administrator or his designee.

10.4 RESPONSIBILITIES

10.4.1 EMPLOYEES

1. Use respirators as trained.
2. Do not modify respiratory protection equipment.
3. Do not enter into respiratory protection areas without proper protection.
4. Consult with the Respirator Administrator or his designee for any concerns about safe working conditions.
5. Perform User Seal Checks whenever donning respirators.
6. Clean and maintain your respirator after each work shift, when the respirator is used.
7. Store your respirator in its original bag, a sealable baggie or a sealable container.

10.4.2 COMPETENT PERSON

1. Act as the site Respirator Administrator under the Company Respirator Administrator.
2. Ensure that employees use respirators as required.
3. Ensure that all employees required to work in respiratory protection areas have the appropriate training and have been supplied with the appropriate equipment.
4. Evaluate the hazard at the project location and have the Respirator Administrator or his designee select the appropriate respirator for use.
5. Do not allow anyone into the work area if they have not received training and equipment as necessary.
6. Verify that all workers perform User Seal Checks.

7. Conduct weekly random respirator inspections and record results on the weekly site inspection form.
8. Test the compressed air quality for supplied air respirators.

10.4.3 RESPIRATOR ADMINISTRATOR - SAFETY DIRECTOR

1. Evaluate job hazards and select the appropriate equipment. This includes the determination of the specific hazards as well as engineering controls to be implemented.
2. Approve fit test procedures for employees.
3. Maintain fit test and respirator clearance records.
4. Update records at least annually.
5. Periodically inspect job sites to ensure that employees are using respiratory protection equipment.
6. Provide training to employees annually.
7. Supervision of the Project Respirator Administrator.

10.4.4 MANAGEMENT

1. Provide necessary equipment.
2. Provide support for safe work operations.
3. Allow employees time for proper respiratory protection training

10.5 RESPIRATORY PROTECTION PROGRAM

The Respirator Administrator will assess the adequacy of the program annually, or as necessary. This program is written to mirror the Respirator Protection Standard, however additional requirements may be put in place as necessary by C.A. Hull to protect its employees. This program will guide you on the following issues: selecting a respirator, medical evaluations, fit testing, use of respirators, maintenance and care of respirators, breathing air quality, filter and cartridges, training, program evaluation, record keeping and emergency procedures.

10.6 MEDICAL EVALUATIONS

A medical evaluation is required for all employees who are required to wear a respirator. This evaluation will include at a minimum an evaluation of the employee's ability to wear the respirator. All medical evaluations will be confidential, conducted during normal working hours, convenient and understandable to the employee and the employee will be given the opportunity to discuss the results with the PLHCP. The medical evaluation will be performed by a PLHCP using a medical questionnaire and a medical examination, an example of the questionnaire can be found in 29 CFR 1910.134 Appendix C..

C.A. Hull prefers to use an Occupational Physician to conduct the respiratory clearance testing including pulmonary function testing.

C.A. Hull will provide to the PLHCP the following information as requested:

1. Type and weight of respirator to be used.
2. Duration and frequency of use.
3. Temperature and humidity extremes that may be encountered.

4. Estimated physical exertion of employee during work shift.
5. Additional Personal Protective Equipment (PPE) which may be worn.

The Respirator Administrator will also provide the PLHCP with copies of this Respiratory Protection Program and the OSHA Respiratory Protection Standard 29 CFR 1910.134.

In order for the employee to be fit tested for a respirator, the PHLCP must provide the Respirator Administrator with the following:

1. A written recommendation on the employee's ability to use a respirator. This information will be kept on record at the main office.
2. If an employee is found to be unfit to use a negative pressure respirator, then the PHLCP will indicate whether or not the employee is medically able to wear a Powered Air Purifying Respirator (PAPR).

Additional medical evaluations will be made of the employee in the following cases:

1. An employee displays or reports medical signs and/or symptoms which may affect the ability to wear a respirator.
2. The PHLCP, Respirator Administrator or supervisor indicates that the employee needs medical reevaluation.
3. A change in workplace conditions occurs which may increase the physiological burden placed on an employee.
4. Information acquired through administration and implementation of this program indicates the need for medical reevaluation.

10.7 PROCEDURES FOR SELECTING RESPIRATORS

Selection of a respirator will depend on the Respirator Administrator's evaluation of the workplace hazard, and identification of relevant workplace and user factors. If hazards cannot adequately be assessed, the atmosphere will be considered as IDLH. C.A. Hull will select and provide a respirator that is appropriate to the hazards to which the worker is exposed. All respirators will be NIOSH certified and used in compliance with the conditions of their certification.

When working in an IDLH environment, outside standby personnel will be required to assist in the event of a rescue, communication will be required between the worker and outside personnel, workers will be trained for the actual work space. In addition, back-up SCBA or SAR will be required.

C.A. Hull uses 3M 5000, 6000 and 7000 series half-face air purifying respirators, 3M 7000 series full-face air purifying respirators and Bullard CE 88 or NOVA 2000 blast helmets for its respiratory protection. Other respirators may be used by employees based upon comfort by the wearer and location of use.

Respirators will be selected using the following guidelines:

1. For protection against gases and vapors, C.A. Hull will provide either an atmosphere-supplying respirator or an air-purifying respirator provided that:
 - a. An end-of-service-life indicator is provided to alert the user that the canister or cartridge needs to be changed.

- b. The company will implement a change schedule based on the hazard present. A schedule for the vapors present on each project site may change, so a site specific plan will be created. If no schedule is available, then employees must change cartridges, canisters or filter after one work shift when working around gases or vapors.
2. For protection against particulate, C.A. Hull will provide either an atmosphere supplying respirator or an air-purifying respirator equipped with a filter certified for particulate by NIOSH under 42 CFR part 84. Filters to be used will be either N100, R100 or P100 filters.
 3. Respirators will initially be selected in accordance with the table below. If exposure monitoring indicates that additional protection is required, then Engineering controls will be investigated and the proper level of respiratory protection will be provided.

Job Task	Toxic Metal	PEL (ug/m ³)	Respirator	APF	MUC (ug/m ³)
Abrasive Blast	Lead (Pb)	50	Bullard CE 88 blast helmet, NOVA 2000 blast helmet or other approved blast helmet	1,000	50,000
	Cadmium (Cd)	5		1,000	5,000
	Chromium (Cr)	1000		1,000	1,000,000
	Arsenic (Ar)	10		1,000	10,000
	Hexavalent Chromium	5		1,000	5,000
Power Tool Cleaning without HEPA Vacuum	Lead (Pb)	50	Full-Face air purifying respirator with P100 HEPA filters	50	2,500
	Cadmium (Cd)	5			250
	Chromium (Cr)	1000			50,000
	Arsenic (Ar)	10			500
Power Tool Cleaning with HEPA Vacuum	Lead (Pb)	50	half-face air purifying respirator with P100 HEPA filters	10	500
	Cadmium (Cd)	5			50
	Chromium (Cr)	1000			10,000
	Arsenic (Ar)	10			100
Manual Scraping	Lead	50	half-face air purifying respirator with P100 HEPA filters	10	500
Prime Coat Painting	Lead VOCs	50	To be determined	10	500 To be determined
Mid, Top and Other Coats of Paint	VOCs	Refer to Paint Manufacturer's SDS	To be determined	to be determined	To be determined

10.7.1 IDENTIFICATION OF FILTERS

All filters, cartridges and canisters to be used must be labeled and color-coded with NIOSH approved labels. These labels are not to be tampered with by anyone.

1. HEPA filters
 - a. N100- not resistant to oil
 - b. R100- oil resistant
 - c. P100- oil proof

* C.A. Hull will only used P, N or R100 filters as these are HEPA filters. If other filters such as P95 or N95 are found on the job site, they will be promptly removed.

2. Color code for cartridges and gas mask canisters
 - a. Black- organic vapor

3. End of service life indicator (ESLI)
 - a. 3M P100 filters will be changed when the employee notices an increased resistance to breathing, if the filter is ripped or torn, or if the filter is covered with paint, or 40 hours when in an atmosphere that contains oils. Other respirator manufacturer's may have different change schedules that will be verified if other respirators are in use.
 - b. N100 and R100 filters will be changed every 8 hours.
 - c. C.A. Hull will make a change schedule based upon the chemicals present, manufacturer recommendations and a safety factor. All workers will be informed of the change schedule prior to using organic vapor cartridges. If a worker detects an odor while wearing an organic vapor cartridge, the worker should immediately change cartridges and inform the competent person. The change schedule should then be reviewed and changed if necessary.
 - d. If an employee notices a break-through or resistance while wearing a respirator, the employee is to immediately leave the work area to wash and change cartridges.

10.7.2 TRAINING AND INFORMATION

C.A. Hull is required to provide effective training to its employees prior to issuing respirators. All training must be performed at least annually, or as conditions dictate. Training will consist of:

1. Why the respirator is necessary and how improper fit, usage or maintenance can affect the performance.
2. What limitations the respirator has, including cannot provide oxygen, filters are made for a specific use, etc.
3. What to do in emergencies.
4. How to inspect, put on and remove the respirator.
5. Storage and maintenance procedures.
6. How to recognize medical signs and symptoms that may limit or prevent respirator effectiveness.
7. General requirements of 29 CFR 1910.134.
8. Job tasks and work areas at project sites which will require the use of respiratory protection.
9. Fit testing.
10. Medical signs and symptoms that may interfere with the effective use of respirators.

10.7.3 FIT TESTING

All employees that are required to use a respirator must be fit tested prior to being issued a respirator. C.A. Hull will provide a selection of sizes and models of respirators to its employees so that it is acceptable to and fits the user. The selection of the respirators types will be determined by a pre-job hazard analysis that will determine the hazards that are expected on the job site. If one of the provided respirators does not provide an adequate fit, an alternate model will be selected and offered. The employee will be fit tested with the type and size respirator that will be used by the employee. The fit test will either be Qualitative or Quantitative. C.A. Hull currently uses the qualitative fit testing procedures as provided in 29 CFR 1910.134 Appendix A. This procedure may be used for all respirators that must achieve a fit factor or 100 or less (an Assigned Protection Factor (APF) of 10 or less). If the required fit factor is greater than 100, then the quantitative fit test procedures must be used.

All tight fitting powered-air and atmosphere-supplying respirators must be tested while in the negative pressure mode, regardless of operational mode. This includes PAPRs and full-face tight fitting supplied-air respirator.

Fit testing for employees will be conducted:

1. When an employee is initially issued a respirator.
2. When an employee changes the make, model, size or style of respirator face piece worn.
3. When there is a visible change in the employee's physical condition that could affect the fit of a respirator.
4. When an employee indicates they would like to use a different respirator.
5. Annually after initial fit testing.

The Assigned Protection factor (APF) of the respirator that C.A. Hull typically uses is listed in the following table.

Respirator Selection	Qualitative Fit Test (APF)	Quantitative Fit Test (APF)
Half-face Air purifying Respirator	10	10
Full-Face Air Purifying Respirator	10	50
Full-Face Powered Air Purifying Respirator (PAPR)	10	1000
Supplied Air Respirator - Continuous Flow Helmet/ Hood	25	25/1000*
Supplied Air Respirator (SAR) - Pressure Demand	10	1000

* APF is 1000 if the manufacturer has completed a Workplace Protection factor (WPF) or Simulated Workplace Protection factor (SWPF) test.

10.8 USE OF RESPIRATORS

It is the responsibility of C.A. Hull to ensure that all employees using respirators use them properly. This includes prohibiting conditions that may result in face piece seal leakage, preventing employees from removing respirators while in the work area, ensuring employees perform User Seal Checks each time the respirator is donned and ensuring effective respirator operation throughout the entire shift. Face piece seal protection will be ensured by not permitting respirators to be worn by employees who have:

1. Facial hair growth of more than 24 hours that comes between the sealing surface of the face piece.
2. Any condition that interferes with the face-to-face piece seal or valve function.
3. Goggles or glasses will be worn in such a manner so that they do not interfere with the respirator seal.

10.8.1 USER SEAL CHECK

A user seal check is the method used in the field to ensure that an adequate seal is achieved each time the respirator is put on. All employees using respirators are required by this program to perform a user seal check consisting of a positive and negative pressure fit check each time they put on a respirator. Employees are trained to perform these tests during the respirator training.

10.8.2 POSITIVE PRESSURE FIT CHECK

To perform a positive pressure fit check, the employee must first put on and adjust the respirator. The employee then covers the exhalation valve (usually located at the bottom center of the respirator), and gently exhales. The positive pressure fit check is passed if the employee is able to create a slight pressure inside the face piece without breaking the seal of the respirator.

10.8.3 NEGATIVE PRESSURE FIT CHECK

To perform a negative pressure fit check, the employee must first put on and adjust the respirator. The employee then covers the inhalation valves (identified by where the filters connect to the respirator) and gently inhales so that the face piece collapses slightly, and hold for a period of ten seconds. If no leaks are detected in the face piece, the negative pressure fit check is passed.

If the employee satisfactorily passes each fit check, then the seal is effective. If a leak is detected, the employee should leave the work site and readjust the respirator as necessary to correct the seal.

Alternate fit check methods may be used if they are recommended by the manufacturer, and if they can be demonstrated to be as effective as the procedures listed above.

10.9 MAINTENANCE AND CARE OF RESPIRATORS

1. Cleaning and disinfecting: all respirators provided to employees are to be cleaned and sanitized prior to issue. Employees are instructed on cleaning and sanitation procedures to be used and are to clean the respirator at the end of each shift. Periodic field surveillance by the competent person will be made to ensure that compliance is maintained.
2. Storage: employees are expected to store their respirator in the original bag or a replacement zipper type bag. These bags will be kept clean and closed to prevent contamination.
3. Inspection: all respirators are inspected prior to issue to employees by the competent person. Employees are instructed on inspection procedures for their personnel respirator. Emergency respirators must be inspected prior to being taken to the job site. Inspections will include:
 - a. A check of the respirator function.
 - b. Tightness of connections.
 - c. Condition of parts.
 - d. Straps, snaps and other connectors in good working conditions.
4. Repairs: respirators that fail inspection are either repaired immediately, placed out of service until repairs can be made or discarded.

10.9.1 CLEANING PROCEDURES

At the end of each work shift, where the respirator is worn, employees will clean own respirators at the handwash station or other approved location as determine by the competent person. Cleaning will be in accordance with the manufacturer's recommendations which may allow respirator wipes or if the manufacturer has no recommendations follow the procedures as set forth in 29 CFR 1910.134 Appendix B-2.

1. Remove filters, cartridges or canisters. Disassemble face pieces by removing speaking diaphragms, demand and pressure demand valve assemblies, hoses, or any other components recommended by the manufacturer. Discard or repair any defective parts.
2. Wash components in warm water with a mild detergent.
3. Rinse components under warm running water.
4. If the detergent does not contain a disinfecting agent, the respirator and its components will be immersed in a hypochlorite solution made up of ½ cap full of bleach in one gallon of water for two minutes.
5. Rinse all components under warm running water.
6. Either air dry, or hand dry with a clean lint free cloth.
7. Reassemble all parts.
8. When dry, store in clean bag in a clean area.
9. Prior to using, conduct a user seal check.

Employees may clean their respirators more frequently during a work shift if the respirator has excess moisture or if the employees believes it to be necessary.

10.10 BREATHING AIR QUALITY AND USE

All atmosphere-supplying respirators, whether supplied-air or SCBA, must provide quality breathing air to the user. Compressed breathing air will meet the requirements for Type I, Grade D breathing air. Compressed air tanks for SCBA/escape bottles will be filled by a vendor qualified to deliver this type of air. Specifications for this type of air are:

1. Oxygen content of 19.5 to 23.5%.
2. No more than 5 milligrams per cubic meter of air of hydrocarbons.
3. CO content less than 10 ppm.
4. CO₂ content of 1000 ppm or less.
5. Lack of noticeable odor.

Air supplied by compressors will be monitored periodically to ensure that quality meets these requirements. Compressors used to supply air must be constructed and situated to:

1. Prevent entry of contaminated air into the system.
2. Minimize moisture content.
3. Have suitable in-line filters and sorbent beds to purify the air.
4. Filter changes must be documented through the use of a tag on the compressor.
5. A carbon monoxide alarm or high-temperature alarm will be used to monitor CO levels as required.
6. If a high-temperature alarm is used, the air will be checked periodically for CO level.

10.10.1 CARBON MONOXIDE ALARM

1. For compressors that are not oil lubricated, a carbon monoxide alarm is required when supplied air is in use.
2. For compressors that are oil lubricated, a carbon monoxide alarm is required at intervals sufficient to prevent carbon monoxide in the breathing air.
3. The carbon monoxide alarm will sound at 10 ppm. If the alarm sounds, all employees using supplied air will be removed from the work area until it is safe to return.

4. The carbon monoxide alarm will be calibrated in accordance with manufacturer's recommendations and tested weekly if it has a test switch.

10.11 CORRECTIVE LENSES

If corrective lenses are required, they must not interfere with the seal of the respirator. As a temporary measure, short temple-armed glasses may be used, or glasses without arms may be taped to the wearer's head. If corrective lenses are needed on a long term or normal use situation, special considerations will be given to obtaining special face pieces for the respirator so that the corrective lenses may be mounted inside the face piece.

10.12 USE OF RESPIRATORS WHEN NOT REQUIRED

The information contained here must be provided by the employer to all employees who chose to wear a respirator even when it is not required and the exposure is below the exposure Permissible Exposure Limit. The employer will provide the employee a copy of 29 CFR 1910.134 Appendix D. Employees who choose to wear a respirator are required to submit to a medical evaluation in accordance with 29 CFR 1910.1020.

Whenever an employee chooses to use his/her own respirator, or respirators are provided by the employer for voluntary use, the employee should follow these precautions.

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care of the respirator.
2. Read all warnings regarding respirator limitations.
3. Choose respirators certified for use to protect against the contaminant of concern. NIOSH certifies respirators. A label or statement of certification must appear on the respirator or respirator packaging. It will tell you what the respirator is designed for, and how much it will protect you.
4. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed. For example, a respirator designed to filter dust particles will not protect you against gases or vapors.
5. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

10.13 EMERGENCY PROCEDURES

The supervisor/ competent person will determine the proper respiratory protection based upon the situation, such as fire or spill. Then the supervisor and/or competent person will select and direct employees only those employees who have the proper training to assist in emergency actions. When a hazard arises that is beyond the scope and training of the employees or their respiratory protection, emergency personnel will be called.

10.14 PROGRAM REVIEW AND EVALUATION

The site supervisor and/or competent person will be responsible for conducting weekly random inspections of employees respirators. The Respiratory Administrator will use the results of these weekly inspections to verify that the respiratory protection program as it is written remains effective or if changes are required. During the inspection, random employees will be asked about fit, selection, use and maintenance of respirators to determine they understand their respirator and the need for respiratory protection.

This program will be reviewed and updated whenever it is determined that it may have become ineffective, or if new rules and regulations are in effect. At a minimum, the program will be reviewed annually.

10.15 RECORD KEEPING

C.A. Hull will maintain the following records:

1. Medical Evaluations in accordance with 29 CFR 1910.1020.
2. Fit test records to include employee identification, type of test performed, make, model, style and size or respirator tested, date of test and the results of the test.
3. A written copy of the current program.

11.0 HEARING CONSERVATION PROGRAM

Paint removal operations, clean-up operations and other activities found at construction sites can produce noise above the OSHA standard 29 CFR 1926.52 noise limit. The purpose of this program is to identify and control the noise and its potential effects on hearing. Each work environment will be evaluated to determine the level of hearing protection required.

11.1 OSHA NOISE LIMITS

The OSHA Permissible Exposure Limit (PEL) for noise is a Time-Weighted-Average (TWA) of 90 dBA averaged over eight working hours. The OSHA Action Level (AL) for noise is a TWA of 85 dBA averaged over eight working hours, or half the PEL. A 5 dBA doubling rule applies where the allowable exposure time is cut in half, as follows:

<u>Noise Level</u>	<u>Time Limit</u>
90 dBA	8-hours
95 dBA	4-hours
100 dBA	2-hours
105 dBA	1- hour
110 dBA	½-hour
115 dBA	¼-hour

C.A. Hull will use 85 dBA as its in-house PEL and will have all employees exposed to noise above 85 dBA wear hearing protection.

Typical noise exposures during paint removal operations

<u>Job Task</u>	<u>Noise Level</u>
Abrasive Blaster	115-125 dBA
Equipment Operator	75-105 dBA
Power Tool Cleaning - needle gun and rotopeen	110-115 dBA
Power Tool Cleaning - grinder	90-100 dBA

11.2 ENGINEERING AND ADMINISTRATIVE CONTROLS

During abrasive blast operations, there are no engineering controls for the abrasive blaster. Instead, the employee will rely on hearing protection. The equipment operator will stand away from the noise producing areas of the equipment such as the muffler and engine when possible.

11.2.1 ENGINEERING CONTROLS

After it is determined that noise exposure above 85 dB(A) are present, engineering controls should be evaluated and implemented to reduce the noise exposure before administrative controls are initiated. Some examples of engineering controls include:

1. Noise reducing baffles
2. Compartmentalization
3. Installing noise reducing gears
4. Installing rubber pads under machinery

11.2.2 ADMINISTRATIVE CONTROLS

After engineering controls are evaluated for effectiveness or feasibility, administrative controls should be considered to reduce noise exposure. Administrative controls include restricting exposure time, wearing hearing protection properly and training on hazardous noise levels and proper use of hearing protection.

11.3 USE OF HEARING PROTECTORS

Management, supervisors and employees will properly wear the prescribed hearing protectors while working in or traveling through any section of a location that is designated a High Noise Area. Hearing protection is provided to all employees at no cost to the employee. The following rules will be enforced:

1. Personal stereos, such as MP3 players, iPods, etc., will not be permitted as a substitute to hearing protection.
2. Hearing protectors, at least two types of plugs and one type of muffs, will be provided.
3. Hearing protectors and replacements will be provided free of charge
4. Hearing protectors will be properly worn at all times when the noise level is above the PEL.

Preformed earplugs and earmuffs should be washed periodically and stored in a clean area, and foam inserts should be discarded after each use. It is important to wash hands before handling pre-formed earplugs and foam inserts to prevent contaminants from being placed in the ear which may increase your risk of developing infections.

11.3.1 DONNING HEARING PROTECTION

Employees will be trained on the proper method of donning hearing protection. Ear plug manufacturer's often have testing holes on the sides of their boxes for employee to practice rolling the insert to the proper size prior to inserting into the ear.

11.4 AUDIOMETRIC TESTING

Audiometric testing may be made available to all workers exposed to noise levels at or above the AL. Testing will include baseline audiograms within six months of a worker's first exposure at or above the AL. Baseline audiograms must be preceded by fourteen hours without exposure to workplace noise. Annual audiograms may be provided to all workers potentially exposed to noise, within one year of the baseline audiogram, and each subsequent year. Hearing loss will be evaluated based on standardized threshold shifts (STS) of 10 dB or more at 2,000, 3,000 and 4,000 hertz. Workers will be informed within twenty-one days from the time the determination is made that their audiometric test results showed a standard threshold shift.

If a worker experiences a STS, then C.A. Hull will re-evaluate the worker's hearing protection to determine if it is adequate or additional hearing protection is required. Also, the worker may be required to have an additional medical evaluation.

11.5 NOISE REDUCTION RATING

Ear plugs and/or muffs used will have Noise Reduction Rating (NRR) sufficient to reduce the noise below the PEL. With certain job tasks this may not be possible so administrative controls will be implemented. Ear plugs and muffs may be used together where necessary. Industry practice of reducing the NRR by seven decibels is commonly recommended and currently recognized by OSHA

$$\text{Actual Noise Level} - (\text{NRR}-7) = \text{worker exposure}$$

11.6 TRAINING

All workers potentially exposed to noise at or above the AL for noise must receive initial and annual training in hearing conservation. This training will include:

- a. Potential health effects of exposure to excessive levels of noise, including impact and long term exposures.
- b. Sources of excessive noise exposure.
- c. Monitoring strategies for noise, including sound level meter surveys and noise dosimetry, and how to interpret this information.
- d. The purpose of medical surveillance for noise, including baseline and annual audiograms, standard threshold shifts, and permanent hearing loss.
- e. Personal protective equipment available for protection against excessive noise, and the proper selection, fit and care of such equipment.

11.7 SOUND LEVEL MEASUREMENTS

Sound level measurements can be performed using sound level meters or noise dosimeters. The preferred method is the use of noise dosimeters on workers and sound level meters around the work area and equipment.

Sound level measurements will be conducted at least every two years on each job category and equipment.

11.8 RECORD KEEPING

Noise exposure measurements must be retained for two years. Audiometric test results will be included in an individual's medical records and retained for 40 years, or the duration of employment plus 30 years.

Noise exposure measurement records will be maintained for at least two years.

12.0 HAZARD COMMUNICATION PROGRAM

In accordance with the Hazard Communication Rule, 29 CFR 1926.59, and to ensure the information necessary for the safe use, handling and storage of hazardous chemicals is provided and made available to employees the following is C.A. Hull's Hazard Communication (HazCom) program. This program will be maintained at each work site and a separate chemical inventory will be maintained at each work site.

12.1 RESPONSIBILITIES

12.1.1 SAFETY DIRECTOR

1. Maintain a list of hazardous chemicals in use at all projects and at company facilities.
2. Monitor the effectiveness of the program.
3. Conduct an annual audit of the program.
4. Conduct project audits for the effectiveness of the program.
5. Ensure all workers receive annual hazard communication training.
6. Ensure Safety Data Sheets (SDS) are available. If SDS are not available, obtain the SDS either through the manufacturer's website, contacting the sales representative or by obtaining it from the store.
7. Ensure SDS are the most recent published by the manufacturer.
8. Conduct weekly chemical inventory at each location where chemicals are stored.

12.1.2 FOREMAN/ COMPETENT PERSON

1. Conduct site specific hazard communication training. If new chemicals are brought to a project, conduct training for the new chemical at the next safety meeting or prior to its use.
2. Ensure chemicals are properly labeled and stored.
3. Ensure that all SDS are onsite and readily available and all workers know where they are located.
4. Create a chemical inventory for each project. Post the chemical inventory in the decontamination trailer, project postings board or other appropriate location.
5. Conduct weekly chemical inventory at project locations.
6. Ensure that the SDS are readily available for each work shift.

12.1.3 EMPLOYEES

1. Comply with the requirements of the hazard communication program.
2. Report any chemicals not properly labeled or stored.
3. Immediately report any spills.
4. Use chemicals only for specific assigned tasks.

12.2 CHEMICAL HAZARDS

1. Physical hazards can produce a dangerous situation outside the body.
2. Health hazards can damage one's health by acute and chronic exposures.

12.3 CHEMICAL INVENTORY

1. The Competent Person will maintain an inventory of all known chemicals in use at the work-site. A chemical inventory list and Safety Data Sheets (SDS) will be available from the Competent Person.
2. Hazardous chemicals brought onto the work site by C.A. Hull will be included on the hazardous chemical inventory list.
3. Employees who work with hazardous chemicals may request a copy of the Safety Data Sheets (SDS). Requests for SDS should be made to the site Competent Person.

12.4 CONTAINER LABELING

1. All chemicals on-site will be stored in their original or approved containers with a proper label attached; except small quantities intended for immediate use. Any container not properly labeled should be given to the foreman or competent person for proper labeling or disposal.
2. Workers may dispense chemicals from original containers only in small quantities intended for immediate use. Any chemicals left after work is completed must be returned to the original container or to the foreman or competent person for proper handling and labeling.
3. Unmarked containers of any size are not to be left unattended in the work area at any time.
4. C.A. Hull will rely on manufacturer applied labels whenever possible and will ensure the labels are maintained. Containers that are not labeled or on which the manufacturers label has been removed or destroyed will be re-labeled.
5. Container labels will not be defaced or removed. If a container is not properly labeled it will be brought to the foreman who will label the container.
6. Labels are to be legible.
7. The foreman or competent person will ensure that each container is labeled with the identity of the hazardous chemical contained, name and address of the chemical manufacturer and any appropriate hazard warning.
8. Labeling will include:
 - a. Product identifier
 - b. Signal word
 - c. Hazard statement
 - d. Pictogram
 - e. Precautionary statement
 - f. Name, address and telephone number of chemical manufacturer, importer or other responsible party.

12.5 SAFETY DATA SHEET

SDS contain the following information

1. Section 1- identification
2. Section 2 - hazard identification
3. Section 3- composition/ information on ingredients
4. Section 4 - first aid measures
5. Section 5- fire-fighting measures
6. Section 6 - accidental release measures
7. Section 7- handling and storage
8. Section 8 - exposure control/ personal protection
9. Section 9 - physical and chemical properties
10. Section 10 - stability and reactivity
11. Section 11- toxicological information
12. Section 12 - ecological information
13. Section 13 - disposal considerations
14. Section 14 - transport information
15. Section 15 - Regulatory information
16. Other information, including date of preparation or last revision

12.6 EMPLOYEE TRAINING

Employees will be trained to work safely with hazardous chemicals. Employee training will include:

1. Methods that may be used to detect a release of a hazardous chemical(s) in the work place.
2. Physical properties and health hazards associated with each chemical.
3. Protective measures to be taken in order to reduce the risk of chemical exposure including safe work practices, emergency responses and the proper use of Personal Protective Equipment (PPE).
4. The details of the Hazardous Communication Program developed by C.A. Hull.
5. How to read and interpret information on labels and the SDS.
6. Location of the SDS and hazard communication program.
7. Explanation of the chemical labeling system.
8. If a non-routine task is required, the employee will be provided training on the chemical(s) that will be used and the hazards of the chemical(s) and the personal protective equipment that will be required.

Site specific training will be conducted at a pre-job safety meeting. If new chemical(s) are brought to a project, all workers will receive training for the new chemical(s) at the next safety meeting or prior to its use.

Training on the Safety Data Sheets, the hazards of the chemicals and any other pertinent information will be provided in the language of the employee. C.A. Hull typically has bi-lingual employees and will use a person who can speak the language of other employees to assist in the training.

12.7 NON-ROUTINE JOB TASKS

Based upon the nature of the work performed by C.A. Hull, it is not anticipated that non-routine job tasks such as entry into reactor vessels or unlabeled pipes in the work area will be encountered. However, if a situation is found, the following steps will be required.

1. Stop work in the affected location.
2. Request from the Facility Owner what is in the pipes, reactor or other area identified.
3. Based upon the nature, the competent person will conduct a safety training as identified in Section 12.7 (8).
4. Prior to resuming work in the affected area, the competent person will verify the proper PPE is being worn, the area is demarcated if necessary and any other safety precautions are implemented prior to work in the affected area.

12.8 EMERGENCY RESPONSE

1. Any incident, over-exposure or spill of a hazardous chemical(s) must be reported to the site Competent Person immediately.
2. The site Competent Person or foreman will be responsible for insuring that proper emergency response actions are taken in the event of a leak or spill.

12.9 INFORMING OTHER CONTRACTORS, SUBCONTRACTORS AND VISITORS

1. Other on-site employers and/or visitors are required to adhere to the provisions of the Hazard Communication Program.
2. Information on hazardous chemicals known to be present will be exchanged with other employers or subcontractors. Each employer will be responsible for providing the necessary information to their employees.
3. Other on-site employers and/or visitors will be provided with a copy of the Hazard Communication Program.

OSHA PICTOGRAMS

13.0 LEAD EXPOSURE CONTROL PLAN

Unless specified in contract specifications as part of C.A. Hull's work, C.A. Hull's employees will not disturb lead containing material. However, if the contract requires the removal of paint that may have lead based paint from a structure, this Section will apply.

If C.A. Hull is working on a multi-contractor work site, and its work does not involve lead exposures, C.A. Hull will keep its workers out of all posted lead regulated work areas.

13.1 POTENTIAL LEAD SOURCES AND TASK EVALUATION

13.1.1 POTENTIAL LEAD SOURCES

During the cleaning and painting of lead-based paint projects, several job categories may have potential exposure to lead dust. Each job category having potential exposure to lead will be subjected to initial exposure monitoring to determine if exposures are within acceptable limits, and what additional requirements, corrective measures or actions must be taken. The following is a list of typical job tasks and those which may have an exposure to lead above the Action Level.

a. ABRASIVE BLASTING OPERATIONS

1. Abrasive blaster - the person at the end of the blast nozzle that conducts the actual removal of paint from a substrate. This worker has the potential for the highest exposure to lead.
2. Vacuumer during abrasive blast operations - works inside the blast area to remove spent abrasive and paint chips. Exposures are similar to an abrasive blaster.
3. Vacuumer after abrasive blast operations - works inside and outside the blast area to remove all remaining abrasive and paint chips. This worker can minimize exposure by waiting till the dust settles after the blast to start operations.
4. Equipment operator - runs the abrasive blast equipment which includes recyclers, blast pots, compressors, air dryers. Also oversees the loading of new abrasive. Exposures vary depending upon method and type of abrasive used.
5. Support workers - assist the equipment operator, blasters or foreman during abrasive blasting operations. Their exposures vary depending upon the type of job they are conducting.
6. Riggers - set-up and tear-down containment systems. The exposures vary depending upon the cleanliness and types of the materials used to build the containment.
7. Foreman - remains outside the blast area and oversees the entire project. The foreman should not have an exposure to lead above the OSHA Action level.
8. Competent person - remains outside the blast area and oversees site safety. The competent person should not have an exposure to lead above the OSHA Action level.
9. Quality control inspector - may be required to enter the work area during abrasive blast operations. Inspects the substrate to verify compliance with project specifications.

b. POWER TOOL CLEANING OPERATIONS

1. Power tool operator - uses the power tool to clean a substrate. Highest level of exposure for this type of work.
2. Equipment operator - runs the compressor and any other equipment. Should not have an exposure.
3. Vacuumer after power tool cleaning operations - cleans the inside and outside of the work area of any paint chips. Exposure should be minimal when using a HEPA vacuum.

4. Foreman - remains outside the work area and oversees the entire project. The foreman should not have an exposure to lead above the OSHA Action level.
5. Competent person - remains outside the work area and oversees site safety. The competent person should not have an exposure to lead above the OSHA Action level.
6. Quality control inspector - may be required to enter the work area during power tool cleaning operations. Inspects the substrate to verify compliance with project specifications.

c. HAND TOOL CLEANING OPERATIONS

1. Workers - conduct hand tool cleaning operations.
2. Foreman - remains outside the designated work area and oversees the entire project. The foreman should not have an exposure to lead above the OSHA Action level.
3. Competent person - remains outside the designated work area and oversees site safety. The competent person should not have an exposure to lead above the OSHA Action level.
4. Quality control inspector - may be required to enter the designated work area during abrasive hand tool operations. Inspects the substrate to verify compliance with project specifications.

13.1.2 TASK EVALUATION

Until laboratory results of personnel samples are available, respiratory protection, personal protective equipment (PPE), change areas, hand wash facilities, biological monitoring and lead training must be provided based upon the exposure hazard of the job category as established in OSHA’s 29 CFR 1926.62 Lead Standard. All PPE will be provided to the employee at no cost to the employee.

The level of respiratory protection, the need for personal protective equipment (PPE), changes areas, hand wash facilities, biological monitoring, showers and lunchrooms will be modified based upon the results of the initial exposure assessment, The following table outlines the minimum requirements.

Exposure Level	Respiratory Protection	PWC ¹	Change Areas ²	Hand Wash facilities ³	Showers ⁴	Lunchrooms ⁵	Biological Monitoring ⁶
<30 ug/m ³	not required	not required	not required	Yes	Not required	Not required	Not required
>30 but <50 ug/m ³	not required	not required	not required	Yes	not required	not required	Yes
>50 but <500 ug/m ³	½ face air purifying respirator with P100 filters	Yes	Yes	Yes	Yes	Yes	Yes
>500 but < 2500 ug/m ³	Full face air purifying respirator with P100 filters	Yes	Yes	Yes	Yes	Yes	Yes
>2500 ug/m ³	Bullard CE 88/ Nova 2000	Yes	Yes	Yes	Yes	Yes	Yes

1. Coverall or similar full body work clothing, gloves, hats and shoes or disposable shoe coverlets
2. Change areas equipped with separate storage facilities for PWC and equipment and for street clothes
3. Hand wash facilities must be located near the work area
4. Must be used at the end of the shift by workers exposure above the OSHA permissible exposure limit
5. Area as free as practicable from lead contamination
6. Blood lead and zinc protoporphyrin levels

13.1.3 SELECTION OF RESPIRATORY PROTECTION

Job Category	Assumed Exposure Level	Respirator
Abrasive Blast Vacuum during Abrasive Blast Operation Cleaning the dust collector or recycler filters, where entry is necessary	>2,500 ug/m ³	Approved blast helmet or full face piece supplied air respirator
Power Tool Operations without HEPA Vacuum Vacuuming after Abrasive Blast Operations Clean-up Operations Set-up and Tear down Operations	>500 but < 2500 ug/m ³	Full face air purifying respirator with P100 filters or powered air purifying respirator with P100 filters
Water-jetting Operations Power Tool Cleaning with HEPA Vacuum Painting during Prime Coat Operations Equipment Operator of a steel grit recycler Water Jetting Operator	>50 and <500 ug/m ³	half-face air purifying respirator with P100 filters
Hand Tool Operations Support Workers outside of regulated areas Equipment Operator for black beauty operations	<50 ug/m ³	Respiratory protection is not required

13.2 SIGNS OF LEAD POISONING

Signs and symptoms that lead poisoning may have occurred include:

Fatigue	Sleep Problems	Clumsiness	Dizziness	
Irritability	Depression	Nervousness	Headaches	Memory
Loss	Difficulty Concentrating	Hyperactivity (in kids)	Numbness	
Joint and Muscle aches	Weakness	Wrist or Foot Drop	Loss of Appetite	
Stomach Aches	Constipation	Metal Taste in Mouth		
Problems having Healthy Children		Lead Line in Gums		

Through the implementation of engineering controls and respiratory protection, and personal protective equipment C.A. Hull makes every effort to keep its workers healthy.

13.3 ACTION LEVEL

An Action Level (AL) of 30 ug/m³ is the exposure to lead without regard to respirators, when the following requirements of the OSHA Lead in Construction Standard must first be implemented.

- a. Written Worker Protection Plan
- b. Exposure Monitoring
- c. Housekeeping
- d. Employee Medical Surveillance and Medical Removal Protection
- e. Employee Information and Training
- f. Signs and Regulated Areas
- g. Record keeping

13.4 PERMISSIBLE EXPOSURE LIMIT

The Permissible Exposure Limit (PEL) is 50 ug/m³ averaged over 8-hours without regard to respiratory protection. When in addition to complying with the requirements identified when exceeding the Action Level, the following protective measures are required:

- a. Engineering and Work Practice Controls
- b. Respiratory Protection
- c. Protective Clothing and Equipment
- d. Hygiene Facilities and Practices

The PEL will be reduced for extended work shifts as follows:

Adjusted PEL =(400/hours worked in a day)

- e.g. Lead for an 8 hr shift: PEL = 50 ug/m³
Lead for a 10 hr shift: PEL = 40 ug/m³

It is C.A. Hull's intent to keep all workers exposure levels below the OSHA PEL for lead.

13.5 REGULATED AREAS

Regulated areas are the areas where the exposure to lead dust is at or above the PEL and support areas are the areas not inside the regulated area. The regulated area(s) will be delineated using signs and/ or tape to prevent inadvertent contamination from leaving the work site and to minimize contamination to the workers during the work shift. Work areas include containment enclosures and all work areas involved in lead paint removal, clean-up and set-up or tear down of containment systems. The area(s) around equipment will initially not be a regulated area, unless area monitoring around the equipment indicates otherwise.

The regulated area will have access limited to workers who have received the required training, medical surveillance and are wearing the personal protective equipment required for the job they are performing, and supervisors and/or authorized visitors wearing appropriate clothing and/or protective equipment. No food, beverages or tobacco products are to be present or consumed in the work area.

Initially the support area will be a minimum of five feet from the work area. This is based upon several years of area monitoring around containment. The regulated area may be moved closer or further from the work area if initial or periodic monitoring indicates the need for a change.

13.6 SIGNS

Signs will be used to identify the areas where exposures could exceed the Action Level (the OSHA Lead Standard states the signs are above the PEL, use of the Action Level will minimize exposures to outside personnel). Signs when used at night will be illuminated. Signs will be cleaned as necessary so the wording is visible. Signs will read as follows:

DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY
OR THE UNBORN CHILD
CAUSES DAMAGE TO THE
CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR
SMOKE IN THIS AREA

13.7 DECONTAMINATION FACILITIES

13.7.1 SHOWERS

The Support Area will consist of a decontamination trailer equipped with a shower separating clean and contaminated sides of the trailer. All street clothing worn to the job will be removed and stored in lockers on the clean side of the trailer. Work clothing, once used and contaminated will remain on the contaminated side of the trailer. At the end of each shift, workers wearing contaminated work clothing must pass through the decontamination trailer after leaving the regulated area and remove their contaminated work clothing in the dirty side of the trailer. At the end of each work day workers exposed to toxic metals above the PEL must shower completely with soap, including hair washing. If initial exposure monitoring is below the PEL then workers are only required to use a handwash station to clean up at the end of the day.

The decontamination trailer will be located away from the regulated area. Workers will leave their own vehicles at the decontamination trailer. If workers are required to travel by work vehicle to and from the decontamination, the work vehicle will be cleaned daily using a HEPA vacuum and/or wet wiping. Once workers have changed into their protective work clothing and that clothing has become contaminated with toxic metal dust, they will not be permitted to enter or use their vehicles again until they have removed the PWC and/or have decontaminated and are once again wearing their clean street clothing. All wash water will be filtered and tested to remove toxic metals to below the local sewer authority's limits.

13.7.2 HANDWASH FACILITIES

Handwash stations will be located between the regulated and break area located in the Support Area. Hands and face must be washed before eating, drinking or smoking.

13.8 LUNCH FACILITY

Lunch facilities will be set up in a clean area near the work area, away from all sources of contamination. The lunch area will be at least 50 feet upwind from the work area. All work clothing must be cleared of loose dust by vacuuming with a HEPA vacuum prior to exiting the work area and the outer layer of the abrasive blasters work clothing will be removed just outside the work area to minimize transporting any hazardous waste around the support and clean areas. The lunch facility will be cleaned using a HEPA vacuum on a daily basis.

13.9 PROTECTIVE WORK CLOTHING (PWC)

Workers entering lead work areas where exposure to lead dust may exceed the PEL will change their clothing before entering the work areas for work, and again at the end of the day before leaving the Decontamination Area. Street clothing may not be worn during work on this project, unless fully covered by PWC. Contaminated work clothing should be vacuumed of loose dust using a HEPA vacuum, but may not be taken away from the job site after work. Work clothing consisting of cloth shirts and trousers, disposable or cloth coveralls, and gloves will be provided and maintained by C.A. Hull for workers involved in these designated job functions.

Disposable coveralls will not be used as the sole means of PWC if such garments are likely to become torn or fall apart under normal use. In these cases cloth coveralls, or similar PWC will be used.

13.10 LAUNDERING OF WORK CLOTHING

Do not remove or clean the clothing by any means which reintroduces the toxic metals into the ambient air such as brushing, shaking or blowing. Use vacuums equipped with HEPA filters for cleaning. Work clothing will be laundered and/or replaced on a weekly basis if the Time Weighted Average (TWA) exposure to lead is less than 200 ug/m³. Work clothing will be provided daily if the TWA exposure to lead is greater than 200 ug/m³.

Work boots must remain at the job site or decontamination trailer for the duration of the job. Contaminated work clothing will be placed in plastic bags and either given to a laundry service, or disposed of as hazardous waste by C.A. Hull. If a laundry service is used, C.A. Hull will advise them in writing that the clothing may be contaminated with lead or other hazard-bearing dust and must be handled in such a fashion as to minimize the generation of air-borne dust, and/or contamination of skin or surfaces that may come into contact with the clothing. Plastic bags containing contaminated clothing to be laundered will be labeled with the following warning:

Danger: clothing and equipment contaminated with lead. May damage fertility or the unborn child. Causes damage to the central nervous system. Do not eat, drink or smoke when handling. Do not remove dust by blowing or shaking. Dispose of lead contaminated wash water in accordance with applicable local, state or federal regulations.

13.11 HOUSEKEEPING

All work areas will be maintained as free as practical of accumulation of lead dust. In order to minimize the likelihood of dust becoming airborne, cleaning will be conducted daily in all work areas using a vacuum equipped with a HEPA filter or by wet cleaning.

13.12 EXPOSURE MONITORING

Exposure monitoring is essential to identifying the need for proper industrial hygiene controls at the job site. Air sampling will be conducted in the worker's breathing zone (six to nine inches from the nose and mouth) to determine actual worker exposures and recommend respiratory protection that is adequate for those levels.

13.12.1 PERSONNEL AIR SAMPLING

Initial air sampling will be conducted to represent actual worker exposures to lead in each job category. Sampling will be conducted on multiple individuals performing the same job category. Sampling will be conducted for a full work shift, minimally 7 hours. If initial exposure monitoring results are above the PEL, then every three months additional air samples will be taken to verify worker exposure levels, the adequacy of engineering controls, and determine if personal protective equipment is adequate.

If the initial results are above the Action Level (AL), then additional sampling will be conducted every six months. If the initial results are below the Action Level then additional exposure monitoring is not required. Additional air samples will be taken whenever site conditions change from those observed during the initial exposure monitoring, equipment or process changes, a significant change in the workforce, or at different structures.

Air samples will be collected and analyzed in accordance with appropriate NIOSH Methods. The laboratory used to analyze the samples will have current accreditation by the American Industrial Hygiene Association (AIHA). In addition, some states require additional accreditations such as by the state department of health.

Employees and other workers in the same job category will be notified in writing of the monitoring results within five (5) days after receiving results.

13.12.2 AREA MONITORING

1. The purpose of the regulated (the area where a worker may be exposed to lead above the OSHA PEL) area is to ensure that unprotected personnel are not permitted access to areas where the airborne exposures are above the designated Action Level (30 ug/m³ for lead).
2. Job categories and/or areas that may generate airborne hazardous material emissions include paint removal activities, dust collection systems, abrasive vacuum systems and waste storage areas.

13.12.3 OBSERVATION OF MONITORING

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures in accordance with 29 CFR 1926.62 (o). The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of lead and receive copies of the results when returned from the laboratory.

13.12.4 RECORD KEEPING

Detailed records of the exposure will be in compliance with 29 CFR 1926.62, as given below. All personal air sampling results will be maintained by C.A. Hull or its sub-contractors for at least 30 years.

1. The date(s), number, duration, location and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
2. A description of the sampling and analytical methods used and evidence of their accuracy.
3. The type of respiratory protective devices worn.
4. Name, social security number, and job category of the employee monitored and all other employees whose exposure the measurement is intended to represent.
5. The environmental variables that could affect the measurement of employee exposure.

13.13 ENGINEERING CONTROLS

All feasible engineering controls will be used to minimize lead dust exposure. Additional control measures may be implemented based on the results of air monitoring once the project begins. The following engineering controls will be used.

Job Task	Control Methods
Abrasive Blast Operation Vacuuming during Abrasive Blast Operations	Dust collector with natural or forced ventilation 100 fpm horizontal air flow or 60 fpm vertical air flow minimum
Water Jetting Operations	Water Dust collector may be required based upon containment type
Power tool cleaning	HEPA vacuums
Hand tool cleaning	Wet misting
Clean up after paint removal	HEPA vacuums
Spray painting	adequate ventilation using windows and/ or a dust collector

Engineering controls selected above are the industry standards, when new technology is produced that would reduce worker exposures and costs, C.A. Hull will evaluate that method or will seek others in the industry for their evaluation. In addition, this specification requires the use of abrasive material for cleaning the structures. Additional control measures will be re-evaluated if exposures are found to exceed the protection factor of respiratory protection normally used for this type of work.

13.14 ADMINISTRATIVE CONTROLS

Job rotation on a lead abatement project typically is not feasible due to the limited amount of qualified personnel. However, C.A. Hull will implement work practice controls including but not limited to: hygiene facilities, personal protective clothing and respiratory protection.

13.15 RESPIRATORY PROTECTION

Prior to wearing a respirator, employees must comply with Section 10.0 of this Health and safety Plan and the OSHA Respirator Standard 29 CFR 1910.134. Respirators will be selected in accordance with the following table.

Airborne concentration of lead	Required respirator
500 ug/m ³ or less	Half-face air purifying respirator with P100 HEPA filters
1,250 ug/m ³ or less	Hood or helmet supplied air respirator operating in the continuous flow mode
2,500 ug/m ³ or less	Full face piece air purifying respirator with P100 HEPA filters
50,000 ug/m ³ or less	Approved Type CE abrasive blasting helmet such as Bullard CE 88/Nova 2000
100,000 ug/m ³ or less	1. Full face piece supplied air respirator operated in pressure demand or other positive pressure mode 2. Type CE abrasive blasting helmet operated in a positive pressure mode
100,000 ug/m ³ or more or unknown concentration	1. Full face piece SCBA operated in the pressure demand or other positive pressure mode

Where a worker is required to enter into the dust collector, recycler or roll-off to either move dust and debris around or to remove the dust and debris, the competent person will ensure the worker is wearing the proper personal protective clothing including respiratory protection and where applicable follows confined space procedures.

1. Entering the dust collector to remove or clean out debris, workers will wear a supplied air respirator that provides protection up to 50,000 ug/m³.
2. Entering the dust collector section of a recycler unit to remove or clean out debris, workers will wear a supplied air respirator that provides protection up to 50,000 ug/m³.
3. Entering a roll-off to move used black beauty from one side to the other, workers will wear a respirator that provides protection up to 2,500 ug/m³.

Addendum: Corporate Health and Safety Plan

Section: 13.16- 13.1 (9) Medical Surveillance Program & Appendix 20 (pg254) Employee notification of biological monitoring results.

Effective date: December 11, 2018

13.16 Medical Surveillance Program

As a condition of employment with C.A. Hull, all workers exposed to lead at or above the OSHA Action Level are required to enter the medical surveillance program to reveal medical conditions which could predispose an individual to excessive risk from working on this job and provide clearance to wear negative-pressure respirator.

13.16.1 Program Elements

The program elements listed below are for exposures above the Action Level to lead; additional testing may be required if exposed to other toxic metals.

1. Each worker must have a baseline examination within one year prior to commencing work.
2. Each worker will have an entry blood lead and zinc protoporphyrin test in accordance with OSHA regulations.
 - a. After initial testing, bi-monthly testing will be conducted for the first six months.
 - b. Semi-annual testing may be performed for workers with blood lead levels below 40 ug/dl. If a worker has a blood lead level between 40 and 50 ug/dl, then the worker may be placed on a semi-annual testing schedule.
3. Blood lead testing will be performed by an OSHA approved laboratory.
4. When blood testing reveals 50 micrograms of lead per deciliter of whole blood or more, and that level does not decrease upon subsequent testing within two weeks, that worker will be removed from C.A. Hull projects until two consecutive blood tests result in levels below 40 ug/dl.
5. Whenever blood testing reveals 40 ug/dl or greater of lead in whole blood, workers will be offered medical evaluation, be retrained, and reminded about medical removal protection. PPE will be upgraded if necessary, to provide a higher level of protection.
6. Each worker must receive authorization from a physician or other licensed health care professional (PLHCP) for wearing respiratory protection. The authorization will be maintained by C.A. Hull in the employee's file.
7. The OSHA Medical Removal Program (MRP) is for workers who have a blood lead level of 50 ug/dl whole blood.
8. Post-employment or yearly physical examinations, as outlined for baseline exams, will be provided for all workers whose blood levels at any time during the duration of the job reaches or exceeds 40 ug/dl whole blood.
9. Workers are allowed to request another physician to review the findings (multiple physician review) or to have another physician conduct examinations. The physician must have knowledge about lead exposures.

13.16.3 NOTIFICATION OF WORKERS

All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within five working days after C.A. Hull has received the results.

Notification will be completed by the worker signing the original medical result form or the employee notification of biological monitoring results form. The signed form will be maintained in the workers records.

13.16.4 RECORD KEEPING

Medical records will be maintained for the duration of employment plus 30 years, or a total of 30 years, whichever is longer. Workers or their appointed representatives will be able to access those records upon written request to C.A. Hull. Access will be provided within 15 days after the employee's request, unless C.A. Hull states the reason for the delay and the earliest date when the records will be made available. Those records will include but not be limited to the following items:

1. Name, social security number and job description.
2. Copy of physician's written opinion, including clearance to wear a respirator.
3. Results of exposure monitoring and medical testing and examinations.
4. Records of medical complaints related to lead exposure.

If an individual worker is removed from exposure to lead, the following records will be kept as well:

5. Date of each occasion that the individual was removed from exposure, and returned to work.
6. A brief explanation of how each removal was or is being accomplished.
7. A statement indicating the reason for removal and blood level results.

13.17 TRAINING FOR LEAD

All workers must be trained prior to starting any project where the exposures will be above the OSHA Action Level for lead in the hazards of lead and on an annual basis thereafter. Signed and dated training records will be required stating that each worker has received the training. Copies of the OSHA Lead Standard, and the site specific Health and Safety Plan will be made available to all workers. Training will include:

- a. THE OSHA LEAD STANDARD 29 CFR 1926.62**
 - 1. HEALTH EFFECTS OF EXPOSURE TO LEAD**
 - 2. ROUTES OF EXPOSURE**
 - 3. PERSONAL PROTECTIVE EQUIPMENT**
 - 4. PERSONAL HYGIENE & DECONTAMINATION**
 - 5. MEDICAL SURVEILLANCE AND REMOVAL PROGRAMS**
 - 6. EXPOSURE MONITORING**
 - 7. ENGINEERING CONTROLS AND WORK PRACTICE**
 - 8. INFORMATION REGARDING CHELATING AGENTS**
 - 9. EMPLOYEE RIGHTS TO INFORMATION**
 - 10. APPENDICES A AND B**
- b. THE HEALTH AND SAFETY PLAN**
- c. HAZARDOUS WASTE PROCEDURES (40 CFR 265.16)**
- d. EMERGENCY RESPONSE**
- e. THE OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1926.59 INCLUDING THE SPECIFIC HAZARDS OF LEAD:**
 - 1. Reproductive/ developmental toxicity**
 - 2. Central nervous system effect**
 - 3. Kidney effects**
 - 4. Blood effects**
 - 5. Acute toxicity effects**
- f. RESPIRATORY PROTECTION PROGRAM 29 CFR 1910.134**
- g. BASIC SAFETY AND HEALTH TRAINING 29 CFR 1926.21**

14.0 CADMIUM EXPOSURE CONTROL PLAN

14.1 POTENTIAL CADMIUM SOURCES AND TASK EVALUATION

During the cleaning and painting of cadmium-based paint projects, several job categories may have potential exposure to cadmium dust. Each job category having potential exposure to cadmium will be subjected to initial exposure monitoring to determine if exposures are within acceptable limits, and what additional requirements, corrective measures or actions must be taken. Workers will be informed of the monitoring results within five days of C.A. Hull receiving the results.

Until laboratory results of personnel samples are available, respiratory protection, personal protective equipment (PPE), change areas, hand wash facilities, biological monitoring and cadmium training must be provided based upon the exposure hazard of the job category as established in OSHA's 29 CFR 1926.1127 Cadmium Standard. The following table will be used to ensure adequate respiratory protection during the initial exposure assessment.

Job Category	Assumed Exposure Level	Respirator
Abrasive Blast Vacuum during Abrasive Blast Operation	>5.0 ug/m ³	Bullard CE 88 blast helmet or Nova 2000
Power Tool Operations without HEPA Vacuum Vacuuming after Abrasive Blast Operations Clean-up Operations Set-up and Tear down Operations	>5.0 but < 2.5 ug/m ³	half- face air purifying respirator with HEPA filters
Water-jetting Operations Power Tool Cleaning with HEPA Vacuum Hand Tool Operations Support Workers working in or near paint removal operations Painting during Prime Coat Operations	<2.5 ug/m ³	Respiratory protection may not be required

Change areas, PPE, handwash facilities, biological monitoring and cadmium training are required as part of worker safety during the initial exposure assessment.

The level of respiratory protection, the need for personal protective equipment, changes areas, hand wash facilities, biological monitoring, showers and lunchrooms will be modified based upon the results of the initial exposure assessment.

14.2 ACTION LEVEL

The Action Level (AL) of 2.5 ug/m³ is the exposure to cadmium, at which the following requirements of the OSHA Cadmium in Construction Standard must first be implemented.

- a. Written Worker Protection Plan
- b. Exposure Monitoring
- c. Housekeeping
- d. Employee Medical Surveillance and Medical Removal Protection
- e. Employee Information and Training
- f. Signs and Regulated Areas
- g. Record keeping

Results of additional sampling for heavy metals during paint removal and cleaning operations or organic vapors during painting will be compared with the established Permissible Exposure Limits (PEL) in 29 CFR 1910.1000 Table Z.

14.3 PERMISSIBLE EXPOSURE LIMIT

The Permissible Exposure Limit (PEL) of 5.0 ug/m³ is the 8-hour Time-Weighted-Average.

In addition to complying with the requirements identified when exceeding the Action Level, the following protective measures will be incorporated when exposure exceed the PEL.

- a. Engineering and Work Practice Controls
- b. Respiratory Protection
- c. Protective Clothing and Equipment
- d. Hygiene Facilities and Practices

14.4 DELINEATED AREAS

Work areas and support areas will be delineated using signs and tape to prevent inadvertent contamination from leaving the work site and to minimize contamination to the workers during the work shift. Work areas include containment enclosures and all work areas involved in cadmium paint removal, clean-up, set-up or equipment involved in these operations.

The work area will have access limited to workers who have received the required training, medical surveillance and are wearing the personal protective equipment required for the job they are performing, and supervisors and/or authorized visitors wearing appropriate clothing and/or protective equipment. No food, beverages or tobacco products are to be present or consumed in the work area.

14.5 SIGNS

Signs will be used to identify work areas where exposures could exceed the Action Level. Signs will read as follows:

DANGER
CADMIUM
MAY CAUSE CANCER
CAUSES DAMAGE TO
LUNGS AND KIDNEYS
WEAR RESPIRATORY
PROTECTION IN THIS AREA
AUTHORIZED PERSONNEL ONLY

14.6 DECONTAMINATION FACILITIES

14.6.1 SHOWERS

The Support Area will consist of a decontamination trailer equipped with a shower separating clean and contaminated sides of the trailer. All street clothing worn to the job will be removed and stored in lockers on the clean side of the trailer. Work clothing, once used and contaminated will remain on the contaminated side of the trailer. Workers wearing contaminated work clothing must pass through the trailer after leaving the Work Area and remove their contaminated work clothing. At the end of each work day workers exposed to cadmium above the PEL must shower completely with soap, including hair washing.

The decontamination trailer will be located in a centralized location. Workers will leave their own vehicles at the decontamination trailer. If workers are required to travel by work vehicle to and from the decontamination, the work vehicle will be cleaned daily using a HEPA vacuum and/or wet wiping. Once workers have changed into their protective work clothing and that clothing has become contaminated with toxic metal dust, they will not be permitted to enter or use their vehicles again until they have removed the PWC and/or have decontaminated and are once again wearing their clean street clothing. All wash water will be filtered and tested to remove cadmium to below the local sewer authority's limits.

14.6.2 HANDWASH FACILITIES

Handwash stations will be located between the Work and break area located in the Support Area. Hands and face must be washed before eating, drinking or smoking.

14.7 LUNCH FACILITY

Lunch facilities will be set up in a clean area near the work area, away from all sources of contamination. The lunch area will be at least 50 feet upwind from the work area. All work clothing must be cleared of loose dust by vacuuming with a HEPA vacuum prior to exiting the work area and the outer layer of the abrasive blasters work clothing will be removed just outside the work area to minimize transporting any hazardous waste around the support and clean areas. The lunch facility will be cleaned using a HEPA vacuum on a daily basis.

14.8 PROTECTIVE WORK CLOTHING (PWC)

Workers entering cadmium work areas where exposures to cadmium dust may exceed the PEL will change their clothing before entering the work areas for work, and again at the end of the day before leaving the Decontamination Area. Street clothing may not be worn during work on this project, unless fully covered by PWC. Contaminated work clothing should be vacuumed of loose dust using a HEPA vacuum, but may not be taken away from the job site after work. Work clothing consisting of cloth shirts and trousers, disposable or cloth coveralls, and gloves will be provided and maintained by C.A. Hull for workers involved in these designated job functions.

Disposable coveralls will not be used as the sole means of PWC if such garments are likely to become torn or fall apart under normal use. In these cases cloth coveralls, or similar PWC will be used.

14.9 LAUNDERING OF WORK CLOTHING

Do not remove or clean the clothing by any means which reintroduces cadmium into the ambient air such as brushing, shaking or blowing. Use vacuums equipped with HEPA filters for cleaning. Work clothing will be laundered and/or replaced on a weekly basis or more often if the clothing becomes dirty and/or wet.

Work boots must remain at the job site or decontamination trailer for the duration of the job. Contaminated work clothing will be placed in plastic bags and either given to a laundry service, or disposed of as hazardous waste by C.A. Hull. If a laundry service is used, C.A. Hull will advise them in writing that the clothing may be contaminated with cadmium or other hazard-bearing dust and must be handled in such a fashion as to minimize the generation of air-borne dust, and/or contamination of skin or surfaces that may come into contact with the clothing.

Warning labels for containers of cadmium protective clothing, equipment, waste and scrap or debris will include a minimum of the following: *Danger, Contains cadmium, may cause cancer, causes damage to lungs and kidneys, avoid creating dust.*

14.10 HOUSEKEEPING

All work areas will be maintained as free as practical of accumulation of cadmium dust. In order to minimize the likelihood of dust becoming airborne again, cleaning will be conducted daily in all work areas using a vacuum equipped with a HEPA filter or by wet cleaning.

14.11 EXPOSURE MONITORING

Exposure monitoring is essential to identifying the need for proper industrial hygiene controls at the job site. Air sampling will be conducted in the worker's breathing zone (six to nine inches from the nose and mouth) to determine actual worker exposures and recommend respiratory protection that is adequate for those levels.

14.11.1 PERSONNEL AIR SAMPLING

Initial air sampling will be conducted to represent actual worker exposures to cadmium in each job category and each such job category several times and on multiple individuals doing the same job. Additionally, sampling will be conducted for a full work shift, minimally 7 hours.

If the initial results are at or above the Action Level (AL), then additional sampling will be conducted at a frequency and pattern as determined by C.A. Hull. If the initial results are below the Action Level then additional exposure monitoring is not required. Additional air samples will be taken whenever site conditions change from those observed during the initial determination exposure monitoring.

Air samples will be collected and analyzed in accordance with NIOSH Methods. The laboratory used to analyze the samples will have current accreditation by the American Industrial Hygiene Association (AIHA). In addition, some states require additional accreditations such as by the state department of health.

Employees and other workers in the same job category will be notified in writing of the monitoring results within five (5) days after receiving the results.

14.11.2 OBSERVATION OF MONITORING

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures in accordance with 29 CFR 1926.1127 (o). The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of cadmium and receive copies of the results when returned from the laboratory.

14.11.3 RECORD KEEPING

Detailed records of the exposure will be in compliance with 29 CFR 1926.1127, as given below. All personal air sampling results will be maintained by C.A. Hull or its sub-contractors for at least 30 years.

1. The date(s), number, duration, location and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
2. A description of the sampling and analytical methods used and evidence of their accuracy.
3. The type of respiratory protective devices worn.
4. Name, social security number, and job category of the employee monitored and all other employees whose exposure the measurement is intended to represent.
5. The environmental variables that could affect the measurement of employee exposure.

14.12 ENGINEERING CONTROLS

All feasible engineering controls will be used to minimize cadmium dust exposure. Additional control measures may be implemented based on the results of air monitoring once the project begins. The following engineering controls will be used.

Job Task	Control Methods
Abrasive Blast Operation Vacuuming during Abrasive Blast Operations	Dust collector with natural or forced ventilation
Power tool cleaning	HEPA vacuums
Hand tool cleaning	Wet misting
Clean up after paint removal	HEPA vacuums

Engineering controls selected above are the industry standards, when new technology is produced that would reduce worker exposures and costs, C.A. Hull will evaluate that method or will seek others in the industry for their evaluation. In addition, this specification requires the use of abrasive material for cleaning the structures. Additional control measures will be re-evaluated if exposures are found to exceed the protection factor of respiratory protection normally used for this type of work.

14.13 RESPIRATORY PROTECTION

Prior to wearing a respirator, employees must comply with Section 10.0 of this Health and safety Plan and the OSHA Respirator Standard 29 CFR 1910.134. Respirators will be selected in accordance with the following table.

Airborne Concentration	Required Respirator Type
10 x or less	A half-face air-purifying respirator with HEPA filters
25 x or less	A powered air-purifying respirator (PAPR) with a loose-fitting helmet or hood equipped with HEPA filters or supplied-air respirator with a loose-fitting hood or helmet in the continuous flow mode
50 x or less	A full-face air-purifying respirator with HEPA filters, or a PAPR with a tight fitting half-mask equipped with HEPA filters, or a supplied-air respirator with a tight-fitting half mask operated in the continuous flow mode
250 x or less	a PAPR with a tight-fitting full face piece equipped with a HEPA filter or a supplied-air respirator with a tight-fitting full face piece operated in the continuous flow mode.
1000 x or less	A supplied-air respirator with half-mask or full face piece operated in the pressure demand or positive pressure mode

14.14 MEDICAL SURVEILLANCE PROGRAM

All workers potentially exposed to cadmium at or above the OSHA Action Level for 30 or more days per year are required to enter the medical surveillance program to reveal medical conditions which could predispose an individual to excess risk from working on this job, and clearance to wear a negative-pressure respirator.

14.14.1 PROGRAM ELEMENTS

The program elements listed below are for exposures at or above the Action Level to cadmium, additional testing may be required if exposed to other toxic metals.

14.14.1.1 INITIAL MEDICAL EXAMINATION

1. A detailed medical and work history with an emphasis on past, present and anticipated future exposures to cadmium.
2. Biological monitoring that includes:
 - A. Cadmium in urine (CdU), standardized to grams of creatinine (g/Cr).
 - B. Beta-2 microglobulin in urine (β 2-M), standardized to grams in creatinine (g/Cr).
 - C. Cadmium in blood (CdB), standardized to liters of whole blood (lwb).
3. A 14 inch by 17 inch posterior-anterior chest x-ray.
4. Other criteria as specified in 29 CFR 1926.1127 or by the examining physician.

14.14.1.2 PERIODIC MEDICAL EXAMINATIONS

1. A detailed medical and work history with an emphasis on past, present and anticipated future exposures to cadmium.
2. A complete physical examination with an emphasis on: blood pressure, the respiratory system and urinary system.
3. A 14 inch by 17 inch posterior anterior chest x-ray, if required by the physician.
4. Biological monitoring every 12 months, or as specified in 29 FR 1926.1127.

14.14.1.3 BIOLOGICAL MONITORING

1. If initial or periodic biological monitoring test results are above 3 ug/g Cr for CdU, 300 ug/Cr for β 2-M, or above 5 ug/lwb for CdB, the worker shall be medically removed from areas where the airborne cadmium exposures may exceed the Action Level.
 - A. In addition to the medical removal, C.A. Hull will:
 1. Reassess the employee's work and hygiene practices.
 2. Reevaluate the employee's use of respirators and the company respiratory protection program.
 3. Review hygiene facilities.
 4. Reevaluate engineering controls.
 5. Assess the employee's smoking history and status.
 6. Within 90 days after the receipt of the biological monitoring results, a full medical examination will be provided to the employee.
 - B. After the full medical examination, the examining physician determines in a written medical opinion whether to medically remove the employee from work or that medical removal is not necessary.

Until the employees biological monitoring results are below 3 ug/g Cr for CdU, 300 ug/Cr for β 2-M, or above 5 ug/lwb for CdB, C.A. Hull will provide:

1. Biological monitoring every six months.
2. Annual medical examinations.
- C. See 29 CFR 1926.1127(l) Medical Surveillance for further guidance.
- D. Blood cadmium analysis is to be performed by a laboratory approved by OSHA or licensed by the U.S.Center for Disease Control

14.14.2 NOTIFICATION OF WORKERS

All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within five working days after C.A. Hull has received the results. A good practice is to have employees sign the original copy of the results and maintain this copy with the employee's records.

14.14.3 RECORD KEEPING

Medical records will be maintained for the duration of employment plus 30 years, or a total of 30 years, whichever is longer. Workers or their appointed representatives will be able to access those records upon written request to C.A. Hull. Access will be provided within 15 days after the employee's request, unless C.A. Hull states the reason for the delay and the earliest date when the records will be made available. Those records will include but not be limited to the following items:

1. Name, social security number and job description.
2. Copy of physician's written opinion, including clearance to wear a respirator.
3. Results of exposure monitoring and medical testing and examinations.
4. Records of medical complaints related to cadmium exposure.

If an individual worker is removed from exposure to cadmium, the following records will be kept as well:

5. Date of each occasion that the individual was removed from exposure, and returned to work.
6. A brief explanation of how each removal was or is being accomplished.
7. A statement indicating the reason for removal and blood level results.

14.15 TRAINING FOR CADMIUM

All workers must be trained prior to starting any project where the exposures will be above the OSHA Action Level for cadmium in the hazards of cadmium. Signed and dated training records will be required stating that each worker has received the training. Copies of the OSHA Cadmium Standard, and the site specific Health and Safety Plan will be made available to all workers. Training will include:

- a. The osha cadmium standard 29 CFR 1926.1127
 1. Health hazards associated with cadmium exposure
 2. The osha cadmium standard 29 CFR 1926.1127
 3. Personal protective equipment
 4. Personal hygiene & decontamination
 5. Medical surveillance program
 6. Exposure monitoring
 7. Engineering controls and work practice
 8. Employee rights to information under 29 CFR 1926.33(g)(1) and (2)
- b. The health and safety plan
- c. Hazardous waste procedures (40 CFR 265.16)
- d. Emergency response
- e. The osha hazard communication standard 29 cfr 1926.59
- f. Respiratory protection program 29 CFR 1910.134
- g. Basic safety and health training 29 CFR 1926.21

15.0 ARSENIC EXPOSURE CONTROL PLAN

15.1 POTENTIAL ARSENIC SOURCES AND TASK EVALUATION

During the cleaning and painting of arsenic-based paint projects, several job categories may have potential exposure to arsenic dust. Each job category having potential exposure to arsenic will be subjected to initial exposure monitoring to determine if exposures are within acceptable limits, and what additional requirements, corrective measures or actions must be taken. Workers will be informed of the monitoring results within five days of C.A. Hull receiving the results.

Until laboratory results of personnel samples are available, respiratory protection, personal protective equipment (PPE), change areas, hand wash facilities, biological monitoring and arsenic training must be provided based upon the exposure hazard of the job category as established in OSHA's 29 CFR 1926.1118 Arsenic Standard. The following table will be used to ensure adequate respiratory protection during the initial exposure assessment.

Job Category	Assumed Exposure Level	Respirator
Abrasive Blast Vacuum during Abrasive Blast Operation	>10.0 ug/m ³	Bullard CE 88 blast helmet/ Nova 2000
Power Tool Operations without HEPA Vacuum Vacuuming after Abrasive Blast Operations Clean-up Operations Set-up and Tear down Operations	>10.0 but < 5.0 ug/m ³	half- face air purifying respirator with HEPA filters
Water-jetting Operations Power Tool Cleaning with HEPA Vacuum Hand Tool Operations Support Workers working in or near paint removal operations Painting during Prime Coat Operations	<5.0 ug/m ³	Respiratory protection may not be required

Change areas, PPE, handwash facilities, biological monitoring and arsenic training are required as part of worker safety during the initial exposure assessment.

The level of respiratory protection, the need for personal protective equipment, changes areas, hand wash facilities, showers, biological monitoring and lunchrooms will be modified based upon the results of the initial exposure assessment.

15.2 ACTION LEVEL

An Action Level (AL) of 5.0 ug/m³ is the exposure to arsenic without regard to respirators, at which the following requirements of the OSHA Arsenic in Construction Standard must first be implemented.

- a. Written Worker Protection Plan
- b. Exposure Monitoring
- c. Housekeeping
- d. Employee Medical Surveillance and Medical Removal Protection
- e. Employee Information and Training
- f. Signs and Regulated Areas
- g. Record keeping

15.3 PERMISSIBLE EXPOSURE LIMIT

The Permissible Exposure Limit (PEL) of 10.0 ug/m³ is the 8-hour Time-Weighted-Average.

In addition to complying with the requirements identified when exceeding the Action Level, the following protective measures will be incorporated when exposure exceed the PEL.

- a. Engineering and Work Practice Controls
- b. Respiratory Protection
- c. Protective Clothing and Equipment
- d. Hygiene Facilities and Practices

15.4 DELINEATED AREAS

Work areas and support areas will be delineated using signs and tape to prevent inadvertent contamination from leaving the work site and to minimize contamination to the workers during the work shift. Work areas include containment enclosures and all work areas involved in arsenic paint removal, clean-up, set-up or equipment involved in these operations.

The work area will have access limited to workers who have received the required training, medical surveillance and are wearing the personal protective equipment for the job they are performing, and supervisors and/or authorized visitors wearing appropriate clothing and/or protective equipment. No food, beverages or tobacco products are to be present or consumed in the work area.

15.5 SIGNS

Signs will be used to identify work areas where exposures could exceed the Action Level. Signs will read as follows:

DANGER
INORGANIC ARSENIC CANCER HAZARD
AUTHORIZED PERSONNEL ONLY
NO SMOKING OR EATING
RESPIRATORS REQUIRED

15.6 DECONTAMINATION FACILITIES

15.6.1 SHOWERS

The Support Area will consist of a decontamination trailer equipped with a shower separating clean and contaminated sides of the trailer. All street clothing worn to the job will be removed and stored in lockers on the clean side of the trailer. Work clothing, once used and contaminated will remain on the contaminated side of the trailer. Workers wearing contaminated work clothing must pass through the trailer after leaving the Work Area and remove their contaminated work clothing. At the end of each work day workers exposed to arsenic above the PEL must shower completely with soap, including hair washing.

The decontamination trailer will be located in a centralized location. Workers will leave their own vehicles at the decontamination trailer. If workers are required to travel by work vehicle to and from the decontamination, the work vehicle will be cleaned daily using a HEPA vacuum and/or wet wiping. Once workers have changed into their protective work clothing and that clothing has become contaminated with toxic metal dust, they will not be permitted to enter or use their vehicles again until they have removed the PWC and/or have decontaminated and are once again wearing their clean street clothing. All wash water will be filtered and tested to remove arsenic to below the local sewer authority's limits.

15.6.2 HANDWASH FACILITIES

Handwash stations will be located between the Work and break area located in the Support Area. Hands and face must be washed before eating, drinking or smoking.

15.7 LUNCH FACILITY

Lunch facilities will be set up in a clean area near the work area, away from all sources of contamination. The lunch area will be at least 50 feet upwind from the work area. All work clothing must be cleared of loose dust by vacuuming with a HEPA vacuum prior to exiting the work area and the outer layer of the abrasive blasters work clothing will be removed just outside the work area to minimize transporting any hazardous waste around the support and clean areas. The lunch facility will be cleaned using a HEPA vacuum on a daily basis.

15.8 PROTECTIVE WORK CLOTHING (PWC)

Workers entering arsenic work area and other job categories in which exposure to arsenic dust may exceed the PEL will change their clothing before entering the work areas for work, and again at the end of the day before leaving the Decontamination Area. Street clothing may not be worn during work on this project, unless fully covered by PWC. Contaminated work clothing should be vacuumed of loose dust using a HEPA vacuum, but may not be taken away from the job site after work. Work clothing consisting of cloth shirts and trousers, disposable or cloth coveralls, and gloves will be provided and maintained by C.A. Hull for workers involved in these designated job functions.

Disposable coveralls will not be used as the sole means of PWC if such garments are likely to become torn or fall apart under normal use. In these cases cloth coveralls, or similar PWC will be used.

15.9 LAUNDERING OF WORK CLOTHING

Do not remove or clean the clothing by any means which reintroduces arsenic into the ambient air such as brushing, shaking or blowing. Use vacuums equipped with HEPA filters for cleaning. Work clothing will be laundered and/or replaced on a weekly basis or more often if the clothing becomes dirty and/or wet.

Work boots must remain at the job site or decontamination trailer for the duration of the job. Contaminated work clothing will be placed in plastic bags and either given to a laundry service, or disposed of as hazardous waste by C.A. Hull. If a laundry service is used, C.A. Hull will advise them in writing that the clothing may be contaminated with arsenic or other hazard-bearing dust and must be handled in such a fashion as to minimize the generation of air-borne dust, and/or contamination of skin or surfaces that may come into contact with the clothing.

15.10 HOUSEKEEPING

All work areas will be maintained as free as practical of accumulation of arsenic dust. In order to minimize the likelihood of dust becoming airborne again, cleaning will be conducted daily in all work areas using a vacuum equipped with a HEPA filter or by wet cleaning.

15.11 EXPOSURE MONITORING

Exposure monitoring is essential to identifying the need for proper industrial hygiene controls at the job site. Air sampling will be conducted in the worker's breathing zone (six to nine inches from the nose and mouth) to determine actual worker exposures and recommend respiratory protection that is adequate for those levels.

15.11.1 PERSONNEL AIR SAMPLING

Initial air sampling will be conducted to represent actual worker exposures to cadmium in each job category and each such job category several times and on multiple individuals doing the same job. Additionally, sampling will be conducted for a full work shift, minimally 7 hours.

If the initial results are at or above the Action Level (AL), then additional sampling will be conducted at a frequency and pattern as determined by C.A. Hull. If the initial results are below the Action Level then additional exposure monitoring is not required. Additional air samples will be taken whenever site conditions change from those observed during the initial determination exposure monitoring.

Air samples will be collected and analyzed in accordance with NIOSH Methods. The laboratory used to analyze the samples will have current accreditation by the American Industrial Hygiene Association (AIHA). In addition, some states require additional accreditations such as by the state department of health.

Employees and other workers in the same job category will be notified in writing of the monitoring results within five (5) days after receiving the results.

15.11.2 OBSERVATION OF MONITORING

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures in accordance with 29 CFR 1926.1118 (r). The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of arsenic and receive copies of the results when returned from the laboratory.

15.11.3 RECORD KEEPING

Detailed records of the exposure will be in compliance with 29 CFR 1926.1118, as given below. All personal air sampling results will be maintained by C.A. Hull or its sub-contractors for at least 30 years.

1. The date(s), number, duration, location and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
2. A description of the sampling and analytical methods used and evidence of their accuracy.
3. The type of respiratory protective devices worn.
4. Name, social security number, and job category of the employee monitored and all other employees whose exposure the measurement is intended to represent.
5. The environmental variables that could affect the measurement of employee exposure.

15.12 ENGINEERING CONTROLS

All feasible engineering controls will be used to minimize arsenic dust exposure. Additional control measures may be implemented based on the results of air monitoring once the project begins. The following engineering controls will be used.

Job Task	Control Methods
Abrasive Blast Operation Vacuuming during Abrasive Blast Operations	Dust collector with natural or forced ventilation
Power tool cleaning	HEPA vacuums
Hand tool cleaning	Wet misting
Clean up after paint removal	HEPA vacuums

Engineering controls selected above are the industry standards, when new technology is produced that would reduce worker exposures and costs, C.A. Hull will evaluate that method or will seek others in the industry for their evaluation. In addition, this specification requires the use of abrasive material for cleaning the structures. Additional control measures will be re-evaluated if exposures are found to exceed the protection factor of respiratory protection normally used for this type of work.

15.13 RESPIRATORY PROTECTION

Prior to wearing a respirator, employees must comply with Section 10.0 of this Health and safety Plan and the OSHA Respirator Standard 29 CFR 1910.134. Respiratory protection for inorganic arsenic particulate except for those with significant vapor pressure will be selected in accordance with the following table.

Airborne Concentration	Required Respirator Type
100 ug/m ³ or less	<ol style="list-style-type: none"> 1. Half-face air purifying respirator with HEPA filters 2. Any half-face supplied air respirator
500 ug/m ³ or less	<ol style="list-style-type: none"> 1. Full face piece air purifying respirator with HEPA filters 2. Any full face piece supplied air respirator 3. Any full face piece self-contained breathing apparatus (SCBA)
10,000 ug/m ³ or less (10mg/m ³)	<ol style="list-style-type: none"> 1. Powered air purifying respirators in all inlet face coverings with HEPA filters 2. Half-face supplied air respirator operated in positive pressure mode
20,000 ug/m ³ or less (20mg/m ³)	<ol style="list-style-type: none"> 1. Supplied air respirator with full face piece, hood, or helmet or suit and operated in positive pressure mode

15.14 MEDICAL SURVEILLANCE PROGRAM

All workers potentially exposed to arsenic at or above the OSHA Action Level for 30 or more days per year are required to enter the medical surveillance program to reveal medical conditions which could predispose an individual to excess risk from working on this job, and clearance to wear a negative-pressure respirator.

15.14.1 PROGRAM ELEMENTS

The program elements listed below are for exposures at or above the Action Level to arsenic, additional testing may be required if exposed to other toxic metals.

15.14.1.1 INITIAL MEDICAL EXAMINATION

1. A work history and a medical history which will include a smoking history and the presence and degree of respiratory symptoms such as breathlessness, cough sputum production and wheezing.
2. A 14 inch by 17 inch posterior-anterior chest x-ray.
3. A nasal and skin examination.
4. Other criteria as specified in 29 CFR 1926.1118 or by the examining physician.

15.14.1.2 PERIODIC MEDICAL EXAMINATIONS

1. Workers who are under 45 years of age with fewer than 10 years of exposure over the action level will be required to have annual examinations in accordance with section 5.14.1.1.
2. All other workers will be required to have semi-annual examination in accordance with section 5.14.1.1 except the chest x-ray which will be conducted annually.

15.14.2 NOTIFICATION OF WORKERS

All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within five working days after C.A. Hull has received the results. A good practice is to have employees sign the original copy of the results and maintain this copy with the employee's records.

15.14.3 RECORD KEEPING

Medical records will be maintained for the duration of employment plus 30 years, or a total of 30 years, whichever is longer. Workers or their appointed representatives will be able to access those records upon written request to C.A. Hull. Access will be provided within 15 days after the employee's request, unless C.A. Hull states the reason for the delay and the earliest date when the records will be made available. Those records will include but not be limited to the following items:

1. Name, social security number and job description.
2. Copy of physician's written opinion, including clearance to wear a respirator.
3. Results of exposure monitoring and medical testing and examinations.
4. Records of medical complaints related to arsenic exposure.

If an individual worker is removed from exposure to arsenic, the following records will be kept as well:

5. Date of each occasion that the individual was removed from exposure, and returned to work.
6. A brief explanation of how each removal was or is being accomplished.
7. A statement indicating the reason for removal and blood level results.

15.15 TRAINING FOR ARSENIC

All workers must be trained prior to starting any project where the exposures will be above the OSHA Action Level for arsenic in the hazards of arsenic. Signed and dated training records will be required stating that each worker has received the training. Copies of the OSHA Arsenic Standard, and the site specific Health and Safety Plan will be made available to all workers. Training will include:

- a. The osha arsenic standard 29 CFR 1926.1118
 1. Health hazards associated with arsenic exposure
 2. The osha arsenic standard 29 CFR 1926.1118
 3. Personal protective equipment
 4. Personal hygiene & decontamination
 5. Medical surveillance program
 6. Exposure monitoring
 7. Engineering controls and work practice
 8. Employee rights to information under 29 CFR 1926.33(g)(1) and (2)
- b. The health and safety plan
- c. Hazardous waste procedures (40 CFR 265.16)
- d. Emergency response
- e. The osha hazard communication standard 29 CFR 1926.59
- f. Respiratory protection program 29 CFR 1910.134
- g. Basic safety and health training 29 CFR 1926.21

16.0 HEXAVALENT CHROMIUM EXPOSURE CONTROL PLAN

OSHA has established a health standard for Hexavalent Chromium (Chromium (VI)) works on many projects that have either lead or zinc chromate which have the potential for hexavalent chromium above the action level.

16.1 POTENTIAL SOURCES AND TASK EVALUATION

During the cleaning and painting of chromium (VI)-based paint projects, several job categories may have potential exposure to chromium (VI) dust. Each job category having potential exposure to chromium (VI) will be subjected to initial exposure monitoring to determine if exposures are within acceptable limits, and what additional requirements, corrective measures or actions must be taken. Workers will be informed of the monitoring results within five days of receiving the results.

Until laboratory results of personnel samples are available, respiratory protection, personal protective equipment (PPE), change areas, hand wash facilities, biological monitoring and chromium (VI) training must be provided based upon the exposure hazard of the job category.

16.2 ACTION LEVEL

An Action Level (AL) of 2.5 ug/m^3 is the exposure to chromium (VI) without regard to respirators, at which the following requirements will be implemented.

- a. Written Worker Protection Plan
- b. Exposure Monitoring
- c. Housekeeping
- d. Employee Medical Surveillance and Medical Removal Protection
- e. Employee Information and Training
- f. Signs and Regulated Areas
- g. Record keeping

16.3 PERMISSIBLE EXPOSURE LIMIT

The Permissible Exposure Limit (PEL) of 5.0 ug/m^3 is the 8-hour Time-Weighted-Average.

In addition to complying with the requirements identified when exceeding the Action Level, the following protective measures will be incorporated when exposure exceed the PEL.

- a. Engineering and Work Practice Controls
- b. Respiratory Protection
- c. Protective Clothing and Equipment
- d. Hygiene Facilities and Practices

16.4 DELINEATED AREAS

Work areas and support areas will be delineated using signs and tape to prevent inadvertent contamination from leaving the work site and to minimize contamination to the workers during the work shift. Work areas include containment enclosures and all work areas involved in chromium (VI) paint removal, clean-up, set-up or equipment involved in these operations.

The work area will have access limited to workers who have received the required training, medical surveillance and are wearing the personal protective equipment for the job they are performing, and supervisors and/or authorized visitors wearing appropriate clothing and/or protective equipment. No food, beverages, tobacco products, gum are to be present or consumed in the work area.

16.5 SIGNS

Signs will be used to identify work areas where exposures could exceed the Action Level. Signs will read as follows:

DANGER
CHROMIUM CANCER HAZARD
AUTHORIZED PERSONNEL ONLY
NO SMOKING OR EATING

16.6 DECONTAMINATION FACILITIES

16.6.1 SHOWERS

The Support Area will consist of a decontamination trailer equipped with a shower separating clean and contaminated sides of the trailer. All street clothing worn to the job will be removed and stored in lockers on the clean side of the trailer. Work clothing, once used and contaminated will remain on the contaminated side of the trailer. Workers wearing contaminated work clothing must pass through the trailer after leaving the Work Area and remove their contaminated work clothing. At the end of each work day workers exposed to chromium (VI) above the PEL must shower completely with soap, including hair washing.

16.6.2 HANDWASH FACILITIES

Handwash stations will be located between the Work and break area located in the Support Area. Hands and face must be washed before eating, drinking or smoking.

16.7 LUNCH FACILITY

Lunch facilities will be set up in a clean area near the work area, away from all sources of contamination. The lunch area will be located away from the work area as designated by the Competent Person.

16.8 PROTECTIVE WORK CLOTHING (PWC)

Workers entering chromium (VI) work area and other job categories in which exposure to chromium (VI) dust may exceed the PEL will change their clothing before entering the work areas for work, and again at the end of the day before leaving the Decontamination Area. Street clothing may not be worn during work, unless fully covered by PWC. Contaminated work clothing should be vacuumed of loose dust using a HEPA vacuum, but may not be taken away from the job site after work. Work clothing consisting of cloth shirts and trousers, disposable or cloth coveralls, and gloves will be provided and maintained by for workers involved in these designated job functions.

Bags or containers of contaminated protective clothing or equipment that are removed from change rooms for laundering, cleaning, maintenance or disposal will be labeled appropriately.

16.9 LAUNDERING OF WORK CLOTHING

Do not remove or clean the clothing by any means which reintroduces chromium (VI) into the ambient air such as brushing, shaking or blowing. Use vacuums equipped with HEPA filters for cleaning. Work clothing will be laundered and/or replaced on a weekly basis or more often if the clothing becomes dirty and/or wet.

Work boots must remain at the job site or decontamination trailer for the duration of the job. Contaminated work clothing will be placed in plastic bags and either given to a laundry service, or disposed of as hazardous waste by . If a laundry service is used, will advise them in writing that the clothing may be contaminated with chromium (VI) or other hazard-bearing dust and must be handled in such a fashion as to minimize the generation of air-borne dust, and/or contamination of skin or surfaces that may come into contact with the clothing.

Bags or containers used to store contaminated clothing will be labeled with the following:

DANGER
CONTAINS CHROMIUM (VI)
CANCER HAZARD
CAN DAMAGE SKIN, EYES, NASAL PASSAGES AND LUNGS

16.10 HOUSEKEEPING

All work areas will be maintained as free as practical of accumulation of chromium (VI) dust. In order to minimize the likelihood of dust becoming airborne again, cleaning will be conducted daily in all work areas using a vacuum equipped with a HEPA filter or by wet cleaning.

16.11 EXPOSURE MONITORING

Air sampling will be conducted in the worker's breathing zone (six to nine inches from the nose and mouth) to determine actual worker exposures and recommend respiratory protection that is adequate for those levels.

16.11.1 PERSONNEL AIR SAMPLING

Initial air sampling will be conducted to represent actual worker exposures to chromium (VI) in each job category suspected of exposure to chromium (VI) at or above the Action Level. Additionally, sampling will be conducted for a full work shift, minimally 7 hours.

If initial exposure monitoring results are above the PEL, then additional worker exposure monitoring will be collected every three months.

If the initial results are above the Action Level but below the PEL, then additional sampling will be conducted every six months.

If the initial results are below the Action Level then additional exposure monitoring is not required, unless the results are from a project that had results above the Action level. Then two sets of samples collected at least seven days later with results below the Action Level will be required for the project or specific job category to no longer be an exposing job category.

Additional air samples will be taken whenever site conditions change from those observed during the initial exposure monitoring, equipment or process changes, a significant change in the workforce, or at different structures.

Air samples will be collected and analyzed in accordance with NIOSH Methods. The laboratory used to analyze the samples will have current accreditation by the American Industrial Hygiene Association (AIHA). In addition, some states require additional accreditations such as by the state department of health.

Employees and other workers in the same job category will be notified in writing of the monitoring results within five (5) days after receiving the results.

16.11.2 OBSERVATION OF MONITORING

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures. The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of chromium (VI) and receive copies of the results when returned from the laboratory.

16.11.3 RECORD KEEPING

Detailed records of the exposure assessments will be maintained as given below. All worker exposure sampling results will be maintained by or its sub-contractors for at least 30 years.

1. The date(s), number, duration, location and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.

2. A description of the sampling and analytical methods used and evidence of their accuracy.
3. The type of respiratory protective devices worn.
4. Name, social security number, and job category of the employee monitored and all other employees whose exposure the measurement is intended to represent.
5. The environmental variables that could affect the measurement of employee exposure.

16.12 ENGINEERING CONTROLS

All feasible engineering controls will be used to minimize chromium (VI) dust exposure. Additional control measures may be implemented based on the results of air monitoring once the project begins. The following engineering controls will be used.

Job Task	Control Methods
Abrasive Blast Operation Vacuuming during Abrasive Blast Operations	Dust collector with natural or forced ventilation
Power tool cleaning	HEPA vacuums
Hand tool cleaning	Wet misting
Clean up after paint removal	HEPA vacuums

Engineering controls selected above are the industry standards, when new technology is produced that would reduce worker exposures and costs, will evaluate that method or will seek others in the industry for their evaluation. In addition, this specification requires the use of abrasive material for cleaning the structures. Additional control measures will be re-evaluated if exposures are found to exceed the protection factor of respiratory protection normally used for this type of work.

16.13 JOB ROTATION

Job rotation will not be used to achieve compliance with the PEL.

16.14 RESPIRATORY PROTECTION

Prior to wearing a respirator, employees must comply with Section 10.0 of this Health and Safety Plan and the OSHA Respirator Standard 29 CFR 1910.134.

16.15 MEDICAL SURVEILLANCE PROGRAM

All workers potentially exposed to chromium (VI)

1. At or above the PEL for 30 or more days per year.
2. Experiencing signs or symptoms of adverse health effects associated with chromium (VI) exposure.
3. Exposed in an emergency

Will be offered medical surveillance at no cost to the employee.

16.16 PROGRAM ELEMENTS

All medical examinations will be conducted by or under the supervision of a physician or other licensed health care professional (PLHCP).

16.16.1 MEDICAL EXAMINATION FREQUENCY

1. Whenever an employee shows signs or symptoms of the adverse health effects associated with chromium (VI) exposure.
2. Within 30 days after exposure during an emergency which results in an uncontrolled release of chromium (VI).
3. Within 30 days after a PLHCP's written medical opinion recommends an additional examination.

16.16.2 MEDICAL EXAMINATION CONTENTS

1. A medical and work history with emphasis on past, present and anticipated future exposure to chromium (VI).
2. History of respiratory system dysfunction; history of asthma; dermatitis; skin ulceration; or nasal septum perforation; and smoking status and history.
3. A physical examination of the skin and respiratory tract.
4. Any additional tests deemed appropriate by the examining PLHCP.

16.16.3 NOTIFICATION OF WORKERS

All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within two weeks after has received the results. A good practice is to have employees sign the original copy of the results and maintain this copy with the employee's records.

16.16.4 RECORD KEEPING

Medical records will be maintained for the duration of employment plus 30 years, or a total of 30 years, whichever is longer. Workers or their appointed representatives will be able to access those records upon written request to . Access will be provided within 15 days after the employee's request, unless states the reason for the delay and the earliest date when the records will be made available. Those records will include but not be limited to the following items:

1. Name, social security number and job description.
2. Copy of physician's written opinion, including clearance to wear a respirator.
3. Results of exposure monitoring and medical testing and examinations.
4. Records of medical complaints related to chromium (VI) exposure.

If an individual worker is removed from exposure to chromium (VI), the following records will be kept as well:

5. Date of each occasion that the individual was removed from exposure, and returned to work.
6. A brief explanation of how each removal was or is being accomplished.
7. A statement indicating the reason for removal and blood level results.

16.17 TRAINING FOR CHROMIUM (VI)

All workers must be trained prior to starting work where the exposures will be above the OSHA Action Level for chromium (VI) and on an annual basis thereafter. Signed and dated training records will be required stating that each worker has received the training. Copies of the OSHA Chromium (VI) Standard, and the site specific Health and Safety Plan will be made available to all workers. Training will include:

- a. The osha chromium (vi) standard 29 CFR 1926.1126
 1. Health hazards associated with chromium (vi) exposure
 2. The location, manner of use and release of chromium in the workplace
 3. Personal protective equipment
 4. Personal hygiene & decontamination
 5. Medical surveillance program
 6. Exposure monitoring
 7. Engineering controls and work practice
- b. The health and safety plan
- c. Hazardous waste procedures (40 CFR 265.16)
- d. Emergency response
- e. The osha hazard communication standard 29 CFR 1926.59
- f. Respiratory protection program 29 cfr 1910.134
- g. Basic safety and health training 29 cfr 1926.21

17.0 ASBESTOS

17.1 PURPOSE

The purpose of this program is to establish guidelines and procedures during construction operations of asbestos containing materials in addition to the regulations found in the OSHA Asbestos Standard 29 CFR 1926.1101. These operations include, but are not limited to, demolition, removal, alteration, repair, maintenance, installation, clean-up, transportation, disposal and storage of asbestos or asbestos containing materials. The program is intended to protect all C.A. Hull employees, contractors, visitors and vendors from potential health hazards of asbestos related diseases.

17.2 ASBESTOS HAZARD

Asbestos is a common, naturally occurring group of fibrous minerals. Asbestos fibers have been used in a variety of building materials. Generally, most asbestos is found in pipe insulation, doors, textured paints and plasters, structural fireproofing, and floor tiles. Friable asbestos (that is, material that contains more than 0.1% asbestos by weight and can be crumbled by hand) is a potential hazard because it can release fibers into the air if damaged. Long term exposure to airborne asbestos is necessary for chronic lung disease. Significant and long-term exposure to asbestos from activities that directly disturb asbestos-containing materials (such as asbestos mining) can lead to a variety of respiratory diseases, including asbestosis and mesothelioma (cancer of the lung lining). Asbestosis is a non-malignant, irreversible disease resulting in fibrosis of the lung. Asbestos-related cancers tend also to result from substantial long-term exposure, however, mesothelioma may result from much smaller exposures to asbestos.

17.3 DEFINITIONS

Asbestos - includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these materials that has been chemically treated and/or altered.

Asbestos-containing materials (ACM) - means any material containing more than one percent asbestos.

Authorized person - any person authorized by the employer and required by work duties to be present in regulated areas.

Competent person - one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them

Fiber - a particulate form of asbestos, 5 micrometers or longer, with a length to diameter ration of at least 3 to 1.

Presumed asbestos containing material (PACM) - thermal system insulation and surfacing materials found in buildings constructed no later than 1980.

17.4 ASBESTOS WORK CATEGORIES

1. **Class I** - activities involving the removal of TSI and surfacing CM and PACM.
2. **Class II** - activities involving the removal of ACM which is not thermal system installation or surfacing material. This includes, but not limited to, removal of asbestos-containing wallboard, sheeting, roofing and construction mastics.
3. **Class III** - repair and maintenance operations where ACM including TSI and surfacing ACM and PACM is likely to be disturbed.
4. **Class IV** - maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II and III activities.

17.5 GENERAL RULES

1. When in doubt, treat all material as containing asbestos and comply with all applicable rules and regulations and protective measures.
2. All Asbestos Containing Material (ACM) will be handled by certified and licensed asbestos abatement personnel. The friability of the ACM will dictate the type of removal/maintenance required.
3. Employees who are uncertified and unlicensed will not handle any ACM >1%. This will include encapsulation projects, renovation/removal and/or demolition of any type of structure. This will prevent the potential for accidental exposure from the mishandling of any ACM.
4. When an uncertified, unlicensed employee questions whether they may be handling suspect ACM, the employee will immediately contact their supervisor. The employee shall not resume working at the site until the area has been checked to verify the material is not ACM.
5. Uncertified, unlicensed employees will not cross over a barrier/containment area where asbestos projects are in progress.
6. Any employee who discovers ACM or suspect ACM in damaged or poor condition should report it to their supervisor so the identified material is repaired.

17.6 MEDICAL EXAMINATIONS

Employees assigned to asbestos removal will be given medical examinations at C.A. Hull's expense in compliance with 29 CFR 1926.1101 and 40 CFR 763 - Subpart G.

1. Within 30 days of first employment or assignment to a job exposing the employee to asbestos containing material.
2. Annually.
3. Within 30 days of termination of employment.

Medical examination for employees assigned to asbestos removal will include:

1. Medical and work history with special emphasis directed to symptoms of the respiratory system, cardiovascular system and digestive tract.
2. Medical questionnaire contained in 29 CFR 1926.1101.
3. A physical examination including a chest roentgenogram and pulmonary function test that includes measurement of the employee's forced vital capacity and expiratory volume.

No employee shall be assigned to tasks requiring the use of respirators if an examining physician determines the employee will be unable to function normally while using it or that the employee might otherwise be impaired.

Records of all physical examinations performed for asbestos work related activities will be maintained for the duration of employment plus least 30 years by C.A. Hull.

17.7 TRAINING

All C.A. Hull employees who remove, repair or work around asbestos and those whose work might disturb asbestos-containing material will be trained to carry out their work without endangering themselves or their co-workers. Supervisors and competent persons are to attend the EPA model course for supervisors. All other affected employees are to attend:

1. Class I operations and Class II operations that require the use of critical barriers and/or negative pressure enclosures, employees will be trained in accordance with EPA Model Accreditation Plan asbestos abatement workers training (40 CFR 763 subpart E, appendix C).
2. Class II operations not included above, employees will be trained on the specific work practices and engineering controls. The training will include a hands-on portion and will take at least 8-hours.
3. Class III operations, employees will be trained in accordance with EPA requirements 40 CFR 763.92 (a) (2). The training will include a hands-on portion and will take at least 16-hours.
4. Class IV operations, employees will be trained in accordance with EPA requirements 40 CFR 763.92 (a) (1). The training will take at least 2-hours.

In addition to the above requirements, all employees will be trained and informed of the following:

1. Methods of recognizing asbestos.
2. Health effects associated with asbestos exposure.
3. Relationship between smoking and asbestos in producing lung cancer.
4. Operations which could result in exposure to asbestos, the importance of protective control, engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, emergency procedures and waste disposal procedures.
5. The purpose, proper use, fitting instructions, and limitations of respirators in accordance with OSHA 29 CFR 1910.134.
6. The appropriate work practices for performing the asbestos job.
7. Medical surveillance program requirements.
8. OSHA 29 CFR 1926.1101
9. The names, addresses and phone numbers of public health organizations which provide materials and/or conduct programs concerning smoking cessation.
10. The requirements for posting signs and affixing labels.

17.8 PERMISSIBLE EXPOSURE LIMIT (PEL)

The Permissible Exposure Limit for asbestos is 0.1 fiber per cubic centimeter of air as an 8-hour Time Weighted Average (TWA). The Excursion Limit is 1 fiber per cubic centimeter of air over 30 minutes.

PEL = 0.1 f/cc over 8-hour TWA

Excursion Limit = 1.0 f/cc over 30 minutes

17.9 EXPOSURE MONITORING

Exposure monitoring is essential to implementing and maintaining proper industrial hygiene practices at the job site. By conducting air sampling in the worker's breathing zone (six to nine inches from the nose and mouth) we can verify the actual exposures are below the Permissible Exposure Limit (PEL) and Excursion Limit or that respiratory protection is adequate for those levels.

17.9.1 PERSONNEL AIR SAMPLING

Initial air sampling will be conducted on each job classification that has potential air exposure to asbestos, and each such job classification several times and on multiple individuals doing the same job. The monitoring will be full shift for an 8-hour Time Weighted Average and 30-minute short-term employee exposures.

For Class I asbestos work, C.A. Hull will assume that employees are exposed above the PEL and/or Excursion limit, until initial exposure monitoring indicates otherwise. Class I and Class II operations C.A. Hull will conduct daily monitoring that is representative of the exposure of each employee who is assigned to work in the regulated areas.

For all other operations that are not Class I and Class II, periodic monitoring will be conducted where employees are exposed above the PEL. The periodic monitoring will be at sufficient intervals to document the validity of the exposure prediction.

If the initial and/or periodic monitoring results are below the PEL and Excursion Limit, then additional sampling is not required. Additional air samples will be taken when there has been a change in production, process, control equipment, personnel or work practices that may result in a new or additional exposures to asbestos.

Prior to documentation of asbestos exposure assessment, workers must use respiratory protection. If exposures exceed the PEL even after implementation of all feasible engineering or work practice controls, assigned protection factors (APF's) for respiratory protection will be used to assess compliance with the PELs. Initial and follow-up air sampling results will be used to establish and verify that exposures are still within the allowable limits.

Employees and other workers in the same job classifications will be notified in writing of the monitoring results as soon as possible after receiving the results. The notification can in writing either individually or by posting at a centrally located area (such as a decon) that is accessible to affected employees.

17.10 OBSERVATION OF MONITORING

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures in accordance with 29 CFR 1926.1101. The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of asbestos and receive copies of the results when returned from the laboratory.

17.11 RECORDKEEPING

Detailed records of the exposure shall be in compliance with 29 CFR 1926.1101, as given below. All personal air sampling results will be maintained by C.A. Hull or its sub-contractors for at least 30 years.

1. The date(s), number, duration, location and results of each of the samples taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
2. A description of the sampling and analytical methods used and evidence of their accuracy.
3. The type of respiratory protective devices worn.
4. Name, social security number, and job classification of the employee monitored.
5. The environmental variables that could affect the measurement of employee exposure.

17.12 ENGINEERING CONTROLS

All feasible engineering controls will be used to minimize asbestos exposures to the greatest extent possible from the very beginning. Engineering controls which may be available for dealing with exposures above the PEL and/or Excursion Limit are provided below. Additional control measures may be necessary depending on the results of air monitoring once the project begins.

Job Task	Control Methods
Use of a containment or isolation where exposure are above PEL and excursion limit	Dust collector with natural intake ventilation
Power tool cleaning	HEPA vacuums
Hand tool cleaning	Wet methods or wetting agents
Clean up	HEPA vacuums or wet methods

17.13 RESPIRATORY PROTECTION

C.A. Hull has established a Respiratory Protection Plan in accordance with OSHA 29 CFR 1910.134. The Respiratory Protection Plan will be followed during asbestos operations with the exception of the Assigned Protection factors (APF) assigned to each type of respirator.

Airborne concentration of asbestos	Required respirator
Not in excess of 1 f/cc (10 x PEL)	Half-mask air purifying respirator other than a disposable respirator, with HEPA filters
Not in excess of 5 f/cc (50 x PEL)	Full facepiece air-purifying respirator with HEPA filters
Not in excess of 10 f/cc (100 x PEL)	Any powered air-purifying respirator with HEPA filters or any supplied air respirator operated in the continuous flow mode
Not in excess of 100 f/cc (1,000 x PEL)	Full facepiece supplied air respirator operated in the pressure demand mode
Greater than 100 f/cc (1,000 x PEL) or unknown concentration	Full facepiece supplied air respirator operated in the pressure demand mode, equipped with an auxiliary positive pressure self-contained breathing apparatus

17.14 PROTECTIVE WORK CLOTHING (PWC)

All workers involved in operations in which exposure to asbestos may exceed the PEL and/or Excursion Limit will change their clothing before entering the work areas for work, and again at the end of the day before leaving the Decontamination Area. Street clothing may not be worn during work on this project, unless fully covered by PWC. Contaminated work clothing should be vacuumed of loose dust using a HEPA vacuum, but may not be taken away from the job site after work. Work clothing consisting of coveralls or similar whole body clothing, head coverings, foot coverings and gloves will be provided and maintained by C.A. Hull for workers involved in these designated job functions.

Disposable coveralls will not be used as the sole means of PWC if such garments are likely to become torn or fall apart under normal use. In these cases cloth coveralls, or similar PWC shall be used.

Use of PWC, can result in additional heat stress during hot weather. The Competent Person will monitor potential heat stress problems and modify the work regime as necessary. Actions may include frequent water breaks, use of salt tablets, use of short sleeve clothing underneath the PWC, etc. Heat stress conditions will be identified by the Competent Person as dependent on temperature and relative humidity, and as advised by the Competent Person.

17.15 LAUNDERING OF WORK CLOTHING

Do not remove or clean the clothing by any means which reintroduces the asbestos into the ambient air such as brushing, shaking or blowing. Use vacuums equipped with HEPA filters for cleaning. Contaminated work clothing will be placed in sealed impermeable plastic bags, or other closed impermeable containers and either given to a laundry service, or disposed of as hazardous waste by C.A. Hull. If a laundry service is used, C.A. Hull will advise them in writing that the clothing may be contaminated with asbestos or other hazard-bearing dust and must be handled in such a fashion as to minimize the generation of air-borne dust, and/or contamination of skin or surfaces that may come into contact with the clothing.

17.16 HOUSEKEEPING

All work areas will be maintained as free as practical of accumulation of asbestos. In order to minimize the likelihood of asbestos becoming airborne again, cleaning will be conducted using a vacuum equipped with a HEPA filter, or wet cleaning will be used for such housekeeping purposes. Dry sweeping and shoveling may be used only where HEPA vacuuming or similar methods have been found to be ineffective. Cleaning with compressed air will be used only in conjunction with a ventilation system designed to capture the airborne dust. Waste, scraps, debris, bags, containers, equipment and clothing contaminated with asbestos consigned for disposal will be collected and disposed of in sealed impermeable bags, or other closed, impermeable containers.

17.17 DELINEATED AREAS

To prevent inadvertent contamination leaving the work site, and to minimize contamination to the workers during the workshift, areas will be delineated using signs and tape; work areas where the exposure to hazards is above the PEL and/or Excursion Limit, and support areas where all other work is performed. The work areas include the containment enclosure and all work areas involved in asbestos removal, clean up, set up or equipment involved in these operations.

The work area will have access limited to workers who have received the required training, medical surveillance and are wearing the protective clothing required for the job they are performing, and supervisors and/or authorized visitors wearing appropriate clothing and/or protective equipment. No food, beverages or tobacco products are to be present or consumed in the work area.

17.18 SIGNS

Signs that will be used as to designate the regulated areas include the following:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY

Warning labels must be placed on all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers. The label will include the following:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

17.19 DECONTAMINATION FACILITIES

The Support Area will consist of a decontamination trailer equipped with shower(s) separating clean and contaminated sides of the trailer. All street clothing worn to the job will be removed and stored in lockers on the clean side of the trailer. Work clothing, once used and contaminated shall remain on the contaminated side of the trailer. Workers wearing contaminated work clothing must pass through the trailer after leaving the Work Area and remove their contaminated work clothing. At the end of each work day workers exposed to asbestos above the PEL must shower completely with soap, including hair washing. Sinks for hand washing will be set up in and near the decontamination trailer. If initial exposure monitoring is below the PEL then a handwash station will be used by workers to clean up at the end of the day.

Handwash stations will be located between the Work and break area located in the Support Area. Hands and face must be washed before eating, drinking or smoking.

On construction sites, it may not be feasible to have the decon trailer located next to the work area, where this is the case the decon trailer will be located in a centralized location. Workers will leave their own vehicles at the decon trailer. If workers are required to travel by work vehicle to and from the decon, the work vehicle will be cleaned daily using a HEPA vacuum and/or wet wiping. Once workers have changed into their protective work clothing and that clothing has become contaminated with toxic metal dust, they will not be permitted to enter or use their vehicles again until they have removed the PWC and/or have decontaminated and are once again wearing their clean street clothing.

17.19.1 DECONTAMINATION AREA ENTRY PROCEDURE

1. Enter the decontamination area through the clean room.
2. Remove and deposit street clothing within a locker provided for their use.
3. Put on protective clothing and respiratory protection before leaving the clean room.
4. Before enter the regulated area, C.A. Hull will ensure workers pass through dirty side of decontamination area.

17.19.2 DECONTAMINATION EXIT PROCEDURE

1. Before leaving the regulated area, employees are to vacuum themselves off using HEPA vacuums.
2. Employees are to remove their protective clothing inside the dirty area of the decontamination area.
3. Employees are to enter shower area, remove their respirators, then take a shower.
4. After showering, employees will enter the clean area and change into their street clothing.

17.20 LUNCH AREA

Lunch facilities will be set up in a clean area near the work area, away from all sources of contamination. The competent Person will determine the location of the lunch area. Contaminated disposable coveralls must be removed, and hands and face must be washed prior to eating, drinking or smoking. All work clothing must be cleared of loose dust by vacuuming with a HEPA vacuum prior to entering the lunch area.

17.21 SUBCONTRACTED WORK

Major asbestos removal is normally contracted to external firms who specialize in asbestos removal work. C.A. Hull requires that all such work be carried out in accord with the requirements established by Local, State and Federal regulations. At all such projects the contractor will ensure that clean-up is properly completed and that all asbestos and asbestos contaminated material is collected, and disposed of in accord with Local, State and Federal regulations. The contractor will be required to submit air testing results to demonstrate that the clean-up has been carried out properly and the area can be re-occupied safely.

C.A. Hull requires that contractors carrying out tasks which could potentially create asbestos-containing dust,

1. Follow work practices that reduce to the extent practical the creation of airborne asbestos dust and which meet the asbestos safety standards set by OSHA.
2. Employ only workers who have been trained in asbestos safety and provide documentation to C.A. Hull upon request.
3. Employee only workers who have received medical surveillance appropriate for the job task and provide documentation to C.A. Hull upon request.

17.22 METHODS OF ASBESTOS REMOVAL

17.22.1 Non-friable ACM Work

Asbestos that is effectively bonded in a non-asbestos matrix cannot easily become airborne. As such, provided the material is not broken or abraded, there is little risk of inhalation exposure to asbestos. To ensure that minor work involving non-friable asbestos (including vinyl asbestos tile, asbestos asphalt roofing, and asbestos ceiling and wall tile) the following procedure will be followed:

Procedure:

1. Before beginning the work the worker will carefully inspect the asbestos- containing material to ensure that the planned work will not create airborne asbestos dust.
2. Where dust that might contain asbestos fibre is present, the worker will clean the material using a wet method or a HEPA filtered vacuum.
3. Following completion of the task the worker will carry out any required clean wet methods or a HEPA filtered vacuum and will then carefully bag for disposal all asbestos containing waste.

Note: Cutting, drilling, sanding or breaking the material are likely to create airborne asbestos dusts and will require additional precautions.

17.22.2 Single Use Glove Bag Procedure

The following procedure will be followed when single-use asbestos removal glove bags are used. The procedure may only be used on tasks that are small enough to be completely enclosed in the glove bag and which do not leave exposed asbestos in place when the bag is removed.

Preparation:

1. Only a staff member who has completed level 3 training and who is wearing appropriate coverall and an air purifying respirator (3M 6000 Series with a purple, 6240 particulate filter or equivalent) will carry out glove bag removal of asbestos.
2. Before beginning removal work, access to the area will be restricted. If the work site is located in areas where other Maintenance Department staff might be exposed to asbestos and in all work sites located in publicly accessible areas, warning notices will be posted.
3. Steps will be taken to prevent accidental movement, contact with heat, cold or electricity, or release of chemicals.
4. The work area will be cleaned using a HEPA filtered vacuum or wet cleaning to remove asbestos-containing material contaminating the immediate work area. Where possible a plastic sheet will then be placed beneath the pipe or fitting from which the asbestos is to be removed.
5. Steps will be taken to prevent exposure where damage to the insulation might allow release of fibers. Steps include making temporary repairs using duck tape or wetting the exposed fibre using amended water.

17.22.3 Glove Bag Removal

1. The asbestos-containing material will be thoroughly wetted using amended water.
2. With tools in bag, the single-use bag will be positioned and secured using adhesive and tape as necessary.
3. Working through the gloves, the asbestos will be removed exercising care to avoid puncturing the bag.
4. When removal is complete or bag is full, sprayer (containing amended water) will be inserted into the bag and the pipe or fitting, tools and the bag interior will be washed. Tools will then be placed in an inverted glove withdrawn from bag and the glove sealed from the bag using duct tape.
5. The tools will then be removed by cutting through the duct tape ensuring that both the bag and the glove remain sealed.
6. The tools will then be submerged in water and the glove opened. Tools will be cleaned under water.

7. The glove bag will then be carefully removed, sealed and placed in a sealed container pending packaging for disposal.

Clean Up:

1. The surface of the pipe or fitting will be carefully wet wiped and treated with sealer.
2. The plastic sheet will then be carefully wet wiped and rolled up.
3. All solid waste created during removal jobs including glove bags, disposable coveralls, wipe rags and plastic sheeting will be treated as asbestos containing waste and handled as detailed in the disposal procedure.

17.22.4 Multiple-Use Glove Bag Procedure

This procedure describes the use of multiple use glove bags. It may be used on tasks that require the bag to be repositioned to complete the entire job.

Preparation:

1. Only a staff member who has completed level 3 training and who is wearing appropriate coverall and an air purifying respirator (3M 6000 Series with a purple, 6240 particulate filter or equivalent) will carry out glove bag removal of asbestos.
2. Before beginning removal work, access to the area will be restricted. If the work site is located in areas where other Maintenance Department staff might be exposed to asbestos and in all work sites located in publicly accessible areas, warning notices will be posted.
3. Steps will be taken to prevent accidental movement, contact with heat, cold or electricity, or release of chemicals.
4. The work area will be cleaned using a HEPA filtered vacuum or wet cleaning to remove asbestos-containing material contaminating the immediate work area. Where possible a plastic sheet will then be placed beneath the pipe or fitting from which the asbestos is to be removed.
5. Steps will be taken to prevent exposure where damage to the insulation might allow release of fibers. Steps include making temporary repairs using duck tape or wetting the exposed fibre using amended water.

17.23 SITE CLEAN-UP PROCEDURES

All materials, equipment, etc. that may be potentially contaminated must be properly decontaminated prior to leaving the site or be categorized as hazardous as disposed of as hazardous waste.

17.23.1 SITE CLEAN-UP

Asbestos only poses a health hazard when it becomes airborne and people inhale the fiber. When asbestos-containing material has been disturbed, effective clean up will ensure that asbestos does not present a health hazard. Clean up of dust which might contain traces of asbestos, such as a custodian might encounter in routine cleaning in buildings where asbestos is present, will not require special precautions. To ensure that clean up of significant quantities of asbestos will not cause a health hazard, the following procedure will be followed:

1. Clean up of significant amounts of asbestos containing material will be only be done by employees who have been trained and who are wearing appropriate protective clothing and a fitted, air-purifying respirator.
2. Dry sweeping of asbestos-containing waste or other clean up activities which will create airborne dust are not permitted
3. Large pieces of asbestos containing material will be collected by hand and properly bagged in accord with the disposal procedure.
4. When ever possible, asbestos dust will be thoroughly wetted and clean up with a wet mop or a wet vac. Contaminated water will be discharged to a sewer. Containers, mops and other equipment which might be contaminated with asbestos will be rinsed with water and the rinse water discharged to a sewer.
5. If additional clean up is need it will be carried out using a vacuum equipped with a HEPA filter.

17.23.2 VERIFICATION OF SITE CLEAN-UP

A visual inspection of the worksite will be conducted prior to removing paint removal equipment or containment materials that will be used again on another project.

At the end of the project a complete visual inspection will be made of the site. If paint debris, spent abrasive or litter is found it will be cleaned in accordance with 1.22.1.

17.24 DISPOSAL OF ASBESTOS CONTAINING WASTE MATERIALS

Handling and disposal of asbestos containing waste is regulated by both State and Federal regulations. To ensure compliance with these regulations and to ensure that no-one is exposed to asbestos the following procedure is to be followed:

1. Only a staff member who has completed Level 2 training and who is wearing appropriate air purifying respirator will package asbestos waste.

2. Waste asbestos will be thoroughly wetted and then placed in specially labeled 6 mil plastic bags. The bag will be securely sealed using duct tape. The bagged asbestos will then be placed in a second, labeled 6 mil plastic bag which is again taped closed
3. Asbestos waste may be transported from the location where it was produced to an interim storage location if the bags are free from punctures or tears and if the outside of the bag is free of asbestos. Asbestos waste will be transported in an enclosed vehicle or beneath a secured tarpaulin. No other cargo may be carried while the waste asbestos is being moved. After the waste asbestos is moved to an interim storage site, the driver will, if necessary clean the vehicle to remove asbestos contamination.
4. Asbestos waste must be disposed of at a waste disposal site which is approved to receive asbestos. Shipment of waste asbestos must be co-ordinated with the waste disposal site which is to receive the waste. Asbestos disposal will normally be carried out by external contractors
5. Shipments for disposal must be done in accord with Local, State and Federal regulations and must be accompanied by a properly completed shipping document.

18.0 OTHER TOXIC METALS

Paint removal projects have the potential to have other toxic metals which may cause a worker exposure above the OSHA Action Levels or Permissible Exposure Limits. These metals include, but are limited to:

<u>Metal</u>	<u>OSHA PEL (ug/m³)</u>
Aluminum	5,000
Arsenic	10
Beryllium	2
Cadmium	5
Copper	1,000
Hexavalent Chromium	5
Magnesium	10,000
Manganese	5,000
Vanadium	100
Zinc	5,000

C.A. Hull or its Safety Consultant will determine which metals will be sampled during worker exposure monitoring.

For other metals that are found in paint coatings, and for which no Action Level exists, establish the Action Level at ½ of the PEL. If a PEL does not exist, establish the Action Level at ½ of the Threshold Limit Value (TLV) found in Appendix A of 29 CFR 1926.55.

19.0 RESPIRABLE CRYSTALLINE SILICA EXPOSURE CONTROL PLAN

This section of the Health and Safety Plan details the procedures used to minimize worker exposures to respirable crystalline silica and its various forms.

19.1 POTENTIAL SOURCES OF SILICA

Several job categories may have potential exposure to silica dust, as follows:

- demolition or concrete and masonry structures
- crushing, loading, hauling and dumping of rock
- chipping, hammering and drilling of rock
- sawing, hammering, drilling, grinding and chipping of concrete or masonry
- dry sweeping or pressurized air blowing of concrete, rock or sand dust
- concrete mixing

19.2 PERMISSIBLE EXPOSURE LIMIT

The Permissible Exposure Limit (PEL) is 50 ug/m as an 8-hour Time-Weighted-Average.

19.3 ACTION LEVEL

The Action Level (AL) is 25 ug/m as an 8-hour Time-Weighted-Average.

19.4 SELECTED EXPOSURE CONTROL MEASURES

From Table 1 of 1926.1153, the list below is only a small sample of Table 1, for items not listed, refer to the Table.

Equipment/ Task	Engineering and Work Practice Control	Respirator and APF ≤ 4 hours/ shift	Respirator and APF > 4 hours/ shift
Stationary masonry saw	Use saw equipped with water delivery system that continuously feeds water to the blade	None	None
Handheld power saws	Use saw equipped with water delivery system that continuously feeds water to the blade - when used outdoors - when used indoors or in an enclosed area	None APF 10	APF 10 APF 10

Equipment/ Task	Engineering and Work Practice Control	Respirator and APF ≤ 4 hours/ shift	Respirator and APF > 4 hours/ shift
Handheld power saws for cutting fiber cement board	For tasks performed outdoors only. Use saw equipped with commercially available dust collection system	None	None
Walk behind saws	Use saw equipped with water delivery system that continuously feeds water to the blade - when used outdoors - when used indoors or in an enclosed area	None APF 10	None APF 10
Drivable saws	For tasks performed outdoors only. Use saw equipped with integrated water delivery system that supplies water to cutting surface	None	None
rig-mounted core saws or drills	Use saw equipped with integrated water delivery system that supplies water to cutting surface	None	None
Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact - When used indoors - When used outdoors or in an enclosed area	None APF 10	APF 10 APF 10
Handheld grinders for mortar removal	Use grinder equipped with commercially available shroud and dust collection system	APF 10	APF 25

Equipment/ Task	Engineering and Work Practice Control	Respirator and APF ≤ 4 hours/ shift	Respirator and APF > 4 hours/ shift
Handheld grinders for uses other than mortar removal	For tasks performed outdoors. Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface Or; Use grinder equipped with commercially available shroud and dust collection system - When used outdoors _ When used indoors or in an enclosed area	None None None	None None APF 10

19.5 HIERARCHY OF EMPLOYEE PROTECTION METHODS

The Occupational Safety and Health Administration (OSHA) uses the following hierarchy of employee protection methods when determining how to properly protect employees. OSHA recognizes that all these methods may not be suitable for each project location.

- a. Engineering
- b. Work Practice Controls
- c. Respiratory Protection

19.6 ENGINEERING CONTROLS

Job tasks not listed on Table 1, implement one or more of the following engineering controls.

- use of ventilation systems such as dust collectors
- use of localized exhaust ventilation
- wet agents on the surface to minimize dust
- use of HEPA vacuums attached to equipment
- use equipment that provides water to the cutting surface

19.7 WORK PRACTICE CONTROLS

Work practice controls are used to minimize the potential exposure to the employees by utilizing one or more of the following practices:

- wash the hands and face prior to eating, drinking or smoking
- wear the appropriate protective work clothing and remove prior to breaks
- where a shower is provided, use it

19.8 DELINEATED AREAS

To prevent inadvertent contamination leaving the work site, and to minimize contamination to the workers during the work shift, areas where there is a potential exposure at or above the PEL will be delineated using signs, tape or barricades;

19.9 HOUSEKEEPING

All work areas will be maintained as free as practical of accumulation of silica dust. In order to minimize the likelihood of dust becoming airborne again, cleaning will be conducted using a vacuum equipped with a HEPA filter, or wet cleaning will be used for such housekeeping purposes.

The use of compressed air will only be permitted when used in conjunction with a ventilation system that effectively captures the dust cloud.

19.10 EXPOSURE MONITORING

1. If initial monitoring indicates an exposure is below the action level, monitoring may be discontinued for that job task.
2. Where the most recent monitoring indicates results are at or above the action level, but below the PEL, then follow-up monitoring will be conducted within six months of the most recent monitoring.
3. Where the most recent monitoring indicates results are above the PEL, then follow-up monitoring will be repeated within three months of the most recent monitoring.
4. Where the most recent results (non-initial) monitoring indicate results are below the action level, the monitoring will be repeated until two results taken seven or more days apart, are below the action level, then the job task can be classified as being below the action level.
5. When there is a change in production, process, control equipment, personnel, or work practices, that may result in a new or additional exposure at or above the action level, then the job task will be reassessed by monitoring.
6. Within five working days after completing an exposure assessment, each affected employee will be notified wither in writing, or by posting the results in a location accessible to all employees.

19.10.1 OBSERVATION OF MONITORING

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures. The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of silica and receive copies of the results when returned from the laboratory.

19.10.2 RECORD KEEPING

Record of employee exposure monitoring will contain:

1. The date of measurement for each sample taken.
2. The task monitored.
3. Sampling and analytical method used.
4. Number, duration and results of samples taken.
5. Identity of the laboratory that performed the analysis.
6. The type of personal protective equipment worn by employees.
7. Name, social security number (to be maintained in company files and not with worker exposure records), and job classification of all employees represented by the monitoring, indicating which employees were actually monitored.

19.11 MEDICAL SURVEILLANCE PROGRAM

All workers wearing a respirator for 30+ days in the year are required to enter the medical surveillance program to reveal medical conditions which could predispose an individual to excess risk from working on this job, and clearance to wear a respirator.

19.11.1 INITIAL EXAMINATION.

1. An initial (baseline) medical examination is required within 30 days after initial assignment, unless the employee has received a medical examination that meets the OSHA requirements within the previous three years.
2. A medical and work history, with emphasis on past, present and anticipated exposure to respirable crystalline silica, dust and other agents affecting the respiratory system; and history of respiratory system dysfunction, including signs and symptoms of respiratory disease.
3. Physical examination with special emphasis on respiratory system.
4. A chest x-ray interpreted and classified according to the International Labour Office (ILO) International Classification of Radiographs of Pneumoconioses by a NIOSH-certified B Reader.
5. A pulmonary function test (PFT) to include forced vital capacity (PVC) and forced expiratory volume in 1 second (FEV_{1s}) and FEV_{1s}/FVC ration, administered by a spirometry technician with a current certificate from a NIOSH approved spirometry course.
6. Testing for latent tuberculosis infection.
7. Any other test deemed appropriate by the PLHCP.

19.11.2 PERIODIC EXAMINATIONS

1. Medical examination as listed in 19.14.1 and the OSHA regulation will be made available every three years, or more frequently if recommended by the PLHCP.

19.11.3 INFORMATION PROVIDED TO THE PLHCP

1. A description of the employee's former, current and anticipated duties as they relate to the employee's occupational exposure to respirable crystalline silica.
2. The employee's former, current and anticipated levels of occupational exposure to respirable crystalline silica.
3. A description of any personal protective equipment used or to be used by the employee.
4. Information from records of employment related medical examinations previously provided to the employee and currently within the control of the employer.

19.11.4 PLHCP'S WRITTEN MEDICAL REPORT FOR EMPLOYEE

1. A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to respirable crystalline silica and any medical condition that require further evaluation or treatment.
2. Any recommended limitations on the employee's use of respirators.
3. Any recommended limitations on the employee's exposure to respirable crystalline silica.
4. A statement that the employee should be examined by a specialist if the chest X-ray provided in accordance with the OSHA regulation is classified as 1/0 or higher by the B Reader, or if referral to a specialist is deemed appropriate by the PLCHP.

19.11.5 NOTIFICATION OF WORKERS

All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within five working days after C.A. Hull has received the results.

19.11.6 RECORD KEEPING

Medical records will be maintained for the duration of employment plus 30 years, or a total of 30 years, whichever is longer. Workers or their appointed representatives will be able to access those records upon written request to C.A. Hull. Access will be provided within 15 days after the employee's request, unless C.A. Hull states the reason for the delay and the earliest date when the records will be made available. Those records will include but not be limited to the following items:

1. Name and social security number
2. A copy of the PLHCP's and specialists' written medical opinion.
3. A copy of the information provided to the PLCHP and specialist.

19.12 TRAINING FOR SILICA

All workers must be trained prior to starting any project where the exposures will be above the OSHA Action Level for lead in the hazards of silica. A training class will be conducted for all workers to attend. Signed and dated training certificates will be required stating that each worker has received the training. Workers must attend annual refresher training. Training shall include:

A. Silica

1. Health hazards associated with exposure to respirable crystalline silica
2. Specific tasks in the workplace that could result in exposure to respirable crystalline silica
3. Specific measures the employer has implemented to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices and respirators to be used.
4. Personal protective equipment
5. Personal hygiene & decontamination
6. Medical surveillance programs
7. Exposure monitoring
8. Employee rights to information

B. The OSHA hazard communication standard 29 CFR 1910.1200 including the following hazards: cancer, lung effects, immune system effects and kidney effects.

C. Respiratory protection program 29 CFR 1910.134

20.0 BERYLLIUM EXPOSURE CONTROL PLAN

OSHA has implemented a beryllium standard for construction 29 CFR 1926.1024. This standard will be implemented on projects that may have beryllium exposures, or if beryllium was found at or above the Action Level during worker exposure monitoring.

20.1 POTENTIAL BERYLLIUM SOURCES AND TASK EVALUATION

During cleaning of beryllium based paint projects or by using abrasives that may contain beryllium, several job categories may have potential exposure to beryllium dust including the abrasive blaster and workers vacuuming during the blast.

20.2 ACTION LEVEL

The Action Level (AL) of 0.1 ug/m^3 is the exposure to beryllium, at which the following requirements of the OSHA Beryllium in Construction Standard must first be implemented.

- a. Written Worker Protection Plan
- b. Exposure Monitoring
- c. Housekeeping
- d. Employee Medical Surveillance and Medical Removal Protection
- e. Employee Information and Training
- f. Signs and Regulated Areas
- g. Record keeping

20.3 PERMISSIBLE EXPOSURE LIMIT

The Permissible Exposure Limit (PEL) of 0.2 ug/m^3 is the 8-hour Time-Weighted-Average.

In addition to complying with the requirements identified when exceeding the Action Level, the following protective measures will be incorporated when exposure exceed the PEL.

- a. Engineering and Work Practice Controls
- b. Respiratory Protection
- c. Protective Clothing and Equipment
- d. Hygiene Facilities and Practices

20.4 SHORT-TERM EXPOSURE LIMIT (STEL)

The Short-Term Exposure Limit (STEL) is in excess of 2.0 ug/m^3 as determined by a 15 minute sampling period.

20.5 COMPETENT PERSON

When exposures are at or above the PEL or STEL, a competent person will be designated. The competent person will:

1. Make frequent and regular inspections of job sites, materials and equipment.
2. Implement the written exposure control plan.
3. Ensure that all employees use respiratory protection.
4. Ensure that all employees use personal protection clothing and equipment.

20.6 DELINEATED AREAS

Work areas and support areas will be delineated using signs and tape to prevent inadvertent contamination from leaving the work site and to minimize contamination to the workers during the work shift. Work areas include containment enclosures and all work areas involved in beryllium paint removal, clean-up, set-up or equipment involved in these operations.

The work area will have access limited to workers who have received the required training, medical surveillance and are wearing the personal protective equipment required for the job they are performing, and supervisors and/or authorized visitors wearing appropriate clothing and/or protective equipment. No food, beverages or tobacco products are to be present or consumed in the work area.

20.7 SIGNS

Signs will be used to identify work areas where exposures could exceed the Action Level. Signs will read as follows:

DANGER
CONTAINS BERYLLIUM
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AVOID CREATING DUST
DO NOT GET ON SKIN

20.8 DECONTAMINATION FACILITIES

20.8.1 SHOWERS

The Support Area will consist of a decontamination trailer equipped with a shower separating clean and contaminated sides of the trailer. All street clothing worn to the job will be removed and stored in lockers on the clean side of the trailer. Work clothing, once used and contaminated will remain on the contaminated side of the trailer. Workers wearing contaminated work clothing must pass through the trailer after leaving the Work Area and remove their contaminated work clothing. At the end of each work day workers exposed to beryllium above the PEL must shower completely with soap, including hair washing.

20.8.2 HANDWASH FACILITIES

Handwash stations will be located between the Work and break area located in the Support Area. Hands and face must be washed before eating, drinking or smoking.

20.9 LUNCH FACILITY

Lunch facilities will be set up in a clean area near the work area, away from all sources of contamination. The lunch area will be at least 50 feet upwind from the work area. All work clothing must be cleared of loose dust by vacuuming with a HEPA vacuum prior to exiting the work area and the outer layer of the abrasive blasters work clothing will be removed just outside the work area to minimize transporting any hazardous waste around the support and clean areas. The lunch facility will be cleaned using a HEPA vacuum on a daily basis.

20.10 PROTECTIVE WORK CLOTHING (PWC)

Workers entering beryllium work areas where exposures to beryllium dust may exceed the PEL will change their clothing before entering the work areas for work, and again at the end of the day before leaving the Decontamination Area. Contaminated work clothing should be vacuumed of loose dust using a HEPA vacuum, but may not be taken away from the job site after work. Work clothing consisting of cloth shirts and trousers, disposable or cloth coveralls, and gloves will be provided and maintained by C.A. Hull for workers involved in these designated job functions.

Disposable coveralls will not be used as the sole means of PWC if such garments are likely to become torn or fall apart under normal use. In these cases cloth coveralls, or similar PWC will be used.

20.11 LAUNDERING OF WORK CLOTHING

Do not remove or clean the clothing by any means which reintroduces beryllium into the ambient air such as brushing, shaking or blowing. Use vacuums equipped with HEPA filters for cleaning. Work clothing will be laundered and/or replaced on a weekly basis or more often if the clothing becomes dirty and/or wet.

Work boots must remain at the job site or decontamination trailer for the duration of the job. Contaminated work clothing will be placed in plastic bags and either given to a laundry service, or disposed of as hazardous waste by C.A. Hull. If a laundry service is used, C.A. Hull will advise them in writing that the clothing may be contaminated with beryllium or other hazard-bearing dust and must be handled in such a fashion as to minimize the generation of air-borne dust, and/or contamination of skin or surfaces that may come into contact with the clothing.

Warning labels for containers of beryllium protective clothing, equipment, waste and scrap or debris will include a minimum of the following: *Danger, Contains beryllium, may cause cancer, causes damage to lungs and kidneys, avoid creating dust.*

20.12 HOUSEKEEPING

All work areas will be maintained as free as practical of accumulation of beryllium dust. In order to minimize the likelihood of dust becoming airborne again, cleaning will be conducted daily in all work areas using a vacuum equipped with a HEPA filter or by wet cleaning.

20.13 EXPOSURE MONITORING

Exposure monitoring is essential to identifying the need for proper industrial hygiene controls at the job site. Air sampling will be conducted in the worker's breathing zone (six to nine inches from the nose and mouth) to determine actual worker exposures and recommend respiratory protection that is adequate for those levels.

20.13.1 PERSONNEL AIR SAMPLING

1. Initial air sampling will be conducted to represent actual worker exposures to beryllium in each job category and each such job category several times and on multiple individuals doing the same job.
2. Sampling will be conducted to assess the 8-hour TWA for each employee, or a representative fraction of the exposed employees per job task.
3. STEL sampling will be conducted on one employee with the potentially highest exposure.
4. Follow-up exposure monitoring.
 - a. If the initial monitoring results are below the Action Level and at or below the STEL, then monitoring may be discontinued.
 - b. If the most recent exposure monitoring is at or above the Action Level but at or below the PEL, then monitoring will be repeated within six months of the most recent monitoring.
 - c. If the most recent results are above the PEL, the monitoring will be repeated within three months of the most recent monitoring.
 - d. If the most recent results are below the Action Level, then the monitoring will be repeated within six months of the most recent monitoring, until two consecutive measurements, taken seven days apart, are below the Action Level. Then additional monitoring will not be required.
5. Employees and other workers in the same job category will be notified of the monitoring results within fifteen (15) days after completing an assessment. This may be accomplished either in writing or by posting the results in a location accessible to each affected employee.

20.13.2 OBSERVATION OF MONITORING

All workers or their designated representatives will be given the opportunity to observe the personal exposure monitoring procedures in accordance with 29 CFR 1926.1024 (d)(7). The observer will be allowed to receive an explanation of the monitoring procedures, observe all steps related to the monitoring of beryllium and receive copies of the results when returned from the laboratory.

When observation of monitoring requires entry into an area where the use of personal protective equipment is required, C.A. Hull will provide each observer with the appropriate PPE at no cost to the observer. (Note: C.A. Hull is not responsible to verify if the observer(s) is medically cleared to wear respiratory protection, has current fit testing, or has medical clearance to enter the work area).

20.13.3 RECORD KEEPING

Detailed records of the exposure will be in compliance with 29 CFR 1926.1127, as given below. All personal air sampling results will be maintained by C.A. Hull or its sub-contractors for at least 30 years.

1. The date(s), job tasks, number, duration, location and results of each sample taken, including a description of the sampling procedure used to determine representative employee exposure where applicable.
2. A description of the sampling and analytical methods used and evidence of their accuracy.
3. The type of personal protective clothing and equipment and respiratory protective devices worn.
4. Name, social security number, and job category of the employee monitored and all other employees whose exposure the measurement is intended to represent.
5. The environmental variables that could affect the measurement of employee exposure.

20.14 ENGINEERING CONTROLS

All feasible engineering controls will be used to minimize beryllium dust exposure. Additional control measures may be implemented based on the results of air monitoring once the project begins. The following engineering controls will be used.

Job Task	Control Methods
Abrasive Blast Operation Vacuuming during Abrasive Blast Operations	Dust collector with natural or forced ventilation
Power tool cleaning	HEPA vacuums
Hand tool cleaning	Wet misting
Clean up after paint removal	HEPA vacuums

20.15 RESPIRATORY PROTECTION

Prior to wearing a respirator, employees must comply with Section 10.0 of this Health and safety Plan and the OSHA Respirator Standard 29 CFR 1910.134.

20.16 MEDICAL SURVEILLANCE PROGRAM

Medical surveillance will be performed by or under the direction of a licensed physician and will be provided at no cost to the employee who meets one or more of the following:

1. Who is or is reasonable expected to be exposed at or above the OSHA Action Level for 30 or more days per year.
2. Who shows signs or symptoms of CBD or other beryllium-related health effects.
3. Who is exposed to beryllium during an emergency.
4. Whose most recent medical opinion recommends periodic medical surveillance.

20.16.1 FREQUENCY

1. Within 30 days of meeting Section 14.14.
2. At least every two years for employees meeting Section 14.14.
3. At the termination of employment for each employee meeting Section 14.14, unless an examination was conducted within the previous six months of the date of termination.

20.16.2 CONTENT OF THE EXAMINATION

1. A medical and work history, with emphasis on past and present airborne exposure to or dermal contact with beryllium, smoking history, and any history of respiratory system dysfunction.
2. A physical examination with emphasis on the respiratory system.
3. A physical examination for skin rashes.
4. Pulmonary function test.
5. A standardize BeLPT, or equivalent test, upon the first examination and at least every two years thereafter.
6. A low dose computed tomography (LDCT) scan, when recommended by the PLHCP.
7. Any other test required by the PLHCP.

20.16.3 MEDICAL REPORT FOR THE EMPLOYEE

All workers tested and/or examined under this medical surveillance program will be notified in writing of the results of testing within forty-five working days of the examination. This may be completed by the PLHCP sending the medical report directly to the employee, or by C.A. Hull sending the results it receives to the employee.

20.16.4 MEDICAL OPINION FOR THE EMPLOYER

C.A. Hull will obtain a written medical opinion from the licensed physician within 45 days of the medical examination (including any follow-up BeLPT required by the standard. The written medical opinion will contain only the following:

1. The date of the examination.
2. A statement that the examination has met the requirements of the standard.
3. Any recommended limitations on the employee's use of respirators, protective clothing or equipment.
4. A statement that the PLHCP has explained the results of the medical examination to the employee, including any tests conducted, any medical conditions related to airborne exposure that require further evaluation or treatment, and any special provisions for use of personal protection clothing or equipment.
 - a. If the employee provides written authorization, the written opinion will also contain any recommended limitations on the employee's airborne exposure to beryllium.
 - b. If the employee is confirmed positive or diagnosed with CBD or if the licensed physician otherwise deems it appropriate, and the employee provides written authorization, the written opinion will also contain a referral for an evaluation at a CBD center.
 - c. If the employee is confirmed positive or diagnosed with CBD and the employee provides written authorization, the written opinion will also contain a recommendation for continued periodic medical surveillance.
 - d. If the employee is confirmed positive or diagnosed with CBD and the employee provides written authorization, the written opinion will also contain a recommendation for medical removal from airborne exposure to beryllium.

20.16.5 MEDICAL REMOVAL

An employee is eligible for medical removal, if an employee works in a job with an airborne exposure at or above the Action Level and either:

1. The employee provides C.A. Hull with:
 - a. A written medical report indicating a confirmed positive finding or CBD diagnosis or;
 - b. A written medical report recommending removal from airborne exposure to beryllium.
2. C.A. Hull receives a written medical opinion recommending removal from airborne exposure to beryllium.
3. If an employee is eligible for medical removal, C.A. Hull will provide the employee with the employee's choice of:
 - a. Removal from job tasks where there are exposures to airborne beryllium at or above the Action Level.
 - b. Remain on the job task, provided that C.A. Hull ensures the employee uses the proper respiratory protection.

20.16.6 RECORD KEEPING

Medical records will be maintained for the duration of employment plus 30 years, or a total of 30 years, whichever is longer. Workers or their appointed representatives will be able to access those records upon written request to C.A. Hull. Access will be provided within 15 days after the employee's request, unless C.A. Hull states the reason for the delay and the earliest date when the records will be made available. Those records will include but not be limited to the following items:

1. Name, social security number and job description.
2. Copy of physician's written opinion, including clearance to wear a respirator.
3. Results of exposure monitoring and medical testing and examinations.
4. Records of medical complaints related to beryllium exposure.

If an individual worker is removed from exposure to beryllium, the following records will be kept as well:

5. Date of each occasion that the individual was removed from exposure, and returned to work.
6. A brief explanation of how each removal was or is being accomplished.
7. A statement indicating the reason for removal and blood level results.

20.17 TRAINING FOR BERYLLIUM

All workers must be trained prior to starting any project where the exposures will be above the OSHA Action Level for beryllium in the hazards of beryllium and on an annual basis thereafter. Signed and dated training records will be required stating that each worker has received the training. Copies of the OSHA Beryllium Standard, and the site specific Health and Safety Plan will be made available to all workers. Training will include:

- a. The osha beryllium standard 29 CFR 1926.1024
 - 1. Health hazards associated with beryllium exposure
 - 2. The osha beryllium standard 29 CFR 1926.1127
 - 3. The written exposure control plan, with emphasis on the specific nature of operations that could result in airborne exposures.
 - 4. The purpose, proper selection, fitting, proper use and limitations of personal protective clothing and equipment
 - 5. Applicable emergency procedures
 - 6. Measures employees can take to protect themselves from airborne exposure and dermal contact with beryllium
 - 7. Personal hygiene & decontamination
 - 8. The purpose and a description of the medical surveillance program including risks and benefits of each test to be offered.
 - 9. The purpose and description of the medical removal protection.
 - 10. Exposure monitoring
 - 11. Engineering controls and work practice
 - 12. Employee rights to information under 29 CFR 1910.1020
- b. The health and safety plan
- c. The osha hazard communication standard 29 CFR 1926.59
- d. Respiratory protection program 29 CFR 1910.134
- e. Basic safety and health training 29 CFR 1926.21

21.0 HISTOPLASMOSIS

21.1 INTRODUCTION

Pigeon droppings may be encountered on bridges, tanks and other exterior steel structures where pigeons and other birds have nested, usually for long periods. This nesting can result in a substantial build-up of droppings, a condition which can be harmful to humans if the material is disturbed and made airborne. Histoplasmosis is a fungal infection resulting from exposure to pigeon droppings. Infectious material enters the body usually by inhalation into the lungs, but in some cases by ingestion through the mouth into the gastrointestinal tract. Pigeons do not carry the organism that causes histoplasmosis. Histoplasmosis is caused by a soil organism that requires the moist, nutrient-rich environment that large masses of droppings offer. Areas with small amounts of dried droppings pose minimal hazard.

21.2 PROCEDURE

Prior to work in any area where pigeons nest, a thorough inspection should be made to determine if, and to what extent there is a build-up of material. Inspection itself requires minimum precautions such as the use of personal protective equipment, which may include gloves, disposable coveralls, goggles and a HEPA filtered respirator.

If substantial material is found in the immediate work area, cleaning must be performed. Employees engaged in cleaning activity must wear all of the personal protective equipment specified above. A high powered water hose is an effective means to remove material. If the material is to be scraped away, it must be kept wet during the entire process. Application of a cleaning agent (bleach, for example), before removal may help dissolve the material, and may be applied as a disinfectant upon the affected surfaces after the droppings have been removed. Compressed air will not be used to remove pigeon droppings because it increases the potential for inhalation and ingestion of airborne particles and the area of potential exposure.

When cleaning has been successfully completed, the personal protective equipment specified above is no longer required. All other personal protective equipment appropriate for the task and/or location will be used, such as fall protection, hard hat, etc.

Employees engaged in cleaning, or other activity which involves exposure to pigeon droppings should receive training on these special precautions, and observe a high degree of personal hygiene including washing hands thoroughly before eating or smoking.

22.0 HEAT STRESS

22.1 WORKING IN ELEVATED AIR TEMPERATURE

1. Working in elevated air temperature, high humidity or operations with radiant heat sources have the potential for causing heat stress. It is important for the foreman and competent person to ensure that when working in hot weather, workers are allowed more time to drink fluids and rest.
2. Workers should be encouraged to wear light weight clothing when working in hot weather. In addition, the company should provide clothing that is able to breath to allow an exchange of air to allow the body to cool.

22.2 HEAT STROKE

1. Heat Stroke occurs when the body's system of temperature regulation fails and body temperature rises to critical levels.
2. Symptoms include:
 - a. Confusion
 - b. Irrational behavior
 - c. Loss of consciousness
 - d. Convulsions
 - e. Lack of sweating
 - f. Hot, dry skin
 - g. Abnormally high body temperature
- 3 If a worker shows signs of heat stroke or possible heat stroke, the following will occur:
 - a. Contact emergency services immediately
 - b. Place the worker in a shady area (if possible)
 - c. Wet the worker's skin
 - d. Increase air movement around the worker
 - f. **DO NOT** allow the worker to leave the site or be left unattended.

22.3 HEAT EXHAUSTION

1. Heat Exhaustion results from the loss of fluid through sweating.
2. Symptoms include:
 - a. Headache
 - b. Nausea
 - c. Vertigo
 - d. Weakness
 - e. Thirst
 - f. Giddiness
3. Treatment includes:
 - a. Remove the worker from the hot environment
 - b. Provide fluid
 - c. Allow the worker to rest

22.4 HEAT CRAMPS

1. Typically caused by hard physical labor in a hot environment. The cramps are usually caused by the lack of water replenishment.

22.5 ENGINEERING CONTROLS

1. General and/ or local ventilation
2. Shielding from the heat source
3. Cooling fans

22.6 ADMINISTRATIVE CONTROLS

1. Reduce the physical demands of the work
2. Provide recovery area(s) with fluids
3. Work in the early morning or night time
4. Provide rest and fluid breaks
5. Use worker pacing

22.7 TRAINING FOR WORKING IN HOT WEATHER WILL INCLUDE:

1. Hazards of heat stress
2. Recognition of the danger signs and symptoms
3. First aid procedures
4. Danger of using drugs or alcohol in hot environments
5. Protective clothing and equipment
6. Medical programs

23.0 WORKING IN COLD TEMPERATURES

23.1 WORKING IN COLD TEMPERATURES

When working in cold temperatures, workers are susceptible to hypothermia.

23.2 HYPOTHERMIA

1. Hypothermia is a condition when the body temperature falls and the body loses heat faster than it produces.

23.3 SYMPTOMS

1. Shivering
2. Fumbles
3. Mumbles
4. Stumbles
5. Cool abdomen
6. Muscles are rigid
7. Skin is ice cold and blue

23.4 TREATMENT

1. Call for emergency services
2. Block the worker from wind exposure
3. Keep the worker in a horizontal position
4. Provide clean dry clothing
5. Start CPR if the worker is not breathing - only if trained in CPR

23.5 ENGINEERING CONTROLS

1. Add heating ventilation

23.6 TRAINING

1. Working in cold weather
2. Use layering when dressing
3. Signs and symptoms of hypothermia

24.0 FALL PROTECTION

When working at heights, C.A. Hull maintains a safe working environment for its employees by enforcing fall protection rules on all its job sites. Fall protection will comply with OSHA standard 29 CFR 1926 Subpart M and the provision of this section. Scaffolds, Ladders and Aerial Lifts are discussed in other sections.

Failure to follow all project fall protection rules and to use and inspect your fall protection equipment is considered a serious safety hazard and can be cause for termination from employment.

C.A. Hull will use engineering controls prior to personal protective equipment where feasible. A Qualified Person will be required to prepare a fall protection plan per project location. C.A. Hull will use a Certified Safety Professional (CSP) or a foreman with at least ten years of experience to prepare the Plan.

All incidents involving falls will be investigated per Section 37.0.

24.1 PERSONAL FALL ARREST SYSTEM

When workers are required to work more than six feet off the ground, safety harnesses and lanyards must be worn and used to arrest falls. The lanyards must be of the locking snap hook type, and be no longer than six feet in length.

Where required, two legged lanyards must be worn and used to provide 100% tie off at all times, i.e., when moving from one anchorage to another one lanyard is always connected or when working over water and a US Coast Guard approved life jacket is not being worn.

A safety cable will be installed on all elevated work areas to allow workers to tie off. This cable will not be used for other purposes, such as supporting scaffolding.

24.1.1 PERSONAL FALL ARREST SYSTEMS

1. Lanyards and vertical lifelines will have a minimum breaking strength of 5,000 pounds.
2. Life lines will be protected against being cut or abraded.
3. Ropes and straps used in lanyards and lifelines will be made from synthetic fibers.
4. Lifelines will be protected against cuts or abrasions.
5. Be rigged to limit free fall to 6 feet or stop before hitting a lower level.
6. Dee-rings and snaphooks are proof-tested to a minimum tensile load of 3,600 pounds and have a minimum tensile strength of 5,000 pounds.
7. Horizontal lifelines are installed by a qualified person and maintain a safety factor of at least two.
8. When stopping a fall a body harnesses limit the maximum arresting force on an employee to 1,800 pounds.
9. Anchorages used for attachment of personal fall arrest equipment are capable of supporting at least 5,000 pounds per employee.
- 10 Never tie-off to a guardrail system unless you have explicit direction from the competent person the guardrail can also act as an anchorage.

11. All fall protection equipment purchased and the selected points of attachment must meet the equipment specifications required by OSHA and this program.
12. The attachment point of the body harness is the center of the employee's back near shoulder level
13. Ropes and straps used in lanyards and strength components of body harnesses are to be made of synthetic fibers.
14. All equipment to be worn by an employee will comply with the applicable OSHA, ANSI and/or ASTM standards and will be certified by the manufacturer to meet the applicable standards.

24.1.2 INSPECTIONS

1. Personal fall arrest systems will be inspected prior to each use for wear, damage and other deterioration by the worker and weekly by the competent person.
2. Inspect the harness for the following:
 - a. Nylon webbing for torn, frayed, broken fibers, pulled stitches or frayed edges and burn marks.
 - b. D-ring for wear, pits, deterioration, deformation or cracks.
 - c. Buckles are not deformed or cracked and they work properly.
 - d. If grommets are on the harness, check to see they are secured and not deformed.
3. Inspect the lanyard for the following:
 - a. Cuts, burns, abrasions, links, knots and broken stitches.
 - b. Snaphook for distortion.
 - c. The warning tag is not visible.
 - d. manufacturer's tag is visible.
4. Follow the manufacturer's recommendations for any other required inspections.
5. Defective equipment will be removed from service immediately.

24.1.3 FALL DISTANCES WITH PERSONAL FALL ARREST SYSTEMS

The typical lanyard used by C.A. Hull is a 6 foot lanyard with a shock absorber that can extend 3 ½ feet when deployed. Keeping this in mind, wearers must tie off at or above their shoulders to minimize the free fall distance and total fall distance. A total fall with a 6 foot lanyard and shock absorbed can be as far as 18 feet.

24.2 LEADING EDGE

A leading edge is an unprotected side or edge where there is a change in elevation. In addition, the leading edge is also the area of a bridge platform system six feet from the edge of outside of the outside fascia beam. When working near a leading edge, workers will use either a personal fall arrest system or warning lines. The warning line will be flagged not more than every six feet with highly visible markings such as yellow or red tape.

On bridge painting projects, a leading edge is the edge of the platform system during erection, modification or dismantling of a platform and the outside 6 feet of the platform is a guard rail system is not installed or the area outside of the beams.

24.3 WARNING LINE SYSTEM

1. Warning line system will be erected not less than six feet from the leading edge. This may not work on a bridge platform system where the warning line system may be erected at the edge.
2. Warning lines will consist of ropes, wires or chains and supporting stanchions.
3. The warning line will be flagged at nor more than six foot intervals with highly visible material.
4. The warning line will be no lower than 34 inches from the working surface and no higher than 39 inches from the working surface.
5. The warning line will be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally.

24.4 HOUSEKEEPING RULES

1. All work areas, passageways, storerooms, and service rooms will be kept clean and orderly and in a sanitary condition.
2. The floor of every area will be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used, drainage will be maintained and gratings, mats, or raised platforms will be provided.
3. Every floor, work area and passageway will be kept free from protruding nails, splinters, holes, or loose boards.

24.4.1 AISLES AND PASSAGEWAYS

1. Aisles and passageways will be kept clear and in good repair with no obstruction across or in aisles that could create a hazard.
2. Permanent aisles and passageways will be appropriately marked.
3. Where mechanical handling equipment is used, aisles will be sufficiently wide. Improper aisle widths coupled with poor housekeeping and vehicle traffic can cause injury to employees, damage the equipment and material, and can limit egress in emergencies.

24.4.2 GUARDING FLOOR AND WALL OPENINGS

Floor openings and holes, wall openings and holes, and the open sides of platforms may create hazards. People may fall through the openings or over the sides to the level below. Objects, such as tools or parts, may fall through the holes and strike people or damage machinery on lower levels.

1. Standard railings will be provided on all exposed sides of a stairway opening, except at the stairway entrance. For infrequently used stairways, where traffic across the opening prevents the use of a fixed standard railing, the guard will consist of a hinged floor opening cover of standard strength and construction along with removable standard railings on all exposed sides, except at the stairway entrance.
2. A "standard railing" consists of top rail, mid rail, and posts, and will have a vertical height of 42 inches nominal from the upper surface of top rail to floor, platform, runway, or ramp level. Nominal height of mid rail is 21 inches.
3. A "standard toe board" is 4 inches nominal in vertical height, with not more than ¼-inch clearance above floor level.

4. Floor openings may be covered rather than guarded with rails. When the floor opening cover is removed, a temporary guardrail will be in place, or an attendant will be stationed at the opening to warn personnel.
5. Every floor hole into which persons can accidentally walk will be guarded by either:
 - a. A standard railing with toe board, or
 - b. A floor hole cover of standard strength and construction.
6. While the cover is not in place, the floor hole will be constantly attended by someone or will be protected by a removable standard railing.

24.5 SAFETY NETS

1. Safety nets are used where personal fall arrest systems, guardrails or other conventional protective equipment are impractical or infeasible.
2. Safety nest are to be installed as close as practicable under the working surface but in no case more than 30 feet below the working surface.
3. Sufficient clearance must be maintained under the net to prevent contact with any object.
4. Safety nest are to be inspected at least once a week for wear, damage and other deterioration.
5. The maximum size of each safety net mesh opening will not exceed 36 square inches nor be longer than 6 inches on any side.
6. A competent person must certify that the net installation is in compliance with OSHA regulation.
7. Safety nets must extend outward from the furthest projection of the working level as follows:

Vertical distance from working level to horizontal plane of net	Min	Minimum required horizontal distance of outer edge of net from the edge of the working surface
Up to 5 feet		8 feet
5 feet to 10 feet		10 feet
10 feet to 30 feet		13 feet

24.6 CONTROLLED ACCESS ZONES

1. When used to control access to areas where the leading edge, the controlled access zone will be defined by a control line or other acceptable means that restricts access.
2. Control lines will be erected not less than 6 feet mor more than 25 feet from the unprotected or leading edge.
3. The control line will extend along the entire length of the unprotected or leading edge and will be approximately parallel to the unprotected or leading edge.
4. Control lines will consist of ropes, wires, tapes or equivalent means, and supporting stanchions as follows:
 - a. Each line will be flagged or clearly marked at not more than 6 foot intervals with high-visibility material.
 - b. Each line will be rigged and supported so that its lowest point (including sag) is not less than 39 inches from the walking/ working surface and its highest point is not more than 45 inches.
 - c. Each line will have a minimum breaking strength of 200 pounds.

24.7 SAFETY MONITORING SYSTEM

C.A. Hull does not use safety monitoring systems.

24.8 TRAINING

Employees exposed to fall hazards will be trained in the following:

1. The nature of the fall hazards in the work area
2. The correct procedure for erecting, maintaining, disassembling and inspecting the fall protection system to be used.
3. The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used.
4. The role of each employee in the safety monitoring system when used.
5. The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
6. The role of employees in fall protection plans
7. Any pertinent sections of 29 CFR 1926 Subpart M.
8. The manufacturer's recommendations, procedures and inspections of fall protection equipment.

Employees will be retrained when:

1. There is a change in the workplace render initial training obsolete.
2. A change in the type of fall protection system or equipment is used.
3. The competent person observes a worker who shows inadequacies in knowledge of the fall protection system in use.
4. There is a deficiency in training.
5. Work place changes.
6. Fall protection systems or equipment changes that render previous training obsolete.

Fall protection training will be documented. The documentation will include the employee's name and signature, date of training, instructor's name and signature.

24.9 DUTIES OF THE COMPETENT PERSON

1. The competent person will be trained and have experience to be able to recognize fall hazards.
2. The competent person will warn employees if they are unaware of fall hazards or if an employee is acting in an unsafe manner.
3. Conduct safety meetings with employees on fall protection which includes how to don a harness, how to inspect their equipment, anchorage points and any other relevant topic.

24.10 RESCUE

Rescue is required to start immediately upon an event. The foreman and competent person will control the rescue, which will involve calling for emergency services.

Prior to starting any project where a fall may occur, a method of rescue must be planned. The use of Emergency Services (911) may not be available in many sections of the country. Some of the more common forms of rescue for a person who has fallen and is still suspended in the harness and lanyard include:

1. Ladders for lower structures
2. Aerial lift or scissor lift
3. Block and tackle
4. Hoist
5. Rescue team
6. Self-rescue
7. Emergency services

All employees working on a project which involves heights, must be provided rescue training which includes employee roles during and after a fall.

If a rescue is required,

1. The first person on the scene will contact others in the working crew to advise of the situation, then (if possible) talk with the victim(s) and determine if he is ok and what happened. This may not be possible as the victim(s) may be unconscious.
2. Determine if the area where the fall occurred is safe for others to use, if you cannot make that determination, DO NOT ENTER.
3. If feasible determine the method of rescue, or wait till others in the crew are available to assist.
4. The foreman or competent person will be in charge of any rescue.
5. The foreman or competent person will contact emergency services for rescue or for medical services.
6. If possible, keep track of how long the victim(s) are in a fall position.
7. Implement the fall rescue plan.
8. After the rescue, investigate the incident and determine the cause.

25.0 SCAFFOLDS

All scaffolds will comply with OSHA regulations 29 CFR 1926, Subpart L and the provisions of this section.

OSHA requires that a Competent Person be available on-site, and be capable of making decisions regarding fall protection, safe access and scaffold integrity. The Competent Person must be familiar with the manufacturer's specifications and instructions for safe use. The Competent Person must actually supervise the work being performed. The Competent Person will conduct scaffold inspection as required such as the daily inspection prior to each use.

25.1 DEFINITIONS

Catenary scaffold a suspension scaffold consisting of a platform supported by two essentially horizontal and parallel ropes attached to structure members of a building or other structure.

Competent Person one who is capable of identifying existing and predictable hazards in the surroundings or working condition which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Coupler a device for locking together the tubes of a tube and coupler scaffold.

Guardrail system a vertical barrier, consisting of, but not limited to, top rails, midrails, and posts, erected to prevent employees from falling off a scaffold platform or walkway to lower levels.

Maximum intended load the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

Outrigger the structural member of a supported scaffold used to increase the base width of a scaffold in order to provide support for and increased stability of the scaffold.

Platform a working surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

Qualified one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

Scaffold any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), used for supporting employees or materials or both.

Suspension scaffold one or more platforms suspended by ropes or other non-rigid means from an overhead structure(s).

25.2 TRAINING

All employees who work on a scaffold must be trained by a qualified person. The training will include the following:

1. Electrical hazards
2. Fall hazards
3. Falling object hazards
4. Proper use of the scaffold
5. Proper handling of materials on the scaffold
6. Maximum intended load,
7. Load carrying capacity
8. Any other pertinent requirements.
9. If tags are placed on equipment, what a tag means.

Additional training will be conducted when:

1. When a change in the work site adds a new hazard for which the employee(s) have not been trained
2. Where a change in the type of scaffold, fall protection or other equipment add a new hazard for which the employee(s) have not been trained.
3. When the competent person believes the employee's knowledge is insufficient.

25.3 GENERAL REQUIREMENTS FOR ALL SCAFFOLDS

There are three types of scaffolds: stationary, suspension and mobile. Each scaffold must meet the following requirements:

1. Support own weight and four times the maximum intended load. To determine the maximum intended load, add the weight of the workers and the weight of the tools and materials before assembling the scaffold.
2. Suspension rope and hardware must support six times the maximum intended load.
3. Stall load of scaffold hoist must not exceed three times its rated load.
4. Designed by a qualified person and built and loaded to design.
5. Scaffold must be inspected prior to each shift by a Competent Person.

25.3.1 SCAFFOLD PLATFORM CONSTRUCTION

1. The platform will be fully decked or planked with no more than 1" gaps. The deck will be a minimum of 18" wide and planking will be a maximum of 9½" wide.
2. The front edge of the platform will be no more than 14" from the face of the work and 3" from the face of the outrigger scaffolds.
3. When overlapping platforms are used, a 12 inches overlap is required.
4. Do not mix scaffold components unless compatible and integrity is maintained.
5. Do not modify scaffold components or use dissimilar metals unless approved by the Competent Person.
6. When working near power lines maintain a safe working distance of at least 10 feet, for higher voltages maintain a safe distance of 35 feet.
7. Wood planks that have been painted are not to be used since the paint can hide cracks or other damage.

8. Ensure that all planks are scaffold grade and that all components are inspected for defects prior to erection.

25.3.2 PLATFORMS ON BRIDGES

On many bridges, a platform is erected that is not listed under the scaffold standard as one of the listed types of scaffolds. When the platform will be used on a project the following will apply:

1. When required by project specifications, the platform will be designed by a licensed Professional Engineer (P.E.). If P.E. does not design the platform, then a qualified person and a drawing of the system will be required..
2. The platform will be erected in accordance with the drawings.
3. Modifications will be made with consent of the P.E. or qualified person and a change to the engineering drawing will be required.
4. The foreman or other qualified competent person will make daily or pre-shift inspections of the platform system.

25.3.3 SUSPENSION SCAFFOLDS

Hang from overhead supports by wire, synthetic or fiber ropes

1. Support devices, direct connections and counterweights used to balance adjustable suspension scaffolds must resist 4 times the intended load.
2. The stall load will be at least 3 times its rated load.
3. Wire rope will be able to support 6 times the intended load, is long enough to reach the lowest intended platform position and provide four wraps around the drum and is free of kinks, birdcages, corrosion and damage.
4. Tiebacks must be equal in strength to the hoisting rope, are secured to a sound anchorage and are never secured to standpipes, vents, piping systems or electrical conduits.
5. When U-bolt clips are used, the U-bolt will be placed over the dead end of the rope, and the saddle will be placed over the live end of the rope.
6. A minimum of 3 wire rope clips will be installed, with the clips a minimum of 6 rope diameters apart.
7. Ropes will be inspected for defects by the Competent Person prior to each workshift. Ropes will be replace when:
 - a. Any physical damage which impairs the function and strength of the rope.
 - b. Kinks that may impair the tracking or wrapping of rope around drum(s) or sheave(s).
 - c. Six randomly distributed broken wires in one rope lay or three broken wires in one strand in one rope lay.
 - d. Abrasive, corrosion, scrubbing, flattening or preening causing loss of more than one third of the original outside diameter of the outside wires.

25.3.4 CATENARY SCAFFOLDS

1. No more than one platform will be placed between consecutive vertical pickups, and no more than two platforms will be sed on a catenary scaffold.
2. Platforms supported by wire ropes will have hook shaped stops at each end to prevent the platform from slipping off the wire ropes.
3. Wire ropes will not be over tightened which could overstress them. Follow the manufacturer of the wire ropes guidelines.

4. Wire ropes will be continuous and without splices between anchors.

25.3.5 MOBILE SCAFFOLDS

1. Mobile scaffolds will be braced by cross, horizontal, diagonal or a combination of braces to prevent racking or collapse.
2. Mobile scaffold casters and wheels will be locked to prevent movement of the scaffold when it is in use.
3. Mobile scaffolds will be stabilized to prevent tipping during movement or when in use.
4. A mobile scaffold may be moved with an employee riding as long as the employee is aware of the move.
5. Mobile scaffolds will be erected in accordance with manufacturer's instructions.

25.4 ACCESS

1. When scaffold platforms are more than 2 feet above or below a point of access, a ladder, stair, ramp, walkway or similar surface will be used.
2. Hook-on and attachable ladders will be positioned so the bottom rung is no more than 24 inches above the scaffold supporting level.
3. Hook-on and attachable ladders will have a minimum rung length of 11 ½ inches with a maximum spacing between rungs of 16 ¾ inches.
4. Integral prefabricated scaffold access frames will be specifically designed and constructed for use as ladder rungs.

25.5 SAFE WORK PRACTICES

1. Climb up and down the scaffold using the ladder, stairway or ramp. Do not climb up and down the scaffold superstructure.
2. Clear the scaffold of snow, ice or any other slipper material prior to the start of work. Keep the platform and walkways clean of debris.
3. Never erect, dismantle or alter a scaffold without Competent Person supervision and direction.
4. Stop work on a scaffold during a storm or high winds.
5. Use tag lines to prevent contact with the scaffold when cranes or other swinging loads are present.
6. Do not jump on to planks or platforms.
7. Keep the scaffold clear of tools, material or debris which could cause a hazard.
8. Maintain safe distances from electrical power lines at all times.
9. If a defective piece of equipment is found it will be tagged "Do Not Use" and removed from service.

25.6 FALL PROTECTION

1. Required at 10 feet and above on scaffolds.
2. Personal fall arrest system and/or guardrails can be used.
3. When vertical life lines are used they will be fastened to a fixed safe point of anchorage, and be independent of the scaffold and protected from sharp edges and abrasion.
4. When guardrails are used, the toprail capable of sustaining 200 pounds of side force and midrail must be installed prior to work. Toe boards are also required to prevent objects from falling.

5. When guardrails are used, the top rails will be between 38" and 45" above the platform surface.

25.7 FALLING OBJECT PROTECTION

1. Hard hats will be worn by all workers.
2. Toe boards will be at the edges of all platform surfaces.
3. When necessary, the area around the scaffold will have barricades to prevent unauthorized personnel from entering the work zone.
4. When necessary, a canopy, debris net or catch platform strong enough to withstand the impact of falling objects will be erected to catch falling objects.

25.8 ELECTRICAL SAFETY

The clearance between scaffolds and power lines will be maintained as follows:

Insulated lines

Voltage	Minimum Distance
Less than 300 volts	3 feet
300 Volts to 50 kv	10 feet
More than 50 kv	10 feet plus 0.4 inches for each 1 kv over 50 kv

Uninsulated lines

Voltage	Minimum Distance
Less than 50 kv	10 feet
More than 50 kv	10 feet plus 0.4 inches for each 1 kv over 50 kv

Scaffolds may be located closer to electrical lines if necessary only under the following conditions:

1. The utility company or owner of the electrical line(s) has been contacted and they can
 - a. relocate the line(s)
 - b. de-energize the line(s)
 - c. install a protective covering to the line(s) and provide the safe working distance

25.9 RESCUE

Prior to starting any project where a fall from scaffold or scaffold collapse may occur, a method of rescue must be planned. The use of Emergency Services (911) may not be available in many sections of the country. Some of the more common forms of rescue for a person who has fallen and is still suspended in the harness and lanyard include:

1. Ladders for lower structures
2. Aerial lift or scissor lift
3. Block and tackle
4. Hoist

5. Rescue team
6. Self-rescue
7. Emergency services

All employees working on a project which involves heights, must be provided rescue training which includes employee roles during and after a fall.

If a rescue is required,

1. The first person on the scene will contact others in the working crew to advise of the situation, then (if possible) talk with the victim(s) and determine if he is ok and what happened. This may not be possible as the victim(s) may be unconscious.
2. Determine if the area where the fall occurred is safe for others to use, if you cannot make that determination, DO NOT ENTER.
3. If feasible determine the method of rescue, or wait till others in the crew are available to assist.
4. The foreman or competent person will be in charge of any rescue.
5. The foreman or competent person will contact emergency services for rescue or for medical services.
6. If possible, keep track of how long the victim(s) are in a fall position.
7. Implement the fall rescue plan.
8. After the rescue, investigate the incident and determine the cause.

25.10 GENERAL RESCUE PROCEDURE FOR WORKER SUSPENDED IN HARNESS

25.10.1 ELEVATING WORK PLATFORM AVAILABLE

1. Bring it to the site and use it to reach the suspended worker.
2. Ensure that rescue workers are protected against falling.
3. Ensure that the EWP has the load capacity for both the rescuers and the victim.
4. If the victim is not conscious, 2 rescuers will be probably be needed to safely handle the weight of the victim.
5. Position the EWP platform below the worker and disconnect his lanyard when it is safe to do so.
6. Treat the victim for Suspension Trauma and any other injuries.
7. Arrange for transport to nearest hospital.

25.10.2 ELEVATING WORK PLATFORM NOT AVAILABLE - USE OF LADDER

1. Where possible, use ladders to reach victim.
2. Rig separate lifelines for rescuers to use while carrying out the rescue from the ladder.
3. If worker is not conscious or cannot reliably help with his/her own rescue, at least 2 rescuers may be needed.
4. If the worker is suspended from a lifeline, where possible, move the suspended victim to an area that can be safely reached by the ladder.
5. If victim is suspended directly from his/her lanyard or from a lifeline, securely attach a separate lowering line to the victim's harness.
6. Other rescuers should lower the victim while he/she is being guided by the rescuer on the ladder.
7. Once the victim has been brought to a safe location, administer First Aid and treat the person for Suspension Trauma.

8. Arrange for transport to nearest hospital.

25.10.3 ELEVATING WORK PLATFORM NOT AVAILABLE - USE OF SCAFFOLD

1. Rescuers will evaluate the location of the fall to determine if an existing scaffold is available and ensure its integrity was not affected. If the existing scaffold was affected, an alternate scaffold such as a catenary scaffold will be slid across the existing scaffold cables.
2. Rig separate lifelines for rescuers to use while carrying out the rescue from a scaffold.
3. If worker is not conscious or cannot reliably help with his/her own rescue, at least 2 rescuers may be needed.
4. If the worker is suspended from a lifeline, where possible, move the suspended victim to an area that can be safely reached by the ladder.
5. If victim is suspended directly from his/her lanyard or from a lifeline, securely attach a separate lowering line to the victim's harness.
6. Rescuers will determine if they can safely lower the victim to the ground, or to a rescue boat, or if they will be required to raise the victim up to the scaffold.
7. Once the victim has been brought to a safe location, administer First Aid and treat the person for Suspension Trauma.
8. Arrange for transport to nearest hospital.

26.0 AERIAL LIFTS

Aerial lifts will comply with OSHA standard 29 CFR 1926.453 and ANSI A92.2 and the provisions of this section.

1. Aerial lifts include the following types of vehicle mounted aerial devices used to elevate personnel to job-site above ground, these devices include:
 - a. Extensible boom platforms
 - b. Aerial ladders
 - c. Articulating boom platforms
 - d. Vertical towers
 - e. A combination of the above devices
2. Aerial lifts may be field modified for uses other than intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by equivalent entity.

26.1 TRAINING

1. Only trained personnel will operate aerial lifts.
2. Training will include: how to operate an aerial lift, how to safely drive an aerial lift, weight restrictions, how to inspect and test the aerial lift prior to use, fall protection when in the aerial lift and manufacturer's requirements.

26.2 INSPECTION AND TESTING

1. Lift control devices (upper and lower controls) will be tested each day prior to use to determine the controls are in good working order.
2. The person who will operate the aerial lift will conduct a visual inspection of the aerial lift per the manufacturer's requirements.

26.3 SAFETY PROCEDURES

1. Prior to using any aerial lift, the lift operator will survey the area to determine if there are obstacles, obstructions or other areas which may cause the lift to tip over.
2. If the aerial lift will be operated on an active roadway or where there are overhead power lines, a spotter will be required. On the roadway, the spotter will be equipped as a flagger.
3. Aerial lifts will not be operated within 10 feet of high voltage lines (up to 50 Kv)
4. Ground controls will not be operated without the permission of the workers in the basket, except in an emergency.
5. Belting off to adjacent structures while in the lift will not be permitted.
6. If workers leave the basket to gain access to a work area, the worker will maintain 100% fall protection by connecting to a safety line or secure structure then disconnecting from the basket.
7. Workers will keep both feet on the floor of the platform.
8. Workers will not stand on the toeboard, mid-rail or top-rail, or use planks, ladders or other devices to raise the working height.
9. A harness and lanyard will be worn at all times when in the basket or boom.
10. Boom and basket loads will not be exceeded. The load rating will be placed in the basket or boom of an aerial lift.
11. To safely position the aerial lift, wheel chocks or outriggers will be used on inclined positions.
12. The gate to the basket will be securely closed when the lift is in use.

27.0 LADDER AND STAIRWAYS

In accordance with OSHA 29 CFR 1926 Subpart X, a ladder or stairway must be provided at all worker points of access where there is a break in elevation of 19 inches or more and no ramp, runway, embankment or personnel hoist is provided.

27.1 STAIRWAYS

1. Stairways that are not a permanent part of a structure must have a landing at least 30 inches deep and 22 inches wide at every 12 feet or less of vertical rise.
2. Stairways must be installed at least 30 degrees and no more than 50 degrees from the horizontal surface.
3. Variations in riser height or stair tread depth must not exceed $\frac{1}{4}$ inch.
4. If doors open onto the stairway, a platform must be provided that extends at least 20 inches beyond the swing of the door.
5. Stairways with 4 or more risers or greater than 30 inches, whichever is less, must have at least one handrail. A stairrail must also be installed along each unprotected side or edge.
6. Handrails and the top rails of the stairrails must be able to withstand at least 200 pounds of weight within inches of the top edge.

27.2 LADDERS

There are two types of ladders, portable and fixed. A portable ladder is one that can readily be moved and a fixed ladder cannot because it is an integral part of a building or structure.

27.2.1 GENERAL REQUIREMENTS

1. Ladder rungs, cleats and steps must be parallel, level and uniformly spaced.
2. Rungs, cleats and steps of ladders must not be spaced less than 10 inches apart nor more than 14 inches apart.
3. Ladders must not be tied together to create longer sections unless they are specifically designed for such use.
4. A metal spreader or locking device must be provided on each stepladder to hold the front and back sections in an open position when the ladder is in use.
5. Two or more separate ladders used to reach an elevated work area must be offset with a platform or landing between the ladders.
6. Wood ladders must not be coated with any opaque covering.
7. Ladders must be free of oil, grease and other slipping hazards.
8. Ladders must have the proper load capacity for the job. Do not exceed the rated load limit.
9. Ladders are to be used as ladders (their intended purpose) and not as a scaffold or other use.
10. All ladders that are used by C.A. Hull will meet OSHA/ ANSI specifications.

27.2.2 PORTABLE LADDERS

1. Non-self-supporting and self-supporting ladders must be capable of supporting 4 times the maximum intended load, extra heavy duty type 1A metal or plastic ladders must sustain 3.3 times the maximum intended load.
2. Minimum distance between the side rails must be 11.5 inches.

3. The rungs or portable metal ladders must be corrugated, knurled, dimpled or coated with skid-resistant materials to minimize slipping.
4. Side rails of a portable ladder must extend at least 3 feet above the upper landing surface.
5. Ladders are to be placed at a 4:1 ratio (four feet up to one foot out).
6. Ladders are to be secured at the top to a rigid support.
7. Extension ladders must have the proper overlap, depending upon their length.
 - a. 3 foot over lap for a 32 foot ladder
 - b. 4 foot over lap for 32 to 36 foot ladder
 - c. 5 foot over lap for 36 to 48 foot ladder
 - d. 6 foot over lap for ladders over 48 feet
8. Choose the right extension ladder, follow the chart below for guidance.

Height to top support	Extension ladder size
9'	16'
9' to 13'	20'
13' to 17'	24'
17' to 21'	28'
21' to 25'	32'
25' to 28'	36'
28' to 31'	40'

27.2.3 INSPECTION AND MAINTENANCE OF PORTABLE LADDERS

Ladders must be kept in good working condition at all times. Daily inspection by personnel using the ladder and weekly inspection by the competent person and/or foreman is required. The inspection should include:

1. Look for broken or missing steps or rungs.
2. Check the rungs and steps to ensure skid resistance is in good working shape.
3. Look for broken or split side rails or other defects.
4. On wooden ladders, check for soft areas.
5. On metal ladders, check for rust or weakness.
6. Check the connections between the rungs and side rails.
7. Movable parts should operate freely without binding or undue play.
8. Check the rungs for grease or oil or other slippery conditions.
9. When the ladder is set-up, does it wobble or does not sit flat.
10. Tag defective ladders *DO NOT USE or cut up and dispose*

27.2.4 SAFETY PRECAUTIONS FOR PORTABLE LADDERS

1. Have a co-worker help raise and lower an extension ladder.
2. Have a co-worker foot the ladder prior to climbing the first time. The first person up the ladder must securely tie off the ladder at the upper worker level.
3. Do not stand above the highest safe standing level.
4. Do not stand or sit on the top step or pail shelf, they are not designed to carry an employees weight.
5. Do not reach over, lean to one side or try to move the ladder while on it, this could cause you to lose your balance.
6. Do not use metal ladders where contact with electrical lines or circuits may occur.
7. Maintain three points of contact when ascending and descending a ladder (i.e two feet and one hand or two hands and one foot).
8. While the OSHA regulation does not require fall protection on a portable ladder, the competent person should determine if fall protection will add a level of safety while ascending or descending a portable ladder.

28.0 WORKING OVER WATER

Prior to working over water, C.A. Hull will evaluate the water to determine if there exists the potential for drowning in the water. At this time, C.A. Hull will also determine if a rescue boat is feasible. Water that is less than two feet typically is too shallow for a rescue boat since the outboard motor or oars will be hitting the bottom and for a life jacket and ring buoy as their effectiveness is questionable. During the project, the competent person will access the height of the water to determine if the water has risen to cause a drowning hazard

28.1 EQUIPMENT

1. U.S. Coast Guard approved lifejackets
2. Rescue boat
3. Ring buoy(s) with at least 90 feet of line
4. Harness and lanyard and/or a harness with a double lanyard.

28.2 TRAINING

1. Workers will be trained on the hazards of working over water
2. Safety equipment to be used
3. Rescue procedures.

28.3 TYPICAL METHOD FOR RIGGING PLATFORMS ON BRIDGES

1. Where the bridge is over or adjacent to the water, workers rigging a platform, cables or scaffolds will be required to wear 100% fall protection which means a harness with a double lanyard.
2. If a double lanyard is not in use, then a harness and lanyard will be worn along with a U.S. Coast Guard approved life jacket.
3. After the platform is rigged in accordance with engineering drawings, workers will be required to tie-off at all times when exposed to potential fall of ten feet or more.
4. A rescue boat must be immediately available and ring buoys with at least 90 feet of line will be available.
5. The rescue boat will have at least two U.S. Coast Guard approved life jackets.

28.4 APPLICABLE OSHA LETTER OF INTERPRETATION

1. OSHA Standards Interpretation and Compliance Letters 9/28/199, Fall Protection, lifejacket and lifesaving requirements when working over or near water. Allows workers who use 100% tie-off are not required to wear a life jacket.
2. OSHA Standards Interpretation and Compliance Letters 12/05/2003 - Life jacket and skiff requirements when working over or near water.

29.0 EMERGENCY ACTION PLAN

On all projects, a pre-project assessment of potential emergency situations will be conducted. The potential emergencies include fire, containment collapse with contaminated materials, fuel spills, employee injury, etc. Where there may be a release of a contaminant, C.A. Hull will consult the Environmental Protection Agency (EPA) and state guidelines to determine when a release is required to be reported.

Prior to starting the project, C.A. Hull will provide the necessary equipment or supplies to prevent or minimize potential emergency situations. Equipment or supplies may include diesel fuel tanks with double walls, absorbent materials, shovels and fire extinguishers. No C.A. Hull employee is to remain with any critical plant equipment. If an emergency situation does arise at a C.A. Hull job site, the following are the procedures.

29.1 GENERAL

1. Coordination between local, State and federal disaster and emergency management personnel will be communicated prior to work commencing. The proper authorities will be given a copy of this section of the plan and the necessary information from the Health and Safety Plan.
2. The local hospital(s) will be sent a letter documenting the hazards of the project and provided with the necessary SDS, in the event site workers are transported to the hospital.
3. Directions to the hospital will be posted on site and a copy will be placed in a central location when the Health and Safety Program is in effect.
4. Employees will be trained on the emergency procedures. The training will be both verbally and by providing a copy of this plan to the employees.
5. Contact information will be provided to employees who need additional information pertaining to the plan and/ or their respective duties.

29.2 PRE-EMERGENCY PLANNING

1. The project superintendent, competent person, or company safety Director will establish a line of communications with local hospitals, government agencies and other emergency response organizations prior to site activities.
2. During the pre-job safety meeting and bi-monthly thereafter, all employees will be trained in the provisions of the emergency response plan, communication systems, and evacuation routes.
3. The plan will be reviewed and revised if necessary, on a regular basis.

29.3 TRAINING

Employees will receive training on the emergency action plan as follows:

1. When the plan is developed.
2. When an employee is initially assigned to a job and on an annual basis thereafter.
3. When an employee's responsibilities under the plan change.
4. When the plan is changed.

29.4 LINES OF AUTHORITY

1. The project superintendent will have primary responsibility for responding to and correcting emergency situations. This includes taking appropriate measures to ensure the safety of site personnel and the public.
2. The project superintendent will be relieved of his responsibility only by the appropriate police or fire chief.

29.5 EVACUATION PROCEDURES

Prior to an evacuation, all employees will be trained as to the evacuation route(s), designated meeting location and if an employee is required to assist other employees, their roles and responsibilities.

1. If a fire, chemical spill or release or other emergency action is discovered at the project, the person making the discovery will immediately notify the competent person or project superintendent.
2. The project superintendent and/or the competent person, will make the decision to evacuate the area if necessary.
3. The primary response to any emergency will be to protect the health and safety of employees, contractors, sub-contractors and visitors on-site, as well as the community and environment.
4. After step 3 is completed, and if the project superintendent and/or competent person deems it safe, steps will be taken to identify, contain, treat, and properly dispose of the materials involved as a secondary response.
5. In the event of an emergency which necessitates an evacuation of the site, the following alarm procedures will be implemented:

THREE LONG BLASTS OF A COMPRESSED AIR HORN

* Workers in a high noise exposure area, i.e. blasting or using power tools, may not hear the air horn. The foreman or equipment operator will be responsible to shut off the compressor and then sound the air horn again.

6. When notified to evacuate, all personnel will be expected to proceed to the closest designated safe. The safe area will be set upwind and at least 100 feet from the hazard..
7. Personnel will remain at that area until authorized by the project superintendent or competent person who will complete a head count to verify all employees have been evacuated safely.

29.6 EMERGENCY MEDICAL TREATMENT PROCEDURES

1. Employees are to inform the competent person or foreman immediately of any person(s) who become injured.
2. The competent person or superintendent will decide if emergency services are required. At this time the person onsite who has current training in first-aid will be summoned to assist the injured person(s).

3. Any person who becomes ill or injured in the work area must be decontaminated, if exposed to or potentially exposed to contaminated or regulated materials, to the maximum extent possible. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket). First aid should be administered while awaiting an ambulance or paramedics. All injuries and illnesses must be immediately reported to the competent person.
4. Decontamination will be conducted in the decontamination trailer if possible. If not, a HEPA vacuum will be used to clean off the injured from any contaminated material as well as possible.
5. Where an ambulance is used to transport an employee, inform the ambulance staff of the potential for contamination.
6. Any person being transported to a clinic or hospital for treatment should take with them information on the chemical(s) (SDS) they have been exposed to at the site. If the person cannot take the SDS with them, a copy will be provided to the ambulance staff or directly to the hospital.
7. All work related fatalities are to be reported to OSHA within 8 hours, and all work related in-patient hospitalizations, amputations and loss of an eye are to be reported to OSHA within 24 hours.

29.7 FIRE OR EXPLOSION

1. In the event of a fire or explosion, the local fire department should be summoned immediately.
2. If safe to do so, stop operations and shut off equipment in the immediate work area and other equipment that may feed the fire.
3. The project supervisor and/or the competent person will advise the fire commander of the location, nature, and identification of the hazardous materials on-site.
4. If it is safe to do so; site personnel may:
 - a. Use fire fighting equipment available on site to control or extinguish the fire and,
 - b. Remove or isolate flammable or other hazardous materials which may contribute to the fire.
5. Report to the designated safe area if the warning system is activated until the project supervisor and/or competent person provides further instruction.

29.8 CHEMICAL SPILLS OR LEAKS

1. In the event of a spill or leak, site personnel will:
 - A. Inform their supervisor immediately;
 - B. Locate the source of the spillage and stop the flow if it can be done safely.
 - C. Prevent the spill from entering waterways or drains.
 - D. Begin containment and recovery of the spilled materials if it can be done safely.
2. If the spill or release is expected to pose significant hazards or is beyond the capabilities of the immediate personnel, then the competent person will be contacted immediately.
 - A. The competent person will assess the following:
 1. The material spilled or released

2. Location of the release or spill
 3. an estimate of the quantity released and the rate at which it is being released
 4. any injuries involved
 5. fire and/or explosion or possibility of these events occurring
 6. the area and materials involved in the location of the fire or explosion
3. In the event of a chemical spill that is not contained within a dike or bermed area, an area of isolation will be established around the spill. The size of the area will generally be dependent on the size of the spill and the material(s) involved.
 4. When any spill occurs, only those persons involved in the oversight or performance of the emergency cleanup operations will be allowed within the designated hazard area.
 5. If an incident may threaten the health or safety of the surrounding community, the public will be informed and possibly evacuated from the area. The competent person will inform the proper agencies in the event that this is necessary.
 6. If the control and cleanup of the spill or release is within the capabilities of on-site personnel then the Police or emergency management personnel will NOT be notified unless the release migrates beyond the perimeter of the site. Reporting of spills or releases in accordance with other federal, State and local regulations is also the responsibility of the competent person.

29.9 LEAD CONTAMINATED MATERIAL SPILL OR RELEASE

1. In the event of a spill or release of lead or other metal contaminated material, site personnel will:
 - A. Inform their supervisor immediately;
 - B. Locate the source of the spill or release and stop the spill or release by stopping the operation that is causing the spill or release.
 - C. Prevent the spill or release from entering waterways or drains.
2. The affected area(s) will be cleaned up as soon as possible using HEPA vacuums for smaller areas and industrial vacuums from the recycler, Supersucker or Vec Loader.
3. The competent person will document the spill or release and the corrective actions in the daily inspection report.
4. The Owner will be informed of all spills or releases that require notification of a governmental agency.
5. If the spill or release involves 10 pounds or more of lead, the competent person will notify the The appropriate authority.

29.10 EMERGENCY EQUIPMENT

1. Emergency equipment will be decided on a project to project basis and may include the following:.
 - A. First Aid Kit
 - B. Fire Extinguisher
 - C. Eye Wash Station
 - D. Emergency Shower (decontamination trailer)
 - E. Two-way radio or mobile phone

29.11 MEDIA RELATED EVENTS

If an emergency occurs that warrants a visit from the media, site personnel will not be authorized to speak with the media. The site competent person or foreman will contact management for direction. If given permission by management, the person selected to speak with the media will:

1. Provide information that is factual.
2. Record in the site log book all information provided to the media.
3. Avoid speculation on the cause of the events, amount of damage and seriousness of injuries.
4. DO NOT release names of injured person(s).

29.12 INCIDENT FOLLOW-UP

1. Following all emergency response actions and activation of this plan, the competent person will conduct a debriefing session of all key personnel involved.
2. The response will be critiqued, documented, and response plans revised, if necessary. Corrective actions will be listed where procedures were inadequate or need improvement.
3. Employees will be advised of any corrective actions and results of the critique as soon as possible.

30.0 RAILROAD SAFETY

Prior to working on or near the tracks, workers may be required receive safety training from the railroad authority and follow all its rules and requirements, including the use of railroad flag persons whenever necessary.

Work near railroads will not begin until a railroad representative has inspected, if requested, the construction site to determine the need for either standard railroad precautions or special precautions. If a job-specific plan is warranted by the situation, the railroad representative should work with the contractor and Industrial hygienist to help develop an appropriate railroad safety plan. The plan should address how exposure of equipment and workers to railroad operations will be controlled, how oncoming rail traffic will be detected, and how workers and equipment operators will be warned of oncoming trains.

Those operations requiring written approval of the railroad may include, but are not limited to:

1. Any construction affecting the operation or maintenance of railroad facilities. This work may include constructing, repairing or removing structures, temporary track detours, erecting falsework, or alteration of track clearances.
2. Any time an operated track or overhead wire is to be fouled by the contractor's equipment. (An operated track is fouled when any object is brought closer than eight feet from the center line of the track unless it is lower than the top of the rail.) At least 8 days notice will be given so that proper protection can be arranged..
3. Any agreement between the contractor and the railroad company to install a private grade crossing at the site for the private use of the contractor.
4. Whenever work may affect the safety or movement of trains, or may cause damage to the tracks or other railroad facilities. The method of doing such work will be submitted to the railroad and written approval must be granted.

30.1 WORKING NEAR ELECTRIFIED TRACKS

Prior to starting any project with electrified tracks, or a third rail, C.A. Hull will determine if the tracks or rail can be de-energized prior to the start of work till the time work has been completed and all workers are away from the tracks or rail. In addition, the following will apply:

1. Attend training as required by the railroad.
2. Ensure all workers onsite that will be working on or next to the tracks or rail have complete the required training.
3. Ensure workers are wearing the specified safety equipment per the railroad's requirements.
4. If the track or rail is to be energized during the time of work, determine from the railroad the required safety precautions which could include a third rail box, rubber mats, or other approved items by the railroad.
5. Equipment may be required to be grounded, refer to the railroad's requirements.
6. Use of non-metallic equipment such as ladders will be required.

Each railroad has its own rules and procedures. Refer to the project documents and the railroad requirements prior to starting any work involving energized tracks, or a third rail, even if its not energized. A project specific safety plan will be prepared for this type of work.

31.0 MAINTENANCE AND PROTECTION OF TRAFFIC

Prior to starting any project that will be on or next to an active roadway, consideration must be given to the Maintenance and Protection of Traffic (MPT) to prevent vehicle intrusions into the work zone, prevent vehicle accidents due to the work zone and prevent workers from getting struck-by vehicles. C.A. Hull will use the current Manual on Uniform Traffic Control Devices (MUTCD), state MUTCD and/or project specifications on how and where to set-up MPT. This Section is intended solely for the worker safety when setting up and removing traffic control equipment, and is not intended to override the MUTCD, State MUTCD or project specifications.

31.1 MPT OFFICER

This person is responsible for the safe establishment, maintenance and removal of traffic control devices that make up a MPT pattern. Where a MPT pattern is established, the MPT Officer will conduct frequent checks of the MPT pattern to ensure that all traffic control devices are in place and that the MPT pattern is working effectively. The MPT officer will decide when flaggers are required and that they understand their jobs prior to flagging. In addition, the MPT Officer must ensure where flagger(s) are used, they remain alert to oncoming traffic and are courteous to the public.

31.2 FLAGGER

The flagger(s) will be alert at all times, on their feet and facing oncoming traffic. The flagger(s) will stand in a highly visible location, but not directly in the path of oncoming vehicles. Additionally, the flagger(s) should look for an escape path in the event an erratic vehicle approaches.

For daytime work, the flagger's vest, shirt or jacket will be either orange, yellow, yellow-green or a fluorescent version of these colors. For nighttime work, the outside garments will be retroreflective using either orange, yellow, white, silver, yellow-green or a fluorescent version of these colors and will be visible at a minimum distance of 1,000 feet.

The flagger(s) will use stop/ slow paddles with an octagonal shape. When used at night, the stop/ slow paddles will be retroreflectorized.

31.3 TRAINING

All persons involved in MPT will be trained in MPT by C.A. Hull. If the state or locality has specific training regulations, these must be followed.

31.4 SAFETY EQUIPMENT

All persons, other than the flagger(s), working on or near a roadway will wear highly visible vests in accordance with project specifications or ANSI/ISEA 107-1999 which has defined three categories for ANSI-compliant apparel.

- a. Class 1- users who have ample separation from vehicular traffic, the traffic is 25 mph or less and the background is not complex.

- b. Class 2- users who need greater visibility in inclement weather conditions and activities near roadways where traffic speeds exceed 25 mph.
- c. Class 3- use in wide range of weather conditions, traffic exceeds 50 mph and/or no ample separation from vehicular traffic.

Hard hats worn at night will have reflective strips on all four sides. Additionally, workers crossing the road will use a red flag to warn oncoming traffic of their presence.

31.5 TRAFFIC CONTROL DEVICES

Traffic control devices used by C.A. Hull will conform to the current MUTCD and/or project specifications, whichever is the more stringent. Traffic control devices is defined as all signs, signals, markings and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, or bikeway by authority or a public body or official having jurisdiction.

31.6 SETTING UP AND REMOVING TRAFFIC PATTERNS

When setting up or removing a traffic pattern, the MPT officer will determine how the pattern will be set up or removed safely. If setting up a pattern by having worker(s) walk in the roadway and placing traffic cones, an attenuator truck or shadow truck will follow closely behind the workers to prevent on-coming traffic from entering the area where the workers are setting up the pattern. If setting up the pattern from a truck, the truck will travel 10 mph or slower and workers will remain sitting in the back of the vehicle. When removing the traffic pattern, remove it using the same method as setting up.

After each set-up and removal of the traffic pattern, the MPT officer should evaluate the procedure used to ensure the maximum safety for workers, construction equipment and vehicle traffic and make any adjustments necessary.

32.0 VEHICLE SAFETY

All on-road, off-road and material handling vehicles and equipment are to be used in accordance with 29 CFR 1926.600 and 1926.601 and this section.

32.1 VEHICLES

1. All vehicles are to be provided with working seat belt. The seat belt anchorages will comply with the requirements of 49 CFR Part 571.
2. All vehicles operated on public property are to be register and inspected in the state where ownership exists and equipped with all the required safety and operating features in accordance with state law.
3. Vehicles used to transport workers will have seat firmly secured and an adequate amount of seat for the number of workers transported.
4. All vehicles used to transport employees will be equipped with properly working headlights, brakes, horns, turn signals, tires, mirrors, and windshield.
5. All vehicles will have the appropriate lights or reflectors to help identify their locations.
6. Only authorized employees will be allowed to operate vehicles which includes a valid license.
7. Employees are not authorized to allow another employee use of a company vehicle without management's approval.
8. Company vehicles are to be used only for company work and are not to be used for personal business.
9. The use of drugs or alcohol is strictly prohibited when operating company vehicles. Prescription medicine may be used under the supervision of a licensed physician and a letter from the physician to the company describing the need and restrictions of any prescribed medicine.

32.2 EMPLOYEES

1. Employees designated to operate vehicles must have a current driver's license or CDL.
2. Each employee in a vehicle will wear a seat belt.
3. Employees will only operate a company vehicle that they are assigned by management.

32.3 SAFETY

1. Tools and materials will be secured to prevent movement when transported in the same compartment with employees.
2. Tools and materials in the bed of a truck will be secured to prevent movement or loss during transportation.
3. The parking brake will be set when the vehicle is not in use or parked. Vehicles parked on inclines will have the wheels chocked and parking brakes set.
4. Employees must not be permitted to ride on top of any load that can shift and topple.
5. When reversing a vehicle other than a car or pick-up truck, a spotter will assist the driver. The driver will not move unless the spotter can be seen in a mirror and the spotter give the signal to reverse.

32.4 CELLULAR PHONES AND/OR OTHER DRIVING DISTRACTIONS

1. Employees will not be permitted to use cellular phones or two-way radios while driving. Either a hands-free adapter must be used or the employee will pull over in a safe area, such as a rest stop, and talk.
2. Employees will not be permitted to eat or drink while driving company vehicles.
3. If another employee is causing the driver to become distracted, the other employee will be asked to stop the distraction or be removed from the vehicle at a safe location.

32.5 ACCIDENTS

1. All accidents, regardless of the amount of damage to the company vehicle, other vehicle or to property are to be reported to management as soon as possible after the accident.
2. The driver is to take pictures of the scene and record the following information:
 - a. Date and time of the accident
 - b. Location
 - c. Name, address and phone number of other driver and any other people involved
 - d. Name, address and phone number of witnesses
 - e. Name of other driver's insurance carrier and policy number
 - f. Any other pertinent information

33.0 FIRE PREVENTION

33.1 FIRE PREVENTION AND PROTECTION

Paint solvents and other flammable materials will be properly stored and handled according to all OSHA regulations, 29 CFR 1926.150, 151, 152 and 153. Each storage area will be equipped with a fire extinguisher for solvent fires which will be inspected monthly and serviced annually. All workers will be trained in the OSHA requirements, including prohibiting smoking and the use of spark generating equipment in areas where flammable materials are stored or used.

33.1.1 FIRE TRIANGLE

The following fire elements must be controlled or eliminated to prevent fires.

1. Fuel: Combustible materials that include solids, liquids and gases.
2. Oxygen: The air around us has plenty of oxygen to sustain a fire.
3. The energy necessary to increase the temperature of the fuel to a level which it will burn.
4. Chemical Reaction: This is the reaction that occurs when other three elements are present in the right conditions.

33.1.2 RULES TO REMOVE THE FIRE ELEMENTS

1. Housekeeping - Trash and debris will be kept to a minimum at all times. The work area will be clearly cleaned of debris at the end of every day.
2. Smoking restrictions inside the work area will be strictly enforced (disciplinary action will be clearly outlined prior to the start of employment on this project).
3. "No Smoking" and "Flammable/Combustible Area" signs will be conspicuously posted.
4. Do not refuel equipment while it is running or hot.
5. Do not refuel in confined spaces.
6. Keep flammable liquids stored in tightly closed self-closing approved spill proof containers.
7. Store flammable liquids in proper containers away from ignition sources i.e., open flames, cigarettes, and or spark providing sources.
8. Do not overload outlets and circuits.
9. Only OSHA-approved metal safety fuel cans, with self-locking spouts and flame arresters will be used.
10. All fueling equipment will incorporate grounding wires.

33.1.3 FIRE PROTECTION

1. If a fire should strike, keep in mind the following rules:
 - a. Make sure everyone gets out
 - b. Call the Fire Department at once
 - c. Do not attempt to fight the fire unless your party has a qualified fire watch
 - d. Stay near an exit so you can escape if need be. Stay low, away from heat and smoke. If the fire gets large, get out.

2. Knowing the classification of fires will help you in using the proper extinguisher, the following is a list of classes of fires that C.A. Hull may encounter on its projects and the proper extinguisher to use in fighting the different fires.
 - a. Class “A” Fires: Ordinary combustibles such as rubbish, paper, rags, scraps of lumber, etc. These are fires that require a cooling agent for extinguishers are watered through use of a hose, pump-type water cans, pressurized extinguishers and soda-acid extinguishers.
 - b. Class “B” Fires: Flammable Liquids, oils, gases and grease. These are fires that require a smothering effect for extinguishing. The recommended extinguishers are Carbon Dioxide, Dry Chemical and Foam.
 - c. Class “C” Fires: Electrical Equipment. Fires that require a non-conducting extinguishing agent. Recommended extinguishers are Carbon Dioxide and Dry Chemical.

33.1.4 TRAINING

1. Workers who may fight fires will training by the Competent Person which includes:
 - a. The proper use of the fire extinguishers.
 - b. The location of each and every fire extinguisher.
 - c. Where to meet in the event of a fire in order to account for personnel.
 - d. How to alert the local fire service authorities, i.e. Posted Phone Numbers.
 - e. The manner in which emergencies are announced, i.e. three blasts from an air horn.
 - f. Emergency escape procedures.
 - g. The areas of greatest potential fire hazards.
 - h. Names and job titles of the persons responsible for the maintenance of fire prevention equipment.
 - i. Safe operating procedures for all industrial painting equipment.
 - j. Identification and information regarding all potentially dangerous chemicals used on the job site.
2. All persons entering the work area will be familiarized with the evacuation alarms and procedures. The Competent Person will be conducting weekly tool box safety meetings to discuss all pertinent health and safety issues.
3. Training will be provided prior to the time of assignment and on an annual basis thereafter.

33.1.5 STORAGE OF FLAMMABLE AND COMBUSTIBLE MATERIALS

Only approved containers will be used for storage and handling of flammable and combustible liquids. When storing flammable liquids indoors not more than 25 gallons will be stored outside of an approved storage facility. Not more than 60 gallons of flammable or 120 gallons of combustible liquids will be stored in any one storage area.

When storing flammable liquids outside, not more than 1,100 gallons will be stored in any one pile and piles will be separated by a 5 foot clearance. Piles of flammable liquids will be maintained 20 feet or greater from any structure.

At least one portable fire extinguisher having a rating not less than 20-B units will be located not less than 25 feet or more than 75 feet from any flammable liquid storage area.

33.2 FIRE EXTINGUISHERS

33.2.1 LOCATION AND MARKING OF EXTINGUISHERS

Extinguishers will be conspicuously located and readily accessible for immediate use in the event of fire. They will be located along normal paths of travel and egress. Wall recesses and/or flush-mounted cabinets will be used as extinguisher locations whenever possible.

Extinguishers will be clearly visible. In locations where visual obstruction cannot be completely avoided, directional arrows will be provided to indicate the location of extinguishers and the arrows will be marked with the extinguisher classification.

If extinguishers intended for different classes of fire are located together, they will be conspicuously marked to ensure that the proper class extinguisher selection is made at the time of a fire. Extinguisher classification markings will be located on the front of the shell above or below the extinguisher nameplate. Markings will be of a size and form to be legible from a distance of 3 feet.

33.2.2 CONDITION

Portable extinguishers will be maintained in a fully charged and operable condition. They will be kept in their designated locations at all times when not being used. When extinguishers are removed for maintenance or testing, a fully charged and operable replacement unit will be provided.

33.2.3 MOUNTING AND DISTRIBUTION OF EXTINGUISHERS

Extinguishers mounted in cabinets or wall recesses or set on shelves will be placed so that the extinguisher operating instructions face outward. The location of such extinguishers will be made conspicuous by marking the cabinet or wall recess in a contrasting color which will distinguish it from the normal decor.

Extinguishers must be distributed in such a way that the amount of time needed to travel to their location and back to the fire does not allow the fire to get out of control. OSHA requires that the travel distance for Class A and Class D extinguishers not exceed 75 feet. The maximum travel distance for Class B extinguishers is 50 feet because flammable liquid fires can get out of control faster than Class A fires. There is no maximum travel distance specified for Class C extinguishers, but they must be distributed on the basis of appropriate patterns for Class A and B hazards.

33.4 INSPECTION AND MAINTENANCE

Fire extinguishers will be inspected monthly to ensure that they are in proper working condition and have not been tampered with or physically damaged. The results of the inspection will be recorded on a tag on each fire extinguisher and in project records.

34.0 OVERHEAD UTILITIES

Prior to starting any project, a pre-job hazard analysis will be conducted. Part of the pre-job hazard analysis will be to determine if any overhead power lines or other utility line such as telephone or cable are present in the work area and who is the owner of the lines. C.A. Hull will first attempt to have the lines de-energized or temporarily relocated by the owner, if this is not possible then have the owner insulate the line.

34.1 VEHICLES AND MECHANICAL EQUIPMENT

1. Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines will be operated so that a clearance of 10 feet (305 cm) is maintained. If the voltage is higher than 50 kV, the clearance will be increased by 4 inches (10 cm) for every 10-kV over that voltage.
2. If insulating barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the vehicle or its raised structure, the clearance may be reduced to a distance within the designated working dimensions of the insulating barrier.
3. If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, employees working on the ground near the point of grounding may not stand at the grounding location whenever there is a possibility of overhead line contact. Additional precautions, such as the use of barricades or insulation, will be taken to protect employees from hazardous ground potentials.

34.2 SAFE PRACTICES

1. Do not operate equipment around overhead lines unless authorized.
2. Use wooden or fiberglass ladders.
3. Avoid storing materials under overhead lines.
4. Wear the proper personal protective equipment such as rubber gloves, hoods and sleeves.
5. Tools must be designed and constructed to withstand the voltages and stresses they may be exposed.

34.3 VEHICLE SAFETY

1. When a crane, scissor lift, aerial lift or other vehicle is to work in an area where an overhead utility line exists, a spotter will be designated to warn the operator and other people in the area when the minimum safe distance is not maintained.
2. If a vehicle is in contact with an overhead line, DO NOT allow anyone to come near or touch the vehicle.

35.0 ELECTRICAL

Electrical Systems and components are designed and installed according to OSHA standard 29 CFR 1926.402-408 and the most current edition of NFPA 70, National Electric Code. This section covers the installation safety requirements for electrical equipment and installations used to provide electric power and lights at the job site. This applies to temporary and permanent installations but not permanent installations that were in place prior to the commencement of construction activities.

C.A. Hull uses Ground Fault Circuit Interrupters (GFCI) for the protection of its workers on all projects and locations. An assured ground program will only be instituted when required by a client or general contractor.

1. The electrical equipment will be checked prior to use to ensure that it is free from recognized hazards that are likely to cause death or injury to employees based upon:
 - a. Suitability for installation and use in accordance with OSHA regulations.
 - b. Mechanical strength and durability.
 - c. Electrical insulation.
 - d. Heating effects under conditions of use.
 - e. Arcing effects.
 - f. Classification by type, size, voltage, current capacity and specific use.
 - g. Other factors which contribute to the safeguarding of employees using or likely to come in contact with the equipment.
2. Either Ground Fault Circuit Interrupters (GFCI) or an assured grounding program will be established for each project location.
 - a. Where GFCI are in use, all 120-volt single phase 15 and 20-ampere receptacle outlets on construction sites not part of the permanent wiring of the building or structure which are used by employees, will have GFCI for personnel protection.
 - b. Where an assured grounding program is established:
 1. A written program will be established.
 2. A competent person will be designated to implement the program.
 3. Each cord set, attachment cap, plug and receptacle of cord sets and any equipment connected by cord and plug will be visually inspected prior to use.
 4. A testing program for all cord sets, receptacles and plug and plug connected equipment will be established.
3. Extension cords used will be the three-wire type and equipped with a three-wire grounding type receptacle and attachment plug of non-conductive material.
4. When an extension cord is worn, frayed or the grounding plug is removed, it will be immediately placed out of service until appropriate repairs can be made or disposed of.
5. Work areas and walkways are to be kept clear of electrical cords so they do not become a trip hazard.
6. Qualified employees will adhere to 29 CFR 1910.304(c)(2) Table S6 for safe distances when working in the vicinity of overhead power lines.
7. Electric equipment and wiring will be installed or use based upon the properties of the flammable vapor, liquids or gases, or combustible dusts or fibers which may be present. The following is the hazardous locations table.

Class	Groups	Div 1	Div 2
Fumes, Gases, Vapors and Liquids	A. Acetylene B. Hydrogen C. Flammables D. Fuels, Paints, Solvents	Normally explosive and hazardous	Normally not explosive and hazardous
Dust	E. Metal dust F. Carbon black, coal, coke G. Flour, Starch, Grain, Dust		
Fibers, Flyings	No groups in this class		

8. Employees will not be allowed to work in proximity to any part of an electric power circuit unless protected against electric such by de-energizing the equipment and grounding it or by guarding it effectively.
9. De-energized parts will be treated as if they are live when working on or around the equipment.
10. Lockout/ Tagout of the equipment is required prior to performing any electrical work.
11. Only trained and qualified personnel may perform electrical work.
12. Proper illumination (Section 5.0) is required prior to entering work areas containing exposed energized parts.

35.1 SAFE WORK PRACTICES

1. Test all new or repaired extension cords prior to use.
2. Purchase on UL-listed or equivalent extension cords.
3. Visually inspect each cord prior to use.
4. Do not drape extension cords over hot surfaces such as steams lines
5. Do not run extension cords through standing water or wet surfaces.
6. Use only grounding (3 prong) extension cords.
7. When cords cross passageways or work areas, protect the cords and provide appropriate warnings.
8. All ladders will be made of non-conductive material with non-conductive side rails.
9. All apparel that is conductive will be removed. If unable to remove the apparel it will be rendered non-conductive by covering, wrapping or other acceptable means.

35.2 TRAINING

Employees working on or near electrical systems, or who face a risk of electrical shock will be trained on the following:

1. The contents of the OSHA regulation 1910.331 through 1910.335, specifically the safety related work practices required per the employees job task.
2. Unqualified persons will also be trained in and familiar with any electrically related safety practices not specifically addressed in the OSHA regulation, but is necessary for their safety.
3. Qualified personnel will receive additional training on the following:

- a. The skills and techniques necessary to distinguish exposed live parts from the other parts of electrical equipment.
 - b. The skills and techniques necessary to determine the nominal voltage of exposed live parts.
 - c. The clearance distances as specified in the OSHA regulation, and the corresponding voltages to which the qualified person will be exposed.
4. The training will be documented with the name and signature of the trainee and the name and signature of the trainer.

35.3 QUALIFIED PERSON RESPONSIBILITIES

1. A qualified person will operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.
2. A qualified person will use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and will verify that the circuit elements and equipment parts are de-energized. The test will also determine if any energized conditions exist as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been de-energized and presumed to be safe.
3. A qualified person will conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds and other such devices have been removed so that the circuits and equipment can be safely energized.
4. Only qualified persons may work on electric circuit parts or equipment that have not been de-energized. Such persons will be capable of working safely on energized circuits and will be familiar with the proper use of special precautionary techniques, personal protective equipment, insulation and shielding materials and insulated tools.

35.4 UNQUALIFIED PERSONS

When an unqualified person is working in an elevated position near overhead lines, the location will be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded energized overhead line than the following distances.

1. For voltages to ground 50kV or below - 10 feet (305 cm).
2. For voltages to ground over 50 kV - 10 feet (305 cm) plus 4 inches (10cm) for every 10 kV over 50 kV.

35.5 VEHICLES AND MECHANICAL EQUIPMENT

1. Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines will be operated so that a clearance of 10 feet (305 cm) is maintained. If the voltage is higher than 50 kV, the clearance will be increased by 4 inches (10 cm) for every 10-kV over that voltage.
2. If insulating barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the vehicle or its raised structure, the clearance may be reduced to a distance within the designated working dimensions of the insulating barrier.

3. If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, employees working on the ground near the point of grounding may not stand at the grounding location whenever there is a possibility of overhead line contact. Additional precautions, such as the use of barricades or insulation, will be taken to protect employees from hazardous ground potentials.

36.0 FIRST AID

1. First aid will comply with OSHA regulations 29 CFR 1926.50.
 - a. C.A. Hull will ensure the availability of medical personnel for advice and consultation on matters of occupational health.
 - b. Prior to a job, provisions will be made for prompt medical attention in case of a serious injury, this may require transportation by C.A. Hull or an ambulance.
 - c. A first aid kit will be readily accessible in a weatherproof container with individually sealed packages for each type of item. The contents of the first aid kit will be checked by the Competent Person prior to each job and at least weekly thereafter.
 - d. Proper equipment for the transportation of an injured person, or a communication system to contact an ambulance will be provided.
 - e. The telephone numbers of the consulting physician, hospitals, or ambulance will be conspicuously posted.
 - f. Where the eyes or body of any person may be exposed to corrosive materials, facilities will be available at the work site for immediate emergency use for the quick drenching or flushing of the eyes and body. The facility must be able to supply 1 15 minute continuous eye wash.
2. A current First-Aid/CPR trained person will be on all project locations if the hospital is located more than 3 to 4 minutes away.
 - a. If the project requires a designated first-aid responder(s), then the responder(s) will be trained in Bloodborne pathogen safety.
 - b. If the project does not require a designated first-aid responder(s), then the responder(s) will be acting under the Good Samaritan Act and will not require Bloodborne pathogen training. However, if an incident does occur, the responder(s) will be offered a Hepatitis B vaccination.
3. First Aid Kits should contain the items in accordance with ANSI Z308.1-1998.
 - a. The first aid kit may contain other project specific items, which will be determined by the Safety Director on a project by project basis.
4. First aid/ CPR personnel will be certified by the American Red Cross, or an equivalent agency.

37.0 ACCIDENT INVESTIGATION

Accidents are usually complex. An accident may have 10 or more events that can be causes. A detailed analysis of an accident will normally reveal three cause levels: basic, indirect and direct. At the lowest level, an accident results only when a person or object receives and amount of energy or hazardous material that cannot be absorbed safely. This energy of hazardous material is the direct cause of the accident. The direct cause is usually the result of one or more unsafe acts or unsafe conditions. Unsafe acts or unsafe conditions are indirect causes or symptoms. Indirect causes can usually be traced to basic causes, which are poor management policies and decisions, personal or environmental factors.

All accidents requiring more than first aid and occupational illnesses must be recorded in accordance with 29 CFR 1904. The accident will be recorded on the OSHA 300 Log within seven calender days of the incident or notification of an illness.

All work related fatalities are to be reported to OSHA within 8 hours, and all work related in-patient hospitalizations, amputations and loss of an eye are to be reported to OSHA within 24 hours. This can be reported by:

1. Calling OSHA's confidential number (800) 321-OSHA (6742).
2. Calling the closest Area Office during normal business hours.
3. Using an online form on OSHA .gov

In addition, for each incident a full report will be made in writing using OSHA Form 301 or similar format describing what happened, and control measure taken to prevent additional similar occurrences. The basic purpose of the investigation is to determine, in terms of unsafe acts, personal factors, unsafe conditions and their sources, the true cause(s) of the accident that produced the reported injury, and to develop a means to prevent recurrences.

At the time of the accident, C.A. Hull will have either first aid trained personnel onsite to assist the injured party(s) and/or will summon emergency services. After the accident, the area will be secured by C.A. Hull personnel to ensure another accident does not occur. To do this, all equipment will be shut-down and all personnel will be removed to a safe location.

37.1 RESPONSIBILITIES

37.1.1 MANAGEMENT

1. Ensure all accidents and injuries are investigated.
2. Ensure immediate and log-term corrective actions are taken to prevent re-occurrence.
3. Maintain accident reports on file and in employee records.
4. Ensure proper entries are made on the OSHA 300 log and accident investigation report.
5. If required, notify OSHA and/or worker's compensation in a timely manner.
6. Provide all necessary medical care for injured workers.

37.1.2 SUPERVISORS/ COMPETENT PERSON

1. Provide immediate first aid for injured person(s).
2. Eliminate or control hazards.
3. Document accident scene information to determine the cause.
4. Interview the witnesses and victims immediately.

37.1.3 EMPLOYEES

1. Immediately report all accidents & injuries to their supervisors.
2. Assist in accident investigations if requested.
3. Report all hazardous conditions and near-misses.

37.2 CONTROLLING ADDITIONAL LOSS

Immediately after an accident, onsite employees under the supervisor of the senior person onsite will take the following steps.

1. Evacuate all non-essential employees and visitors to a safe location away from the scene of the accident.
2. Shut down all non-essential equipment (i.e. compressors, blast equipment, dust collectors)
3. Determine if emergency services are required and call as soon as possible.
4. Check hazardous materials are in a safe condition. If they are not, render the hazardous materials safe, if safe to do so. If it is not safe, ensure first responders know the hazards.
5. If a part of a structure is weakened, brace the structure if safe to do so.
6. If in a host facility, follow the host facility requirements.

37.3 INVESTIGATING AN ACCIDENT

Investigating an accident requires the investigator to seek the root cause of the accident and not immediately place blame on the worker affected.

The accident investigator must be qualified to conduct an inspection. C.A. Hull will use either a Certified Safety Professional (CSP) with at least five years of experience in the construction industry or an in-house person with over ten years of experience and has completed training in the relevant areas of the accident (example: if the accident involved a fall, training would include fall protection). Training is required prior to the time of assignment and at least every three years.

Prior to conducting an investigation, the accident investigator must have the appropriate equipment and personal protective equipment to perform the job. Equipment may include a camera, video camera, tape recorder, measuring tape and small tools.

The follow steps will be taken during an accident investigation.

1. Prior to an accident investigator starting an investigation, the site foreman will:
 - a. Take pictures of the site and the accident location
 - b. Will record who was onsite

- c. Who witnessed the accident
 - d. Materials involved
 - e. Temperature and other environmental factors
 - f. Illumination of the work place
 - g. Noise level of the work place
 - h. Ventilation of the work place.
2. The foreman will then secure and preserve the site, which may involve using caution tape.
 3. When the accident investigator arrives onsite, define the scope of the investigation.
 4. Select the investigators. Assign specific tasks to each.
 5. Present a preliminary briefing to the investigating team which may include: description of the accident, normal operating procedures, location of the accident, witnesses and known events that preceded the accident.
 6. Visit the accident site and get updated information for personnel at the site.
 7. Inspect the accident area, take pictures and secure the area if possible.
 8. Interview each victim and witness. Also interview personnel onsite prior to the accident and those who arrived shortly after the accident occurred. Keep records of each interview. If possible interview personnel separately.
 9. At this point the investigator(s) should determine what was the root cause of the accident and the events leading up to the accident that may have contributed to the accident.
 10. Conduct a post-investigation briefing.
 11. Prepare a summary report which includes recommendations to prevent a recurrence of the accident.

37.4 INVESTIGATING AN INCIDENT

All incident will be investigated to determine the cause and how to ensure it will not re-occur.

1. Define the scope of the investigation.
2. Select the investigator.
3. Present a preliminary briefing to the investigating team which may include: description of the incident, normal operating procedures, location of the incident, witnesses and known events that preceded the incident.
4. Visit the incident site and get updated information for personnel at the site.
5. At this point the investigator(s) should determine what was the root cause of the incident and the events leading up to the accident that may have contributed to the incident.
6. Prepare a summary report which includes recommendations to prevent a recurrence of the Incident.

37.5 WORK-RELATED INJURIES AND ILLNESSES THAT ARE RECORDABLE

1. Death
2. Loss of Consciousness
3. Days away from work
4. Restricted work activity or job transfer
5. Medical treatment beyond first aid.

6. Needlestick injury or cut from a sharp object that is contaminated with another person's blood.
7. Medical removal under any of OSHA's health standards.

37.6 FIRST AID INCIDENTS THAT ARE NOT RECORDABLE

1. Use of non-prescription medications at non-prescription strengths.
2. Administering a tetanus immunization.
3. Cleaning, flushing or soaking wounds on the skin surface.
4. Use of band-aids, gauze pads or butterfly band-aids.
5. Use of hot or cold therapy.
6. Draining fluids from blisters.
7. Drinking fluids to relieve heat stress.
8. Use of simple irrigation to remove foreign bodies not embedded in or adhered to the eye.

37.7 CORRECTIVE ACTIONS

After the accident investigation is completed, the investigator along with company management will determine the root cause of the accident and take corrective measures to prevent recurrences. The corrective measure can include process modification, additional safety equipment purchase and training.

The accident investigator will document the accident investigation and will provide the accident investigation report to C.A. Hull's Safety Director for review, then it will be provided to the President of C.A. Hull. The report will include the accident, the investigation and pictures, a narrative of events, witness statements, the root cause of the event and corrective measures that should be taken to prevent a future event.

The Safety Director and President will determine if changes are required to the Corporate Health and Safety Plan, if additional training is required, if new equipment is required, or any other changes to company policy, means and methods or equipment is required.

37.8 RECORD KEEPING

The OSHA 300 Log and OSHA 301 Incident Report form (or similar) will be maintained for five years following the end of the calendar year that the record covers in accordance with 29 CFR 1904.33.

37.8 ANNUAL POSTING REQUIREMENTS

OSHA's Form 300A, Summary of Work-Related Injuries and Illnesses will be posted in each establishment in a conspicuous place from February 1 to April 30. The annual summary will be certified by a company executive.

38.0 BLOODBORNE PATHOGEN PROGRAM

C.A. Hull and its employees have a minimal potential to be exposed to bloodborne pathogens which include hepatitis B virus (HBV), human immunodeficiency (HIV), malaria, syphilis and brucellosis. C.A. Hull's work is in the construction industry and should reasonable anticipate minor first air issues. C.A. Hull will utilize emergency personnel such as EMTs and emergency room personnel to treat affected workers. C.A. Hull first aid trained workers are not designated first aid responders unless a project requires this in the specifications. All exposure determinations are to be made without regard of personal protective equipment.

38.1 RESPONSIBILITIES

The Safety Director is responsible for this program and will ensure this program is effective through site inspections, record keeping and programs audits. The Safety Director will also ensure proper posting of any exposures to the OSHA 300 log.

38.2 DEFINITIONS

Biological Hazard - any viable infectious agent that presents a risk or potential risk to the well being of humans.

Bloodborne pathogens - pathogenic microorganisms that are present in human blood and can cause disease in humans. This includes hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Exposure Incident - a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Medical Waste - All waste resulting from human tissue, blood or blood products or fluids. This includes used first aid bandages, contaminated personal protective clothing and materials used in spill cleanup.

Universal Precautions - a system of infectious disease control that assumes every direct contact with body fluids is infectious and requires every employee exposed to be protected as though such body fluids were infected with bloodborne pathogens.

38.3 AFFECTED JOB CATEGORIES

The following job categories may have potential exposure to blood borne pathogens. During any exposure, the responder will consider all fluids as potentially infectious and will implement universal precautions such as barriers, gloves and any other method to prevent exposures.

1. Designated first-aid first responder
2. First-aid trained employees
3. Cleanup workers

38.4 TRAINING

All workers in the above job categories will complete training as required. Training will be required at the time of initial assignment and on an annual basis thereafter. Below is a list of training that may be required and training providers that may be utilized:

1. Red Cross first aid training or;
2. National Safety Council first aid training

Refresher training for the above courses will be in accordance with that training agencies requirements.

In addition, the following training is required

1. C.A. Hull Bloodborne Pathogen Program and OSHA 29 CFR 1910.1030 - annual training required
2. How bloodborne pathogens are transmitted.
3. Explanation of the use and limitations of engineering controls, work practice controls and personal protective equipment.
4. First aid kits and their contents
5. How to report exposure incidents.
6. Information on the hepatitis B vaccination.
7. What types of incidents C.A. Hull workers may and may not respond.
8. Site specific training at each project location including location of hospitals and emergency contact phone numbers.
9. Label and signs that will be used in the workplace.

Training records will be maintained for at least three years.

38.5 HEPATITIS-B VIRUS (HBV) VACCINATIONS

First aid designated responders and other first aid trained workers will be offered Hepatitis-B Virus (HBV) vaccinations at our company doctor's facility. New workers who are designated or trained in first aid will be offered the HBV vaccination within 10 days of the training or designation.

Workers who chose not to have the HBV vaccination will be required to sign a letter of declination. If a worker who did not have the HBV vaccination chooses to have the vaccination in the future or is exposed to a potential infectious agent may have the vaccination at no cost to the worker at a later date.

38.6 ENGINEERING CONTROLS

C.A. Hull will utilize resuscitation bags and mouthpieces as its engineering controls. Since needles and sharps are not utilized, engineering controls for these items are not required.

38.7 WORK PRACTICE CONTROLS

Workers who respond to assist with first-aid are required to wash their hands, face and any other body part that may have become contaminated at the decontamination trailer hand wash station or any other handwash station. The handwash will have hot water, anti-bacterial soap and paper towels.

Any equipment that may be contaminated will be cleaned thoroughly using a solution of bleach and water.

38.8 PERSONAL PROTECTIVE EQUIPMENT

C.A. Hull supplies first-aid designated and trained workers the following personal protective equipment in the first-aid kit. All personal protective equipment will be provided to the employee at no cost to the employee. All personal protective equipment will be maintained in good working condition which may include laundering or disposal.

1. Latex or latex type gloves
2. Goggles or safety glasses with side shields
3. Resuscitation bags and mouthpieces

After use, all personal protective equipment will be disposed in accordance with 3.11.

38.9 POST EXPOSURE EVALUATION

Following a report of an exposure incident, C.A. Hull will make available to the affected worker(s) a confidential medical evaluation and follow-up, including:

1. Documentation of the route(s) of exposure and how the exposure occurred.
2. Identification of the source of the exposure.
3. Collection and testing of blood for hepatitis B virus (HBV) and human immunodeficiency virus (HIV) upon affected worker(s) consent.
4. Post exposure prophylaxis.
5. Counseling.
6. Evaluation of reported illnesses.
7. Within 15 days after evaluation, a copy of the healthcare professional's written opinion will be provided to the affected worker(s).

38.10 POST EXPOSURE FOLLOW-UP

After any exposure the Safety Director, foreman and competent person will evaluate the exposure to determine if additional safety procedures need to be implemented. In addition, at the next weekly safety meeting at that project location, all workers will be informed of the exposure, the types of safety precautions in use and if any additional safety precautions will be implemented.

38.11 CLEANUP AFTER AN INCIDENT

Workers who clean-up after an incident will be required to don two layers of tyvek protective clothing, protective boots and latex or latex type gloves. Workers will use disposable rags or paper towels to cleanup any spills. If water is used to cleanup affected areas, the water will be treated with a bleach solution. All rags, paper towels, PPE and any other item that is potentially contaminated will be disposed in a trash bag then placed into a second trash bag. The outer trash bag will then be label “Infectious Waste” and “Biohazard”.

38.12 RECORD KEEPING

If an exposure occurs, C.A. Hull will record the following information:

1. Worker’s name and social security number.
2. Workers hepatitis B vaccination status including vaccination date(s).
3. Results of examinations, medical testing and post exposure evaluations and follow-up procedures.
4. Health care professional’s written opinion.
5. A copy of any information provided to the health care professional.

Medical records are to be kept for the duration of employment plus 30 years.

38.13 ACCESS TO PLAN

Each employee has the right to access this Plan as needed.

38.14 REQUESTS FOR RECORDS

All records of exposure or medical records will be made available to employees and the Assistant Secretary & Director for examination and copying upon request. Medical records will not be released without the consent of the affected employee(s).

If C.A. Hull ceases to do business, they will follow 29 CFR 1910.1020(h) for the transfer of records.

39.0 ABRASIVE BLASTING SAFETY

Each project will be tested to ensure that workers are not exposed to dusts, vapors, mists, fumes or gases that exceed the limits as set in 29 CFR 1955(a). To prevent an exposure at or above a Permissible Exposure Limit or Threshold Limit Value (TLV), both ventilation of the work location and the use of abrasive blasting helmets with an Assigned Protection Factor (APF) of 1,000 will be required inside of an enclosure.

Prior to the start of each project, a pre-job hazard analysis will be required to be completed.

Abrasive blasting operations will cause the abrasive and material being removed to be shattered or pulverized and each worker must be protected from the hazards through the use of proper personal protective equipment.

39.1 WORKER SAFETY

Prior to any employee conducting abrasive blasting operations, the employee will be trained on the safe operating practices (SOP) of abrasive blasting. The SOPs below are not a complete list and the company must refer to the manufacturer's procedures.

1. Wear protective clothing such as blast coveralls or two layers of protective clothing, noise protection, blast helmets, work boots and gloves when abrasive blasting to prevent injury. The blast helmet must have an Assigned Protection Factor (APF) of 1,000 or greater and will provide head and face protection.
2. Breathing air must meet Grade D, which is odor free, free of harmful dusts, mists or noxious gases and a carbon monoxide detector will be required. See Respiratory Protection Section of this Plan for more details.
3. Workers outside of the abrasive blast work area will be required to wear safety glasses, ear plugs, work clothing, work boots and hard hats.
4. Thoroughly examine the condition of hoses, hose fittings, couplings and unions prior to blasting. Replace any worn parts.
5. At couplings on the blast hose, ensure whip checks or other positive methods are in use to prevent hoses from becoming disconnected.
6. Never mix and match equipment, use only equipment recommended by the manufacturer.
7. During blast operations, the equipment operator must stay near the blast equipment.
8. Signals, hand signals or radios will be used to establish communications between the blasters and equipment operators.
9. When working above 6 feet, fall protection must be used.
10. When working on scaffolding, the blast line will be secured to the scaffold allowing enough hose for the blaster to use.
11. The blast helmet will be donned and removed either in a vestibule or outside the containment.
12. Never aim an operational blast nozzle at another person.
13. Adequate ventilation and lighting must be used to allow workers to see the substrate.
14. A deadman (remote control valve) is required at each blast nozzle. Blasters will not lock the deadman in the operating position.

15. To minimize electrical shock to the blaster, the deadman will not use more than 24 volts of electricity.
16. To minimize electrical shock, each abrasive blast line and nozzle will be bonded and grounded to prevent the build up of a static charge. Do not make any changes to your blast line or nozzle without approval from your foreman.
17. At the end of each shift, a HEPA vacuum will be used to vacuum dusts that may have accumulated outside of the abrasive blast enclosure. If an area outside the abrasive blast enclosure has excessive dusts or may be harmful to people on the outside, the area will be cleaned immediately.
18. Compressed air will not be used to blow down a worker's clothing or equipment unless a reducer is attached that reduces the air to less than 30 p.s.i. and will also have an effective chip guard. Proper personal protective equipment will be required.

39.2 VENTILATION

Adequate ventilation is required to minimize worker exposure to toxic dusts and allow visibility inside the work area. OSHA 29 CFR 1926.57 and The Society for Protective Coatings (SSPC) in Guide 6 recommend the following minimum air velocities.

1. Cross draft (horizontal) air velocity of 100 feet per minute (fpm).
2. Downdraft air velocity of 60 to 100 fpm.

39.3 VENTILATION INSPECTION

1. Visual Inspection - periodic inspections performed during the work day.
 - A. Prior to use, check the inside of all duct hoses for clogging or plugging.
 - B. Inspect duct work for deterioration, excessive bends and/or collapsed sections.
 - C. Inspect make-up air louvers, baffles or flaps to ensure they are in good shape with no rips or tears.
 - D. Inspect condition of tarps to ensure that any rips or tears are repaired prior to use.
 - E. Check joints and seams of the tarps are tightly sealed.
 - F. During paint removal operations, inspect the containment for evidence of negative pressure. (the tarps are pulled into the containment)
2. Air Velocity Inspections
 - A. General
 1. Air velocity measurements are made using velometers or anemometers or other similar devices capable of measuring air flow.
 2. Air movement inside of a containment is not uniform, therefore several readings must be taken to achieve an average.
 3. Measurements are taken
 - a. Prior to the initial blast
 - b. Weekly if the containment systems are similar
 - c. Daily if containment or equipment changes
 - B. Measurements
 1. Divide the containment into equal sub-sections.
 2. Set the instrument on slow reading.

3. Take a reading in each sub-section, this reading should be in the work zone.
 4. Average all the readings.
3. Static Pressure Measurements
- A. Measurements are made using magnehelic gauges or similar to access negative pressure inside the containment.
 - B. Typical measurements are 0.03 inches of water. If readings are below the criteria, abrasive blasting will stop and corrective measures will be implemented.

39.4 PRESSURE VESSELS (BLAST POT)

Abrasive blast pots are considered pressure vessels and require a certification plate that is traceable to the maker of the pressure vessel. If the plate is missing, a new certification will be required to verify the pressure vessel will meet ASME code.

If there are cracks, holes or other damage on the tank, or if the tank was welded, re-certification will be required.

39.5 BLAST POT SAFETY

1. Always bleed off air and shut down compressors(s) prior to any maintenance. Lockout/ tagout may be required.
2. When equipped, never try to open the hatch to look into the blast when the blast pot is pressurized.
3. Inspect the blast pot and its components prior to each use. A more thorough inspection may be required by the manufacturer.
4. When bleeding air from the blast, wear hearing protection with a high noise reduction rating.
5. During operation, the equipment operator will be required to wear hearing protection, safety glasses and may be required to wear respiratory protection.

39.6 EQUIPMENT SAFETY

1. The exhaust system and all electrical wiring will conform with ANSI Z33.1.
2. To minimize electrical shock, each abrasive blast line and nozzle will be bonded and grounded to prevent the build up of a static charge. Do not make any changes to your blast line or nozzle without approval from your foreman.
3. The abrasive blast enclosure, dust collector ducts and the dust collectors will be constructed with loose panels or explosion venting areas, located on sides away from any occupied areas to provide pressure relief in the event of an explosion. Reference NFPA 68.
4. Inside of all enclosures with the potential for flammable atmosphere, explosion proof lighting will be required.

40.0 WATER JETTING OPERATIONS

1. The operator and personnel in the close vicinity of the operator will wear the appropriate personal protective equipment which may include rain gear, respirator, eye protection, hearing protection and boots as specified by the Competent Person.
2. Prior to starting water jetting operations, thoroughly examine the condition of hoses, hose fittings, couplings and unions. Replace or repair parts as necessary.
3. Prior to starting water jetting check the lance for nicks, dents, bends and any other signs of defects. If any defect is observed, remove the lance from service.
4. Hoses should be arranged so a tripping hazard does not occur.
5. When starting water jetting operations, check the pressure lines and lance for leaks.
6. The operator is to keep both hands firmly on the lance and not on the threads or connectors.
7. Never point the lance at anyone.
8. Never tie down the operating level.
9. When operating the lance, stand with two feet firmly on the ground.
10. Do not operate when on a ladder or catenary scaffold, unless secured from a fall by safety harness or other approved safety measures.
11. Do not operate at or near energized electrical systems.
12. Prior to removing the nozzle, depressurize the system.
13. Remove or cover any electrical equipment or connections in the work area.
14. Never leaving the system unattended.
15. The hose near the nozzle must be secured to the staging at the working level. Leave only enough free so the worker can properly and safely handle the hose weight.
16. Only use approved tools to make repairs.
17. Follow equipment manufacturer's Safe Operating Procedures (SOP).

41.0 COATINGS OPERATIONS

41.1 COATING OPERATIONS

1. Prior to coating operations, the competent person and/or foreman will review the SDS for the chemicals in the coating materials and the Personal Protective Equipment (PPE) required by the manufacturer.
2. During coatings operations, personnel will wear as a minimum, goggles and work clothing. The competent person and/or foreman will review the SDS to determine if additional PPE is required.
3. Ventilation is necessary to reduce the build up of volatile organic compounds (VOC) which can cause harm to the employees. If adequate ventilation cannot be provided, then workers will be required to wear respiratory protection in accordance with Section 10.0 of this Plan.
4. When wearing an air-purifying respirator, the end of service life for the cartridge must be established prior to starting the project and the employees informed of the change schedule.

41.2 AIRLESS SPRAY OPERATIONS

1. Prior to using any spray equipment, adequate ventilation must be assured. The use of dust collectors, windows and respirators are all acceptable methods to ensure workers have adequate breathing air.
2. The spray area must be at least 25 feet from open flames, sparks or other ignition sources.
3. Fire extinguishers must be located near the work area.
4. Explosion proof lamps may be required.
5. Check the work area for combustible materials and remove to prevent fires.
6. Check all valves and gauges to insure that they are in proper working order. Equipment with damaged or missing parts will be removed from service.
7. The safety shut-off valve must be closed when spray operations are not underway.
8. Wear safety goggles when operating the spray equipment, or during any work on making repairs to spray lines.
9. All connectors must be securely connected, when checking the connections, beware of the potential for rupture (this may occur anywhere in the line).
10. **Never** point the spray gun at anyone or yourself. Spray guns can cause coating materials to be injected under the skin causing severe injury.
11. **Never** put your hand or fingertips over the spray tip.
12. If you are injected, seek immediate help at the local emergency room. Do not assume it is only a pin prick. Bring the SDS of the coating being applied with you to the emergency room.
13. Prior to removing the spray gun, ensure the spray line is depressurized.
14. When the spray gun is not in use, set the safety latch to the safe position.
15. Only use spray guns with safety mechanisms and leave the gun in the “safe” position when not in use.
16. Prior to cleaning, disconnect all air lines.
17. Follow manufacturer’s Safe Operating Procedures.

40.3 SOLVENT HANDLING

1. Store and dispense flammable or combustible materials in designated areas. Electrically bond and ground the containers before pouring solvents from one container to another.
2. Keep containers tightly closed when not in use.
3. Clean up all spills as they occur. Where proper personal protective equipment and spill clean up materials.
4. Dispose of waste solvents per the Environmental Compliance Plan.
5. Wear the proper personal protective equipment when handling and dispensing. Refer to the MSD Sheet for recommendations.
6. Provide adequate ventilation.
7. Do not smoke within 25 feet.

42.0 THERMAL SPRAY

Thermal spraying can present various hazards to the operator and people in the immediate vicinity. The hazards include exposures to vapors, dust, fumes, noise and arc ultraviolet (UV) radiation. Prior to thermal spraying, the competent person should review the safety data sheet (SDS) to determine the hazards associated with the materials to be applied.

1. Personal protective equipment will be selected based upon the work location, hazards present and what type of material the thermal spray is being applied to. Personal protective equipment that should be considered includes:
 - a. Body covering such as coveralls.
 - b. Hearing protection.
 - c. Eye protection from UV light.
 - d. Work boots.
 - e. Head covering.
2. Hearing protection will be required for the person conducting thermal spraying. The typical noise levels during thermal spray can exceed 120 dBA. Job rotation, or reducing the actual time thermal spraying may be required to reduce the noise exposure to below 90 dBA.
3. Worker exposure monitoring of thermal spraying should be conducted to determine the level of respiratory protection required. A minimum of a half-face air purifying respirator with P100 filters will be required, unless the level of exposure to toxic dust is known. Then the level may be adjusted upward or downward, based upon the results.
4. In an enclosed area, or indoors, ventilation will be required.
5. Eye protection from the UV light will be required. Use a welding shield with UV protection lens.
6. The work area will be cleaned of combustible and flammable materials.
7. A fire extinguisher will be located in the work area.

43.0 HAND AND POWER TOOL SAFETY

43.1 GENERAL SAFETY

The misuse of common electrical and power tools is a prolific source of injury to the industrial worker. As part of every job instruction program should be detailed training in the proper use of both electrical and power tools. A good safety program to control tool misuse and accidents should include the following activities:

1. Train employees to select the right tools for the right job.
2. Establish regular tool inspections procedures and provide good repair facilities to ensure that tools will be maintained in safe condition.
3. Train and supervise employees in the correct use of tools for each job.
4. Establish a procedure for control of company tools, such as a check-out system at the job site.
5. Provide proper storage facilities for electrical and power tools at the job site.
6. All frayed extension cords and faulty electrical tools must be replaced or repaired as soon as possible.
7. All hand and power tools are to be maintained in good and safe working condition. This includes tools supplied by both C.A. Hull and an employee.
8. Guards that come with power tools are to remain in place and are not to be removed. Prior to each use, the guard will be checked.
9. Prior to using any hand and/or power tool, the foreman will determine the appropriate personal protective equipment. This may include eye protection, hearing protection, face protection, hand protection and protective work clothing.
10. Any hand and/or power tool not in good and safe working condition will be removed from service immediately. If the tool remains at the job site, it will be tagged "Do Not Use".

43.2 HAND TOOLS

Hand tools will comply with OSHA regulations 29 CFR 1926.301, power-operated hand tools will comply with OSHA regulation 29 CFR 1926.302, and as provided in this section of the Plan.

43.2.1 HAND TOOLS

1. C.A. Hull will not issue or permit the use of unsafe hand tools.
2. Wrenches, including adjustable, pipe, end and socket wrenches will not be used when the jaws are sprung to the point that slippage occurs.
3. Impact tools will be kept free of mushroomed heads, this includes drift pins, wedges and chisels.
4. Tools with wooden handles will be kept free of splinters or cracks and the handles will be kept tight in the tool.
5. Keep your tools clean, sharp and in good working order. Inspect tools periodically and replace those with defective or worn parts.

6. Protect tools and materials from dirt and debris while you work. Always use the proper tool for the job at hand.
7. Keep your tools or tool kit out of walkways. Don't leave tools, equipment or material where they may become a tripping hazard.
8. Protect your eyes with protective glasses when you are working with power tools. Never look at a welding arc-light unless you are wearing safety glasses with protective filters.
9. Keep your cutting tools sharpened. See that files, mauls and hammers are fitted with the proper handles.
10. Do not place tools in elevated positions unless you are sure they are secure and cannot fall or be knocked down.

43.2.2 POWER-OPERATED HAND TOOLS

All power-operated hand tools will be used in accordance with the manufacturer's safe operating procedures.

1. Electric power-operated tools.

- a. Electric power operated tools will be the approved double insulated type or grounded in accordance with Subpart K of the OSHA Standards.
- b. Electric cords will never be used to raise or lower tools.

2. Pneumatic power tools

- a. Pneumatic power tools will be secured to the hose or whip by some positive means to prevent the tool from becoming disconnected.
- b. Safety clips or retainers will be securely installed and maintained on pneumatic impact tools.
- c. Compressed air will not be used for cleaning purposes unless reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment.
- d. Hoses will not be used for raising or lowering tools.
- e. All hoses greater than ½" inside diameter will have a safety device at the source of supply or branch line.
- f. High pressure airless spray guns will be equipped with an automatic, visible manual safety devices, or diffuse nut to prevent the release of paint or fluid.

44.0 WELDING AND CUTTING

Welding and cutting operations will comply with OSHA standard 29 CFR 1926 Subpart J and the provisions of this section.

44.1 GAS WELDING AND CUTTING

1. Cylinders will be moved by tilting and rolling them on their bottom edges.
2. Valve protection caps will not be used for lifting cylinders from one vertical position to another.
3. A cylinder truck, chain or other steadying device will be used to prevent cylinders from being knocked down during use.
4. When work is finished, the cylinder is empty, or when cylinders are relocated, the cylinder valve must be closed.
5. Compressed gas cylinders are to be stored upright.
6. Compressed gas cylinders will be located far enough away from the actual welding or cutting so sparks, hot slag or flames will not reach them.
7. Compressed gas cylinders are to be legibly marked to identify the content inside with either the chemical or trade name of the gas.
8. Hoses, cables and other equipment will be kept clear of passageways, aisles, ladders and stairs.

44.2 ARC WELDING AND CUTTING

1. Current carrying parts passing through the portion of the holder which the arc welding grips in his hand will be fully insulated against the maximum voltage encountered to ground.
2. Welding cables will be completely insulated, flexible type and capable of handling the maximum current requirements of the work.
3. Cables in need of repair will be placed out of service until repairs can be made.
4. The frames of the arc welding machine will be grounded either by a third wire in the cable or through a separate wire.
5. When the arc welder or cutting needs to leave the work area for any appreciable length of time, the power supply switch to the equipment will be opened.

44.3 FIRE PREVENTION

1. Remove all fire hazards when possible prior to hot work, if this is not possible positive means will be employed to confine the heat, sparks and slag.
2. No welding, cutting, or heating will be conducted where the application of flammable paints, flammable compounds or heavy dusts concentration creates a hazard.
3. Suitable fire extinguishing equipment will be in the immediate vicinity of the work area.
4. When welding, cutting or heating operations is such that normal fire prevention precautions are not sufficient, additional personnel will be assigned to guard against fire and will remain in place for a sufficient time after completion of hot work (30 minutes in most cases will be sufficient).
5. When welding, cutting or heating operations is performed on walls, floors and ceilings the same precautions will be in place as the side the work is being conducted.

44.4 VENTILATION AND PROTECTION IN WELDING, CUTTING AND HEATING

1. General mechanical ventilation will be of sufficient capacity and arranged a to produce the number of air changes as necessary.
2. Contaminated air exhausted from the working space will be discharged into the open air and clear of the intake air. When working with lead, cadmium, chromium and beryllium and HEPA dust collection system may be required.
3. All air replacing the air that was withdrawn will be clean and respirable.

44.5 GENERAL PROVISIONS

1. Employees performing welding, cutting or heating will be trained on the proper and safe use of the equipment.
2. When fire watches are required, the fire watch will have no other duty assigned during the fire watch.
3. Prior to commencing welding, cutting or heating operations, the supervisor, welder and fire watch will walk through the area to ensure all hazards have been removed or covered.
4. Employees performing welding, cutting or heating must be provided and wear suitable eye, face and body protection.
5. When a fire watch is assigned, they will be provided and wear the same eye protection as the person performing the work.
6. The following table is a guide in the proper selection of filter lenses or plates used in welding.

Welding operations	Shade number
Shielded metal arc welding 1/16, 3/32, 1/8 and 5/32 inch diameter electrodes	10
Gas shielded arc welding (nonferrous) 1/16, 3/32, 1/8 and 5/32 inch diameter electrodes	11
Gas shielded arc welding (ferrous) 1/16, 3/32, 1/8 and 5/32 inch diameter electrodes	12
Shielded metal arc welding 3/16, 7/32 and 1/4 inch diameter electrodes	12
5/16 and 3/8 inch diameter electrodes	14
Carbon arc welding	14
Soldering	2
Torch blazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting. 1 to 6 inches	4 or 5
Heavy cutting, over 6 inches	5 or 6
Gas welding (light) up to 1/8 inch	4 or 5
Gas welding (medium) 1/8 to 1/2 inch	5 or 6
Gas welding (heavy) over 1/2 inch	6 or 8

45.0 PERMIT REQUIRED CONFINED SPACE PROGRAM - GENERAL INDUSTRY

This Permit Required Confined Space program applies to General Industry and meets 29 CFR 1910.146. This program applies to all employees and any sub-contractor employees entering confined spaces. The Supervisor will be responsible for all aspects of this program. If there are multiple contractors entering into a confined space, C.A. Hull will work with the General Contractor, Contract management Company, or all contractors to determine how to enter safely and what will be required of C.A. Hull.

45.1 DEFINITIONS

Attendant is an individual stationed outside a permit space who monitors the entrants and performs other duties described in this program.

Confined Space a space that meets all of the following criteria:

1. Is large enough and so configured that an employee can bodily enter and perform assigned work.
2. Has limited or restricted means of entry or exit.
3. Is not designed for continuous employee occupancy.

Engulfment the surrounding and effective capture of a person by liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling of plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Entrant an employee authorized by the employer to enter a permit-required space.

Entry the action by which a person passes through an opening into a confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Hazardous atmosphere an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL).
2. Airborne combustible dust at a concentration that meets or exceeds its lower explosive limits (LEL).
3. Atmospheric oxygen concentration below 19.5% or above 23.5%;
4. Atmospheric concentration of any substance for which a dose or permissible exposure limit (PEL) is 29 CFR 1910, Subpart G, Occupational Health and Environmental Control, or in 29 CFR 1910, Subpart Z, Toxic and Hazardous Substances, and which could result in employee exposure in excess of its dose or PEL.
5. Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

Job supervisor the person responsible for determining if acceptable entry conditions are present at a permit space, for authorizing entry and overseeing and terminating entry operations. This may also be the Competent Person.

Immediately dangerous to life of health (IDLH) any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

Non-permit space a confined space that does not contain or have the potential to contain any hazard capable of causing death or serious physical harm.

Permit means the document that authorizes and controls entry into a permit space.

Permit-required space means a confined space that has one or more of the following characteristics:

1. Contains or has a potential to contain a hazardous atmosphere.
2. Contains a material that has the potential for engulfing an entrant.
3. Has an internal configuration such that an entrant could be trapped or engulfed.
4. Has energy sources such as electrical, mechanical, pneumatic or hydraulic.

45.2 SIGNS

Either a danger sign or other effective means will be used to inform all employees of spaces that are classified as confined spaces. Other effective means can include initial training of all employees and semi-annual refresher training. Where signs are used, the sign will read:

DANGER-PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER

Other similar language may be used.

45.3 CONFINED SPACE CLASSIFICATION

C.A. Hull recognizes two classes of confined space: Permit-Required and Non-Permit confined space. may reclassify a confined space or use alternate procedures to minimize the hazards.

Reclassification- is a space where the hazards have been eliminated. In order to reclassify the space the following must be completed.

1. Space poses no actual or potential atmospheric hazards.
2. Certify that all hazards within the space have been eliminated such as lockout/tagout.
3. Certification is made available to all entrants.

Alternate Entry Procedures- is a space where the hazards are controlled by continuous forced air ventilation.

1. Follow 29 CFR 1910.146 (c) (5) (ii).
2. The only hazard is actual or potential hazardous atmosphere.
3. Certification is made available to all entrants.
4. Permits are not required, however written certification is required.
5. Attendants and supervisors are not required.
6. Training is required.

To the extent practical, permit-required confined space should have danger signs permanently posted at the entrances where practical. The Supervisor is responsible for ensuring a sign is posted as permit-required confined spaces are identified.

45.4 CHANGE IN CLASSIFICATION

If there is a change in the use or configuration of the space that might increase or decrease the hazards, the Supervisor should reevaluate the space. The Supervisor may upgrade a space from non-permit to permit-required without prior approval, but must notify the Competent Person as soon as possible. To downgrade a space from permit-required to non-permit, the Job Supervisor must get approval from the Competent Person prior to changing the classification. The Supervisor will document the change in classification.

45.5 GENERAL REQUIREMENTS FOR CONFINED SPACE ENTRY

The Supervisor will ensure that the following requirements are met before a confined space is entered for any reason:

45.5.1 GENERAL

1. The requirements the Lock Out/Tag Out Procedures are implemented.
2. Appropriate protective clothing is worn in accordance with Sections 9-11 of the Health and Safety Plan and other protection is used as indicated by specific hazards and conditions.
3. Access covers/plates will not be removed until unsafe conditions are eliminated. After removal, the space will be guarded with a suitable barrier to prevent inadvertent entry.
4. Where they exist the potential for outside hazards such as vehicles, pedestrians or bicyclists to enter the work area, barriers such as ropes, concrete barriers or other effective means will be implemented.

45.5.2 ATMOSPHERIC TESTING

1. Testing will be performed:
 - a. Only by the Supervisor or other personnel who have been trained to use the instrument.
 - b. Using only approved, calibrated direct-reading instruments.
 - c. In the sequence of oxygen content, flammable gas or vapor, and airborne toxic contaminants (if present). (Note: most instruments measure these simultaneously).
2. The atmosphere must be tested prior to entry for a non-permit space.
3. Sample the area just outside the space, then reach into the space while remaining outside. If acceptable entry conditions exist, continue sampling inside the space to ensure the entire area has been tested.
4. If the measurements exceed acceptable entry conditions, the space should be ventilated. If acceptable entry conditions are still not present, contact the Supervisor. Entry will only be allowed after additional purging and/or donning of appropriate respiratory protection. Non-sparking equipment will be used in flammable atmospheres.

5. If toxic substances are known to exist or are suspected, or if chemical products are taken into the space, the SDS must be on the job site. Notify the competent person if there are unknown or potential hazards - SDSs will be used to evaluate the hazards and determine the appropriate classification.

45.6 ENTRY INTO A NON-PERMIT CONFINED SPACE

The requirements of the section "General Requirements for Confined Space Entry" must be completed prior to allowing entry into a non-permit space. Continuous monitoring does not need to be performed. Employees should inform their Supervisor of any changes in the space that may increase the hazards in the space. There are no special training requirements for entry into a non-permit space, other than listed in General Requirements.

45.7 ENTRY INTO PERMIT-REQUIRED CONFINED SPACE

The Supervisor will complete the "General Requirements for Confined Space Entry".

The Supervisor will complete the following prior to entry into a permit-required confined space.

1. Complete the general information of the confined space entry permit
2. Identify the potential hazards.
 - a. Atmospheric hazards must be continuously monitored. Consider atmospheric hazards that are present or taken into the space. The SDS will be on the job site for any chemicals taken into the space. Consult with the Supervisor if potential/unknown hazards exist.
 - b. Note any physical hazards that are present, such as electrical shock, engulfment, heat stress or mechanical hazards.
 - c. The space may be re-monitored if changes occur, if an employee requests additional monitoring or an employee's authorized representative requests additional monitoring.
3. Prepare for entry by:
 - a. Eliminating hazards where possible by purging or blanking supply lines/pipes--Consult the Lock Out/Tag Out Procedure.
 - b. Using forced ventilation - Consider if the atmospheric hazards are lighter/heavier than air and ventilate accordingly.
 - c. Doing initial atmospheric testing and log results on the permit.
 - d. Completing other necessary permits, such as a hot work permit.
4. List the protective equipment required for safe entry.
 - a. Check all personal protective equipment that may be needed based on the hazards identified in Section 2 of the permit and the monitoring results. All Entrants must wear a full body harness to facilitate rescue.
 - b. Ensure the safety of tools, equipment and methods meet the following:
 1. Matches or open flames are not used for illumination.
 2. Portable, hand-held lighting provides adequate illumination and does not exceed 12 volts and is connected to a ground-fault circuit interrupter.
 3. Fixed lighting provides adequate illumination and does not exceed 12 volts unless all the lights are installed out of the normal reach of employees. Guarded to prevent possible contact with live circuits. Connected to a Ground-Fault Circuit Interrupter.

4. Electric power tools will be connected to a Ground-Fault Circuit interrupter. Pneumatic tools are preferred to electric power tools.
5. Compressed gas cylinders remain outside the confined space at all times unless they are part of an SCBA or fire extinguisher.
6. All equipment that may be used in a flammable atmosphere is approved as explosion proof or intrinsically safe for the atmosphere by a recognized testing laboratory such as MSHA, the Underwriters Laboratories, or Factory Mutual.
5. Plan a means of continuous communication between the Attendant and the Entrants. The Supervisor will also conduct a pre-job briefing to include:
 - a. Job, purpose of entry, and duration of the permit
 - b. Methods to be employed, and tools to be used
 - c. Existing and possible hazards and remedial actions
 - d. Develop a rescue plan for emergency escape and rescue. Rescue plans will include non-entry rescue methods whenever possible -
 - e. Specific procedures and roles during work and during emergencies
 - f. Questions and suggestions concerning the specific job
6. Find the location of the nearest cellular phone and verify it is working. The Attendant will call the Supervisor in an emergency.
7. Sign and give one copy of the completed permit to the Supervisor must initial the permit that verifies a rescue service is available.
8. The entry must be terminated by the Supervisor when the work is complete or if an evacuation occurs. All canceled permits including the completed log and monitoring sheet will be retained by C.A. Hull.
9. Log the names of entrants and times as they enter and leave the space.
10. If an unauthorized person enters a space, or a new hazard is identified, all work in the space will stop immediately, all workers will be required to exit the space and the Supervisor will determine if additional safety measures are required.
11. Conduct continuous atmospheric monitoring and observation of the entrants. The monitoring results must be logged on the second page of the permit once per hour (or more if appropriate). Entrants should take a personal air monitor in the space if they are located remotely from the Attendant.

These duties will be reviewed by the Attendant for completion prior to issuing a permit.

45.7.1 DUTIES OF THE ATTENDANT

1. The Attendant will also have the following knowledge and duties:
 - a. Know the hazards faced during entry and the symptoms resulting from exposure.
 - b. Is aware of possible behavioral effects of hazard exposures.
 - c. Prevent entry by unauthorized persons or order them to immediately exit.
 - d. Remain outside the confined space during entry unless relieved by another attendant.
 - e. Maintain an accurate count of entrants in the confined space.
 - f. Maintains communication as often as necessary
 - g. Order entrants to immediately exit the confined space if:
 1. Entrants exhibit symptoms attributable to unsafe conditions

2. Unsafe or unacceptable conditions arise within the space or outside the space
 3. The Attendant can no longer safely perform the assigned duties
 4. Summon rescue personnel in the event of an emergency.
 5. Remain outside the space at all times unless relieved by another trained Attendant.
 6. Sign out and notify entrants when being relieved.
- h. At no time will an attendant oversee more than one confined space at any given time.

45.7.2 DUTIES OF THE ENTRANT

1. Prior to entering a confined space, the entrant will understand:
 - a. The hazards of the space including the signs and symptoms and consequences of exposure.
 - b. The proper use of all equipment that will be used while in the confined space.
 - c. Maintain communication with the attendant as necessary.
 - d. Alert the attendant if:
 1. The entrant recognizes signs or symptoms of exposure.
 2. A prohibited condition is detected.
 - e. The entrant will exit the confined space immediately if given the order by the attendant or entry supervisor.
 - f. The entrant will also be given the opportunity to participate in and review calibrated air monitoring data and what the air is tested for and how often.
 - g. The entrant has the authority to review the results of confined space atmospheric testing results and continuous monitoring results, prior to entry and at their request.

45.8 TRAINING

Training is required prior to the time of assignment, prior to a change in duties and whenever a new hazard exists or any other change or deviation occurs.

Training will be certified by C.A. Hull. The training certificate will include the employee's name, trainer's signature and date(s) of training. The certificate will be made available to the employee and their authorized representative.

45.8.1 ENTRANTS AND ATTENDANTS

Initial training is required for all Entrants and Attendants with a refresher course given every 3 years. The Entrants and Attendants will be trained in the following:

1. The contents and intentions of this Confined Space Program
2. The proper methods for calibrating and using test equipment
3. The duties and responsibilities of Attendants as specified in this Confined Space Program

45.8.2 JOB SUPERVISORS

Persons that assume the role of Job Supervisor must attend the entrant/attendant course, plus additional training to meet the duties of the Job Supervisors. Initial training is required with a refresher course given every 3 years.

45.9 OUTSIDE RESCUE SERVICES

In most cases can reasonably expect to use an outside rescue service. Use of an outside rescue service will be planned well in advance and documented. Careful consideration should be given to using outside services since they cannot guarantee 100% availability.

45.10 RESCUE EQUIPMENT

Rescue/Retrieval Systems

To facilitate non-entry rescue, rescue/retrieval systems will be used if the space configuration allows whenever an authorized entrant enters a permit space. The only situation for which they are not used is if the rescue/retrieval system would increase the overall risk of entry or would not contribute to the rescue of the entrant.

C.A. Hull will ask the host facility if they are qualified and ready to provide rescue services for permit-required confined space entry. If the host facility cannot provide this service, C.A. Hull will have an outside rescue service available, The outside rescue service will be provided the opportunity to examine the site, practice rescue at the site and decline rescue services as appropriate. Rescue services will be on-site for all IDLH conditions.

45.11 PROGRAM REVIEW

The permit-required confined space program will be reviewed on an annual basis by C.A. Hull Management and any affected Supervisor. The review will include a review of all permit-required confined space work, permits issued, accidents and incidents, methods to improve, methods of rescue and any other relevant topics.

46.0 CONFINED SPACE IN CONSTRUCTION

45.1 DEFINITIONS

Attendant is an individual stationed outside one or more permit spaces who assess the status of authorized entrants and who performed the duties as specified in 1926.1209.

Confined Space a space that meets all of the following criteria:

1. Is large enough and so configured that an employee can bodily enter it.
2. Has limited or restricted means of entry or exit.
3. Is not designed for continuous employee occupancy.

Entry the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Hazardous atmosphere an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL).
2. Airborne combustible dust at a concentration that meets or exceeds its lower flammable limits (LFL).
3. Atmospheric oxygen concentration below 19.5% or above 23.5%;
4. Atmospheric concentration of any substance for which a dose or permissible exposure limit (PEL) is 29 CFR 1926, Subpart D, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, and which could result in employee exposure in excess of its dose or PEL.
5. Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

Immediately dangerous to life of health (IDLH) any condition that would interfere with an individual's ability to escape unaided from a permit space and that poses a threat to life or that would cause irreversible adverse health effects.

Non-permit space a confined space that meets the definition of a confined space but does not meet the requirements for a permit-required confined space..

Permit-required space means a confined space that has one or more of the following characteristics:

1. Contains or has a potential to contain a hazardous atmosphere.
2. Contains a material that has the potential for engulfing an entrant.
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls by a floor which slopes downward and tapers to a smaller cross section.
4. Contains any other recognized serious safety or health hazard.

46.2 SIGNS

Either a danger sign or other effective means will be used to inform all employees of spaces that are classified as confined spaces. Other effective means can include initial training of all employees and semi- annual refresher training. Where signs are used, the sign will read:

DANGER-PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER
Other similar language may be used.

46.3 ALTERNATE PROCEDURE

C.A. Hull may use an alternate procedure when entering a permit space if the following conditions are met.

1. All the physical hazards in the space are eliminated or isolated through engineering controls so the only hazard posed in the space is an actual or potential hazardous atmosphere.
2. Forced air ventilation alone is sufficient to maintain the permit space safe for entry.
3. Forced air ventilation is sufficient to maintain the permit space safe for entry, and that in the event the ventilation system stops working, entrants can exit the space safely.
4. Monitoring and inspection data supports items 1 and 2 above.
5. When entrance covers are removed, the opening is immediately guarded by a railing, temporary cover or other temporary barrier that would prevent an accident fall through the opening.

46.4 RECLASSIFYING A CONFINED SPACE

A space classified as a permit-required confined space, may be reclassified as a non-permit confined space when a competent person determines the requirements below are met.

1. The permit space poses no actual or potential atmospheric hazards and if all the hazards within the space are eliminated or isolated.
2. The hazards of the space are eliminated or isolated, unless it can be demonstrated that is is infeasible.
3. All the hazards in the space have been eliminated or isolated, through certification that contains the date, the location of the space and the signature of the person making the determination.
4. If hazards arise within a permit space that has been reclassified as non-permit space, then each employee shall exit the confined space, and the space will be reevaluated by the competent person.

46.5 EMPLOYER RESPONSIBILITIES

1. Evaluate the hazards of the permit space prior to entry.
2. Develop and implement the means, procedures and practices necessary for safe permit space entry operations.
3. Provide the necessary equipment at no cost to each employee and maintain the equipment properly, and ensure that each employee uses the equipment properly.
4. Evaluate the permit space by testing, monitoring and providing an early warning system that continuously monitors for non-isolated engulfment hazards.
5. Provide at least one attendant outside the permit space into which entry is authorized.
6. Develop and implement procedures for summoning rescue and emergency procedures.
7. Review the permit system, using the canceled permits within one year after each entry and revise the program as necessary.

46.6 ENTRY PERMIT

The entry permit will identify the following:

1. Identify the space to be entered.
2. The purpose of the entry.
3. The date and the duration of the entry permit.
4. The authorized entrants.
5. Means of detecting an increase in atmospheric hazard levels in the event the ventilation system stops working.
6. Name of each attendant.
7. Name of the entry supervisor
8. The hazards of the permit space to be entered.
9. The measures to be used to control the hazards present in the permit space.
10. Rescue procedures.
11. Personal protective equipment, testing equipment, communication equipment, alarm systems and rescue equipment to be provided.
12. Any other information necessary to ensure employee safety.

46.7 TRAINING

Training will include and be provided when:

1. Training will be in a language and vocabulary that the employee can understand.
2. Provided prior to a worker first being assigned duties under the Standard.
3. There is a change in the assigned duties.
4. When there is a change in permit space entry operations that present a hazard about which the employee has not been previously been trained.
5. Whenever there is any evidence of a deviation from the permit space entry permit space entry procedures as required by 29 CFR 1926.1204 (c) or there are inadequacies in the employee's knowledge or use of these procedures.
6. The training will establish employee proficiency in the duties required by the Standard and will introduce new or revised procedures, as necessary for compliance with the Standard.

7. Training records will contain the employee's name, the name of the trainer and the date of the training.

46.8 DUTIES OF THE ENTRANT

1. Use equipment as required by 29 CFR 1926.1204(d).
2. Communicate with the attendant as necessary.
3. Alert the attendant if there are any warning signs or symptoms of exposure to a dangerous situation or a prohibited condition.
4. Exit the permit space as quickly as possible when notified by the attendant to evacuate, notified by the entry supervisor to evacuate, the entrant notices a prohibited condition or an evacuation alarm is activated.

46.9 DUTIES OF THE ATTENDANT

1. Understands the hazards that may be encountered during entry.
2. Is aware of possible behavioral effects of hazard exposure in authorized entrants.
3. Continuously maintains an accurate count of authorized entrants in the permit space.
4. Remains outside of the permit space during entry operations until relieved by another attendant.
5. Communicates with authorized entrants as necessary.
6. Assess activities and conditions inside and outside of the permit space to determine if it is safe for entrants to remain in the space.
7. Orders an evacuation of a permit space if a prohibited condition occurs, behavioral effects of hazard exposure are apparent in authorized entrant(s), a situation outside of the space could endanger the entrants, or if the attendant cannot effectively or safely perform their duties.
8. Summons rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape the permit space.
9. Perform non-entry rescue as specified by the rescue procedure.
10. Performs no duties that might interfere with the attendants primary duty to assess and protect the authorized entrants.

46.10 DUTIES OF THE ENTRY SUPERVISOR

1. Is familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of the exposure.
2. Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
3. Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;
4. Terminates the entry and cancels or suspends the permit as required by § 1926.1205(e);

5. Verifies that rescue services are available.
6. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations.
7. Determines, whenever responsibility for a permit space entry operation is transferred, and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

46.11 RESCUE AND EMERGENCY SERVICES

1. Rescue teams or services will:
 - A. Be capable to reach victim(s) within a time frame that is appropriate for the permit space hazard(s) identified.
 - B. Is equipped for and proficient in the needed rescue services.
 - C. Have access to all permit spaces where rescue or emergency services may be required.
 - D. Each rescue employee will be trained in basic first aid and cardiopulmonary resuscitation (CPR).
2. Rescue equipment will be onsite and in good working condition prior to entry into the permit space.

47.0 CONTROL OF HAZARDOUS ENERGY

The Control of Hazardous Energy standard 29 CFR 1910.147 (also referred to as Lockout/Tagout) covers the servicing and maintenance of machines and equipment in which the unexpected startup or the release of stored energy could cause injury or death to employees. This standard applies to any source of mechanical, hydraulic, pneumatic, chemical, thermal or other energy, but does not cover electrical hazards. Subpart S of 29 CFR 1910 covers electrical hazards and 29 CFR 1910.333 contains specific lockout/tagout provisions for electrical hazards. In construction, 29 CFR 1926.417 covers the log out and tagging of circuits and 29 CFR 1926.702 covers the requirements for equipment and tools.

47.1 DEFINITIONS

Authorized (Qualified) Employees are the only ones certified to lock and tagout equipment or machinery. Whether an employee is considered to be qualified will depend upon various circumstances in the workplace. It is likely for an individual to be considered "qualified" with regard to certain equipment in the workplace, but "unqualified" as to other equipment. An employee who is undergoing on-the-job training and who, in the course of such training, has demonstrated an ability to perform duties safely at his or her level of training and who is under the direct supervision of a qualified person, is considered to be "qualified" for the performance of those duties. Only qualified employees may work on energized parts.

Affected employees are those employees who operate machinery or equipment upon which lockout or tagging out is required under this program.

Other employees are identified as those that do not fall into the authorized, affected or qualified employee category. Essentially, it will include all other employees.

47.2 PREPARATION FOR LOCKOUT/TAGOUT PROCEDURES

1. A lockout/tagout survey has been conducted to locate and identify all energy sources to verify which switches or valves supply energy to machinery and equipment. Dual or redundant controls have been removed.
2. A tagout Schedule has been developed for each piece of equipment and machinery. This schedule describes the energy sources, location of disconnects, type of disconnect, special hazards and special safety procedures. The schedule will be reviewed each time to ensure employees properly lock and tag out equipment and machinery.
3. If a tagout schedule does not exist for a particular piece of equipment, machinery and process, one must be developed prior to conducting a lockout/tagout.

47.3 LOCKS, HASPS AND TAGS

All Qualified Personnel will be assigned a lock with one key, hasp and tag. All locks will be keyed differently, except when a specific individual issues a series of locks for complex lockout-tagout tasks. In some cases, more than one lock, hasp and tag are needed to completely de-energize equipment and machinery.

All locks and hasps will be uniquely identifiable to a specific employee. All locks and hasps will be capable of withstanding the environment where they will be used. In a case of multiple locks or tags, all affected and authorized personnel will be informed of the lockout/ tagout and will be provided the same level of protection as the person(s) actually applying the lockout/ tagout.

An overall authorized person will oversee the lockout/ tagout per work shift. This person will ensure that this program is being followed. The authorized employee will have primary responsibility for a set number of employees working under the protection of a group lockout/ tagout device.

47.4 GENERAL LOCKOUT/TAGOUT PROCEDURES

Before working on, repairing, adjusting or replacing machinery and equipment, the following procedures will be utilized to place the machinery and equipment in a neutral or zero mechanical state. C.A. Hull will use locks for all lockout procedures, unless it is not feasible to use a lock. The locks will be padlock type devices and will have two keys, one maintained by the person conducting the lockout and one in a secure location. Each lock and/or tag will identify the name of the employee who is using the device.

1. Preparation for Shutdown. Before authorized or affected employees turn off a machine or piece of equipment, the authorized employee will have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the means to control the energy. Notify all affected Employees that the machinery, equipment or process will be out of service.
2. Machine or Equipment Shutdown. The machine or equipment will be turned or shut down using the specific procedures for that specific machine. An orderly shutdown will be utilized to avoid any additional or increased hazards to employees as a result of equipment de-energization.
3. Machine or Equipment Isolation. All energy control devices that are needed to control the energy to the machine or equipment will be physically located and operated in such a manner as to isolate the machine or equipment from the energy source.
4. Lockout/Tagout Device Application. Lockout/tagout devices will be affixed to energy isolating devices by authorized employees. Lockout devices will be affixed in a manner that will hold the energy isolating devices from the "safe" or "off" position.
5. Stored Energy: Following the application of the lockout or tagout devices to the energy isolating devices, all potential or residual energy will be relieved, disconnected, restrained, and otherwise rendered safe.

6. Verification of Isolation: Prior to starting work on machines or equipment that have been locked or tagged out, the authorized employees will verify that isolation or de-energization of the machine or equipment have been accomplished. After assuring that no Employee will be placed in danger, test all lock and tag outs by following the normal start up procedures (depress start button, etc.).
7. Extended Lockout - Tagout: Should the shift change before the machinery or equipment can be restored to service, the lock and tag out must remain. If the task is reassigned to the next shift, those Employees must lock and tag out before the previous shift may remove their lock and tag. C.A. Hull will assign an individual to be in charge of a group or shift change lockout operations.

47.5 RELEASE FROM LOCKOUT/TAGOUT

Before lockout/tagout devices are removed and the energy restored to the machine or equipment, the following actions will be taken:

1. The work area will be thoroughly inspected to ensure that nonessential items have been removed and that machine or equipment components are operational.
2. The work area will be checked to ensure that all employees have been safely positioned or removed.

Before the lockout/tagout devices are removed, the affected employees will be notified that the lockout/tagout devices are being removed.

1. Each lockout/tagout device will be removed from each energy isolating device by the employee who applied the device.

47.6 TEMPORARY REMOVAL FROM LOCKOUT/ TAGOUT

1. Clear away tools.
2. Remove employees.
3. Remove the lockout/ tagout device.
4. Energize and proceed with testing.
5. De-energize and re-apply control measures.

47.7 LOCKOUT/TAGOUT PROCEDURE FOR ELECTRICAL PLUG-TYPE EQUIPMENT

This procedure covers all Electrical Plug-Type Equipment such as Battery Chargers, some Product Pumps, Office Equipment, Powered Hand Tools, Powered Bench Tools, Lathes, Fans, etc. When working on, repairing, or adjusting the above equipment, the following procedures must be utilized to prevent accidental or sudden startup:

1. Unplug Electrical Equipment from wall socket or in-line socket.
2. Attach "Do Not Operate" Tag and Plug Box & Lock on end of power cord.
An exception is granted to not lock & tag the plug if the cord & plug remain in the exclusive control of the Employee working on, adjusting or inspecting the equipment.
3. Test Equipment to assure power source has been removed by depressing the "Start" or "On" Switch.
4. Perform required operations.
5. Replace all guards removed.
6. Remove Lock & Plug Box and Tag.

7. Inspect power cord and socket before plugging equipment into power source. Any defects must be repaired before placing the equipment back in service.

47.8 LOCKOUT/TAGOUT PROCEDURES INVOLVING MORE THAN ONE EMPLOYEE

In the preceding procedures, if more than one Employee is assigned to a task requiring a lock and tag out, each must also place his or her own lock and tag on the energy isolating device(s).

47.9 MANAGEMENT'S REMOVAL OF LOCKOUT/TAGOUT

Only the Employee that locks and tags out machinery, equipment or processes may remove his/her lock tag. However, should the Employee leave before removing his/her lock and tag, the project foreman may remove the lock and tag only after informing the Employee by phone or attempting to call the Employee. The project foreman must be assured that all tools have been removed, all guards have been replaced and all Employees are free from any hazard before the lock and tag are removed and the machinery, equipment or process are returned to service.

47.10 TRAINING

Training will be conducted initially when lockout/tagout procedures are to be used and workers will be retained as necessary. Training will include:

1. Authorized employees:
 - a. Recognition of applicable hazardous energy sources.
 - b. Details about the type and magnitude of the hazardous energy sources present in the workplace.
 - c. Methods and means required to isolate and control energy sources.
 - d. Clearance distances
2. Affected employees:
 - a. The purpose and use of the energy control procedure.
 - b. Electrical related safety practices
 - c. Clearance distances
3. Other employees:
 - a. Instructed about the procedure.
 - b. Prohibition relating to attempts to restart or re-energize machines or equipment which are locked or tagged out.
4. Retraining is required when:
 - a. Whenever there is a change in job classifications, change in equipment or change in process that presents new hazards.
 - b. believes the employee's knowledge to be inadequate.

Training will be documented and certified. The documentation will include the employee's name and signature, date of training, instructor's name and signature.

47.11 PERIODIC INSPECTION

An annual inspection of the energy control procedures is required and will be documented.

1. The inspection will be performed by an authorized employee other than the one(s) using the energy control procedures being inspected. The company may use an outside expert to conduct this inspection.
2. The inspection will look for deviations or inadequacies and make corrections.
3. The inspection will include interviews each authorized and affected employee of their responsibilities for the energy control program.

47.12 OTHER REQUIREMENTS

1. Employees are not to enter into spaces containing energized parts, unless the space has adequate lighting. Additional lighting maybe required.
2. Protective shields, protective barriers or insulating materials may be required as necessary when working in a confined space where electrical hazards may exist.
3. When handling long ducts or pipes that may touch electrical systems, the duct will be insulated or other safe practices used.
4. Portable ladders will have non-conductive side rails.
5. Prior to working around electrical equipment, all conductive material on the employee will be removed. If it is not possible to remove the conductive material it will be covered, wrapped or other insulating means used.
6. When working on or near de-energized parts, the parts will be considered live unless properly lockout or tagged out.

48.0 CRANES

The OSHA crane and derrick standard, 29 CFR 1926.1400 applies to power-operated equipment that can hoist, lower and horizontally move a suspended load. This includes articulating cranes, crawler cranes, mobile cranes, truck mounted cranes and overhead and gantry cranes.

48.1 GROUND CONDITIONS

1. Ground conditions are the ability of the ground to support the equipment.
2. Prior to equipment use or assembly, the ground will be checked for the following conditions:
 - a. The ground is firm.
 - b. The ground is properly drained.
 - c. The ground is graded to properly support the equipment.
 - d. Meets the manufacturer's specifications for adequate support and degree of level are met.

48.2 EQUIPMENT ASSEMBLING AND DISASSEMBLING

1. The manufacturer's procedures and prohibitions will be complied with when assembling and disassembling equipment.
2. Assembling and disassembling will under the supervision of a competent person and a qualified person.

48.3 POWER LINE SAFETY UP TO 350 KV

1. Prior to working in an area, a hazard assessment will be performed to identify the work zone and to determine if any part of the equipment could get closer than 20 feet to a power line.
2. Prior to working an area with power lines the boundary will be demarcated using flags and range limiting devices to prohibit the operator from going past the boundary, or the area will be clearly defined in a 360° area the crane.
3. Ensure that no part of the equipment, load line or load could get closer than 20 feet to a power line.
4. If the equipment, load line or load will get closer than 20 feet from the power line, one of the following options must be in place prior to moving the load.
 - a. Deenergize and ground the power line.
 - b. Ensure that the equipment, load line or load does stay at least 20 feet from the power line.
 - c. Ensure the equipment, load line or load maintains clearance listed below:

<u>Voltage</u>	<u>Minimum Clearance in feet</u>
Up to 50 kV	10
Over 50 to 200 kV	15
Over 200 to 350 kV	20
Over 350 to 500 kV	25
Over 500 to 750 kV	35
Over 750 to 1,000 kV	45
Over 1,000 kV	Per utility owner or operator

- d. If either option b or c are chosen, then the following will be implemented.
 1. Conduct a planning meeting with the operator and other affected workers.
 2. If tag lines will be used, they will be non-conductive lines.
 3. Erect and maintain an elevated warning line, barricade or line of signs in view of the operator at 20 feet from the power line.

4. Implement at least one of the following:
 - a. Proximity alarm.
 - b. Dedicated spotter.

48.4 POWER LINE SAFETY OVER 1,000 KV

1. The requirements as set in Section 52.2 will apply with the following exception.
 - a. For power lines in excess of 1,000 kV, the Owner or Operator of the power line will be required to determine the safe distances.

48.5 INSPECTIONS

1. Equipment that has been modified will be inspected prior to use for the following requirements.
 - a. Modifications were made in accordance with 1926.1434.
 - b. Functional testing of the equipment.
 - c. Modifications are made with the manufacturer's approval in writing.
 - d. A Registered Professional Engineer (RPE) qualified in the equipment to be modified will ensure the original safety factor of the equipment is not reduced.
2. Equipment that has been repaired or adjusted will be inspected prior to use for the following requirements.
 - a. A qualified person will verify the repair or modification meets the manufacturer's criteria.
 - b. If the manufacturer has not set a criteria for the repair or adjustment, either a Registered Professional Engineer (RPE) or a qualified person will be required to ensure criteria is developed.
 - c. The equipment will be inspected prior to use.
3. Post assembly of equipment.
 - a. A qualified person will ensure the equipment was configured in accordance with the manufacturer equipment criteria.
 - b. If the manufacturer has not set a criteria for the assembly, either a Registered Professional Engineer (RPE) or a qualified person will be required to ensure criteria is developed.
 - c. The equipment will be inspected prior to use.
4. Each shift, the equipment will be inspected for the following:
 - a. A competent person will conduct a visual inspection prior to the shift where the equipment will be used. The inspections will include as a minimum:
 1. Control mechanisms for maladjustments interfering with proper operation.
 2. Control and drive mechanisms for apparent excessive wear of components and contamination by lubricants, water or other foreign matter.
 3. Air, hydraulic, and other pressurized lines for deterioration or leakage, particularly those which flex in normal operation.
 4. Hydraulic system for proper fluid level.
 5. Hooks and latches for deformation, cracks, excessive wear, or damage such as from chemicals or heat.
 6. Wire rope reeving for compliance with the manufacturer's specifications.
 7. Wire rope, in accordance with 1926.1413(a).
 8. Electrical apparatus for malfunctioning, signs of apparent excessive deterioration, dirt or moisture accumulation.
 9. Tires (when in use) for proper inflation and condition.

10. Ground conditions around the equipment for proper support, including ground settling under and around outriggers/stabilizers and supporting foundations, ground water accumulation, or similar conditions.
 11. Operator cab windows for significant cracks, breaks or other deficiencies that would hamper the operator's view.
5. Monthly Inspections will be conducted to inspect all of the requirements of the inspections conducted each shift and any other requirements as set by the equipment manufacturer. The inspections will be documented and will include the items inspected, the name and signature of the person conducting the inspection and the date of the inspection. Documentation will be retained for a minimum of three months.
 6. Annual inspections will be conducted by a qualified person. As a minimum the following items will be inspected.
 - a. Equipment structure (including the boom and, if equipped, the jib):
 - b. Structural members: Deformed, cracked, or significantly corroded.
 - c. Bolts, rivets and other fasteners: loose, failed or significantly corroded.
 - d. Welds for cracks.
 - e. Sheaves and drums for cracks or significant wear.
 - f. Parts such as pins, bearings, shafts, gears, rollers and locking devices for distortion, cracks or significant wear.
 - g. Brake and clutch system parts, linings, pawls and ratchets for excessive wear.
 - h. Safety devices and operational aids for proper operation (including significant inaccuracies).
 - i. Gasoline, diesel, electric, or other power plants for safety-related problems and conditions, and proper operation.
 - j. Chains and chain drive sprockets for excessive wear of sprockets and excessive chain stretch.
 - k. Travel steering, brakes, and locking devices, for proper operation.
 - l. Tires for damage or excessive wear.
 - m. Hydraulic, pneumatic and other pressurized hoses, fittings and tubing.
 - n. Hydraulic and pneumatic pumps and motors.
 - o. Hydraulic and pneumatic valves.
 - p. Hydraulic and pneumatic cylinders.
 - q. Slider pads for excessive wear or cracks.
 - r. Electrical components and wiring for cracked or split insulation and loose or corroded terminations.
 - s. Warning labels and decals as originally supplied by the equipment manufacturer.
 - t. Originally equipped operator seat.
 - u. Steps, ladders, handrails and guards are in good working condition.
 7. The annual inspection will be documented with the items that were inspected, the name and signature of the person conducting the inspection and the date of the inspection.

48.6 SAFETY DEVICES

1. Safety devices are required to be on the equipment and in the proper working condition before using the equipment. Safety devices include: crane level indicator, boom stops, jib stops, foot pedal brake locks, horns, seat belts, etc.
2. If the safety devices are not in proper working condition, the equipment will be removed from service and the equipment will not be used until repairs are completed.

48.7 OPERATIONS

1. The employer will comply with all manufacturer procedures applicable to the operational functions of the equipment which also includes any attachments.
2. If the manufacturer procedures are unavailable, then the employer will develop and ensure compliance with all procedures necessary for the safe operation of the equipment and attachments.
3. The procedures for the operation of the equipment will be in the cab for use by the operator. The procedures include rated capacities (load charts), recommended operating speeds, special hazard warnings, instructions and operator's manual.

48.8 AUTHORITY TO STOP OPERATION

1. The operator has the authority to stop work, and to refuse to handle loads unless a qualified person has determined that the safety has been assured.

48.9 SIGNALS

1. Signals will conform with Appendix A of the crane standard.
2. The equipment operator must have line of site to the person conducting the signaling.
3. Only one person will be allowed to provide signals to the equipment operator.
4. If the line of site is blocked, an alternate method will be required. The most common method is two way radio with a dedicated channel just to the lift.
5. A signal person will be required for the following:
 - a. The point of the operation is not in the full view of the operator.
 - b. The view is obstructed when the equipment is traveling.
 - c. The operator or the person handling the load determines a signal person is necessary.

48.10 FALL PROTECTION

1. Fall protection will be required when walking or inspecting the equipment when exposed to a fall of six feet or greater.
2. Fall protection may be through the use of a harness and lanyard to an approved anchorage point, or by a guardrail system.

48.11 SWING AREA CONTROL

1. To prevent a person from getting struck by the equipment, all employees will be trained as to where the swing area will be and the area will be demarcated using warning lines, railing, barriers or other acceptable means.
2. If an employee needs to enter into the swing area, the employee will get the attention of the operator, get the operator's approval for entering, then enter the swing area.

48.12 OPERATOR QUALIFICATION AND CERTIFICATION

1. Operator qualification and certification is not required for operators of derricks (see 1926.1436), sideboom cranes (see 1926.1440), or equipment with a maximum manufacturer-rated hoisting/lifting capacity of 2,000 pounds or less.
2. Where operator qualification and certification is required, one of the following options is required.
 - a. Certification by an accredited crane operator testing organization.
 - b. Qualification by an audited employer program.

- c. Qualification by the U.S. military.
 - d. Licensing by a government entity.
3. Employees not qualified or certified may operate equipment as an operator in training under the supervision of a trainer.

48.13 SIGNAL PERSON QUALIFICATION

1. Employees who will be signal persons will be required to meet one of the following qualification requirements.
 - a. Third party qualified evaluator.
 - b. Employer's qualified evaluator.
2. Documentation will be available onsite for the qualification. The documentation will specify the type of signaling for which the signal person meets the requirements.
3. The signal person must have the following knowledge:
 - a. Know and understand the types of signals used.
 - b. Be competent in the application of the type of signals used.
 - c. Have a basic understanding of equipment operation and limitations.
 - d. Know and understand the relevant requirements of 1926.1419 through 1926.1422 and 1926.1428.
 - e. Pass either an oral or written test, and a practical test.

49.0 HOIST SAFETY

49.1 RESPONSIBILITIES

49.1.1 FOREMAN

1. Ensure employees under their supervision receive the required training and are certified and licensed to operate the cranes and hoists in their areas.
2. Provide training for prospective crane and hoist operators. This training must be conducted by a qualified, designated instructor who is a licensed crane and hoist operator.
3. Evaluate crane and hoist trainees using the Crane Safety Checklist.
4. Ensure hoisting equipment is inspected and tested monthly by a responsible individual and that rigging equipment is inspected annually.

49.1.2 CRANE AND HOIST OPERATORS

1. Operating hoisting equipment safely.
2. Conducting functional tests prior to using the equipment.
3. Selecting and using rigging equipment appropriately.
4. Having a valid operator's license on their person while operating cranes or hoists.
5. Participating in the medical certification program, as required.

49.2 CRANE AND HOIST OPERATORS

To be qualified as a Crane and Hoist Operator, the candidate will have received hands-on training from a licensed, qualified crane and hoist operator designated by the candidate's supervisor.

49.3 CRANE AND HOIST SAFETY DESIGN REQUIREMENTS

Following are the design requirements for cranes and hoists and their components:

1. The design of all commercial cranes and hoists will comply with the requirements of ASME/ANSI B30 standards and Crane Manufacturer's Association of America standards (CMAA-70 and CMAA-74).
2. All crane and hoist hooks will have safety latches.
3. Hooks will not be painted (or re-painted) if the paint previously applied by the manufacturer is worn.
4. Crane pendants will have an electrical disconnect switch or button to open the main-line control circuit.
5. Cranes and hoists will have a main electrical disconnect switch. This switch will be in a separate box that is labeled with lockout capability.
6. Crane bridges and hoist monorails will be labeled on both sides with the maximum capacity.
7. Each hoist-hook block will be labeled with the maximum hook capacity.
8. Directional signs indicating N-W-S-E will be displayed on the bridge underside, and a corresponding directional label will be placed on the pendant.
9. A device such as an upper-limit switch or slip clutch will be installed on all building cranes and hoists. A lower-limit switch may be required when there is insufficient hoist rope on the drum to reach the lowest point.

10. All cab and remotely operated bridge cranes will have a motion alarm to signal bridge movement.
11. All newly installed cranes and hoists, or those that have been extensively repaired or rebuilt structurally, will be load tested at 125% capacity prior to being placed into service.
12. If an overload device is installed, a load test to the adjusted setting is required.
13. Personnel baskets and platforms suspended from any crane will be designed in accordance with the specifications in 29 CFR 1926.550(g).

49.4 GENERAL SAFETY RULES

1. Do not engage in any practice that will divert your attention while operating the crane.
2. Respond to signals only from the person who is directing the lift, or any appointed signal person. Obey a stop signal at all times, no matter who gives it.
3. Do not move a load over people. People will not be placed in jeopardy by being under a suspended load. Also, do not work under a suspended load unless the load is supported by blocks, jacks, or a solid footing that will safely support the entire weight. Have a crane or hoist operator remain at the controls or lock open and tag the main electrical disconnect switch.
4. Ensure that the rated load capacity of a crane's bridge, individual hoist, or any sling or fitting is not exceeded. Know the weight of the object being lifted or use a dynamometer or load cell to determine the weight.
5. Check that all controls are in the OFF position before closing the main-line disconnect switch.
6. If spring-loaded reels are provided to lift pendants clear off the work area, ease the pendant up into the stop to prevent damaging the wire.
7. Avoid side pulls. These can cause the hoist rope to slip out of the drum groove, damaging the rope or destabilizing the crane or hoist.
8. To prevent shock loading, avoid sudden stops or starts. Shock loading can occur when a suspended load is accelerated or decelerated, and can overload the crane or hoist. When completing an upward or downward motion, ease the load slowly to a stop.

49.5 RIGGING

Only select rigging equipment that is in good condition. All rigging equipment will be inspected annually; defective equipment is to be removed from service and destroyed to prevent inadvertent reuse. The load capacity limits will be stamped or affixed to all rigging components. Prior to each use on each shift, the rigging equipment will be inspected. When rigging equipment is not in use, it will be removed from the work environment and placed into a clean area.

C.A. Hull policy requires a minimum safety factor of 5 to be maintained for wire rope slings.

The following types of slings will be rejected or destroyed:

1. Nylon slings with
 - a. Abnormal wear.
 - b. Torn stitching.
 - c. Broken or cut fibers.
 - d. Discoloration or deterioration.

2. Wire-rope slings with
 - a. Kinking, crushing, bird-caging, or other distortions.
 - b. Evidence of heat damage.
 - c. Cracks, deformation, or worn end attachments.
 - d. Six randomly broken wires in a single rope lay.
 - e. Three broken wires in one strand of rope.
 - f. Hooks opened more than 15% at the throat.
 - g. Hooks twisted sideways more than 10 deg. from the plane of the unbent hook.
 - h. Wear of one-third the original diameter of outside individual wires.
 - i. Wire rope safety will follow ANSI B30.5-1968 or SAE J959-1966.
3. Alloy steel chain slings with
 - a. Cracked, bent, or elongated links or components.
 - b. Cracked hooks.
4. Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.

49.6 RIGGING A LOAD

1. Determine the weight of the load. Do not guess. Do not load in excess of the load rating.
2. Determine the proper size for slings and components.
3. Do not use manila rope for rigging.
4. Make sure that shackle pins and shouldered eye bolts are installed in accordance with the manufacturer's recommendations.
 5. Where hooks are used, the hook will be equipped with a latch to eliminate the hook throat opening.
6. Make sure that ordinary (shoulderless) eye bolts are threaded in at least 1.5 times the bolt diameter.
7. Use safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible.
8. Pad sharp edges to protect slings. Remember that machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load. Wood, tire rubber, or other pliable materials may be suitable for padding.
9. Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed.
10. Install wire-rope clips with the base only on the live end and the U-bolt only on the dead end. Follow the manufacturer's recommendations for the spacing for each specific wire size.
11. Determine the center of gravity and balance the load before moving it.
12. Initially lift the load only a few inches to test the rigging and balance.
 13. Tag lines will be required to help guide a load. When tag lines are used, the person handling the tag line will have a clear line of site where he will be walking and to the load being moved.
14. At no time will employee be allowed to stand or walk under a suspended load.

49.7 HAND SIGNALS

Signals to the operator will be in accordance with the standard hand signals unless voice communications equipment (telephone, radio, or equivalent) is used. Signals will be discernible or audible at all times. Some special operations may require addition to or modification of the basic signals. For all such cases, these special signals will be agreed upon and thoroughly understood by both the person giving the signals and the operator, and will not be in conflict with the standard signals.

49.8 ELECTRICAL SAFETY

Prior to using a crane, a walk thru of the job site will be conducted to look for any overhead electrical distribution and transmission lines. If overhead lines are present, the line rating must be determined.

1. For lines rated 50 kV or less, a minimum clearance between the lines and any part of the crane or load will be 10 feet.
2. For lines rated over 50 kV, a minimum clearance between the lines and any part of the crane or load will be 10 feet plus 0.4 inch for each 1 kV.
3. Where the crane operator has a restricted view, a spotter will assist the crane operator in observing the clearance of the crane.
4. Wherever possible, will contact the owner of the line and arrange for the line to be shut down while crane operations are in use.
5. The crane will be provided with an electrical ground directly to the upper rotating structure supporting the boom.

50.0 POWERED INDUSTRIAL TRUCKS

Powered industrial trucks (forklift) include: forklifts, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric or combustion engines.

50.1 TRAINING

C.A. Hull will train and evaluate each worker (operator) who will operate a forklift. Training will be conducted in a classroom setting or by one-on-one lecture from a supervisor. The evaluation will be conducted on the forklift the operator will be operating. A course will be set up to simulate the normal conditions the operator may expect. Prior to operating a forklift, the worker will be trained in the following:

50.1.1 INITIAL TRAINING

1. Operating instructions, warnings and precautions for the type of forklift that the worker will be authorized to operate.
2. Differences between a forklift and an automobile.
3. Forklift controls and instrumentation- where they are located, what they do and how they work.
4. Engine or motor operation.
5. Steering and maneuvering.
6. Visibility.
7. Fork and attachment adaption.
8. Vehicle capacity and stability.
9. Inspection and maintenance.
10. Refueling or recharging procedures.
11. Operating limitations.
12. Any site specific instructions such as surface conditions and types of loads.

50.1.2 REFRESHER TRAINING

Refresher training will be conducted when:

1. The operator has been observed to operate the vehicle in an unsafe manner.
2. An accident or near-miss has occurred.
3. Buys or rents a different type of forklift that the operator was trained to operate.
4. A change in the workplace that could affect the safe operation of the forklift.
5. At least every three years.

50.2 SAFETY

1. Employees will not be allowed to stand or pass under the elevated portion of the forklift.
2. Riders are not authorized unless a safe place to ride is provided.
3. When a forklift is not in use, the forks will be lowered and the forklift will be shut-off and the brake set.
4. The operator will maintain a safe distance between the forklift and the sides of ramps or platforms.

5. If the forklift has a seat belt, the operator will be required to use it.
6. Pedestrians have the right of way.

50.3 FORKLIFT DESIGNATIONS

Prior to using a forklift, the operator and will ensure that it is safe to use in the environment it will be use in. The following table provides the current designations for forklifts.

Class	Type of Forklift
Type D	Diesel powered: few safeguards against hazards.
Type DS	Diesel powered: more safeguards that Class D, such as exhaust, fuel and electrical safety features.
Type DY	Diesel powered: more safeguards that Class DS and has no electrical equipment, but includes a temperature limitation feature.
Type E	Electric powered: few safeguards against fire and electrical shock hazards.
Type ES	Electric powered: more safeguards that Class E such as spark-arresting features.
Type EE	Electric powered: more safeguards that Class ES, by enclosing all electrical equipment.
Type EX	Electric powered: more safeguards that Class EE, constructed for use around certain flammable vapors, dusts and fibers.
Type G	Gasoline powered: few safeguards against fire hazards.
Type GS	Gasoline powered: more safeguards that Class G, such as fuel, exhaust and electrical safety features.
Type LP	Propane gas powered: few safeguards against fire hazards.
Type LPS	Propane gas powered: more safeguards than Class LP, such as fuel, exhaust and electrical safety features.

50.4 ON-ROAD FORKLIFTS

1. Follow all traffic regulations.
2. When crossing railroad tracks, cross diagonally when possible and do not park within 8 feet of any railroad track.
3. On all grades, the load and load engaging means will be tilted back and raised only as far as necessary to clear the road surface.
4. Emergency vehicles will have the right of way.

50.5 INSPECTION AND MAINTENANCE

Prior to use, the operator will inspect the forklift. If any problems are revealed during the inspection, the operator will not operate the forklift until it has been inspected and any problems corrected by a qualified maintenance person.

50.5.1 INSPECTION

Check the following:

1. Fluid levels
2. Tires
3. Hoses/belts/cables
4. Mast and forks
5. Fuel or battery level
6. Safety equipment
7. Gauges and controls
8. Horns and alarms
9. Steering and brakes
10. Anything else as recommended by the forklift manufacturer.

50.5.2 MAINTENANCE

1. Prior to making repairs to the electrical equipment, disconnect the battery.
2. No repairs will be made in Class I, II and II hazardous locations.
3. Replace parts only with equivalent parts.

50.6 PICKING UP, TRAVELING AND PLACING A LOAD

50.6.1 PICKING UP A LOAD

1. Make sure the load does not exceed the capacity of the forklift.
2. Center the forks to evenly distribute the load.
3. Check for overhead obstructions.
4. Drop the forks to the floor.
5. Drive into the load as far as possible.
6. Tilt the load back slightly and then lift.
7. Back out slowly to clear any obstacles.
8. Lower the load to the safe traveling height.

50.6.2 TRAVELING WITH A LOAD

1. Pedestrians always have the right of way.
2. Keep the load tilted back slightly.
3. Keep the forks 2 to 4 inches above the traveling surface.
4. Prior to moving, look behind and around the forklift for pedestrians and obstacles.
5. If the load is large and blocks the operator's view, travel in reverse.
6. Drive at safe speeds.
7. Sound the horn when approaching intersections or near pedestrians.
8. On ramps and inclines, drive a loaded forklift with the load in the uphill direction.
(Except on roadways)

50.6.3 PLACING A LOAD

1. Stop the forklift in front of the desired location.
2. Slowly raise the load to the required height.
3. Move forward slowly with the load raised.
4. Position the load for placement, tilting the load forward to level it.
5. Place the load square and straight.
6. Once the load has settled, back up slowly.
7. Prior to backing, check behind and around the forklift for pedestrians and obstacles.

51.0 EXCAVATION AND TRENCHING

This program outlines procedures and guidelines for the protection of employees working in and around excavations and trenches. This program requires compliance with OSHA Standards described in Subpart P (CFR 1926.650) for the construction industry.

Compliance is mandatory to ensure employee protection when working in or around excavations. The programs in this manual on confined space, hazard communication, lock-out/tag-out, respiratory protection, and any other safety programs or procedures deemed essential for employee protection, are to be used in conjunction with this program.

51.1 RESPONSIBILITIES

It is the responsibility of each superintendent and supervisor to implement and maintain the procedures and steps set forth in this program. Each employee involved with excavation and trenching work is responsible to comply with all applicable safety procedures and requirements of this program.

51.2 DEFINITIONS

Benching a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels.

Cave-In the separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by failing or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person.

Competent Person one who is capable of identifying existing and predictable hazards in the surroundings or working conditions, which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Excavation any man-made cut, trench, or depression in an earth surface, formed by earth removal.

Hazardous Atmosphere an atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness, or injury.

Protective System a method of protecting employees from cave-ins, from material that could fall or roll from an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide necessary protection.

Shield a structure that is capable of withstanding the forces imposed on it by a cave-in and thereby protects employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. All shields must be in accordance with 29 CFR 1926.652(c)3 or (c)4.

Sloping a method of protecting workers from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences such as soil type, length of exposure, and application of surcharge loads.

Trench a narrow excavation below the surface of the ground, less than 15 feet wide, with a depth no greater than the width.

Undermining can be caused by such things as leaking, leaching, caving or over-digging. Undermined walls can be very dangerous.

Vibration a force that is present on construction sites and must be considered. The vibrations caused by backhoes, dump trucks, compactors and traffic on job sites can be substantial.

51.3 GENERAL REQUIREMENTS

Before any work is performed and before any employees enter the excavation, a number of items must be checked and insured:

1. Before any excavation, underground installations must be determined. This can be accomplished by either contacting the local utility companies or the local "one-call" center for the area. All underground utility locations must be documented on the proper forms. All overhead hazards (surface encumbrances) that create a hazard to employees must be removed or supported to eliminate the hazard.
2. If the excavation is to be over 20 feet deep, it must be designed by a registered professional engineer who is registered in the state where work will be performed.
3. Adequate protective systems will be utilized to protect employees. This can be accomplished through sloping, shoring, or shielding.
4. The work site must be analyzed in order to design adequate protection systems and prevent cave-ins. There must also be an excavation safety plan developed to protect employees.
5. Workers must be supplied with and wear any personal protective equipment deemed necessary to assure their protection.
6. All spoil piles will be stored a minimum of four (4) feet from the sides of the excavation. The spoil pile must not block the safe means of egress.
7. If a trench or excavation is 4 feet or deeper, stairways, ramps, or ladders will be used as a safe means of access and egress. For trenches, the employee must not have to travel any more than 25 feet of lateral travel to reach the stairway, ramp, or ladder.
8. No employee will work in an excavation where water is accumulating unless adequate measures are used to protect the employees.
9. A competent person will inspect all excavations and trenches daily, prior to employee exposure or entry, and after any rainfall, soil change, or any other time needed during the shift. The competent person must take prompt measures to eliminate any and all hazards.

10. Excavations and trenches 4 feet or deeper that have the potential for toxic substances or hazardous atmospheres will be tested at least daily. If the atmosphere is inadequate, protective systems will be utilized.
11. If work is in or around traffic, employees must be supplied with and wear orange reflective vests. Signs and barricades must be utilized to ensure the safety of employees, vehicular traffic, and pedestrians.

51.4 COMPETENT PERSON

The OSHA Standards require that the competent person must be capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and have authorization to take prompt corrective measures to eliminate them and, if necessary, to stop the work.

A competent person is required to:

1. Have a complete understanding of the applicable safety standards and any other data provided.
2. Assure the proper locations of underground installations or utilities, and that the proper utility companies have been contacted.
3. Conduct soil classification tests and reclassify soil after any condition changes.
4. Determine adequate protective systems (sloping, shoring, or shielding systems) for employee protection.
5. Conduct all air monitoring for potential hazardous atmospheres.
6. Conduct daily and periodic inspections of excavations and trenches.
7. Approve design of structural ramps, if used.

51.5 SOIL CLASSIFICATION AND IDENTIFICATION

The OSHA Standards define soil classifications within the Simplified Soil Classification Systems, which consist of four categories: Stable rock, Type A, Type B, and Type C. Stability is greatest in stable rock and decreases through Type A and B to Type C, which is the least stable. Appendix A of the Standard provides soil mechanics terms and types of field tests used to determine soil classifications. Stable rock is defined as natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

Type A soil is defined as:

1. Cohesive soils with an unconfined compressive strength of 1.5 tons per square foot (TSF) or greater.
2. Cemented soils like caliche and hardpan are considered Type A.

Soil is NOT Type A if:

1. It is fissured.
2. The soil is subject to vibration from heavy traffic, pile driving or similar effects.
3. The soil has been previously disturbed.
4. The material is subject to other factors that would require it to be classified as a less stable material.
5. The exclusions for Type A most generally eliminate it from most construction situations.

Type B soil is defined as:

1. Cohesive soil with an unconfined compressive strength greater than .5 TSF, but less than 1.5 TSF.
2. Granular cohesionless soil including angular gravel, silt, silt loam, and sandy loam.
3. The soil has been previously disturbed except that soil classified as Type C soil.
4. Soil that meets the unconfined compressive strength requirements of Type A soil, but is fissured or subject to vibration.
5. Dry rock that is unstable.

Type C soil is defined as:

1. Cohesive soil with an unconfined compressive strength of .5 TSF or less.
2. Granular soils including gravel, sand and loamy sand.
3. Submerged soil or soil from which water is freely seeping.
4. Submerged rock that is not stable.

52.0 DIG SAFE

Prior to conducting digging, trenching or excavating operations, a call must be placed to the State's Dig Safe number. This call must be placed at least 48 hours but not more than 5 days prior to the day when digging is to begin (some States may have different requirements). The company will then record the Dig Safe number that is provided and record the list of utilities that will be contacted. Prior to digging, the company will ensure that all of the utilities that were to be contacted were contacted.

52.1 DIG SAFE PROCEDURES

1. Call the State Dig Safe phone number 48 hour to 5 days prior to digging.
2. Mark out the work area using white spray paint.
3. Verify that all companies were notified and that the area is marked. Record this process.
4. Begin digging operations, if digging within 2 feet of a marking, then the digging must be by hand, and/or follow State regulations.
5. Where markings have been removed or are no longer visible, the company will contact the utilities to remark the area.
6. At the completion of digging operations, follow the State regulations which may require a follow-up call to Dig Safe.

52.2 UNDERGROUND UTILITY LINE COLOR CODES

1. Red - electric
2. Yellow - gas-oil-steam
3. Orange - communication CATV
4. Blue - water
5. Green - sewer
6. Pink - temporary survey markings
7. White - proposed excavation

52.3 DIG SAFE TELEPHONE NUMBERS

The national Dig Safe Number is 811

52.4 INFORMATION REQUIRED WHEN CALLING DIG SAFE

STATE: _____ MUNICIPALITY: _____

ADDRESS/LOCATION: _____

INTERSECTING STREET: _____

TYPE OF WORK: _____

DEPTH OF WORK _____

NAME OF CALLER: _____ TITLE: _____

START DATE: _____ TIME: _____

PHONE: _____ FAX: _____

COMPANY: _____

EXCAVATOR DOING WORK: _____

AREA PREMARKED? Y or N

53.0 PLANTS AND INSECT HAZARDS

The competent person and foreman, upon initially arriving upon a project location should identify if there may be any plant or insect hazards. These hazards may include poison ivy, poison oak, poison sumac, bees and insects that carry the West Nile Virus.

53.1 PLANTS

Urushiol is the oil in poison ivy, oak and sumac that causes the reaction. Typically a rash will appear in one to three days and may last up to several weeks. If a worker suspects an exposure to a poisonous plant, wash the affected area immediately five to six times and if rubbing alcohol is available use this during one of the washings. Remove any clothing that may have come in contact with the plant..

53.1.1 POISON IVY

1. Poison ivy has three notched leaves.
2. Grows as vines and shrubs.
3. Can grow as high as 60 feet.
4. Red in the early spring, shiny green in the summer and red or orange in the fall.
5. Grows as a bush in the North and Great Lakes and as a vine in the East, Midwest and South.

53.1.2 POISON OAK

1. Three leaflets, lobbed like oak leaf.
2. Turns red in the fall.
3. Eastern poison oak can be found from the southern tip of New Jersey to Florida and west to Texas and Oklahoma. Western poison oak grows from the Peninsula of California to British Columbia.

53.1.3 POISON SUMAC

1. Long leaves with several leaflets at the end of a twig.
2. Grows in dense clusters and up to 25 feet high.
3. Found in bogs and swamps in the Atlantic and great lakes regions.

53.1.4 CONTROL METHODS

The competent person and project foreman should carefully walk around the project site to determine if any poisonous plants are onsite. If any are found, the area should be delineated using caution tape and all worker informed at a pre-job safety meeting.

53.2 INSECTS

There are numerous insects that may cause workers harm such as bees, ticks that cause Lyme Disease and the insects that carry the West Nile Virus. Prior to starting work on any project, the competent person and foreman should determine what types of insect hazards may be present.

53.2.1 BEES

Prior to starting, the competent person and foreman should determine if the structure and the surrounding area may have bees and/or bee nests. If any are found in areas that work will be conducted, the area will be sprayed using bee spray. Additional control measures may be required. All workers must be interviewed to determine if any are allergic to bees. If so, then the worker should be required to maintain epinephrine onsite.

53.2.2 LYME DISEASE

53.2.2.1 PREVENTATIVE MEASURES

When in tick-infested habitat special precautions to prevent tick bites should be taken, such as wearing light-colored clothing (for easy tick discovery) and tucking pants into socks and shirt into pants. Consider the use of repellents. Check after every two to three hours of outdoor activity for ticks on clothing or skin. Brush off any ticks on clothing before skin attachment occurs. A thorough check of body surfaces for attached ticks should be done at the end of the day.

53.2.2.2 HOW SHOULD A TICK BE REMOVED?

Grasp the mouthparts with tweezers as close as possible to the attachment (skin) site. Be careful not to squeeze, crush or puncture the body of the tick, which may contain infectious fluids. After removing the tick, thoroughly disinfect the bite site and wash hands. See or call a doctor if there are concerns about incomplete tick removal. Do not attempt to remove ticks by using petroleum jelly, lit cigarettes or other home remedies because these may actually increase the chance of contracting a tick-borne disease.

53.2.3 WEST NILE VIRUS

West Nile Virus is a mosquito-borne infection that can cause encephalitis. There are many different species of mosquitoes, but only a small percentage have been associated with West Nile Virus.

53.2.3.1 SAFETY PRECAUTIONS

1. Reduce mosquito-breeding areas by making sure that wheelbarrows, buckets, and other containers are turned upside down when not being used so that they do not collect standing water.
2. Wear shoes, long pants with bottoms tucked into boots or socks, and a long-sleeved shirt when outdoors for long periods of time, or when many mosquitoes are most active (between dusk and dawn).
3. Use mosquito repellent according to label directions when outdoors for long periods of time and when mosquitoes are most active. Look for repellent with DEET.

54.0 LIFTING SAFETY

Prior to lifting a load, whether manually or using a hand truck, take a moment to review the lift to determine if the lift can be completed safely by one person or if a second person or if mechanical help such as a hand truck is required.

54.1 LIFTING A LOAD MANUALLY

1. Check your path of travel for tripping hazards. Remove the hazards if possible.
2. Avoid slippery or uneven surfaces when lifting.
3. Be sure you have a tight grip on the object before you lift.
4. Lift with the legs and keep the back straight.
5. Use slow and smooth movements during the lift
6. Keep your body facing the object while lifting.
7. Make sure you can see over the object during movement.
8. Keep the load close to the body.

54.2 HAND TRUCK AND DOLLY

1. When moving large loads such as a drum, push the load, do not pull.
2. Make sure the load is secured to the hand truck during the move.
3. Check the path of travel for tripping hazards.

55.0 SAFE OPERATING PROCEDURES

55.1 SAFE OPERATING PROCEDURES

Prior to using any equipment, read the manufacturer's Safe Operating Procedures (SOPs). These procedures will allow the user to work safely and prevent harm to himself and others in the work place. If the manufacturer's SOPs are unavailable, contact the Project Superintendent or Competent Person for guidance. Below are general guidelines on equipment found at the work place.

55.2 TRAINING

Employees will receive training on the safe operating procedures of the equipment or process they will or may operate on the following schedule:

1. Within the first 30 days of employment with .
2. Annually.
3. When new equipment or process is brought onsite that the employee will or may operate.
4. If any employee is observed violating the SOPs, the employee will be retrained.

55.3 ABRASIVE BLAST CLEANING NOZZLES

1. All abrasive blast cleaning nozzles will be equipped with a "Dead Man" switch prior to use.
2. Never block the "Dead Man" switch in the open position. This could cause severe injuries.
3. Follow manufacturer's Safe Operating Procedures.

55.4 ABRASIVE BLASTING SAFETY

1. Wear protective clothing, noise protection, blast helmets and gloves when abrasive blasting to prevent injury.
2. Breathing air must be odor free and a carbon monoxide detector in use as required by OSHA regulations.
3. Thoroughly examine the condition of hoses, hose fittings, couplings and unions prior to blasting. Replace any worn parts.
4. At couplings on the blast hose, ensure whip checks or other positive methods are in use to prevent hoses from becoming disconnected.
5. Never mix and match equipment, use only equipment recommended by the manufacturer.
6. During blast operations, the equipment operator must stay near the blast equipment.
7. Signals, hand signals or radios will be used to establish communications between the blasters and equipment operators.
8. When working above 6 feet, fall protection must be used.
9. When working on scaffolding, the blast line will be secured to the scaffold allowing enough hose for the blaster to use.
10. The blast helmet will be donned and removed either in a vestibule or outside the containment.
11. Never aim an operational blast nozzle at another person.
11. Each blast nozzle will be equipped with a deadman switch.
13. Follow manufacturer's Safe Operating Procedures.

55.5 VACUUM RECOVERY EQUIPMENT (TITAN, VEC-LOADER)

1. Always wear heavy duty protective clothing, respiratory protection, and hearing protection as required.
2. Prior to starting, examine the condition of hoses, hose fittings, couplings and unions. Any piece of equipment that shows wear must be reported to your supervisor immediately and replaced.
3. Safety couplings will be installed on all air hose connections to prevent coupling failure.
4. During vacuuming operations, the machine operator must stay close to the vacuum in case of an emergency.
5. If a Y connection is attached to the vacuum line, and only one hose will be used, place a cover over the unused hose to prevent it from sucking up harmful materials.
6. When raising and lower hoses use rope or manlifts.
7. When personnel operating the vacuum are working on staging, they must wear the proper fall protection.
8. Equipment operators must stay away of all pinch points while vacuum operation are underway. If work is to be done next to the pinch points, ensure the vacuum is off using lockout/tagout procedures.
9. If waste is to be place in 55 gallon drums, use hand trucks to move the drum.
10. Only qualified personnel are to operate any vacuum equipment.
11. Follow manufacturer's Safe Operating Procedures.

55.6 SUPERSUCKER

1. Always wear heavy duty protective clothing, respiratory protection, and hearing protection as required.
2. Prior to starting, examine the condition of hoses, hose fittings, couplings and unions. Any piece of equipment that shows wear must be reported to your supervisor immediately and replaced.
3. Safety couplings will be installed on all air hose connections to prevent coupling failure.
4. During vacuuming operations, the machine operator must stay close to the vacuum in case of an emergency.
5. If a Y connection is attached to the vacuum line, and only one hose will be used, place a cover over the unused hose to prevent it from sucking up harmful materials.
6. When personnel operating the vacuum are working on staging, they must wear the proper fall protection.
7. Equipment operators must stay away of all pinch points while vacuum operation are underway. If work is to be done next to the pinch points, ensure the vacuum is off using lockout/tagout procedures.
8. Never move the Supersucker with the collector body up.
9. Check all guards and safety devices are in place and functional.
10. Do not use hands or feet to remove obstructions from end of hose.
11. Only qualified personnel are to operate any vacuum equipment.
12. Follow manufacturer's Safe Operating Procedures.

55.7 COMPRESSED AIR

1. Do not use compressed air to clean hair or clothing. Never turn compressed air against another employee for any reason.
2. Compressed air can readily enter skin and blood vessels. Free air in the blood stream can prove fatal.
3. Compressors will be equipped with a pressure relief device and pressure gauges, relieve pressure before removing filler plugs/caps, fittings or covers.
4. Use safety clips, whip checks or other positive restraints on all airline attachments.
5. Safety devices on compressors will be checked prior to use qualified person.
6. Obey all safety signs located on the compressor.
7. When refueling, shut the compressor off. Ground the fuel nozzle against the filler neck to avoid sparks.
8. Never smoke while refueling.
9. Keep sparks and other open flames away from the batteries.
10. Do not operate compressor without machine guard in place.
11. Follow manufacturer's Safe Operating Procedures.

55.8 DUST COLLECTOR

1. Do not remove any screens or guards while the machine is in use.
2. Do not allow personnel into hoppers or plenums while the dust collector is operating.
3. Keep wood, canvas, rags and other large items from entering the dust collector.
4. Do not allow any burning materials such as cigarettes to enter into the dust collector as it may cause a dust explosion.
5. Do not use the dust collector as a vacuum to clean-up dust from a containment floor.
6. Wear the appropriate personal protective equipment when working in, on or around the dust collector.
7. Do not operate a dust collector unless properly trained and authorized.
8. Follow manufacturer's Safe Operating Procedures

55.9 ELECTRICAL SAFETY

1. All electric tools will either be grounded using GFGI outlets or double insulated.
2. Cages will be used on extension lights.
3. All employees will be made aware of all emergency shut-off devices.
4. Electrical tools will be repaired by qualified personnel only.
5. Lockout/tagout procedures will be used where applicable.
6. Extension cords must be the three wire type (grounding plug). The ground must be in place and the cord shall not be frayed.
7. Follow manufacturer's Safe Operating Procedures.

55.10 HAND TOOLS

1. Hand tools will comply with 29 CFR 1926.301
2. Hand tools will be inspected prior to use for wear and tear that would affect the use of the tool.
3. Wrenches, including adjustable, pipe, end and socket wrenches will not be used when the jaws are sprung to the point that slippage occurs.
4. Impact tools will be kept free of mushroomed heads.
5. Tools with wooden handles will be kept free of splinters and cracks and the handles will be kept tight in the tool.
6. Safety glasses will be worn whenever using hand tools.
7. Don't leave tools on scaffolds or over head when not in use.
8. Don't throw tools from one location to the next.
9. Follow manufacturer's Safe Operating Procedures.

55.11 POWER TOOLS

1. Power-operated hand tools will comply with 29 CFR 1926.302
2. All power-operated hand tools will be used in accordance with manufacturer's safe operating procedures.
3. Electric power operated tools will either be double insulated or grounded in accordance with Subpart K of 29 CFR 1926.
4. Electric cords will not be used to raise or lower the tool.
5. Pneumatic power tools will be secured to the hose by a whip check, safety clips or other positive means to prevent the tools from becoming disconnected.
6. Hoses greater than ½" inside diameter will have a safety device at the source of supply or branch line.
7. Keep guards in place and in working order.
8. When adjusting tools, unplug the tools first.
9. Use a clamp or vice, not your hands to secure your work.
10. Safety glasses will be worn whenever using power operated tools.
11. Other safety equipment such as respirators, noise protections, gloves and safety shoes will be worn as directed by the safety officer.
12. Follow manufacturer's Safe Operating Procedures.

55.12 AERIAL LIFTS

1. Prior to using any aerial lift, the lift operator will survey the area to determine if there are obstacles, obstructions or other areas which may cause the lift to tip over.
2. If the aerial lift will be operated on an active roadway or where there are overhead power lines, a spotter will be required. On the roadway, the spotter will be equipped as a flagger.
3. Aerial lifts will not be operated within 10 feet of high voltage lines (up to 50 Kv)
4. Ground controls will not be operated without the permission of the workers in the basket, except in an emergency.
5. Belting off to adjacent structures while in the lift will not be permitted.

6. If workers leave the basket to gain access to a work area, the worker will maintain 100% fall protection by connecting to a safety line or secure structure then disconnecting from the basket.
7. Workers will keep both feet on the floor of the platform.
8. Workers will not stand on the toeboard, mid-rail or top-rail, or use planks, ladders or other devices to raise the working height.
9. A harness and lanyard will be worn at all times when in the basket or boom.
10. Boom and basket loads will not be exceeded. The load rating will be placed in the basket or boom of an aerial lift.
11. To safely position the aerial lift, wheel chocks or outriggers will be used on inclined positions.
12. The gate to the basket will be securely closed when the lift is in use.
13. Know the capacity and operating characteristics of the aerial platform. Do not overload the platform.
14. Follow manufacturer's Safe Operating Procedures.

55.13 SCISSOR LIFT

1. Operator must be familiar with the lift prior to operating it.
2. Operator should walk around the area where the lift will be used to look for uneven ground, bumps and grades, also check overhead for electrical lines.
3. Maintain the minimum safe distance from electrical lines.
4. Where the operator's vision is limited, use a lookout and sound the horn.
5. While refueling, shut down the lift.
6. Never overload a platform, refer to manufacturer's instructions.
7. During entry or exit above ground, safety belts must be attached to the structure being entered.
8. Always stand on the platform floor, not on railings or planks.
9. Do not operate without handrails in place and secured.
10. Check the floor of the platform for oils, greases, mud and other slippery substances and clean before using the lift.
11. Ensure all tools and equipment is properly stowed prior to moving.
12. If the scissor lift is supplied with fall protection attachments, workers must wear a harness and lanyard when operating the scissor lift.
13. Follow manufacturer's Safe Operating Procedures

55.14 AIRLESS SPRAY EQUIPMENT

1. Prior to using any spray equipment, adequate ventilation must be assured. The use of dust collectors, windows and respirators are all acceptable methods to ensure workers have adequate breathing air.
2. The spray area must be at least 25 feet from open flames, sparks or other ignition sources.
3. Fire extinguishers must be located near the work area.
4. Explosion proof lamps may be required.
5. Check the work area for combustible materials and remove to prevent fires.
6. Check all valves and gauges to insure that they are in proper working order. Equipment with damaged or missing parts will be removed from service.

7. The safety shut-off valve must be closed when spray operations are not underway.
8. Wear safety goggles when operating the spray equipment, or during any work on making repairs to spray lines.
9. All connectors must be securely connected, when checking the connections, beware of the potential for rupture (this may occur anywhere in the line).
10. **Never** point the spray gun at anyone or yourself. Spray guns can cause coating materials to be injected under the skin causing severe injury.
11. **Never** put your hand or fingertips over the spray tip.
12. If you are injected, seek immediate help at the local emergency room. Do not assume it is only a pin prick. Bring the SDS of the coating being applied with you to the emergency room.
13. Prior to removing the spray gun, ensure the spray line is depressurized.
14. When the spray gun is not in use, set the safety latch to the safe position.
15. Only use spray guns with safety mechanisms and leave the gun in the “safe” position when not in use.
16. Prior to cleaning, disconnect all air lines.
17. Follow manufacturer’s Safe Operating Procedures.

55.15 PRESSURE WASHER

1. Always operate pressure washer in a well ventilated area free of flammable vapors, combustible dusts, gases or other combustible materials.
2. Do not use pressure washer to spray flammable materials.
3. Do not smoke while filling engine.
4. Turn engine off and wait two minutes prior to filling or re-filling.
5. Disconnect battery ground prior to servicing.
6. Do not jump start the battery unless both batteries are of equal voltage and amperage.
7. Use the washer only in well ventilated areas.
8. Never point the guns at yourself or anyone else.
9. Do not wire the trigger open.
10. Use the proper Personal Protective Equipment (PPE) for the job.
11. Block the wheels prior to using to prevent the unit from rolling.
12. Follow the manufacturer’s Safe Operating Procedures.

55.16 LIGHT TOWER

1. Ensure adequate ventilation prior to using.
2. Do not operate electrical equipment while standing in water, wet ground, with wet hands or shoes.
3. Do not tow in excess of 50 mph.
4. Do not fill fuel tank when engine is running. Do not smoke while fueling.
5. Keep clear of rotating parts and potential pinch points.
6. Prior to using, make sure all guards and safety devices are in place and working.
7. Check for overhead lines prior to raising light tower.
8. Follow manufacturer’s Safe Operating Procedures.

56.0 HAZARDOUS WASTE SITE OPERATIONS

56.1 SCOPE

The requirements of this section apply to personnel and operations involved in investigation and remediation efforts associated with improperly disposed of hazardous, toxic, and/or radioactive wastes. This section does not apply to activities involving the generation and collection of hazardous wastes which are being temporarily stored prior to proper disposal.

56.2 HAZARDOUS WASTE OPERATIONS SAFETY AND HEALTH PROGRAM

56.2.1 The program will designate, in writing, a program manager who will have the responsibility and authority to direct all hazardous waste operations within the scope of this section.

56.2.2 Each project that falls under the general category of "hazardous waste operation" will have a comprehensive work plan, as well as a site-specific safety and health plan, in place prior to commencing operations.

56.2.3 The written program, work plan, and site-specific safety and health plan will specify the means to implement the requirements of these standards.

56.3 WORK PLAN

56.3.1 The plan will identify the personnel requirements and methods to accomplish the identified tasks and objectives.

56.3.2 For uncontrolled hazardous waste sites, characteristics such as location, size, boundaries, topography, accessibility, contaminant concentrations, and contaminant dispersion pathways must be included

56.3.3 The plan must specify the means for providing required information to employees, contractors, and others who enter the site.

56.3.4 The plan must include the requirements for training, medical evaluations, and record-keeping not specified in site-specific documents.

56.4 SITE-SPECIFIC HEALTH AND SAFETY PLAN (HASP)

56.4.1 A site specific HASP including an emergency response plan will be developed and implemented to handle anticipated emergencies prior to the start of work.

56.4.1 The site specific HASP will be written and available to all employees, their representatives and OSHA at the work site.

56.4.2 The plan must indicate specific expectations for meeting the standards, including programs for Chain of command, inspection, training, medical evaluation, contaminant/exposure monitoring, site control, decontamination, personal protective equipment (PPE), emergency response, confined space entry, and spill containment requirements associated with site operations.

56.5 HAZARD EVALUATION AND CONTROL

56.5.1 Evaluation of the site and operations will be conducted to identify the specific hazards and determine procedures appropriate for controlling exposure to those hazards.

56.5.2 Controls must be implemented prior to initiating site activities.

56.6 HAZARD COMMUNICATION

- 56.6.1 Personnel must be informed of all identified risks and entry/work requirements before their entry into a contaminated or restricted area and/or before starting a hazardous activity covered by the requirements of this section.
- 56.6.2 Briefings will be conducted at intervals necessary to ensure personnel are knowledgeable of most current information and requirements of the site-specific HASP.

56.7 TRAINING

- 56.7.1 All personnel including equipment operators, general laborers, supervisors and management will receive the appropriate training prior to being allowed to participate in or supervise work. The training will also include the duties and functions to be performed.
- a. They have been certified as having successfully completed the training requirements for their assigned duties and responsibilities, and
 - b. Records of required training and certification have been established and are immediately available at the activity site.
- 56.7.2 Trainers. The training must be conducted by a trainer meeting the qualifications of OSHA standards in 29 CFR 1910.120 (e)(5). Generally, trainer qualification is based upon the satisfactory completion of a training program for teaching the subject matter, or appropriate academic credentials and experience, combined with demonstrated competency in instructional skills and knowledge of the subject matter.
- 56.7.3 The minimum training requirements are based upon OSHA requirements contained in 29 CFR 1910.120 (e) and will include personal protective equipment, work practices, engineering controls, decontamination and medical evaluations.. The courses established to meet these requirements must address both time and content standards. Course content and certification must be conducted according to the guidelines in Appendix E of 29 CFR 1910.120.
- a. A hazardous waste orientation course with sessions totaling 40 hours, plus 24 hours of supervised onsite training, will be required of all persons who:
 1. Enter a site unescorted by trained site personnel
 2. Enter restricted areas of a site
 3. May be exposed to hazardous substances
 4. May be exposed to other health hazards of a physical or biological nature
 5. May be exposed to safety hazards of any kind
 6. Are operators of equipment used in site assessment or remediation operations
 7. Are required or expected to wear respiratory protection or PPE when needed
 8. Disturb any materials within site boundaries
 9. Directly supervise site employees
 - a. Each year thereafter, 8 hours of supplemental training will be provided which augments the basic knowledge provided by the core course.
 - b. All onsite managers and supervisors directly responsible for, or who supervise, personnel engaged in hazardous waste to the management responsibilities associated with the program elements and site requirements.

- c. All employees and their managers and supervisors working onsite who are restricted to duties that are fully characterized as nonhazardous and who are not expected to wear PPE or respond to emergencies under any circumstance must receive:
 - 1. A minimum of 24 hours of off-site training from a certifying instructor,
 - 2. An additional 8 hours of supervised onsite guidance by an experienced person before assuming their full duties associated with the operations
 - 3. Any personnel trained at this level who are reassigned to hazardous duties will be provided an additional 16 hours of training by a certifying instructor as required for the duties and hazard control measures utilized, as well as an additional 16 hours of supervised onsite guidance.

56.7.4 First responders, those who are likely witness or discover a hazardous substance release will be required to attend an awareness training class which includes the proper notification of the authorities of the release.

56.8 MEDICAL EVALUATIONS

Medical evaluations necessary to meet the requirements of these standards (such as respirator clearances or medical qualifications for specific hazardous jobs) must be provided before employees engage in activities requiring such services. Medical surveillance will be provided for employees exposed to or affected by site contaminants. Medical evaluations will be provided at no cost to the employee.

56.8.1 All medical services required by this standard must be rendered under the direction of a board-certified occupational health physician.

56.8.2 The evaluations must be provided in a timely manner. Time frames for medical screening tests that may become necessary during operations will be specified in the medical surveillance plan before initiating onsite operations.

56.8.3 All employees whose exposure to contaminants exceeds permissible exposure limits for 30 days or more per year will be placed in a medical surveillance program. Medical requirements for the respiratory protection program are separate, but may be included as part of the medical surveillance on the employee.

56.8.4 All employees who wear a respirator must be medically evaluated according to the respiratory protection requirements of these standards and 29 CFR 1910.134.

56.8.5 All employees who wear respiratory protection for 30 days or more per year must be placed in a medical surveillance program.

56.8.6 All employees who develop signs or symptoms of illness or exposure to hazardous substances, who become ill, or who are injured due to overexposure to contaminants must be placed in a medical surveillance program and will be offered medical consultation.

56.9 INSPECTIONS

Inspections will be conducted to assess the proper implementation of hazard control. Identified deficiencies and corrective actions must be documented and appropriate changes made to the plan(s) when necessary.

56.10 CONTAMINANT/EXPOSURE MONITORING

Air monitoring will be performed in a manner according to the provisions contained within these standards and as required within the program, work plan, or HASP. Minimum monitoring requirements are:

- 55.10.1 Upon initial site entry, representative air monitoring will be conducted to identify any Immediately Dangerous to Life and Health (IDLH) condition or potential exposure above permissible exposure limits
- 56.10.2. Periodic monitoring will be conducted when:
1. Work begins on a different portion of the site
 2. Contaminants other than those previously identified are being handled
 3. A different type of activity is initiated
 4. An employees are handling leaking drums or containers, or working in areas with obvious liquid contamination
 5. There are indications that potentially hazardous conditions exist
- 56.10.3 Personal monitoring must be performed for personnel who are at high-risk, such as, but not limited to, those handling leaking drums, opening drums containing unknown or hazardous substances, conducting activities in areas with obvious liquid contamination, or during any activity where contaminated substances may be disturbed.
1. After commencing activities, personal exposure monitoring will be performed for employees likely to have the highest exposures to hazardous substances and health hazards or when the airborne concentration of hazardous substances is likely to be above permissible exposure limits.
 2. A monitoring result that exceeds permissible exposure limits will be considered a representative exposure of all personnel performing similar duties on the site. The exposure will be accordingly documented until personal monitoring has been accomplished for each person performing similar duties.
- 56.10.4. Representative sampling will be accepted to document exposures of individuals engaged in similar activities.

56.11 CONTROL OF WORKER EXPOSURE TO HAZARDOUS SUBSTANCES

Engineering controls will be the primary means of control for occupational exposure to hazardous substances. Engineering controls include the use of pressurized cabs or control booths on equipment, the use of remote control material handling equipment and ventilation. Engineering, work practice controls and personal protective equipment will be used to reduce and maintain exposure limits to below the OSHA permissible exposure limits.

56.12 PERSONAL PROTECTIVE EQUIPMENT

PPE must be provided and used according to the provisions contained in these standards and as stipulated in the program, work plan, or HASP. PPE will be based on the performance characteristics of the equipment, relative to:

1. The requirements and limitations of the site
2. The task-specific conditions and duration
3. The hazards and potential hazards identified at the site

56.13 PERSONAL PROTECTIVE EQUIPMENT

56.13.1 The PPE program, as part of the HASP, must address:

1. PPE selection based on site-specific hazards
2. The use and limitations of PPE
3. Activity duration
4. Maintenance and storage of PPE
5. Decontamination and disposal of PPE
6. PPE training and fitting
7. Equipment donning and doffing procedures
8. Procedures for inspecting equipment before, during, and after use
9. Evaluation of the effectiveness of the PPE program
10. Medical considerations, including work limitations due to temperature extremes or physical stress

56.13.2 When airline respirators are utilized in hazardous waste operations, an auxiliary self-contained escape air supply system will be incorporated.

56.13.3 When totally encapsulating suits are used, they must be capable of maintaining positive air pressure.

56.14 COMMUNICATIONS

All high-risk activities such as, but not limited to, remote or unobservable operations, waste drum opening/sampling, or confined space entry must be conducted in a way that ensures constant communication between the worker and site management team.

56.15 DECONTAMINATION

Decontamination must be conducted in a way that prevents the spread of hazardous contaminants and waste beyond the boundaries of the site of operations. Decontamination will apply to equipment and personnel.

56.15.1 Procedures for all phases of decontamination will be developed, communicated to all personnel, and implemented before any employee or equipment may enter areas on a site where potential exposure to hazardous substances exists. Decontamination procedures, as a part of the site-specific HASP, will specify:

1. Decontamination methods and procedures for testing and evaluating their effectiveness
2. The location, number, layout of decontamination stations and decontamination equipment needed. The location will be as close to the work area to prevent the contamination of uncontaminated personnel.
3. Procedures to prevent contamination of clean areas and to minimize employee contact with hazardous substances or with contaminated equipment that has contacted hazardous substances
4. Procedures to take if the non impermeable clothing of personnel becomes wetted with hazardous substances.
5. Methods for disposing of contaminated clothing and equipment.
6. Methods for disposing of decontamination water and waste.
7. Method for restricting unauthorized employees in the decontamination change room.

56.15.2 Where showers and change rooms are required outside of a contaminated area, the shower and change area will meet the requirements as set in 29 cfr 1910.141.

- 56.15.3 All personnel leaving a contaminated area must be decontaminated; all contaminated clothing and equipment leaving a contaminated area must be appropriately disposed of or decontaminated.
- 56.15.4 Decontamination procedures must be monitored by the site safety and health officer to determine their effectiveness. If such procedures are found to be ineffective, site work will immediately cease and remain shut down until the situation has been corrected.
- 56.15.5 Decontamination must be conducted in geographic areas that minimize the exposure of uncontaminated personnel and equipment to contaminated employees or equipment.
- 56.15.6 All equipment and material used for decontamination must be decontaminated or disposed of properly.
- 56.15.7 Decontamination of Personal Protective Equipment
1. PPE will be decontaminated, cleaned, laundered, maintained, stored, and replaced as appropriate to maintain their effectiveness.
 2. Unauthorized employees will not remove PPE from change rooms.
 3. Commercial laundries or cleaning establishments that decontaminate protective clothing or equipment will be informed of the potential harmful effects of exposures to hazardous substances.
 4. Where the decontamination procedure indicates the need for regular showers and change rooms outside the contaminated area, or if cleanup or removal operations will require 6 months or more to complete, showers and change rooms must be provided. If temperature effects prevent the use of water, other effective means for cleansing must be provided and used.

56.16 EMERGENCY PLANNING

Planning for site emergencies must be conducted before commencement of hazardous waste activities.

56.16.1 Site emergency cleaning must address all anticipated emergency situations.

56.16.2 The emergency response plan must be included in the HASP and address:

1. Personnel roles, responsibilities, and lines of communication
2. Emergency recognition and prevention
3. Safe distances and staging areas (safety zones)
4. Site security and control
5. Evacuation routes and procedures
6. Emergency medical treatment
7. Emergency alerting and response procedures
8. Critique of response and followup
9. Procedures for reporting incidents to Federal, State and local governments
10. Decontamination

56.16.3 The emergency response plan will be a separate section of the HASP.

56.16.4 The emergency response plan will be exercised regularly as part of the overall training program.

56.16.5 The emergency response plan will be reviewed periodically and, as necessary, amended to keep it current with new or changing site conditions or operations.

57.0 SUBSTANCE ABUSE POLICY ON PUBLIC WORKS PROJECTS

Employees are an extremely valuable resource for C.A. Hull business. The employees health and safety is a serious concern. Drug or alcohol use may pose a serious threat to driver health and safety. It is therefore, the policy of C.A. Hull to prevent substance use or abuse from having an adverse effect on our employees. C.A. Hull maintains that the work environment is safer and more productive without the presence of alcohol, illegal or inappropriate drugs in the body or on company property. Furthermore, employees have a right to work in an alcohol and drug free environment and to work with employees free from the effects of alcohol and drugs. Employees who use alcohol or use drugs are a danger to themselves, their coworkers and the company's assets.

The adverse impact of substance abuse by employees has been recognized by the federal government. C.A. Hull will comply with these regulations and is committed to maintaining a drug-free workplace. All employees are advised that remaining drug-free is a condition of continued employment with C.A. Hull.

It is the policy of C.A. Hull that the use, sale, purchase, transfer, possession or presence in one's system of any controlled substance (except medically prescribed drugs) by any employee while on C.A. Hull premises, engaged in company business, while operating company equipment, or while under the authority of C.A. Hull is strictly prohibited.

The execution and enforcement of this policy will follow set procedures to screen body fluids (urinalysis), conduct breath testing, and/or search all driver applicants for alcohol and drug use, and those suspected of violating this policy who are involved in a reportable accident or those who are periodically or randomly selected pursuant to these procedures. These procedures are designed not only to detect violations of this policy, but to ensure fairness to each employee. Every effort will be made to maintain the dignity of the employees involved. Disciplinary action will be taken as necessary.

Neither this policy nor any of its terms are intended to create a contract of employment or to contain the terms of any contract of employment. C.A. Hull retains the sole right to change, amend or modify any term or provision of this policy without notice. This policy is effective immediately or upon hire and will supersede all prior policies and statements relating to alcohol or drugs.

58.0 ALCOHOL AND DRUG POLICY

58.1 DRUG AND ALCOHOL POLICY

C.A. Hull is committed to providing a safe work environment and to supporting the well-being and health of its employees. That commitment is jeopardized when any C.A. Hull employee illegally uses drugs or alcohol on the job, comes to work under the influence, or possesses, distributes, or sells drugs or alcohol in the workplace. C.A. Hull has established the following policy:

1. It is a violation of C.A. Hull policy for any employee to possess, sell, trade, or offer for sale illegal drugs or alcohol, or otherwise engage in the use of drugs or alcohol on the job.
2. It is a violation of the C.A. Hull policy for anyone to report to work under the influence of alcohol or drugs.
3. It is a violation of the C.A. Hull policy for anyone to use prescription drugs illegally. The illegal use of drugs will not be tolerated.
4. If an employee legally uses prescription drugs that may have an impact on his or her ability to safely perform the functions of the job, he or she must immediately report the use of those prescriptions to his or her supervisor.

In states that have a Medical Marijuana or other drug-related law that conflicts with federal law, the C.A. Hull will interpret the federal law as controlling. This means that the C.A. Hull will not tolerate the use of illegal drugs, such as marijuana, regardless of whether the employee has a Medical Marijuana card or not.

Employees using prescription drugs must observe all label warnings and inform their supervisor of all warnings associated with their prescriptions.

58.2 PRE-EMPLOYMENT DRUG TESTING

All job applicants that have been offered employment at this C.A. Hull will undergo testing for the presence of illegal drugs as a condition of employment. Any applicant with a confirmed positive test result will be denied employment. Pre-employment test results will be interpreted according to the following table:

Lab Results	C.A. Hull Results
Negative	Negative
Positive	Positive
Negative Dilute	Positive*
Out-of-Temperature Range	Positive
Refusal to render sample	Positive
Untestable Sample	Positive

Applicants will only be eligible for employment if they have a negative result as shown under "C.A. Hull Results."

*In the case of a negative dilute where there is no indication of tampering or an attempt to avoid detection, an employee may be given an opportunity to re-test within 24 hours of receiving the negative dilute result.

58.3 RANDOM DRUG TESTING

All employees are in the random drug testing pool. Random drug screen selections are handled by an independent contractor of C.A. Hull. At the time C.A. Hull notifies the employee that a random test is required, the employee has two hours to report to the designated clinic. An employee exceeding the allotted two hours (between receiving notification by the C.A. Hull and submitting a specimen to the assigned clinic) may be subject to dismissal.

Currently, random drug and alcohol selections are done at a rate of 10% of all field employees on an annual basis. The C.A. Hull reserves the right to increase this rate at its discretion in response to business conditions, more stringent project requirements, or any other factor.

58.4 POST-ACCIDENT TESTING

Post-accident drug testing is conducted when there is reasonable suspicion to believe that an employee is using drugs illegally or is under the influence of drugs or alcohol and the employee is involved in an on-the-job accident that may have involved human error, or otherwise engages in unsafe job-related activity that poses a danger to themselves or fellow employees. Testing will be conducted when there is reasonable suspicion and in accordance with the following criteria:

- Employees involved in a work-related injury, regardless of severity, that requires professional medical treatment, will be subject to testing.
- Employees involved in an accident or safety-related incident of any kind while in a C.A. Hull vehicle or while on C.A. Hull time or on C.A. Hull property, will be subject to a drug test.
- The C.A. Hull may require an employee who contributed to an accident be tested, if there is reasonable cause to believe that the accident may have resulted from the use of drugs.

58.5 REASONABLE SUSPICION DRUG TESTING

When there is reasonable suspicion to believe that an employee is using illegal drugs or is under the influence of drugs or alcohol, their supervisor may require that the employee submit to a drug or alcohol test. The circumstances leading to this situation must be thoroughly documented by the supervisor requesting the test. The employee must submit to the testing immediately following the C.A. Hull's request for testing.

58.6 EMPLOYEES WITH COMMERCIAL DRIVER'S LICENSES

This portion of the policy applies to C.A. Hull employees with Commercial Driver's Licenses (CDLs) of Class A, B or C as required by federal regulations. All previous portions of this policy are also applicable to employees with CDLs in conjunction with the C.A. Hull DOT Drug Policy for Drivers (distinctions defined in the mandatory Driver Orientation).

58.7 PRE-DUTY DRUG TESTING

As required for the issuance of a CDL, CDL holders will be subject to pre-duty DOT drug testing. C.A. Hull must receive negative results prior to the driver beginning work.

58.8 POST-ACCIDENT DRUG TESTING

I. The commercial vehicle driver will be required to submit to a drug and/or alcohol test (DOT drug/alcohol test for CDL drivers only. Chauffeur drivers would follow the C.A. Hull Non-DOT post-accident criteria) if the driver is involved in an accident involving a fatality, whether a citation has been issued or not.

II. The commercial vehicle driver will be required to submit to a drug and/or alcohol (DOT drug/alcohol test for CDL drivers only. Chauffeur drivers would follow the C.A. Hull Non-DOT post-accident criteria) if the driver is involved in an accident and one or more of the following occur:

- I. If any of the vehicles involved is required to be towed from the scene; or
- II. If any person involved requires medical attention away from the scene.

Alcohol testing will be conducted within 2 hours following the accident. If it cannot be conducted within 8 hours, documentation must be provided which gives valid reasons why the testing was not conducted.

Drug testing will be conducted within 8 hours following the accident. If it cannot be conducted within 32 hours, documentation must be provided which gives valid reasons why the testing was not conducted.

58.9 RANDOM DOT DRUG TESTING

All employees with CDLs are in the DOT random drug testing pool. Currently, DOT random selections are done at a rate of 25% for drug testing, and 10% for alcohol testing. At the time C.A. Hull notifies the employee that a random test is required, they have 2 hours to report to the designated clinic.

58.10 REASONABLE SUSPICION AND RETURN-TO-DUTY DRUG TESTING

This testing applies as indicated previously.

58.11 C.A. HULL RESPONSIBILITIES AND GOALS

It is the responsibility of the C.A. Hull's supervisors to counsel employees whenever they see changes in performance or behavior that suggests an employee has a drug or alcohol problem. Although it is not the supervisor's job to diagnose personal problems, the supervisor should encourage such employees to seek help. Everyone shares responsibility for maintaining a safe work environment, and co-workers should encourage anyone whom may have a drug problem to seek help.

The goal of this policy is to balance our respect for individuals with the need to maintain a safe, productive drug- and alcohol-free environment. Employee compliance is a condition of employment.

All employees are expected to comply fully and promptly with instructions issued under the authority of this program. Refusal to submit to testing will result in disciplinary action, up to and including termination of employment.

58.12 SUPERVISOR RESPONSIBILITIES

Supervisors are required to notify management if there is any suspicion that an employee is in violation of this policy. Failure to do so can result in disciplinary action, up to and including termination of employment.

The intent of this policy is to send a clear message that the illegal use of drugs and alcohol is not tolerated.

**APPENDIX 1
PRE-JOB HAZARD ANALYSIS**

Project Name _____

Contract # _____

Project Location _____

<u>JOB TASK</u>	<u>POTENTIAL HAZARDS</u> <u>Severity of Hazards</u>	<u>ENG./ ADMIN. CONTROL</u> <u>MEASURES</u>	<u>PERSONAL PROTECTIVE</u> <u>EQUIPMENT</u>	<u>TRAINING</u>
Abrasive blasting Blast support vacuuming during blast	Lead and other metal dusts	Dust collection system Decontamination trailer Handwash station Exposure monitoring Medical surveillance	Approved blast helmet	Lead Hazard Communication Respiratory Protection Safe Operating Procedures
	Struck-by abrasive media and Paint chips		Blast helmet Protective work clothing Gloves Steel toe boots	
	Blast line whips	Deadman at end of blast line		
	Carbon Monoxide	CO monitor		
	Noise		Ear plugs/ muffs	Hearing Conservation
	Histoplasmosis	Use water	Approved respirator	Histoplasmosis training
Power tool cleaning	Lead and other metal dusts	HEPA vacuum attachment	Approved respiratory protection Protective work clothing	Lead Hazard Communication Respiratory Protection Safe Operating Procedures
	Struck-by paint chips		Protective work clothing Safety glasses/ goggles or face shield Gloves	
	Noise	Noise surveillance	Ear plugs/ muffs	Hearing Conservation
	Dust, Organic vapors	Adequate ventilation Exposure monitoring	Respiratory protection with organic vapor cartridge Eye protection Protective work clothing Gloves	
	Airless spray injection	Trigger guard	Gloves	Safe Operating Procedure

APPENDIX 1

PRE-JOB HAZARD ANALYSIS

Project Name _____ Contract # _____ Project Location _____

<u>JOB TASK</u>	<u>POTENTIAL HAZARDS</u>	<u>ENG./ ADMIN. CONTROL MEASURES</u>	<u>PERSONAL PROTECTIVE EQUIPMENT</u>	<u>TRAINING</u>
Rigging/ De-rigging	Falling	Guard rails Safety Line - horizontal/ vertical Safety net	Harness and lanyard Harness and double lanyard	Fall protection
	Histoplasmosis	use water	approved respirator	Histoplasmosis training
	Cuts		Gloves	

Printed Name

Signature

Date

APPENDIX 1

PRE-JOB HAZARD ANALYSIS

Project Name _____ Contract # _____ Project Location _____

The following hazards may apply to all job tasks

<u>JOB TASK</u>	<u>POTENTIAL HAZARDS</u>	<u>ENG./ ADMIN. CONTROL MEASURES</u>	<u>PERSONAL PROTECTIVE EQUIPMENT</u>	<u>TRAINING</u>
Fall exposure of 6 feet or greater	Falling	Guard rails Safety Line - horizontal/ vertical Safety net	Harness and lanyard Harness and double lanyard	Fall protection
Working from a scaffolds with a fall exposure of 10 feet or greater	Falling	Guard rails Vertical life line Horizontal lifeline	Harness and lanyard Harness and double lanyard	Scaffold safety
Working over water	Drowning		Life vest Rescue boat Ring Buoys Harness and double lanyard	Working over water
	Fire	Proper storage	Fire extinguisher(s)	Fire training
Traffic	struck-by	Barricades MPT plan	Safety vests Flagger	Working around traffic safely
Working on/ near railroad tracks	Struck-by		Flagger	Railroad safety
	Electrocution	Ground Fault Circuit Interrupter (GFCI) Double insulated tool		Electrical safety
High voltage overhead lines	Electrocution	De-energize 10 foot minimum clearance		High Voltage training
Working at night	Darkness	Adequate lighting Lighting plan		
Working at night on or near an active roadway	Darkness, Struck-by	Adequate lighting Lighting plan	Safety vests with reflective stripes	Night work training

APPENDIX 1

PRE-JOB HAZARD ANALYSIS

Project Name _____ Contract # _____ Project Location _____

The following hazards may apply to all job tasks

<u>JOB TASK</u>	<u>POTENTIAL HAZARDS</u>	<u>ENG./ ADMIN. CONTROL MEASURES</u>	<u>PERSONAL PROTECTIVE EQUIPMENT</u>	<u>TRAINING</u>
All	Struck-by Bumping into beams		Hard hat	
Using compressed air	Air lines separating	Whip check or other positive safety device		Safe Operating Procedures
Working from an aerial lift	Falling	Check work area prior to moving	Harness and lanyard	Aerial lift safety
Confined space	Toxic atmosphere Limited entrance/ egress Engulfment	Confined space monitoring Permit/ non-permit space		Confined space training
Digging holes or excavating	Hitting utility lines	Call Dig Safe		Dig Safe training

Printed Name

Signature

Date

APPENDIX 1

PRE-JOB HAZARD ANALYSIS

Project Name _____ Contract # _____ Project Location _____

Other hazards that may be encountered

<u>JOB TASK</u>	<u>POTENTIAL HAZARDS</u>	<u>ENG./ ADMIN. CONTROL MEASURES</u>	<u>PERSONAL PROTECTIVE EQUIPMENT</u>	<u>TRAINING</u>

Printed Name

Signature

Date

Activity Hazard Analysis (AHA)

Activity/Work Task:		Overall Risk Assessment Code (RAC) (Use highest code)			M		
Project Location:		Risk Assessment Code (RAC) Matrix					
Contract Number:		Severity	Probability				
Competent Person:							
Date Prepared:			Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):			Catastrophic	E	E	H	H
Reviewed by (Name/Title):		Critical	E	H	H	M	L
		Marginal	H	M	M	L	L
		Negligible	M	L	L	L	L
Principal/Job Steps		Hazards		Controls			RAC
Equipment to be Used		Training Requirements/Competent or Qualified Personnel name(s)			Inspection Requirements		

*to be used for USACE projects and Owners that require this format

APPENDIX 3

WRITTEN WARNING

Date: _____

Project Location: _____

Safety Officer: _____

Warning:	Minor	1 st	2 nd	3 rd	4 th
	Major	1 st	2 nd	3 rd	4 th

Warning issued to: _____

Reason for warning: _____

Corrective action required: _____

Disciplinary action taken: _____

Does any equipment require repair or replacement: _____

Should the crew be informed of violation: _____

Will a safety meeting be required to inform the crew: _____

Safety Officer's Signature

Employee's Signature

APPENDIX 4

OFFICE NEW HIRE ORIENTATION

Employee Name _____

Date _____

- Discuss the Corporate Health and Safety Plan and allow employee to review the Plan.
- Discuss the training requirements the employee will be required to attend prior to starting work.
- Discuss medical requirements that may be required prior to starting work.
 - lead physical
 - pulmonary function testing
 - audiogram
 - asbestos physical
 - other _____
- Discuss the employee's "right to know" about the hazards on the job (29 CFR 1910.1200).
- Discuss how to read Safety Data Sheets.
- Discuss personal protective equipment and if the employee brings their own personal protective equipment onto an N.I. Spanos Painting job site, the equipment is subject to inspection by the competent person or foreman.
- Discuss the employee's role at the job site.
- Discuss the foreman and competent person's role on each project.
- Review accident reporting system. Emphasize to the employee the importance of reporting all accidents, incidents and near misses.
- Discuss the employee's right to access medical and exposure records and who to contact to make a request.
- Explain that the employee is not to operate any equipment unless proper training has been completed.
- Ensure the employee understands to report all unsafe acts to the foreman or competent person.
- Ensure the employee understands he is a part of a team and as such he should ensure his co-workers are working safely.
- Discuss the company's discipline policy.

Company Official

Employee Signature

**APPENDIX 5
PRE-JOB SAFETY MEETING**

Employee Name _____

Date _____

Project _____

- Discuss the Site Specific Health and Safety Plan allow employee to review the Plan
- Discuss the training requirements for this project
- Discuss medical requirements including
 - lead physical and blood testing
 - pulmonary function testing
 - asbestos physical
 - cadmium physical
 - other _____
- Discuss the results of the pre-job hazard analysis and preventative measures that will be implemented
- Explain that the employee is not to operate any equipment unless proper training has been completed.
- Discuss the Safe Operating Procedures (SOP) for the equipment that the employee may use on this project.

Abrasive Recycler _____	Blast Pot _____	Compressed Air Safety _____
Dust Collector _____	Blast Safety _____	Airless Spray Equipment _____
Pressure Washer _____	Aerial Lift _____	Scissor Lift _____

- Discuss the location of the Safety Data Sheets and what chemical are located onsite
- Discuss the location of the emergency phone numbers and hospital directions
- Discuss the employee's role at the job site.
- Discuss the foreman and competent person's role on each project.
- Review accident reporting system. Emphasize to the employee the importance of reporting all accidents, incidents and near misses.
- Ensure the employee understands to report all unsafe acts to the foreman or competent person.
- Ensure the employee understands he is a part of a team and as such he should ensure his co-workers are working safely.
- Discuss the company's discipline policy.

Competent Person/ Foreman

Employee Signature

APPENDIX 6

WEEKLY SAFETY MEETING

DATE _____

LOCATION _____

SAFETY OFFICER _____

ATTENDANCE

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

TOPICS COVERED

1. _____
2. _____
3. _____
4. _____
5. _____

SAFETY OFFICER SIGNATURE

APPENDIX 8

COMPETENT PERSON LETTER OF AUTHORITY

The Competent Person reports directly to the President and Safety Director of C.A. Hull and has managements full support to stop non-conforming work. The Competent Person has the authority to ensure hazardous paint removal operations are carried out according to compliance plans and relevant government regulations. The Competent Person will not routinely work as a member the paint removal crew.

The Competent Person for contract _____ will be _____. S/He has over _____ years experience in the steel structures industry and has attended a C-3 training course or an 8-hour C-5 refresher training. An alternate competent person will be _____. S/He has over _____ years experience in the steel structures industry and has attended a C-3 training course or an 8-hour C-5 refresher training.

The Competent Person is responsible for:

1. Ensure the effectiveness and the continued integrity of environmental controls.
 - i. Monitor airborne and biological exposures and report results to employee.
 - ii. Ensure implementation of the Hazard Communication program.
4. Implement applicable training for site personnel.
5. Ensure workers entering contaminated zones are properly protected and trained in the use of personal protective equipment (PPE), exposure control methods, personal hygiene facilities, and decontamination practices.
6. Verify the proper functioning and operation of the engineering controls.
7. Ensure emissions to air, water and soil and all waste streams are minimized and in compliance with applicable federal, state and local regulations.
8. Control access to the site and designate contaminated work zones.
9. Maintain project documentation as required by C.A. Hull.
10. Implement and oversee all site specific health and safety programs as directed by the Safety Director and Industrial Hygienist.
11. Conduct daily and weekly site inspections. Inspect job site conditions and workers personal protective equipment.
11. Oversee daily implementation and enforcement of the hazardous waste management procedures.
12. Set a good example for workers on the project.

Safety Director

Date

APPENDIX 9

QUALITATIVE FIT TEST RECORD

Name _____ Date _____

Social Security Number or Employee Code Number _____

Respirator Maker _____

Respirator Size _____

Respirator Model _____

Type of fit test: Isoamyl Acetate Irritant smoke Saccharin Solution Bitrex

PRIOR TO QUALITATIVE FIT TEST

Has the individual been trained to wear the respirator _____

Don the respirator for five minutes to assess comfort (see below)

Is the chin properly placed _____

Adequate strap tension _____

Fit across bridge of nose _____

Respirator of proper size to span distance from nose to chin _____

Tendency of respirator to slip _____

Self-observation in mirror to evaluate fit and position _____

Conduct a User Seal Check _____

QUALITATIVE FIT TEST

Exercises for the individual during the fit test - (ask individual to keep eyes closed)

Sensitivity check _____

Normal breathing _____

Deep Breathing _____

Turn head from side to side _____

Move head up and down _____

Talk (read rainbow passage or count backward from 100) _____

Bending over _____

Sensitivity check _____

PASS or FAIL

If fail, reason _____

Administrator Signature

Employee Signature

APPENDIX 10

HAZARD ASSESSMENT AND PERSONAL PROTECTIVE EQUIPMENT SELECTION

Job Task _____

Hazard	Exposure Yes or No	Frequency C, O, R	Severity S, M, L	PPE Selected
--------	-----------------------	----------------------	---------------------	--------------

Eye and Face Hazards

Flying Particles				
Molten Metal				
Liquid Chemicals				
Acids or Caustics				
Gases or Vapors				
Light Radiation				

Head Hazards

Falling Objects				
Electrical Shock				

Foot Hazards

Falling Objects				
Rolling Objects				
Piercing Objects				
Slippery Surface				
Electrical Hazard				

Hand and Body Hazards

Injection/ Absorption				
Cuts or Lacerations				
Severe Abrasions				
Falls				
Punctures				
Chemical Burns				
Thermal Burns				
Temperature Extremes				

Frequency: C= constant O= occasional R= rare

Severity: S= potential for serious injury M= potential for harm, not life threatening L= potential for minor injury

Assessment Conducted by _____ Date _____

APPENDIX 11

DISTRIBUTION OF PERSONAL PROTECTIVE EQUIPMENT

Employee Name _____

Date _____

I have received the following new personal protective equipment. I understand that I am responsible to inspect my personal protective equipment (PPE) prior to each use. If my personal protective equipment becomes worn where it becomes unsafe, I understand that I may trade the personal protective equipment in for a new piece of personal protective equipment. I have also received training from C.A. Hull on how to properly use and the limitations of all assigned PPE.

Personal Protective Equipment	Make and Model	Trained	Employee Initial
<input type="checkbox"/> Hard hat	_____	_____	_____
<input type="checkbox"/> Respirator	_____	_____	_____
<input type="checkbox"/> Harness	_____	_____	_____
<input type="checkbox"/> Lanyard	_____	_____	_____
<input type="checkbox"/> Eye protection	_____	_____	_____
<input type="checkbox"/> Ear Muff	_____	_____	_____
<input type="checkbox"/> Ear Plugs	_____	_____	_____
<input type="checkbox"/> Blast suit	_____	_____	_____
<input type="checkbox"/> Safety vest	_____	_____	_____
<input type="checkbox"/> Gloves	_____	_____	_____
<input type="checkbox"/> Other	_____	_____	_____
<input type="checkbox"/> Other	_____	_____	_____

APPENDIX 12

VOLUNTARY USE OF RESPIRATORY PROTECTION

In accordance with 29 CFR 1910.134 Appendix D, C.A. Hull is providing you the following information.

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

I have read and understand the above and acknowledge that I am wearing a respirator voluntarily.

Printed Name

Signature

Date

APPENDIX 13
SITE SPECIFIC HEALTH AND SAFETY PLAN FOR TOXIC METALS

1. Project: _____ Project number _____

2. Brief Description of the project: _____

3. Work Schedule

Location	Work to be Performed	Length of Time
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. Personnel:

Supervisor/ Foreman: _____

Competent Person: _____ Alternate: _____

Respiratory Administrator: _____

Designated First-Aid/CPR Person: _____ Alternate: _____

Anticipated number of workers: _____

5. Anticipated hazardous activities (lead, cadmium, arsenic, histoplasmosis): _____

6. Equipment to be used on this project (dust collect, abrasive blasting, containment): _____

7. Access to the structure will be by: _____

8. Additional project safety specifications (list pages from the specification) _____

APPENDIX 13 (Continued)

Cartridge change schedule: HEPA _____
Organic Vapor _____

When not in use, respirators are to be stored in: _____

13. Protective Clothing required for the project:
Coveralls (tyvek, cloth): _____
Blasters will wear: _____
Hard hats: _____
Safety vests: _____
Hearing protection _____
Eye protection: _____
Fall protection _____
Other: _____

14. Laundering or disposal of protective clothing:

On this project the protective clothing will be laundered or disposed (circle one). If laundering who is the laundry facility and are they approved for accepting this type of clothing: _____

Prior to starting the project, make sure a letter has been sent to the laundering facility that the clothing may contain a contaminated material such as lead. Also, ensure a letter has been received from the facility that they can accept the clothing.

15. Hygiene facilities and location: Running cold and hot water, soap and towels will be provided.

Decontamination station: _____
Handwash station: _____
Facilities will be cleaned at what frequency _____

16. Worker exposure monitoring:

Conducted by: _____
Frequency: _____
What metals will be sampled: lead, arsenic, cadmium, chromium, hexavalent chromium, Others - list

Results are reported to employees within 5 days of receipt.

17. Other types of sampling such as wipe, area and ambient air monitoring

APPENDIX 13 (Continued)

18. Inspections to be performed by the Competent Person

Daily: APPENDIX Yes/ No

Weekly: APPENDIX Yes/ No

Other: _____

19. Medical surveillance program for lead

Doctor or medical facility for medical testing: _____

Worker blood lead levels are measured initially before exposure to toxic metals and repeated at the following frequency: _____

Results are provided to employees within 5 days of receipt of results.

Medical removal will occur at _____ ug/dl, if two test conducted confirm the level. The employee may be returned back to an exposure activity when 2 medical tests are below _____ ug/dl.

20. Medical Surveillance program for metals other than lead, if applicable.

Doctor or medical facility for medical testing: _____

Metal of Concern: Arsenic Cadmium Hexavalent Chromium Project Specific Concern

Testing frequency: _____

Medical removal will occur at _____

21. Other contractors working on this project, if so how will they be informed of the lead work area(s):

22. Training: Workers are required to have completed the following training prior to the start of work:

23. Emergency procedures and directions to hospitals

APPENDIX 14
SITE SPECIFIC HEALTH AND SAFETY PLAN FOR CONSTRUCTION

1. Project: _____ Project number _____

2. Brief Description of the project: _____

3. Personnel:

Supervisor/ Foreman: _____

Competent Person: _____ Alternate: _____

Designated First-Aid/CPR Person: _____ Alternate: _____

4. Job tasks: Cutting Welding Torch cutting Working in confined space Concrete work
Work involving toxic metals Work involving silica dust Steel repair Steel work
Rebar work Paving Milling Electrical work
Other job tasks: _____

5. Personal Protective Equipment required: Hard hat Safety Vest Safety glasses Face shield
Hand protection Harness Lanyard Two legged lanyard Retractable lanyard
Work boots Steel toed shoes Rain suit Hearing protection Respiratory protection

6. Engineering controls to be implemented: _____

7. Administrative controls to be implemented: _____

8. If toxic metals or silica dust is involved, what control measures will be implemented: _____

9. Subcontractors working on this project, if so, what type of work will they perform:

10. Training: Workers are required to have completed the following training prior to the start of work:

APPENDIX 14 (Continued)

11. Emergency procedures and directions to hospitals

12. Section(s) of the Corporate Health and Safety Plan that will apply to this project

13. Other:

14. Complete and attach the following:
APPENDIX emergency contact list
APPENDIX 1 pre-job hazard analysis

15. Site Specific Safety Plan was

prepared by: _____
Printed Name Signature Date

reviewed by: _____
Printed Name Signature Date

APPENDIX 15

WEEKLY SITE INSPECTION

PROJECT _____ PROJECT # _____

WORK LOCATION _____ DATE _____

1. Hygiene Facilities	Yes	No	N/A
Decontamination facility onsite or at a nearby location			
Does the decontamination have power and water			
Handwash station outside of regulated work area(s)			
Are soap, water, towels readily available			
Are the facilities maintained and are clean			

2. Site Layout	Yes	No	N/A
Are the lunch and break areas outside of regulated areas			
Are personal vehicles parked away from the work area			
Is the restricted and/ or regulated area clearly identified (tape, signs, rope, barriers, etc)			
If workers are traveling from the decontamination facility to the work area, is it done in a safe manner			

3. Personal Protective Equipment (PPE)	Yes	No	N/A
Paint removal personnel wearing proper PPE			
Outside support personnel wearing proper PPE			
Respirators worn as required per job task			
Personnel wearing respirators are clean shaven			
Respirators are stored properly when not in use			
Eye protection worn where required			
Hearing protection is adequate per job task and being worn properly			
Fall protection worn when exposed to falls, and worn properly			
Gloves worn are the proper type per job task			
ANSI type safety vests worn by personnel exposed to traffic or other hazards			

APPENDIX 15

WEEKLY SITE INSPECTION

4.Site Records	Yes	No	N/A
Medical records or spreadsheet onsite with updated information for all employees? Check for current medical exams and tests, respiratory clearance, other necessary tests			
Fit test records or spreadsheet onsite for each type of tight fitting respirator worn per worker			
Training records onsite or spreadsheet with all training required for the job task			
Site specific safety plan onsite			
Safety Data Sheets (SDS) onsite, workers have access			
OSHA 300 log (If between February 1 and April 30 post 300A from previous year)			
Emergency phone numbers and hospital directions posted			
Federal and state required posters posted			
Weekly safety meeting was conducted in the past week			

5. Worker Exposure Monitoring	Yes	No	N/A
Has initial worker exposure monitoring been conducted on all job tasks			
Did the worker exposure monitoring include metals other than lead			
Was an area sample collected			
Will follow-up worker exposure monitoring be required? If so when _____			

6. Waste Management and Container Labeling	Yes	No	N/A
Are all non-hazardous waste containers properly labeled as to their contents			
Are there any paint containers with thinners for cleaning brushes and/or roller, are the cans properly labeled as to its contents			
Is non-hazardous waste removed from the job site in a timely manner			
Is the hazardous waste stored in a secured area (i.e. fence and padlock)			
Is the hazardous waste stored off the ground, covered and secured in the container			
Does each hazardous waste container have an EPA ID label and is the labeled completed			
If there is more than one type of hazardous waste, is each waste stream segregated			
Is the hazardous waste removed within 90 days of accumulation or per project specifications			

APPENDIX 15

WEEKLY SITE INSPECTION

7. Access to Work Area	Yes	No	N/A
Is safe access used for workers to go from the ground to the work location			
Area ladders secured, and extend three feet above working surface			
Are stairs, ramps or ladders provided for changes in elevation >19"			
Are ramps in use, if so are guardrails in place on both sides			

8. First Aid	Yes	No	N/A
Are first aid kits onsite, check the contents to ensure each kit is complete			
Is an emergency eye wash station onsite (15 minute continuous wash)			
Are eye wash bottles available for immediate			
Are the eye wash bottles and eye wash station water within their expiration date			
Is a first aid/ CPR person onsite for each shift			

9. Aerial Lifts	Yes	No	N/A
Does the operator test the upper and lower controls prior to use each shift			
Operators are trained and authorized to use the aerial lift			
Fall protection is worn and secured to the manufacturer's tie-off points			
Capacity of the aerial lift not being exceeded			
Operator and passengers standing on basket floor			

10. Fire Extinguishers	Yes	No	N/A
Are fire extinguishers within 50 feet of travel of liquids, combustibles and flammables			
Are fire extinguishers at each paint storage area			
Are the fire extinguishers the proper size and type based upon the hazard			
Inspect each fire extinguisher to ensure it is in good working condition			
Has a monthly fire extinguisher inspection been conducted and results recorded			

APPENDIX 16

DAILY PAINT REMOVAL SITE INSPECTION (Abrasive Blast Operations)

PROJECT: _____ DATE: _____

LOCATION:

Containment	Yes	No	N/A	Comments
During abrasive blast operations, is the ventilation system operating continuously				
Adequate duct layout and are the ducts in good working condition				
Containment tarps in good working condition				
Containment tarps have proper overlap				
Make-up air inlets operational				
Containment cleaned in a timely manner				
Entryway meets project specification				
Airflow measurements recorded at least weekly: Results _____ Results _____ Results _____ Results _____				
Dust Collector Magnehelic gage reading: _____ am _____ pm				

Method 22 Visible Emission Monitoring (15 minute time periods)

Time	Result	Time	Result	Time	Result	Time	Result	Time	Result

Observations of Negative Pressure

Time	Result	Time	Result	Time	Result	Time	Result	Time	Result
Time	Result	Time	Result	Time	Result	Time	Result	Time	Result

Abrasive Blaster	Yes	No	N/A	Comments
Wearing approved blast helmet				
Using inner and outer shields				
Breathing airlines approved by blast helmet manufacturer				
Supplied air checked for carbon monoxide				
Air purifying system dated and signed as to last filter change out				
Wearing hearing protection				
Deadman control in use and not blocked				
Blast hoses and breathing airline have safety devices at all couplings				

APPENDIX 16

DAILY PAINT REMOVAL SITE INSPECTION (Abrasive Blast Operations)

PROJECT: _____ DATE: _____

LOCATION: _____

Regulated Area	Yes	No	N/A	Comments
Clearly defined				
Warning signs and/or tape in use				
Handwash station/ decontamination trailer outside of regulated area				

Handwash Station/ Decontamination Trailer	Yes	No	N/A	Comments
Handwash station in direct line from regulated area to clean area				
Are soap and paper towels available at the handwash station				
Decontamination trailer cleaned on a daily basis				
Decontamination trailer has soap, shampoo and towels				
Decontamination trailer have power and hot water				
Workers wash their hands and face prior to breaks				
Workers exposed above PEL take showers				
Street clothing left in clean side of decontamination trailer				
Is waste water properly contained and disposed				

Personal Protective Equipment	Yes	No	N/A	Comments
Hearing protection worn where noise exposure above 85 dBA				
Coveralls/ tyvek or blast suits worn where required				
Hard hats worn where required				
Safety glasses worn where required				
Respirators worn where required				
Respirators and blast helmets properly stored when no in use				

Printed Name

Signature

APPENDIX 17

CHEMICALS ONSITE

Project _____

SDS are located _____

Number	Manufacturer	Product Name
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

APPENDIX 19

EMPLOYEE NOTIFICATION OF EXPOSURE MONITORING RESULTS

Employee Name: _____ Date: _____

Sample Date: _____ Project Name: _____

On _____, you wore a personal air monitor to assess your exposure to lead / cadmium / arsenic or other metal(s) _____. Below are the results of this monitoring and any recommendations.

Respirator worn during monitoring: _____

The 8 hour Time Weighted Average (TWA) was _____ ug/m^3 for lead.

Your exposure was/ was not above the OSHA Permissible Exposure Limit (PEL) of _____ ug/m^3 .

Your exposure was/ was not above the OSHA Action Level (AL) of _____ ug/m^3 .

Your exposure was/ was not above the protection factor of your assigned respirator of _____ ug/m^3 .

The 8 hour Time Weighted Average (TWA) was _____ ug/m^3 for _____ (other metal sampled)

Your exposure was/ was not above the OSHA Permissible Exposure Limit (PEL) of _____ ug/m^3 .

Your exposure was/ was not above the OSHA Action Level (AL) of _____ ug/m^3 .

Your exposure was/ was not above the protection factor of your assigned respirator of _____ ug/m^3 .

The 8 hour Time Weighted Average (TWA) was _____ ug/m^3 for _____ (other metal sampled)

Your exposure was/ was not above the OSHA Permissible Exposure Limit (PEL) of _____ ug/m^3 .

Your exposure was/ was not above the OSHA Action Level (AL) of _____ ug/m^3 .

Your exposure was/ was not above the protection factor of your assigned respirator of _____ ug/m^3 .

The following action(s) will reduce your exposure:

- _____ Continue to wear the assigned respirator
- _____ Continue to follow the established hygiene procedures
- _____ Upgrade your assigned respirator to _____
- _____ Engineering controls will be modified
- _____ Administrative procedures will be instituted

Employee Signature

Date

APPENDIX 20

EMPLOYEE NOTIFICATION OF BIOLOGICAL MONITORING RESULTS

Employee Name: _____ Date: _____

Sample Date: _____ Project Name: _____

The results of the blood test are: _____ blood lead (ug/dl) and _____ ZZP (ug/dl).

These results are:

- _____ Below the OSHA Action Level (AL) of 40 ug/dl
- _____ Above the OSHA AL and below the medical removal criteria of 50 ug/dl
- _____ Above the OSHA medical removal criteria and a retest must be taken within two weeks

The next blood test will be in: _____

The following actions apply based on your blood lead level:

- _____ Continue to use your assigned respirator and use good hygiene practices
- _____ Your assigned respiratory protection will be upgraded to _____
- _____ Your assigned respiratory protection will be upgraded to _____
- _____ You will be given additional training by the competent person on the proper use and cleaning of the respirator and personal hygiene practices
- _____ You are medically removed from lead exposure activities
- _____ You may return to lead exposure activities

The following additional procedures will be instituted:

Employee Signature

Date

APPENDIX 21

EXIT MEDICAL EXAMINATION NOTIFICATION

C.A. Hull is offering to you an exit examination and biological monitoring in accordance with 29 CFR 1926.62 and our health and safety programs regulations. The facility that will be used is:

Please check the block below which will be applicable to you and sign and date the form and return it back to C.A. Hull.

_____ Yes, I would like an exit medical examination. I understand that my results will be mailed to me within five days of receipt of the results by C.A. Hull.

_____ No, I would not like to participate in an exit medical examination.

Print Employee Name

Employee Signature

Date

Social Security Number

APPENDIX 22
CONTAINMENT VELOCITY MEASUREMENTS

Project: _____ Project Number: _____ Date: _____
Instrument used for measurement: Type _____ Model _____ Serial Number _____

Document below location of velocity measurements. Draw in location of dust collector hoses and make up air.

Q=VxA Containment Height ___ft x Containment Width ___ft x Air velocity (100 or 60 fpm) = _____CFM
Containment Length _____ Average Air velocity _____ Dust Collector Size(s) _____

Printed Name

Signature

APPENDIX 26

SITE SPECIFIC FALL PROTECTION PLAN

1. Project: _____ Project number _____

2. Brief Description of the project: _____

3. Personnel:

Supervisor/ Foreman: _____

Fall Protection and Scaffold Competent Person: _____

Alternate Fall Protection and Scaffold Competent Person _____

Engineer designing the scaffold or platform system _____

Designated First-Aid/CPR Person: _____

Anticipated number of workers: _____

4. Anticipated activities where workers may have an exposure to a fall: _____

5. Scaffold or platform to be used: _____

6. Will aerial lifts be used: _____

7. Will workers work over water: _____

8. Access to the structure will be by: _____

9. Who will inspect the scaffold, fall protection and/ or aerial lift(s) and how often: _____

10. Rescue procedures: _____

APPENDIX 26

SITE SPECIFIC FALL PROTECTION PLAN

11. Section(s) of the Corporate Health and Safety Plan that will apply to this project

12. Other:

13. Site Specific Fall Protection and Scaffold Safety Plan was:

prepared by: _____
Printed Name

Signature

Date

reviewed by: _____
Printed Name

Signature

Date

APPENDIX 27 SCAFFOLD INSPECTION

Project: _____

Location: _____

Description	Yes	No	N/A
Has the scaffold been designed by a qualified person			
Is the scaffold drawing available			
Has the scaffold been constructed and loaded with a safety factor of 4 to 1?			
Are open sides of a scaffold less than 14 inches from the face of the work?			
Where opens sides of scaffolds are more than 14 inches, is fall protection in use?			
Are all platform units cleated, restrained by hooks or equivalent means?			
Platforms of 10 feet or less extend over their end supports by no more than 12 inches?			
Platforms of 10 feet or more extend over their end supports no more than 18 inches?			
Does the scaffold have a 4 to 1 base to height ratio or is it secures by the use of ties?			
Is safe access provided?			
Are scaffolds or components loaded beyond their rated capacities?			
Has the scaffold been inspected by a competent person?			
Are scaffolds or component damaged, if so have the parts been tagged and removed from service?			
Are scaffolds and any conductive material handled the proper distance from electrical lines?			
Are slippery conditions (ice, grease, oil) removed as soon as possible?			
If guardrails are in use, are top and midrails installed on all opens sides. Are top rails between 39 to 45 inches in height? Do guardrails meet the outward strength requirements?			
Have falling object hazards been eliminated?			
Catenary scaffold- are platforms secured to prevent them from slipping off the wire ropes?			
Catenary scaffold- inspect the wire ropes supporting the platform for proper tightness?			
Catenary scaffold- wire ropes are continuos and without spices between anchors?			
Inspect all wire ropes			
Inspect all clips, are sufficient clips used on each wire rope?			
Are all employees trained to use the scaffold system?			

Inspected by: _____

Signature _____

APPENDIX 28

SCAFFOLD PLATFORM INSPECTION

Description	Yes	No	N/A
Has the scaffold been designed by a qualified person			
Is the scaffold drawing available			
Has the scaffold been constructed and loaded with a safety factor of 4 to 1?			
Are all platform units cleated, restrained by hooks or equivalent means?			
Is safe access provided?			
Are scaffolds or components loaded beyond their rated capacities?			
Are scaffolds or component damaged, if so have the parts been tagged and removed from service?			
Are scaffolds and any conductive material handled the proper distance from electrical lines?			
Are slippery conditions (ice, grease, oil) removed as soon as possible?			
Are workers exposed to falls of ten feet or more, or at a leading edge, if so is fall protection in use			
If guardrails are in use, are top and midrails installed on all opens sides. Are top rails between 39 to 45 inches in height? Do guardrails meet the outward strength requirements?			
Have falling object hazards been eliminated?			
Inspect all wire ropes			
Inspect all clips, are sufficient clips used on each wire rope?			
Are all employees trained to use the scaffold system?			
Other site requirement-			

Comments: _____

Inspected by: _____

Signature _____

APPENDIX 29

EMERGENCY CONTACTS

The following list provides names and telephone numbers for emergency contact personnel.

<u>Organization</u>	<u>Emergency Telephone</u>	<u>Local Phone</u>
Ambulance	911	_____
Police	911	_____
Fire	911	_____
Hospital	_____	_____
Poison Control Center	(800) 962-1253	
CHEMTREC	(800) 424-9300	
State Environmental Agency		_____
National Response Center	(800) 424-8802	
Foreman's Phone		_____
Competent Person's Phone		_____
Other Designated Person's Phone		_____

APPENDIX 30
WORK ZONE TRAFFIC CONTROL INSPECTION

Project: _____ Date: _____

Traffic Control Supervisor: _____

- 1. Inspect the traffic control signs
 - a. Are any signs missing _____
 - b. Signs in good condition _____
 - c. Sign at the proper height _____
 - d. Signs oriented toward the driver _____
 - e. Flashing arrow board working properly _____

Comments _____

- 2. Channelization
 - a. Channelization devices in good condition _____
 - b. Taper proper length in transition area _____
 - c. Buffer space provided _____
 - d. Work zone _____
 - e. Termination area _____

Comments _____

- 3. If a flagger is required
 - a. Does the flagger have proper training _____
 - b. Flagger properly attired _____
 - c. Stop/ slow paddle in good condition _____
 - d. Flagger have a warning device (horn) _____
 - d. Flagger signs properly set-up _____
 - e. Flagger have an escape route _____

Comments _____

- 4. Inside the work zone
 - a. Is an attenuator provided _____
 - b. Are the wheels of the attenuator truck turned properly _____
 - c. Are back-up procedures for trucks in effect and being followed _____
 - d. Are workers trained to work in the work zone _____
 - e. Are workers wearing the proper safety equipment _____

Comments _____

Work Zone Inspected by : _____

OK, OP -occasional problem, NI- needs improvement, NA- not applicable

APPENDIX 31
ACCIDENT/ INCIDENT INVESTIGATION FORM

1. Name of Employee Affected: _____ Employee Age: _____ Gender: M F

2. Date: _____ Day of Week: mon tues wed thur fri sat sun

3. Time of accident/ incident: _____ Length of work shift: _____

4. Project where accident/ incident occurred: _____

5. Weather at the time of the accident/incident: _____

6. Lighting conditions at the work location of the accident/ incident: _____

7. Supervisor(s) during the accident/ incident: _____

8. Location of the Accident/ incident: _____

9. Is the area where the accident/ incident secured to prevent others from being harmed and to preserve evidence: Yes No

10. Describe the accident/ incident: _____

11. Describe the injury or illness: _____

12. Describe the equipment or process used prior to and during the accident/ incident: _____

APPENDIX 31
ACCIDENT/ INCIDENT INVESTIGATION FORM

13. Were pictures taken of the accident/ incident scene: Yes No

14. Who took the pictures: _____

15. How long was the affect person assigned to the project: _____

16. How long has the affected person been working in this industry: _____

17. Describe the root cause of the accident/ incident: _____

18. Other employees who observed the incident or were in the nearby area:

a. _____

e. _____

b. _____

f. _____

c. _____

g. _____

d. _____

h. _____

Take statements from each of the above employee

19. If the employee required first aid, out-patient or hospitalization, describe the treatment and follow-up treatments if necessary: _____

20. Was the employee provided adequate training and proper equipment for the job: _____

21. Was the training documented: : Yes No

22. Was post accident/ incident drug screening conducted: : Yes No

23. How could the accident/ incident be prevented in the future: _____

APPENDIX 31
ACCIDENT/ INCIDENT INVESTIGATION FORM

24. Additional Notes: _____

25. Incident investigated by: _____ Date: _____

26. Incident reviewed by: _____ Date: _____

27. Safety Director review: _____ Date: _____

28. OSHA 300 and 301 completed: Yes No N/A

APPENDIX 33

ROOT CAUSE ANALYSIS

Accidents result from a Direct Cause, Indirect Cause, and a Basic or Root Cause. These causes occur in the sequence shown below. Review the accident sequence. Check all factors that apply.

DIRECT CAUSE

Unsafe Act

- Improper use of tool/equipment
- Defective tool/equipment
- Failure to use proper PPE
- Improper body position
- Improper lifting/placing
- Removing guard
- Defeating safety device

- Worn/defective equipment
- Horseplay
- Shortcut/Hurrying

Unsafe Condition

- Flammable Atmosphere
- Toxic Atmosphere
- Inadequate Illumination
- Poor housekeeping
- Worn/defective tool
- Servicing live equipment
- Ineffective guard or barricade

- Missing/lack of guarding
- Missing proper anchorage point

Other: _____

INDIRECT CAUSE — Lack Of

Training

- No training
- Poor training
- Refresher needed
- Not understood

Resources

- Time
- Tools
- Equipment
- Material
- Manpower

Other: _____

BASIC CAUSE — Organizational Failure To

Personnel

- Assign qualified foreman/ superintendent
- Assign qualified safety personnel
- Provide corporate oversight

Organize

- Resources not present (tools, personnel, etc.)
- Resources not proper (tools, personnel, etc.)
- Unsafe operating conditions

Other: _____

APPENDIX 34

NEAR-MISS INCIDENT INVESTIGATION REPORT

1. Date: _____ Day of Week: mon tues wed thur fri sat sun Time of incident: _____

2. Project where incident occurred: _____

3. Weather at the time of the incident: _____

4. Lighting conditions at the work location of the incident: _____

5. Supervisor(s) during the incident: _____

6. Employees involved and nearby to the incident: _____

7. Location of the incident: _____

8. Describe the incident: _____

9. Was the training inadequate : Yes No

10. Describe the equipment or process used prior to and during the incident: _____

11. Describe the root cause of the incident: _____

APPENDIX 34
NEAR-MISS INCIDENT INVESTIGATION REPORT

12. How could the incident be prevented in the future: _____

13. Additional Notes: _____

14. Incident investigated by: _____ Date: _____
15. Incident reviewed by: _____ Date: _____
16. Safety Director review: _____ Date: _____

APPENDIX 35
PROPERTY DAMAGE REPORT

1. Date: _____ Day of Week: mon tues wed thur fri sat sun Time of incident: _____

2. Project where incident occurred: _____

3. Weather at the time of the incident: _____

4. Supervisor(s) during the incident: _____

5. Employees nearby to the incident: _____

6. Location of the property damage: _____

7. Describe the incident (include vehicle license plate numbers, drivers names, equipment, materials involved):

8. Describe the damages: _____

9. Were the police called : Yes No

10 Was a police report written : Yes No Who was the police officer who wrote the report: _____

What is the report number: _____

11. Additional Notes: _____

12. Incident investigated by: _____ Date: _____

13. Incident reviewed by: _____ Date: _____

14. Safety Director review: _____ Date: _____

APPENDIX 36

OSHA REPORTING OF FATALITY OR IN-PATIENT HOSPITALIZATION

Date: _____

Were you reporting a fatality, in-patient hospitalization, amputation or loss of an eye? _____

Name(s) of affected employees _____

Date incident occurred: _____

Actual time the incident occurred: _____

Time of the notification to OSHA: _____

How was OSHA contacted: Phone or internet

If by phone, what phone number was called: _____

Did you speak to an OSHA Compliance Officer, if so name of CSHO _____

If by internet, did you print out the notification: Yes No

If No, Why? _____

Any other information relevant to the notification, such as OSHA requesting additional information, OSHA coming onsite, etc _____

Name of person reporting incident to OSHA _____

Signature of person reporting incident to OSHA _____

APPENDIX 37

OFFER OF A HEPATITIS-B (HBV) VACCINATION

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with the hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with the hepatitis B vaccine, I can receive the vaccination at no charge to me.

Printed Name

Signature

Date

Social Security Number or Employee Code Number

This offer has been made in accordance with 29 CFR 1910. 1030 Appendix A

APPENDIX 38 Confined Space Entry Permit

Space to be entered: _____
 Date and Time Issued: _____ Date and Time Expires: _____ Job Supervisor: _____
 Equipment to be worked on: _____ Work to be performed: _____

Atmospheric Checks:

Name of Entrant and time in and out of confined space

Time	O2 19.5-23.5	LEL <10%	CO2 35ppm	Other	Entrant Name	Time in	Time out	Time in	Time out

1. Test equipment used _____ serial number _____ calibrated _____
2. Communication between attendant and entrant is by: Verbal Walkie Talkie Other: _____
3. Rescue procedures implemented: Rescue equipment onsite
4. Attendant's name: _____
5. Supervisor's name: _____
6. Permit Prepared By: (Supervisor) _____ Approved By:
 (Supervisor) _____

APPENDIX 39
Confined Space Pre-Entry Checklist

1. Have all workers received training: Entrant Attendant Supervisor Rescue
2. Equipment
Direct reading gas monitor Hoisting equipment Powered communications
SCBA's for entry and standby persons All electric equipment listed Class I, Division I, Group D
3. Rescue Procedure- will rescue be performed by onsite personnel
rescue performed by client rescue team rescue performed by emergency services
4. Rescue equipment onsite Describe rescue equipment: _____

5. If rescue is performed by personnel onsite, who is the first air/ CPR trained person(s): _____

6. If rescue is to be performed by others, describe who and how to contact rescue team: _____

7. Engineering controls, isolation of: Mechanical Electrical Pneumatic Hydraulic
8. Ventilation: Natural Mechanical describe mechanical ventilation: _____
9. PPE for entry: Hard hat Safety glasses Hearing protection Harness Lanyard/ retractable
Work clothing Tyvek Fire resistant clothing Work boots Rain boots
10. Confined space: Isolated prior to entry Purged of toxic gases
Lockout/ Tagout required to remove electrical, mechanical, hydraulic or other hazards
11. If lockout/ tagout is required, who will performed: _____
12. List Entrants: _____

13. List Attendant(s): _____

Permit Prepared By: (Supervisor) _____ Approved By:
(Supervisor) _____

APPENDIX 40
LOCKOUT/ TAGOUT OF EQUIPMENT

Equipment Information

Energy Information _____

Type(s) of energy sources _____

Number of Locks Required _____ **Number of Tags Required** _____

1. Only trained, authorized employees are permitted to service this equipment. The name(s) of the employee(s) who are authorized are listed below.

Name _____ Name _____
Name _____ Name _____

2. All affected employees must be notified that servicing or maintenance is required on this equipment and that it will be shut down and locked out. The names of the affected employees are:

Name _____ Name _____
Name _____ Name _____

3. Shutdown procedure

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.

4. Verification of proper shutdown procedure

- a.
- b.
- c.
- d.

APPENDIX 40
LOCKOUT/ TAGOUT OF EQUIPMENT

5. Start-up procedure

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.

6. Lockout/ tagout procedure

Reviewed by: _____

Approved by: _____

7. Issue/ Revision date _____

APPENDIX 41 FORKLIFT INSPECTION

Forklift make and model _____

(Write month and date in boxes below)

Equipment																
Brakes																
Horn																
Lift/Tilt																
Lights																
Oil leaks																
Reach and forks																
Steering																
Tires																
Engine Oil																
Backup alarm																
Lift chains																
Inspected by:																

APPENDIX 42

SAFE OPERATING PROCEDURE SIGN OFF LOG

Employee Name _____

I have read and will follow the Safe Operating Procedures. I understand that failure to do so will constitute an infraction of C.A. Hull' safety regulations.

Date	Equipment or Process	Employee Signature
	Abrasive Blasting Safety	
	Abrasive Recycler - Steel Grit	
	Blast Pot - Black Beauty	
	Power Tool Cleaning Safety	
	Vacuum Equipment - Supersucker	
	Vacuum Equipment - Titan, vec-Loader	
	Compressor	
	Dust Collector	
	Aerial Lift	
	Scissor Lift	
	Light Tower	
	Electrical Safety	
	Pressure Wash Safety	
	Airless Spray Safety	

APPENDIX 43
CERTIFICATE OF TRAINING
GENERAL SAFETY AND HEALTH TRAINING

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in General Safety and Health Requirements which included the following topics:

1. OSHA General Duty Clause 5(A)(1).
2. Why OSHA was created and its mission.
3. 29 CFR 1926.21 Safety Training - is required to provide a safe and healthy workplace.
4. The requirements under 29 CFR 1926 Subpart C.
5. The workplace will be free of recognized hazards, I have been instructed as to the most common hazards in my workplace.
6. If I observe an unsafe condition, I am to report the unsafe condition to the foreman or competent person immediately.
7. I am to report all accidents and near misses to the foreman or competent person immediately.
8. C.A. Hull has established a Corporate Health and Safety Program and each project has a site specific Health and Safety Program.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 44
CERTIFICATE OF TRAINING**

29 CFR 1926 SUBPART D

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926 Subpart D which included the following topics:

1. Medical services and first aid requirement. I have been instructed on how to contact emergency services and location of hospital directions and emergency phone numbers.
2. First aid requirements.
3. Requirement for drinking water.
4. Requirement for sanitation facilities including bathroom and handwash facilities.
5. I understand that as part of my job, when working with a toxic metal such as lead, paint or other recognized hazard I am to wash my hands prior to breaks, lunch and at the end of the shift.
6. OSHA has established Permissible Exposure Limits (PEL) for many toxic substances.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 45
CERTIFICATE OF TRAINING**

**OCCUPATIONAL NOISE EXPOSURE
AND HEARING PROTECTION**

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926.52 occupational noise exposure and 29 CFR 1926.101 hearing protection which included the following topics:

1. Locations where anticipated noise levels will be at or above the Permissible Exposure Limit.
2. Duration per day, I am allowed to work at various noise levels.
3. Basic anatomy of the ear.
4. Consequences of hearing loss.
5. Hearing protection devices (ear plugs, canal caps, ear muffs) and their limitations..
6. How to properly wear hearing protection devices.
7. How to clean hearing protection devices, when applicable.
8. Engineering controls that may be utilized.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 46
CERTIFICATE OF TRAINING**

LEAD

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926.26 Lead Standard which included the following topics:

1. Hazards of lead in accordance with the Hazard Communication Standard 29 CFR 1926.59.
2. The content of the OSHA Lead in Construction Standard 29 CFR 1926.62.
3. The specific nature of the operations which could result in exposure to lead above the Action Level.
4. The purpose, proper selection, fitting, use and limitations of respirators 29 CFR 1910.134.
5. The purpose of the medical surveillance program including the medical removal program and the adverse health effects associated with lead exposure.
6. Engineering controls and work practice controls that will be utilized to minimize the exposure to lead.
7. The contents of the site specific Health and Safety Program and corporate Health and Safety Program.
8. Instructions that chelating agents should not be used to remove lead from the body or as a preventative measure unless under strict doctor's care.
9. Access to medical and exposure records.
10. Hygiene practices and how to properly use the facilities.
11. Hazardous waste procedure (40 CFR 265.16)
12. Basic safety and health training 29 CFR 1926.21.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 47
CERTIFICATE OF TRAINING**

HAZARD COMMUNICATION

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926.59 (29 CFR 1910.1200) Hazard Communication Standard which included the following topics:

1. Hazards of the chemicals at job site.
2. Requirements of 29 CFR 1926.59.
3. Operations where exposure to chemicals may occur.
4. Location of Safety Data Sheets (SDS).
5. How to read a SDS.
6. How to read pictograms.
7. Where on the SDS to determine the proper personal protective clothing and emergency procedures.
8. Project specific Hazard Communication Program and its location.
9. Proper labeling of all chemical containers.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 48
CERTIFICATE OF TRAINING**

PERSONAL PROTECTIVE EQUIPMENT

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926 Subpart E, Personal Protective Equipment which included the following topics:

1. Requirements for personal protective clothing and equipment (PPE).
2. Limitations of PPE.
3. C.A. Hull's written PPE programs.
4. Hard hats, when it will be required, use, cleaning, maintenance and limitations.
5. Eye and face protection, when it will be required, use, cleaning, maintenance and limitations.
6. Hand and foot protection, when they will be required, use, cleaning, maintenance and limitations.
7. Fall protection equipment when they will be required, use, cleaning, maintenance and limitations.
8. Working over water, when U.S. Coast Guard approved life jackets will be used, ring buoys and rescue boat.
9. How to inspect PPE and when to turn damaged PPE in to the foreman or competent person.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 49
CERTIFICATE OF TRAINING**

FIRE PROTECTION

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926 Subpart F, Fire Protection which included the following topics:

1. The four classes of fires.
2. What type of fire extinguisher or extinguishing agent is used for each class of fire.
3. Hazards of fighting fires.
4. Proper use of fire extinguishers (PASS - Pull, Aim, Squeeze, Sweep).
5. Preventative measures to reduce the potential for fires.
6. Use of temporary heating devices and ventilation required.
7. Who is authorized to fight fires, and if not authorized where to go in case of an emergency and company emergency procedures.
8. If authorized to fight a fire, demonstrate #4.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 50
CERTIFICATE OF TRAINING**

SCAFFOLDS

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926 Subpart L, Scaffolds which included the following topics:

1. Electrical hazards.
2. Fall hazards.
3. Falling object hazards.
4. Proper use of the scaffold.
5. Proper handling of materials on the scaffold.
6. Maximum intended load.
7. Load carrying capacity.
8. Inspection of scaffolds.
9. Procedure for handling damaged scaffold components.
10. Requirement for erecting and dismantling scaffolds.
11. Platforms used on bridges and their hazards.
12. Site specific scaffolds used on this project include: A: _____
B: _____
C: _____

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 51
CERTIFICATE OF TRAINING**

FALL PROTECTION

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926 Subpart M, Fall Protection which included the following topics:

1. The nature of the fall hazards in the work area.
2. The correct procedure for erecting, maintaining, disassembling and inspecting the fall protection system to be used.
3. The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used.
4. The role of each employee in the safety monitoring system when used.
5. The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
6. The role of employees in fall protection plans.
7. Any pertinent sections of 29 CFR 1926 Subpart M.
8. The manufacturer's recommendations, procedures and inspections of fall protection equipment.
9. Fall protection equipment issued: Harness: _____
Lanyard: _____
Rope Grab: _____
Other: _____

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 52
CERTIFICATE OF TRAINING**

INORGANIC ARSENIC

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926.1118, Inorganic Arsenic which included the following topics:

1. The arsenic standard 29 CFR 1926.1118.
2. Health hazards associated with arsenic exposure.
3. The specific nature of the operations which could result in exposure to lead above the Action Level.
4. Personal protective equipment.
5. Personal Hygiene and decontamination procedures.
6. Medical surveillance program.
7. Exposure monitoring.
8. The purpose, proper selection, fitting, use and limitations of respirators 29 CFR 1910.134.
9. Engineering and work practice controls.
10. The contents of the site specific Health and Safety Program and corporate Health and Safety Program.
11. Access to medical and exposure records.
12. Hazardous waste procedure (40 CFR 265.16)
13. Basic safety and health training 29 CFR 1926.21.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 53
CERTIFICATE OF TRAINING**

CADMIUM

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926.1127, Cadmium which included the following topics:

1. The cadmium standard 29 CFR 1926.1127.
2. Health hazards associated with arsenic exposure.
3. The specific nature of the operations which could result in exposure to lead above the Action Level.
4. Personal protective equipment.
5. Personal Hygiene and decontamination procedures.
6. Medical surveillance program.
7. Exposure monitoring.
8. The purpose, proper selection, fitting, use and limitations of respirators 29 CFR 1910.134.
9. Engineering and work practice controls.
10. The contents of the site specific Health and Safety Program and corporate Health and Safety Program.
11. Access to medical and exposure records.
12. Hazardous waste procedure (40 CFR 265.16)
13. Basic safety and health training 29 CFR 1926.21.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 54
CERTIFICATE OF TRAINING**

AERIAL LIFTS

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in Aerial Lifts in accordance with 29 CFR 1926.453, Aerial Lifts which included the following topics:

1. Use and limitations of aerial lifts
2. Electrical hazards.
3. Fall hazards and the proper use of fall protection.
4. Falling object hazards.
5. Proper standing position in the basket - feet planted firmly on the basket floor.
6. Maximum intended load of an aerial lift.
7. Inspection of an aerial lift.
8. Aerial lift make and model: _____

9. Aerial lift use evaluation: _____

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 55
CERTIFICATE OF TRAINING**

SCISSOR LIFTS

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in Scissor Lifts, which included the following topics:

1. Operating instructions, warnings and precautions for the type of scissor lifts that the worker will be authorized to operate.
3. Scissor lift controls and instrumentation- where they are located, what they do and how they work.
4. Engine or motor operation.
5. Steering and maneuvering.
6. Visibility.
7. Capacity and stability.
8. Inspection and maintenance.
9. Refueling or recharging procedures.
10. Operating limitations.
11. Scissor lift make and model: _____

14. Scissor lift use evaluation: _____ Evaluated by: _____
_____ Evaluated by: _____
_____ Evaluated by: _____

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 56
CERTIFICATE OF TRAINING
FORKLIFTS**

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in Forklifts in accordance with 29 CFR 1910.178(l) Powered Industrial Trucks, which included the following topics:

1. Operating instructions, warnings and precautions for the type of forklift that the worker will be authorized to operate.
2. Differences between a forklift and an automobile.
3. Forklift controls and instrumentation- where they are located, what they do and how they work.
4. Engine or motor operation.
5. Steering and maneuvering.
6. Visibility.
7. Fork and attachment adaption.
8. Vehicle capacity and stability.
9. Inspection and maintenance.
10. Refueling or recharging procedures.
11. Operating limitations.
12. Any site specific instructions such as surface conditions and types of loads.
13. Forklift make and model: _____

14. Forklift use evaluation: _____ Evaluated by: _____
_____ Evaluated by: _____
_____ Evaluated by: _____

Date

Employee's Signature

Date

Trainer's Signature

APPENDIX 57
CERTIFICATE OF TRAINING
RESPIRATORY PROTECTION

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in Respiratory Protection in accordance with 29 CFR 1910.134, Respiratory Protection which included the following topics:

1. Why the respirator is necessary and how improper fit, usage or maintenance can affect the performance.
2. What limitations the respirator has, including cannot provide oxygen, filters are made for a specific use, etc.
3. What to do in emergencies.
4. How to inspect, put on and remove the respirator.
5. Storage and maintenance procedures.
6. How to recognize medical signs and symptoms that may limit or prevent respirator effectiveness.
7. General requirements of 29 CFR 1910.134.
8. Job tasks and work areas at project sites which will require the use of respiratory protection.
9. Fit testing.
10. Medical signs and symptoms that may interfere with the effective use of respirators.
11. Manufacturer's recommendations, procedures and inspections of respiratory protection equipment
12. Respirator issued: Half-Face Air Purifying: _____
Full-Face Air Purifying: _____
Blast Helmet: _____
PAPR: _____
Supplied Air Respirator: _____

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 58
CERTIFICATE OF TRAINING**

HEXAVALENT CHROMIUM 29 CFR 1926.1126

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926.1126, Hexavalent Chromium which included the following topics:

1. Hazards of Chromium (VI) in accordance with the Hazard Communication Standard 29 CFR 1926.59.
2. The content of the OSHA Chromium (VI) in Construction Standard 29 CFR 1926.1126.
3. The specific nature of the operations which could result in exposure to Chromium (VI) above the Action Level.
4. The purpose, proper selection, fitting, use and limitations of respirators 29 CFR 1910.134.
5. The purpose of the medical surveillance program including the medical removal program and the adverse health effects associated with Chromium (VI) exposure.
6. Engineering controls and work practice controls that will be utilized to minimize the exposure to Chromium (VI).
7. The contents of the site specific Health and Safety Program and corporate Health and Safety Program.
8. Access to medical and exposure records.
9. Hygiene practices and how to properly use the facilities.
10. Hazardous waste procedure (40 CFR 265.16)
11. Basic safety and health training 29 CFR 1926.21.

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 59
CERTIFICATE OF TRAINING**

PERMIT-REQUIRED CONFINED SPACE TRAINING

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1910.146 Permit-Required Confined Spaces which included the following topics:

1. What is a confined space - definition.
2. The difference between permit required confined space and a confined space.
3. Controls that may be used such as lockout/tagout and hot work permit.
4. Duties of Attendants.
5. Duties of Entrants.
6. Duties of the Entry Supervisor.
7. Confined Space Permit, how and when to complete the permit.
8. Atmosphere testing.
9. Rescue and emergency procedures.
10. C.A. Hull's Permit Required Confined Space Program

Date

Employee's Signature

Date

Trainer's Signature

**APPENDIX 60
CERTIFICATE OF TRAINING**

RESPIRABLE CRYSTALLINE SILICA TRAINING

Employee Name: _____

Project Name: _____

C.A. Hull has provided me with training in 29 CFR 1926.1153 Respirable Crystalline Silica which included the following topics:

A. Silica

1. Health hazards associated with exposure to respirable crystalline silica
2. Specific tasks in the workplace that could result in exposure to respirable crystalline silica
3. Specific measures the employer has implemented to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices and respirators to be used.
4. Personal protective equipment
5. Personal hygiene & decontamination
6. Medical surveillance programs
7. Exposure monitoring
8. Employee rights to information

B. The OSHA hazard communication standard 29 CFR 1910.1200 including the following hazards: cancer, lung effects, immune system effects and kidney effects.

C. Respiratory protection program 29 CFR 1910.134

Date

Employee's Signature

Date

Trainer's Signature

APPENDIX 61 CERTIFICATE OF TRAINING

Employee Name: _____

C.A. Hull has provided me with training on the following topics.

Topic	Date	Trainer's Initials	Employee's Initials
General Safety and Health			
29 CFR 1926 Subpart D			
Occupational Noise Exposure and Hearing Protection			
29 CFR 1926.62 Lead			
29 CFR 1910.1200 Hazard Communication			
29 CFR 1926 Subpart E PPE			
29 CFR 1926 Subpart F Fire Protection			
29 CFR 1926 Subpart L Scaffolds			
29 CFR 1926 Subpart M Fall Protection			
29 CFR 1926.118 Inorganic Arsenic			
29 CFR 1926.117 Cadmium			
29 CFR 1926.453 Aerial Lifts			
29 CFR 1910.178 Forklifts			
Scissor Lift Training			
29 CFR 1910.134 Respiratory Protection			
29 CFR 1926.1126 Hexavalent Chromium			
Safe Operating Procedures			

APPENDIX 63

CARBON MONOXIDE ALARM CALIBRATION AND TESTING RECORD

Carbon Monoxide Alarm Manufacturer: _____

Carbon Monoxide Alarm Serial Number _____

Per the Manufacturer's instructions, calibration is required? Monthly Quarterly Annually

Test and/or inspect the carbon monoxide alarm weekly

Date

Tested and/or inspected by

Date

Tested and/or inspected by

Date

Calibration (pass/fail)

Calibrated by

Addendum: Corporate Health and Safety Plan

Section: 13.16- 13.1 (9) Medical Surveillance Program & Appendix 20 (pg254) Employee notification of biological monitoring results.

Effective date: December 11, 2018

13.16 Medical Surveillance Program

As a condition of employment with C.A. Hull, all workers exposed to lead at or above the OSHA Action Level are required to enter the medical surveillance program to reveal medical conditions which could predispose an individual to excessive risk from working on this job and provide clearance to wear negative-pressure respirator.

13.16.1 Program Elements

The program elements listed below are for exposures above the Action Level to lead; additional testing may be required if exposed to other toxic metals.

1. Each worker must have a baseline examination prior to commencing work.
2. Each worker will have an entry blood lead test in accordance with OSHA regulations.
 - a. After initial testing, bi-monthly testing will be conducted for the first six months.
 - b. Semi-annual testing will be performed for workers with blood lead levels below 15 ug/dl.
3. Blood lead testing will be performed by an OSHA approved laboratory.
4. When blood testing reveals 30 micrograms of lead per deciliter of whole blood or more per the OSHA standard, and that level does not decrease upon subsequent testing within two weeks, that worker will be removed from C.A. Hull projects until two consecutive blood tests result in levels below 15 ug/dl.
5. C.A. Hull Best practice will be to remove employees from Lead environments when testing reveals lead levels at 20 ug/dl. They will be offered a medical exam, receive re-trained and can return to lead environments after having two consecutive test below 15 ug/dl.
6. While on medical removal, employee will be tested monthly.
7. Whenever blood testing reveals 10 ug/dl or greater of lead in whole blood, workers will be offered medical evaluation, reminded they will stay in or be placed back in bi-monthly if they trend up to at or above 15ug/dl, be retrained, and reminded about medical removal protection. PPE will be upgraded if necessary to provide a higher level of protection.
8. Each worker must receive authorization from a physician or other licensed health care professional (PLHCP) for wearing respiratory protection. The authorization will be maintained by C.A. Hull in the employee's file.
9. The OSHA Medical Removal Program (MRP) is for workers who have a blood lead level of 30 ug/dl whole blood.
10. Post-employment or yearly physical examinations, as outlined for baseline exams, will be provided for all workers whose blood levels at any time during the duration of the job reaches or exceeds 15 ug/dl whole blood.
11. Workers are allowed to request another physician to review the findings (multiple physician review) or to have another physician conduct examinations. The physician must have knowledge about lead exposures.

APPENDIX 20

EMPLOYEE NOTIFICATION OF BIOLOGICAL MONITORING RESULTS

Employee Name: _____ Date: _____

Sample Date: _____ Project Name: _____

The results of the blood test are: _____ blood lead (ug/dl).

These results are:

- _____ Below the OSHA Action Level (AL) of 15 ug/dl (CAH AL 10 ug/dl)
- _____ Above the OSHA AL and below the medical removal criteria of 30 ug/dl (CAH 20ug/dl)
- _____ Above the OSHA medical removal criteria and a retest must be taken within one week.

The next blood test will be in: _____

The following actions apply based on your blood lead level:

- _____ Continue to use your assigned respirator and use good hygiene practices
- _____ Your assigned respiratory protection will be upgraded to _____
- _____ Your assigned respiratory protection will be upgraded to _____
- _____ You will be given additional training by the competent person on the proper use and cleaning of the respirator and personal hygiene practices
- _____ You are medically removed from lead exposure activities
- _____ You may return to lead exposure activities

The following additional procedures will be instituted:

Employee Signature

Date

APPENDIX 20

EMPLOYEE NOTIFICATION OF BIOLOGICAL MONITORING RESULTS

Employee Name: _____ Date: _____

Sample Date: _____ Project Name: _____

The results of the blood test are: _____ blood lead (ug/dl).

These results are:

- _____ Below the OSHA Action Level (AL) of 15 ug/dl (CAH AL 10 ug/dl)
- _____ Above the OSHA AL and below the medical removal criteria of 30 ug/dl (CAH 20ug/dl)
- _____ Above the OSHA medical removal criteria and a retest must be taken within one week.

The next blood test will be in: _____

Would you like a follow-up medical exam with the physician? YES NO

The following actions apply based on your blood lead level:

- _____ Continue to use your assigned respirator and use good hygiene practices
- _____ Your assigned respiratory protection will be upgraded to _____
- _____ Your assigned respiratory protection will be upgraded to _____
- _____ You will be given additional training by the competent person on the proper use and cleaning of the respirator and personal hygiene practices
- _____ You are medically removed from lead exposure activities
- _____ You may return to lead exposure activities

The following additional procedures will be instituted:

Note: All employees at or above 15ug/dl will be tested within one week of last test and if not below 15ug/dl, they will stay in or be placed back in the bi-monthly testing until two test consecutive test are below 15ug/dl.

Employee Signature

Date



Employee Handbook: Field/Union Staff

Revised February 2019

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Section 1: Introduction

About Your Handbook

Your Employee Handbook contains important information on the general policies of the Company and on your privileges and obligations as an employee. This current Handbook supersedes any previous verbal or written policies, statements, understandings, or agreements concerning the terms and conditions of employment at C.A. Hull. C.A. Hull reserves the right, at its sole discretion, to amend the contents of this Handbook at any time with or without prior notice. Any change to this document will be made in writing.

C.A. Hull Co., Inc. is **an at-will** employer. The provisions in this Handbook do not establish contractual rights between C.A. Hull and an employee. No amendment or exception to our **at-will** employment policy set forth above can be made at any time, for any reason, except by a member of the Executive Team, and it must be in writing, directed to you personally, and signed by the Company President.

Mission Statement and Core Values

Mission: Building to the highest standard as a team focused on safety, continuous improvement and lasting relationships.

C.A. Hull's core values, Safety, Teamwork, Innovation, Quality, and Integrity (STIQI), exemplify our organization's dedication to our employees, clients and partners. These values are the foundation of our company and the key to our success and future.

Safety: Our most important core value, Safety is the first thing we think about prior to performing any task. From executive leadership to crews on our jobsites, each employee is dedicated to our outstanding safety culture, and empowered to make their work safer every day.

Teamwork: Working together as a team, C.A. Hull can effectively plan, communicate and execute our work. Open interactions with our fellow contractors, suppliers, owners and engineers are critical to strengthening the entire team.

Innovation: Through innovation, C.A. Hull has become a leader in the heavy-highway construction industry. Our employees are consistently finding better ways to improve our operations and offer the best solutions to our owners.

Quality: Our employees take pride in their craftsmanship and ability to provide our customers with the finest quality workmanship and products.

Integrity: We say what we do and do what we say; Integrity defines the C.A. Hull employee. Our commitment to integrity provides a high level of trust that helps us build strong relationships, both within our company and with the people that we work with.

Commitment to Integrity

C.A. Hull Company is committed to a corporate culture and working environment that sets a high standard for integrity, quality, and ethical behavior.

The Company continually examines and improves its business practices so that it can guarantee to its customers, employees, and shareholders that it is operating with the highest principles of integrity.

All employees have a responsibility to demonstrate integrity through their actions. Our Company relies on the reputation and trust built by over 60 years of maintaining strong relationships with its customers, subcontractors, suppliers, and employees. Honesty and trust continue to be the cornerstones of the Company. Employees must take pride and ownership in everything they do.

C.A. Hull's corporate culture is built upon the following:

- **Honesty and Trust:** These values can be seen through the quality of work we provide.
- **Ownership and Pride:** Employees must take ownership and pride in everything they do.
- **Good People:** Good people are the key to success.
- **One Team:** The Company maintains an open-door philosophy and works together as one team to achieve its mission.
- **Customer First:** Put the customer first and the "bottom line" will take care of itself.
- **Accountability:** Employees are accountable for their own actions. Employees in a management position are also accountable for the actions of those reporting to them.
- **Safety and Health:** Nothing is more important than the safety and health of the Company's employees, partners, and customers.
- **Compliance:** The Company complies with Federal, State, and local laws and employs business practices that adhere to the industry's highest standards.

Section 2: Employment Policies

Equal Opportunity Employment (Non-Discrimination)

C.A Hull Co., Inc. is an equal opportunity employer and complies with applicable state and federal fair employment practice laws. If you would like a copy of the complaint procedure or have any questions or concerns, please contact:

Christine Niswander

Human Resources,

EEO Officer

cniswander@cahull.com

(248) 694-8061

The Company does not discriminate against applicants or employees, or tolerate harassment, because of race, color, religion, national origin, age, disability, sex, height, weight, genetic information, or any other trait or characteristic protected under applicable local, state, or federal laws. Employment practices that are covered under this policy include, but are not limited to: recruitment or recruitment advertising, pre-apprenticeship and/or on-the-job training, rates of pay or other forms of compensation, promotions; demotion or transfer, layoff or termination.

Management is primarily responsible for seeing that C.A. Hull's equal employment opportunity policies are implemented, but all members of the staff share in the responsibility for assuring that by their personal actions, the policies are effective and apply uniformly to everyone. Any employee involved in discriminatory practices will be subject to termination.

Title VI Policy

C.A. Hull Co., Inc. reaffirms its policy to provide all individuals the opportunity to participate in federal financially assisted programs and services and adopts the following provision:

No person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination, under any program or activity receiving federal funding. All employees of C.A. Hull are expected to consider, respect, and observe this policy in their daily work and duties. If a citizen or employee approaches you on the jobsite with a question or complaint, direct him or her to Christine Niswander, EEO Officer, or Mike Malloure, President.

Americans with Disabilities Act Amendments Act

It is the policy of C.A. Hull to comply with all relevant and applicable provisions of the Americans with Disabilities Act Amendments Act (ADAAA). This Act requires that employers with 15 or more employees provide reasonable accommodations for individuals with disabilities, unless it would cause undue hardship to the business. A reasonable accommodation is any change in the work environment or in the way a job is performed that enables a person with a disability to enjoy equal employment opportunities.

If you require an accommodation you must inform your supervisor that there is a need for an adjustment or change at work for a reason related to a medical condition. We will respond promptly and to the best of our ability to accommodate the needs of all employees.

Immigration Compliance

The Company is committed to employing only those who are authorized to work in the United States and does not unlawfully discriminate on the basis of citizenship or national origin.

In compliance with the Immigration Reform and Control Act of 1986, each new employee, as a condition of employment, must complete the Employment Eligibility Verification Form I-9 and present documentation establishing identity and employment eligibility. If you at any time cannot verify your right to work in the U.S., C.A. Hull may be obligated to terminate your employment. Former employees who are rehired must also complete the form if they have not completed an I-9 with the Company within the past three years, or if their previous I-9 is no longer retained or valid. Employees may raise questions or complaints about immigration law compliance without fear of reprisal.

Harassment Policy

C.A. Hull is committed to providing a work environment that is free from harassment. Harassment based on an individual's sex, race, ethnicity, national origin, age, religion, or any other legally protected characteristics will not be tolerated. All employees, including supervisors and other management personnel, are expected and required to abide by this policy. No person will be adversely affected in employment with the employer due to bringing complaints of unlawful harassment.

C.A. Hull will not tolerate or condone any acts of retaliation against anyone who files harassment complaints or cooperates in an investigation. Retaliating against an employee is grounds for corrective action, up to and including termination.

Sexual Harassment

It is illegal and against the policies of the Company for any employee, male or female, to sexually harass another employee. While a complete list of prohibited conduct does not exist, the following are examples of offensive behavior which must be avoided:

- Making unwelcomed sexual advances or requests for sexual favors or other verbal or physical conduct of a sexual nature.
- Making submission to, or rejection of such conduct, the basis for employment decisions affecting an employee (promotions, transfers, schedules).
- Telling of lewd or off-color jokes.
- Maintaining sexually explicit materials in any format.
- Creating an intimidating, hostile, or offensive working environment.
- Viewing and/or distributing material of a sexual nature during work hours and/or via Company equipment, including email systems, Internet, or other forms of communication.

All reports of harassment will be treated seriously. The Company will conduct an investigation of any complaint that could require limited disclosure of pertinent information to certain parties, including the alleged harasser. While absolute confidentiality is desired, it cannot be promised or assured throughout the course of the investigation.

Any supervisor, manager, or other employee who has been found, after appropriate investigation, to have sexually harassed another employee will be subject to appropriate disciplinary action, up to and including termination. Furthermore, any manager or supervisor who is aware of harassment potentially occurring will be required to report it to C.A. Hull. Any supervisor who fails to meet this expectation will be subject to disciplinary action, up to and including termination.

C.A. Hull will not tolerate or condone any acts of retaliation against anyone who files harassment complaints or cooperates in an investigation. Retaliating against an employee is grounds for disciplinary action, up to and including termination. If you feel you have been subjected to retaliation through the course of, or subsequent, a harassment claim and investigation, please inform your supervisor immediately. Identities of those making claims will only be revealed on a need to know basis, with confidentiality being a main priority.

Employee Recourse for Discrimination, Harassment, Bullying or Other Potential Complaints

If an employee believes that he or she has been subjected to bullying or harassment of any kind, including sexual harassment, he or she should:

1. Make his or her unease and/or disapproval directly and immediately known to the harasser whenever possible.
2. If the situation is not immediately resolved or if the employee is unable to, or uncomfortable with, addressing the alleged harasser directly, he or she should report the incident to his or her supervisor.
3. It is important to report concerns of harassment or inappropriate sexual conduct, regardless of the seriousness, to a supervisor/manager as soon as possible. Management cannot assist in stopping the harassment from continuing if it is unaware of the problem. Publicizing information about alleged harassment without following the reporting procedures might be considered evidence of a vexatious intent on part of the accuser.
4. If an employee is not satisfied with the response of the supervisor/manager, the employee should speak directly to the President of C.A. Hull, Mike Malloure.
5. If a Supervisor or Manager becomes aware of a complaint or potential complaint directly related to his or her conduct, the Supervisor or Manager should immediately report this concern directly to his or her Manager or the President of the Company.

Remember that Company management cannot correct any situation that is of concern to you unless management knows about it. In this regard, your cooperation is needed and appreciated.

If any party directly involved in a sexual harassment investigation is dissatisfied with the outcome or resolution, that individual has the right to appeal the decision. The dissatisfied party should submit his or her written comments to Mike Malloure, President or Christine Niswander, EEO Officer.

Weapons Policy

It is the intent of C.A. Hull to provide a safe and secure workplace for employees, customers, visitors, and others with whom we do business. C.A. Hull has zero tolerance for the unlawful possession of any type of weapon, firearm, explosive, or ammunition on Company property. Company property includes, but is not limited to, all Company facilities or offices, vehicles, job sites, equipment, or related areas, whether leased or owned by the Company or its client. In addition, unlawful firearms or other weapons in employee-owned vehicles parked on Company property are strictly forbidden.

To avoid potential risks, the Company does not allow employees to physically carry their firearm while working and/or while on Company property, whether or not the employee is actively working. Employees who lawfully possess firearms must properly store the weapon in their personal vehicle, following all federal, state, and local laws.

In summary, it is C.A. Hull's policy that employees shall not carry weapons of any kind on their person while on Company property (office, jobsite, company vehicle, equipment, etc.).

Pay Transparency Nondiscrimination Provision

C.A. Hull will not terminate or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. However, employees who have access to the compensation information of other employees or applicants as a part of their essential job functions cannot disclose the pay of other employees or applicants to individuals who do not otherwise have access to compensation information, unless the disclosure is (a) in response to a formal complaint or charge, (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the C.A. Hull, or (c) consistent with C.A. Hull's legal duty to furnish information.

Drug and Alcohol Policy

C.A. Hull Co., Inc. is committed to providing a safe work environment and to supporting the well-being and health of its employees. That commitment is jeopardized when any C.A. Hull employee illegally uses drugs or alcohol on the job, comes to work under the influence, or possesses, distributes, or sells drugs or alcohol in the workplace. C.A. Hull has established the following policy:

- It is a violation of Company policy for any employee to possess, sell, trade, or offer for sale illegal drugs or alcohol, or otherwise engage in the use of drugs or alcohol on the job.
- It is a violation of the Company policy for anyone to report to work under the influence of alcohol or drugs.
- It is a violation of the Company policy for anyone to use prescription drugs illegally. The illegal use of drugs will not be tolerated.
- If an employee legally uses prescription drugs that may have an impact on his or her ability to safely perform the functions of the job, he or she must immediately report the use of those prescriptions to his or her supervisor.

In states that have a Medical Marijuana or other drug-related law that conflicts with federal law, the Company will interpret the federal law as controlling. This means that the Company will not

tolerate the use of illegal drugs, such as marijuana, regardless of whether the employee has a Medical Marijuana card or not.

Employees using prescription drugs must observe all label warnings and inform their supervisor of all warnings associated with their prescriptions.

Pre-employment Drug Testing:

All job applicants that have been offered employment at this Company will undergo testing for the presence of illegal drugs as a condition of employment. Any applicant with a confirmed positive test result will be denied employment. Pre-employment test results will be interpreted according to the following table:

Lab Results	C.A. Hull Results
Negative	Negative
Positive	Positive
Negative Dilute	Positive*
Out-of-Temperature Range	Positive
Refusal to render sample	Positive
Untestable Sample	Positive

Applicants will only be eligible for employment if they have a negative result as shown under "Company Results."

*In the case of a negative dilute where there is no indication of tampering or an attempt to avoid detection, an employee may be given an opportunity to re-test within 24 hours of receiving the negative dilute result.

Random Drug Testing

All employees are in the random drug testing pool. Random drug screen selections are handled by an independent contractor of C.A. Hull Company. At the time C.A. Hull notifies the employee that a random test is required, the employee has two hours to report to the designated clinic. An employee exceeding the allotted two hours (between receiving notification by the Company and submitting a specimen to the assigned clinic) may be subject to dismissal.

Currently, random drug and alcohol selections are done at a rate of 10% of all field employees on an annual basis. The Company reserves the right to increase this rate at its discretion in response to business conditions, more stringent project requirements, or any other factor.

Post-Accident Testing

Post-accident drug testing is conducted when there is reasonable suspicion to believe that an employee is using drugs illegally or is under the influence of drugs or alcohol and the employee is involved in an on-the-job accident that may have involved human error, or otherwise engages in unsafe job-related activity that poses a danger to themselves or fellow employees. Testing will be conducted when there is reasonable suspicion and in accordance with the following criteria:

- Employees involved in a work-related injury, regardless of severity, that requires professional medical treatment, will be subject to testing.

- Employees involved in an accident or safety-related incident of any kind while in a Company vehicle or while on Company time or on Company property, will be subject to a drug test.
- The Company may require an employee who contributed to an accident be tested, if there is reasonable cause to believe that the accident may have resulted from the use of drugs.

Reasonable Suspicion Drug Testing

When there is reasonable suspicion to believe that an employee is using illegal drugs or is under the influence of drugs or alcohol, their supervisor may require that the employee submit to a drug or alcohol test. The circumstances leading to this situation must be thoroughly documented by the supervisor requesting the test. The employee must submit to the testing immediately following the company's request for testing.

Employees with Commercial Driver's Licenses

This portion of the policy applies to C.A. Hull employees with Commercial Driver's Licenses (CDLs) of Class A, B or C as required by federal regulations. All previous portions of this policy are also applicable to employees with CDLs in conjunction with the C.A. Hull DOT Drug Policy for Drivers (distinctions defined in the mandatory Driver Orientation).

Pre-Duty Drug Testing

As required for the issuance of a CDL, CDL holders will be subject to pre-duty DOT drug testing. C.A. Hull must receive negative results prior to the driver beginning work.

Post-Accident Drug Testing

1. The commercial vehicle driver will be required to submit to a drug and/or alcohol test (DOT drug/alcohol test for CDL drivers only. Chauffeur drivers would follow the C.A. Hull Non-DOT post-accident criteria) if the driver is involved in an accident involving a fatality, whether a citation has been issued or not.
2. The commercial vehicle driver will be required to submit to a drug and/or alcohol (DOT drug/alcohol test for CDL drivers only. Chauffeur drivers would follow the C.A. Hull Non-DOT post-accident criteria) if the driver is involved in an accident and one or more of the following occur:
 - If any of the vehicles involved is required to be towed from the scene; or
 - If any person involved requires medical attention away from the scene.

Alcohol testing will be conducted within 2 hours following the accident. If it cannot be conducted within 8 hours, documentation must be provided which gives valid reasons why the testing was not conducted.

Drug testing will be conducted within 8 hours following the accident. If it cannot be conducted within 32 hours, documentation must be provided which gives valid reasons why the testing was not conducted.

Random DOT Drug Testing:

All employees with CDLs are in the DOT random drug testing pool. Currently, DOT random selections are done at a rate of 25% for drug testing, and 10% for alcohol testing. At the time C.A. Hull notifies the employee that a random test is required, they have 2 hours to report to the designated clinic.

Reasonable Suspicion and Return-to-Duty Drug Testing

This testing applies as indicated previously.

Company Responsibilities and Goals

It is the responsibility of the Company's supervisors to counsel employees whenever they see changes in performance or behavior that suggests an employee has a drug or alcohol problem. Although it is not the supervisor's job to diagnose personal problems, the supervisor should encourage such employees to seek help. Everyone shares responsibility for maintaining a safe work environment, and co-workers should encourage anyone whom may have a drug problem to seek help.

The goal of this policy is to balance our respect for individuals with the need to maintain a safe, productive drug- and alcohol-free environment. Employee compliance is a condition of employment.

All employees are expected to comply fully and promptly with instructions issued under the authority of this program. Refusal to submit to testing will result in disciplinary action, up to and including termination of employment.

Supervisor Responsibilities

Supervisors are required to notify management if there is any suspicion that an employee is in violation of this policy. Failure to do so can result in disciplinary action, up to and including termination of employment.

The intent of this policy is to send a clear message that the illegal use of drugs and alcohol is not acceptable at C.A. Hull.

Company Driving Policy

To be eligible to drive for C.A. Hull business purposes, candidates must meet *all three* of the following qualifications:

- 1) Must have an active and valid driver's license and Medical Examiner's Certificate (hereafter referred to as "Med Card") for the type of vehicle to be operated, and keep their license(s) and Med Card with them at all times while driving.
- 2) Cannot have two or more DUI, OWI, or any other alcohol or drug related convictions affecting their driver's license within the past **10** years, if one of the two or more convictions has occurred within the previous **5** years.
- 3) Must complete the C.A. Hull Driver Orientation and have a complete Driver's file as in accordance with the Federal Motor Carrier Safety Administration's regulations prior to operating a company owned vehicle.

Additionally, any current employee who receives a DUI, OWI, or related conviction must take a driver improvement course at his or her own expense in order to remain eligible to drive for company business.

This policy applies to the operation of all company-owned vehicles that are licensed for use on public roads, as well as employees that drive a personal vehicle for business-related reasons.

Requirements:

Employees who drive company vehicles must abide by all state, federal, and C.A. Hull regulations and work rules at all times, and must have an active and valid driver's license for the type of vehicle to be operated. They must also exercise reasonable care in the operation of the company vehicle. The employee will pay all moving violation fines, impoundment recovery costs, and other associated fees unless they are a result of equipment problems not attributed to the employee. The Company will administer any necessary disciplinary procedures, with respect to this policy, on a case-by-case basis as required.

Personal Use:

If an employee is permitted use a vehicle for personal use, only that employee may operate the vehicle. The employee will pay for all gas for personal use. Employees must receive prior approval from a member of management prior to using a company-issued vehicle for personal reasons. At no time will the employee allow a non-employee to drive the vehicle for personal use while said vehicle is in the employee's possession.

Business Use:

Only employees with a valid driver's license will be permitted to operate a vehicle on company business. Other persons (not employees) being transported for business purposes will be permitted to ride only (not operate the vehicle).

Valid CDL or Chauffeur's Drivers' License for All Drivers:

It is the responsibility of the individual to whom the vehicle has been issued to verify that only properly licensed drivers operate that vehicle. *Important Note:* Just because an employee drives to work does not mean that person holds a valid operator's license. Any employee whose job responsibilities require them to drive a company-owned vehicle will be required to sign a form annually that allows C.A. Hull to investigate their driving record. A poor driving record as determined by C.A. Hull management may prohibit certain individuals from driving company-owned vehicles.

FMCSA Med Card Registration at Secretary of State requirements for CDL's:

Commercial drivers who drive vehicles requiring a CDL have certain requirements regarding their CDL registration. Since January 30, 2014, all CDL holders must declare to their State Driver Licensing Agency (SDLA) that they only operate or expect to operate commercially in 1 of 4 possible categories with their CDL. This process is called self-certification. For more information on the self-certification categories see the [Self-Certification FAQ's](http://www.michigan.gov/sos) at <http://www.michigan.gov/sos>

CDL holders must provide their SDLA with a copy of their Medical Certificate. This information is only being added to the State driving records of CDL holders. Non-CDL holders are not required to self-certify or submit a copy of their Medical Certificate to their SDLA. CDL holders, who are found driving in a category other than one to which they self-certified, are subject to suspension or revocation of their commercial driving privileges. CDL drivers, who do not update the expiration date of their Medical Certificate with their State, will have their commercial driving privileges downgraded, and will not be eligible to drive a commercial motor vehicle that requires a CDL.

IMPORTANT: It is the **CDL holder's responsibility** to confirm their Med Card is updated with the State of Michigan prior to your existing/registered Med Card's expiration date every time. Consequences of not registering your new Med Card with the State of Michigan will result in a down-grading of your license to a Chauffeur status. No notice is given to the company or the driver when this happens, but the CSA rating penalties to the company are severe.

Maintenance and Care:

The vehicle will be properly cleaned and maintained at all times. All routine, scheduled maintenance will be conducted in accordance with the manufacturer's specifications as well as C.A Hull's requirements.

Important Note: Special attention should be paid to timely brake and transmission service. Brakes should be serviced before brake rotors or drums are ruined. Transmission fluid and filters must be changed according to the schedule in the owner's manual. Contact the equipment manager if you have any questions regarding the operation or maintenance of a company-owned vehicle.

Driving Under the Influence:

No one, under any circumstance, is to drive or operate a company vehicle while under the influence of alcohol or other drugs. All open container citations will be investigated by the company and may result in the forfeiture of driving privileges.

DOT Log Books and Daily Inspections:

All CDL and chauffeur drivers are required to fill out daily logbook entries for every day while actively employed. Entries are to be made individually for all 7 days of the week. All CDL and chauffeur drivers are required to observe the Federal Hours of Service rules in compliance with the 60 hour/7-day format. The white copy of the log book entries are to be sent into the office at the end of each week for filing, according to federal rules. Each driver is to keep at least the most recent seven previous days' completed logs in an originally bound log book with them for inspection by any police agency (including the seven days' logs prior to start date).

All CDL and chauffeur drivers are required to fill in a daily vehicle inspection report for every truck that they drive throughout each work day. In the event that another driver has already performed an inspection that day, it is the driver's responsibility to verify the vehicles safety and sign off on the "Reviewing Driver" line. The white copy of each daily inspection report must be sent to the office at the end of the week for filing according to federal rules. The daily inspection book must be kept in each truck or tractor for inspection by any police agency.

All citations and penalties received by employees for failing to have current driver log-books and daily inspection reports shall be the responsibility of that employee.

The daily inspection report must be filled out, as it concerns the safe operating condition of the vehicle. Minor problems, such as burned out signal bulbs and windshield solvent, must be remedied by the driver. All drivers are required to report known safety-related defects (i.e. brake issues, electrical issues affecting lights, trailer connections, etc.) on the jobsite to their supervisor immediately. Once repairs are reported to the jobsite supervisor, the supervisor will arrange for repairs with a Company mechanic or an equipment dealer. Needed repairs can be called into the equipment manager as well.

Motor Vehicle Reports:

Drivers Assigned a Vehicle

All employees that drive company vehicles agree to have their motor vehicle driver's license records checked by C.A. Hull at least once per year. Employees with poor or questionable records (more than five points in three years) will be required to take defensive or other driver retraining as determined by C.A. Hull and demonstrate an effort towards improvement. The employee that is identified for such training will pay all expenses for any and all driver retraining. Employees that have accumulated more than 7 points total will not be allowed to drive at all. A continued unacceptable driving record may result in the forfeiture of driving privileges. Forfeiture may require re-assignment to a job that does not require driving company-owned vehicles. Employees refusing to attend defensive driving training will have all driving privileges suspended. This policy also applies to any and all employees, who through the course of work, are required to drive company-owned vehicles.

Moving Violations:

Citations

Any employee who receives a citation for any moving violation while in a company-owned vehicle must report the citation to the Company as soon as possible, and submit a copy within 15 days for Motor Carrier sign-off. The FMCSA requires all Citations and/or Inspections to be retained in the Driver File for 12 months from the date of the event. Employees are responsible for all penalties assessed resulting from a moving violation. The Company will be responsible for equipment deficiency violations, unless such deficiencies were known by the employee prior to driving the vehicle. *Employees receiving moving violations under any circumstance (even while driving their own personal vehicles) will have their company driving privileges evaluated after every citation.*

Reckless Driving

The Company will investigate all reckless driving citations. Reckless driving citations may result in the forfeiture of driving privileges.

Multiple Tickets

Any employee with two or more moving violations within a 12-month period will have their company driving privileges, including personal use, subject to review. Depending on the nature of the violations, the employee's driving privileges may be suspended or revoked.

Accidents:

Police Report

Any employee involved in an automobile accident in a company vehicle must call the police and obtain a report under *ALL* circumstances. Employees must also contact local police agencies when an accident occurs while driving personal vehicles on company business. Copies of the report will be forwarded to the company's insurance carrier. The company's insurance carrier may or may not insure the loss, but must be informed of all vehicle accidents that occur on company time.

Accident Report

An accident report must be completed at the time of any automobile accident in a company vehicle. Forms are available at the home office, and in the safety program. A traffic accident involving a company-owned vehicle may trigger the company's post-accident drug and alcohol testing policy contained in this manual. Drivers of assigned vehicles are expected to send themselves for testing when required by the policy. Jobsite supervisors are expected to send

drivers of "job trucks" in for testing when the accident conditions warrant. Call the Walled Lake office for answers to questions regarding when to direct employees to a local C.A. Hull approved clinic for post-accident testing.

Defensive Driving Classes

Employees involved in an accident in a company-owned vehicle may be required to attend a Defensive Driving Class at their own expense, on their own time, to maintain company driving privileges.

Collision Expense

If an employee is involved in an accident while using a company vehicle for personal use and the employee is at fault, that employee will be required to pay for the cost of the repairs, plus all other related costs, including but not limited to, towing charges and impoundment fees.

100% Seatbelt Usage:

All drivers, employees, and passengers in company-owned vehicles and equipment are required to use seatbelts 100% of the time. Any employee involved in an accident and cited for not wearing a seatbelt is subject to the Company's discipline policy.

Fire Extinguishers:

The company will provide fire extinguishers for all company-owned vehicles as needed. The driver issued the vehicle must inform the company maintenance or safety personnel if these items need servicing. Any vehicle equipped with torches, welders, or gasoline and fuel dispensing tanks must have at least a 10 pound BC rated fire extinguisher secured within the driver's reach inside the vehicle, and with a current and legible inspection tag attached at all times.

Distracted Driving Policy

While the Company acknowledges that cell phones are integral communication tools, employee safety is our primary concern. Drivers are required to use a hands-free device when using the phone while the vehicle is in motion. If the driver does not have a hands-free device and receives a call on a cell phone, the employee may answer once the vehicle is safely pulled over and in park, or call back once the employee is able to safely stop and park the vehicle.

Blue-tooth devices will be provided by C.A. Hull for all drivers upon the authorization of their supervisor.

Additionally, cell phones and other data applications should never be used while driving. Company policy specifically prohibits reading, sending, or typing texts or other electronic communications while operating a vehicle. This includes using web-based applications for business, entertainment, or any other reason outside of a specific emergency requiring such communication.

In states with related laws that exceed the Company's Distracted Driving Policy, drivers must abide by the applicable state law(s) in addition to this policy. Failure to follow this policy may result in disciplinary action up to, and including termination. The driver accepts responsibility for all driver fees related to the offense.

Code of Ethics

It is C.A. Hull Co.'s policy to maintain the highest ethical standards and to comply with all federal, state, and local laws and regulations. Everyone, including employees, shareholders, subcontractors, and suppliers, has a responsibility to actively participate in ethical conduct. This means demonstrating integrity through personal conduct, as well as reporting any suspected violation of our Code of Ethics.

For the purposes of this policy, Corporate Controller Richard White has been identified as our Compliance Director. Employees should report any suspected violations of the Code of Ethics Policy to the Compliance Director or their supervisor immediately. Failing to report suspected unethical behavior carries the same potential consequences as actively engaging in unethical conduct.

Examples of unethical behavior include, but are not limited to:

- Kickbacks or bribes of any kind.
- Violation of the Sherman Act or other antitrust laws, including price fixing or bid rigging.
- Failing to comply with applicable environmental regulations.
- Jeopardizing the safety of employees, customers, subcontractors or suppliers
- Use of alcohol or the abusive or illegal use of drugs on Company time or premises.
- Failing to report workplace accidents of any kind.
- Padding or falsifying of expense accounts.
- Padding or falsifying of time sheets.
- Unauthorized use of company property, vehicles, and supplies.
- The sale of scrap or other waste material for personal gain.
- Conflicts of interest, including working for a competitor, sharing information with a competitor, or using confidential information for personal gain.
- Theft of any kind, regardless of what is stolen and from whom.
- Falsifying of business records of any kind, including progress reports, pay items, change orders, etc.
- Engaging in improper relationships with direct reports, coworkers, suppliers, subcontractors, or customers.

Conflict of Interest

A conflict of interest is anything that could affect or create the appearance of affecting an employee's judgement in fulfilling his or her responsibilities to C.A. Hull. Employees must avoid situations in which their personal interests could conflict with the interests of the Company. This includes an interest in any business or property, or an obligation to or relationship with any supplier, prospective supplier, customer, or consultant that might conflict with the interests of C.A. Hull. Employees should not engage in activities that conflict with or are inconsistent with Company activities or business interests, or that could give an appearance that their judgment, loyalty, or objectivity in the conduct of Company business might be adversely influenced.

Outside employment that creates a conflict of interest is prohibited. Employees also may not receive any income or material gain from individuals outside of the Company for materials produced or services rendered while performing their jobs with the Company. Employees may hold outside jobs so long as they meet the performance standards of their job with the Company and no conflict of interest is created by outside employment. All employees are judged by the same performance standards and are subject to scheduling demands, regardless of any outside

work requirements. If it is determined that an employee's outside work creates a conflict of interest or interferes with performance, safety, or the ability to meet the requirements of the Company, the employee will be asked to terminate the outside employment or resign his/her employment with C.A. Hull.

If you think that any situation may be a potential conflict of interest, you should contact Compliance Director Richard White or your supervisor. Depending upon the particular circumstances of the situation that has been disclosed, C.A. Hull may decide that the situation does not present a conflict of interest, or the Company may, in its discretion, decide to waive the conflict.

As a general rule, common sense should prevail related to conflict of interest concerns. If an employee is at all concerned about a potential conflict of interest, or the potential appearance of a conflict of interest, he or she should bring the concern to the Compliance Director.

Kickbacks, Bribes, and Gifts

The federal Anti-Kickback Act defines a kickback as "any money, fee, commission, credit, gift, gratuity, thing of value or compensation of any kind which is provided, directly or indirectly, to any prime contractor, subcontractor, or employee of either ... for the purpose of improperly obtaining or rewarding favorable treatment in connection with either a prime or subcontract." Kickbacks offered by employees, accepted by employees, or solicited by employees, are prohibited. Any employee who participates in such activity shall be subject to discipline, including termination. Any employee who knows about any such activity and fails to report it to the Compliance Director may be subject to discipline.

A kickback can take many different forms, from an outright payment by a subcontractor, to an offer by a subcontractor to give building materials or supplies to a purchasing agent for his or her personal consumption, to discounts that may be offered to C.A. Hull for the purpose of obtaining favorable business considerations.

If an employee is offered or receives a gift in excess of \$50 from a sub-contractor, customer, vendor, or other related business partner, the employee must report it to the Compliance Director for approval. Similarly, if an employee intends to give a gift in excess of \$50 to a customer, subcontractor, vendor or other related business partner, the employee must get approval prior to doing so.

Section 3: Employment Operations and Practices

Expectations

C.A. Hull expects the following from each employee:

1. While on the job, work to the best of your ability in a productive fashion.
2. Be punctual in regards to arrival times, breaks, and meal periods, and demonstrate an interest in your work so that steady learning and growth shall occur.
3. Model C.A. Hull's core values through your daily work and productivity.
4. Discuss work-related problems or concerns with your supervisor.
5. Demonstrate a concern for your own safety as well as the safety of others.
6. Take pride in yourself and in your work. Maintain a clean and neat work area and work cooperatively with your supervisors and the people with whom you work.
7. Follow the procedures and directives as stated in this Handbook, the C.A. Hull Safety Manual, and those presented to you by your supervisor.

In turn, C.A. Hull shall provide the following for each of its employees:

1. Equal opportunity for all employees.
2. A safe, clean environment in which to work.
3. Steady employment consistent with economic and business conditions.
4. The ability to freely discuss any matter concerning employment in confidence with a supervisor.
5. Sincere effort to assist you in realizing your full career potential.

New Employee Safety Training (N.E.S.T.)

At the outset of employment with C.A. Hull, employees are encouraged to get to know expectations of their new role, fellow team members, and business and safety practices by participating in New Employee Safety Training (N.E.S.T). New employees are required to complete all appropriate forms on or before their first day of employment. No paycheck will be issued until all forms are completed and verified.

Attendance and Punctuality

As part of the C.A. Hull team, your contribution is important to the Company in meeting the needs of our clients. For this reason, regular attendance is expected of every employee. Frequent absences and/or tardiness are disruptive and place a burden on those with whom you work and the Company.

It is understood that, on occasion, illness or urgent personal matters may cause an absence. In the event you cannot avoid being late to work or are unable to work as scheduled, it is your responsibility to notify your supervisor as soon as possible in advance of the anticipated tardiness or absence.

Your supervisor will monitor your attendance. Any cause for concern with excessive absenteeism or tardiness will be handled on an individual basis with your supervisor. Failure to correct an attendance problem may lead to disciplinary action, up to and including termination.

Employees who are absent for three consecutive scheduled days without notifying C.A. Hull (No Call No Show) will be considered to have voluntarily quit their employment.

Dress Code

Dress, grooming, and safety standards contribute to the morale of all employees and affect the professional image C.A. Hull presents to the community. C.A. Hull expects its employees to dress appropriately and for safe work practices at all times.

General work attire guidelines for field staff include:

- T-shirt with minimum 4-inch sleeves
 - Tank tops and halter tops are not acceptable work attire.
- Work pants such as jeans or Dickie's
 - No dress slacks, sweatpants, jogging pants, or shorts are to be worn.
- All clothing should be free of holes and major wear and tear/damage.
- Jewelry - With the exception of wedding rings and small earring studs, no jewelry of any kind (including necklaces, non-stud earrings, and watches) are to be worn.
- Hard leather work boots with ankle support are required.
 - Steel toe work boots are required for chipping hammers, rigging, and all other operations that may result in material falling on the feet.
 - No tennis shoes are permitted.

PPE (Personal Protective Equipment)

Any time an individual is on the job site and outside of a vehicle, hard hats, safety glasses, and vests must be worn. General PPE guidelines for C.A. Hull field staff include:

- Hard hats
 - Must be free of damage and paint, and in good working order.
- Safety glasses
 - ANSI Z87 glasses are mandatory on C.A. Hull job sites.
 - Employees requiring prescription glasses must wear safety glasses over their prescription glasses.
 - If employees choose to wear certified ANSI Z87 prescription glasses, they must have side-shields.
- Vests
 - At minimum, employees are required to wear an ANSI Class 2 high-visibility yellow vest.
 - T-shirts are allowed if they meet ANSI Class 2 vest requirements.
- Gloves
 - Must be worn anytime employees are working with rough, sharp materials, concrete or concrete products, and any other hazardous materials.
 - Gloves are required for knife use as well.

Required PPE may change depending upon the needs of an operation. Please consult the Safety Manual or your supervisor if you have any questions regarding the dress code or PPE.

Employee Problem Solving (Open Door Policy)

C.A. Hull wishes to provide each employee fair and impartial treatment. If at any time you feel you are not being treated fairly, please report the problem immediately to your direct supervisor. When necessary, the Company President will be involved.

Work Rules / Corrective Action

Good working relationships make demands on everyone, and employees have responsibilities to the Company, themselves, and the people with whom they work. An employee's conduct is a major factor affecting the health and growth of the Company. It is also an important aspect of the Company's image within the community.

When management finds an employee's performance unsatisfactory or an employee's conduct and/or behavior are unacceptable, disciplinary action will be taken.

Discipline may range from an informal discussion with the employee to immediate termination, depending upon the Company's opinion of the seriousness of the situation. Any action taken by management in an individual case should not be assumed to establish a precedent in other circumstances.

Property Searches

C.A. Hull reserves the right to conduct at any time, without notice, searches and inspections of employer-provided material in an employee's possession. Additionally, should a search of employee's personal property be required, the company will ask that the employee be present for this search. These abovementioned searches may include, but are not limited to: lunch containers, boxes, purses, lockers, desks, personal computer files, cabinets, file drawers, packages, or vehicles.

Any illegal and unauthorized articles discovered may be taken into custody and will be turned over to law enforcement. Any employee who refuses to submit to a search will be subject to disciplinary action, up to and including termination.

Outside Employment

An employee may have outside employment with the understanding that the other employment must not interfere with the employee's performance at C.A. Hull. An employee who performs outside work has a special responsibility to avoid any conflict with C.A. Hull business interests. Should an employee have another work commitment, it is their responsibility to disclose this information to Human Resources.

After Employment with C.A. Hull

Should you decide to terminate your employment, we expect that you will give us as much advanced notice as possible.

During your employment, you may be exposed to, and obtain control of, a number of items which belong to the Company which include, but are not limited to, work and safety equipment, computer/telephone equipment, etc. You are required to turn in all Company property prior to

receiving your final paycheck. Your actual last day at work will be considered your termination date.

Should a future employer or other entity need to verify your employment with C.A. Hull, please direct any inquiries to Human Resources. It is the Company's policy to verify dates of employment and position held. The Company will only release salary information if we have received a signed release from the employee.

Section 4: Technology and Communication Policies

Increasingly, there are many types of technology available for employees to use at work. Due to the widespread accessibility of different forms of technology, C.A. Hull expects employees to make a conscious effort to protect all work-related material when using different technological devices to communicate externally and internally.

Unacceptable use of technology can place C.A. Hull at risk, while appropriate use helps the Company be more effective and efficient. This policy outlines the Company's guidelines for acceptable use of technology, including, but not limited to, internet and email, as well as Company and employee-owned hardware and software.

Guidelines for Use

C.A. Hull has established the following guidelines for employee use of any technology that is used for business purposes. This includes, but is not restricted to, communication networks, including the Internet and email, as well as company-owned and personal equipment. It is the Company's expectation that all technology be used in an appropriate, ethical, and professional manner.

1. All technology provided by C.A. Hull, including computer systems, communication networks, company-related work records, and other information stored electronically, is the property of the Company and not the employee. In general, use of the Company's technology systems and electronic communications should be job-related and not for personal convenience.
2. Employees who use personal electronic equipment, such as, but not limited to laptops, tablets, and smart phones are required to take appropriate precautions to protect Company data on the device. Precautions include setting passwords for the devices and changing them every 90 days, locking after 5 minutes of non-use, etc.
3. Employees may not use the Company's internet, email, or other electronic communications to transmit, retrieve, or store any communications or other content of a defamatory, discriminatory, harassing, or pornographic nature. No messages with derogatory or inflammatory remarks about an individual's race, age, disability, religion, national origin, physical attributes, sexual preference, or other characteristic protected by law may be transmitted. Harassment of any kind is prohibited.
4. Disparaging, abusive, profane, or offensive language; materials that might adversely or negatively reflect on C.A. Hull or be contrary to its legitimate business interests; and any illegal activities are strictly forbidden.
5. Employees may not use the system in a way that disrupts its use by others. This includes sending or receiving excessive numbers of large files and "spamming" (sending email to thousands of users).
6. To prevent viruses and technological problems, all equipment used for work-related purposes must have valid virus protection.
7. Every employee of C.A. Hull is responsible for the content of all text, audio, or image files that he or she places or sends over the Internet and email systems. No email or other electronic communications may be sent that hide the identity of the sender or represent the sender as someone else. The Company's corporate identity is attached to all outgoing email

communications, which should reflect corporate values and appropriate workplace language and conduct.

8. Email and other electronic communications transmitted by C.A. Hull's equipment, systems, and networks are not private or confidential. The Company reserves the right to examine, monitor, and regulate Company email and other electronic communications, directories, files and all other content, including internet use, transmitted by or stored in its technology systems, whether onsite or offsite.
9. Internal and external email, voice mail, and text messages are considered business records and may be subject to discovery in the event of litigation. Employees must be aware of this possibility when communicating electronically within and outside of the company.
10. Any media inquiries received by employees of C.A. Hull need to be directed the Company President. As a general rule, employees are not permitted to represent the Company when speaking to the media.

C.A. Hull's Right to Monitor and Consequences for Misuse

All company-supplied technology, including computer systems, equipment, and company-related work records, belongs to C.A. Hull and not to the employee user. Employees understand the company has the right to routinely monitor use patterns, and employees should observe appropriate workplace discretion in his/her use and maintenance of such Company property.

Any employee who abuses the company-provided access to email, the internet, or other electronic communications or networks, including social media, may be denied future access, and if appropriate, be subject to disciplinary action, up to and including termination, within the limitations of any applicable federal, state, or local laws.

This policy is not intended to and should not be interpreted to prohibit employees from discussing the terms or conditions of employment or engaging in other protected concerted activities under the National Labor Relations Act. If you have questions or need further guidance, please contact Human Resources.

Company-Issued Phone Policy

1. Cell phones are intended to be used for work-related communication during work hours. Phone service will be adjusted based on the needs of the user as determined by the company.
2. All users are to conduct their smart phone usage in such a manner as to minimize their distractions on the jobsite.
3. Text messaging is prohibited while operating all motor vehicles and equipment. This includes any electronic communication including web-based applications.
4. All users are to minimize their phone calls while driving. Please keep all cell phone distractions to a minimum and pull over to a safe location for necessary communications.
5. Truck Drivers are subject to more legally restrictive usage. See "DOT Cell Phone Policy for Truck Drivers (Both CDL and Chauffeur)" below.

Personal Cell Phones

Personal cell phones are not to be used by employees during work hours. Personal phones that are brought to work are to remain in the employees' vehicles and are not to be brought to the

worksite. Keeping personal phones in cars will ensure a safe work place that is free of distractions for employees as well as their coworkers performing work on the project. Personal cell phones can be carried during work with permission from your supervisor when family emergencies come up. During family emergencies, personal cell phones are only to be used while off the jobsite, and away from any construction operations or activities. No personal phone calls should occur while employees are operating vehicles or are engaged in any type of work activity.

DOT Cell Phone Policy for Truck Drivers (Both CDL and Chauffeur)

The Federal Motor Carrier Safety Administration (FMCSA) has published a final rule that specifically prohibits truck and bus drivers from using hand-held cell phones while operating Commercial Motor Vehicles (CMV). This new rule became effective in Michigan on January 2, 2012 and applies to all CMV truck drivers (operating vehicles in excess of 10,000 pounds).

Both CMV drivers and employers are held accountable under this rule. CMV drivers who violate the restriction could face civil penalties up to \$2,750 for each offense and disqualification from operating a CMV for multiple offenses, given that this violation is considered "Serious" under the Disqualification Rules. Companies that allow their drivers to use hand-held cell phones could face fines up to \$11,000 per incident.

In summary, the rule prohibits holding a cell phone to the ear. Drivers are permitted to use a speaker, earphones, a Bluetooth set up, CBs, and two-way radios. Push-to-talk cell phones are not allowed. If it is not possible to use an acceptable device while on the road, the FMCSA requires drivers to pull off the road, out of traffic, and come to a complete stop. The use of hand-held cell phones while stopped in traffic or at a traffic light is a violation of this regulation. There are no exceptions to these rules.

It is against the law to use a hand-held cell phone in any company vehicle over 10,000 GVW or combined weight over 10,000 pounds. Failure to follow this policy may result in disciplinary action up to, and including termination.

State of Michigan Texting/Data Use Laws

All Michigan drivers (whether a CMV license holder or basic Operator's license holder) are prohibited from texting while driving. Under Michigan's anti-texting law (sec. 257.602.b) a driver shall not "read, manually type, or send a text message on a wireless 2-way communication device that is located in the person's hand or in the person's lap, including a wireless telephone used in cellular telephone service or personal communication service, while operating a motor vehicle that is moving on a highway or street in this state." The exceptions include drivers who:

- Report a traffic accident, medical emergency, or serious road hazard.
- Report a situation in which the person believes his or her personal safety is in jeopardy.
- Report or avert the perpetration or potential perpetration of a criminal act against the individual or another person.
- Carry out official duties as a police officer, law enforcement official, member of a paid or volunteer fire department, or operator of an emergency vehicle.

Related one-touch/voice activated Devices

GPS devices and/or vehicle information or navigation system for use in displaying only information pertaining to vehicle location, available routes and destinations, road layouts, weather conditions, traffic and road conditions, vehicle conditions, or traveler services (including the GPS function on smart phones) are permissible provided the device is secured within the drivers natural field of vision while restrained by a seatbelt, and can be viewed without touching the device, without interfering with the CMV Operator's view or operational control. Electronic devices cannot be mounted or secured in any way that impedes or compromises the vehicle safety equipment (i.e. air bags).

Concealed Pistol License – Company Recommendation to CPL Holders

While possessing firearms while working or in company vehicles is prohibited, officers of the law cannot be expected to be aware of this. It is advised that the CPL holder presents their CPL on top of their CMV License, Med Card, Vehicle Registration, and Proof of Insurance while disclosing there is no firearm in the vehicle whenever stopped for a traffic violation and/or vehicle inspection.

Equipment / D.O.T. Contacts

Jeff Buckley
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Greg Gillard
Yard Manager
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(248) 694-8036

Teresa Wainwright
Admin. Yard Asst. / D.O.T. File
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(248) 694-8059

Christine Niswander
Human Resources,
EEO Officer
cniswander@cahull.com
(248) 694-8061

Richard White
CFO/
Compliance Director
rwhite@cahull.com
(248) 694-8020

Section 5: Compensation, Benefits, and Leaves of Absence

Wages

C.A. Hull employees who are members of a union should see the appropriate collective bargaining agreement for detailed information on wage rates. C.A. Hull considers your wages and personal data confidential.

Health Insurance and Paid Time Off

Union employees should refer to their union's collective bargaining agreement for information on health insurance and paid time off policies.

Leaves of Absence

While C.A. Hull is not legally required to offer leaves of absence, it may, at its discretion, grant an unpaid leave of absence to an employee provided it does not interfere with Company operations. At the time a leave of absence is requested, an agreement must be reached between the employee, the Human Resource Department, and the employee's supervisor regarding the beginning and end dates. In most instances, there will be no interruption of the employee's continuous service. Every effort will be made to reinstate an employee to his/her former position or one comparable upon his/her return from a leave of absence, providing he/she is physically qualified to perform the duties.

Family/Medical/Personal Leaves

As a general rule, employees must be employed for at least one year, *and* for at least 1,250 hours during the preceding 12-month period to be considered for a leave.

All employees who meet the applicable time of service requirements may be granted leave consisting of appropriate accrued paid leave and unpaid leave, for a period of twelve (12) weeks (during any 12-month period) for the following reasons:

- The birth of a child, or placement of a child with you for adoption or foster care;
- Employee's own serious health condition;
- Because employee is needed to care for his or her spouse, child or parent due to his/her serious health condition.
- Because of a qualifying exigency arising out of the fact that employee's spouse, son or daughter or parent is on active duty or call to active duty status in support of a contingency operation as a member of the National Guard or Reserves.
- Because employee is the spouse, son or daughter, parent or next of kin of a covered service member with a serious injury or illness.
- Another personal reason, as requested by the employee, and deemed appropriate by the Company.

Medical Certification

An application for leave based on the serious health condition of the employee or the employee's spouse, child or parent must also be accompanied by a Medical Certification Statement completed by a health care provider. The certification must state the date on which the health condition commenced, the probable duration of the condition, and the appropriate medical facts regarding the condition. Please see Human Resources for the specific forms required for this documentation.

If the employee is needed to care for a spouse, child, or parent, the certification must so state, along with an estimate of the amount of time the employee will be needed. If the employee has a serious health condition, the certification must state that the employee cannot perform the functions of his or her job.

Military Reserves or National Guard Leave of Absence

In accordance with USERRA (Uniformed Services Employment and Reemployment Rights Act of 1994), employees who serve in the U.S. or state military reserves may take the necessary time off without pay to fulfill this obligation and will retain all of their legal rights for continued employment under existing laws. These employees may apply accrued personal leave and unused earned vacation time to the leave if they wish; however, they are not obligated to do so.

You are expected to notify your supervisor as soon as you are aware of the dates you will be on duty so that arrangements can be made for your work group during this absence.

Procedure for Requesting Leave

In all cases, an employee requesting leave must contact Human Resources directly for the appropriate forms and paperwork. When possible, employees should give C.A. Hull 30 days' notice.

Restoration to Employment Following Leave

If employees take leave because of their own serious health condition, they are required to provide medical documentation that they are fit to return to work. Employees will not be permitted to resume working until they are released by their physician. C.A. Hull cannot guarantee that an employee will be returned to his or her original job. A determination as to whether a position is an "equivalent position" will be made by C.A. Hull.

Section 6: Safety

Safety and accident prevention are vital. It is C.A. Hull's intent to prevent personal injury to our employees. It is our goal that: (1) safety hazards be eliminated from all jobs; (2) unsafe acts or conditions be detected, reported, and corrected; and (3) safety consciousness be instilled in all employees.

Listed below are some important, basic guidelines to follow. You must remember that no set of rules can ever assure safe operations. This can only be achieved when you observe the following safety procedures and practices every minute of every workday.

Please see C.A. Hull's Safety Manual for a complete list of safety procedures and guidelines.

- **Unsafe Conditions and Acts:** You must report any unsafe condition, malfunction of a safety device, or any safety hazard immediately to your supervisor.
- **Good Housekeeping:** Work areas should be kept clean, orderly, and free of objects that may result in accidents or injuries to you or to others.
- **Horseplay:** Running, horseplay, or the throwing of any type of material is prohibited.
- **Keep all walkways and emergency exits clear at all times.**
- **Never attempt to push or lift an object that could cause back injury. Remember to lift with your legs and ask for assistance.**

Violation of any Company safety rule may result in disciplinary action, up to and including termination.

Accidents

We all want C.A. Hull to be a safe and healthy place to work. Accidents can be serious, cause pain, and result in loss of production, time, and income. If you see unsafe conditions, report them immediately to your supervisor or the Safety Director so they can be corrected.

You must report all job-related injuries and illnesses to your supervisor and the Safety Department immediately. **The Safety Manual provides more detailed information about reporting injuries and accidents.**

Should an employee become injured at work, employees will be sent to a Company approved medical clinic if medical treatment is necessary. After receiving treatment, documents regarding the visit, future restrictions, and any follow-up must be provided to the Company.

Employee Acknowledgement

I certify that I have received a copy of C.A. Hull's Employee Handbook and understand that it contains important information on the general policies of the Company and on my privileges and obligations as an employee. This Handbook, revised February 2019, supersedes any previous verbal or written policies, statements, understandings or agreements concerning the terms and conditions of employment.

I agree that I have familiarized myself with the material in this Handbook and understand that I am governed by its contents. I understand that failure to comply with the Company's policies and rules may result in disciplinary action, up to and including termination.

I understand that if I require clarification of any policies or procedures contained within this Handbook that it is my obligation to talk with my supervisor or Human Resources. I further understand that the Company may revise, change, or terminate any policies, benefits, or practices described in this Handbook from time to time in its sole and absolute discretion with or without prior notice. Any change to the Handbook will be communicated in writing.

I understand that nothing in this Handbook changes my **at-will** employment status.

Employee Name (Printed)

Employee Signature

Date Signed

OSHA 30HR

Name	Date	Type	Instructor
Jeremy Handley	3/22/2012	C	MITA
Jay Desai	3/22/2012	C	MITA
Zach Underwood	1/28/2013	C	Click Safety
Curt Vogel	3/22/2012	C	MITA
Gary Bischer	3/22/2012	C	MITA
Joe Wesley	3/22/2012	C	MITA
Bob Grifka	3/22/2012	C	MITA
Jamie Moore	3/22/2012	C	MITA
Marth Owen	3/22/2012	C	MITA
Randy Rossow	3/22/2012	C	MITA
Jim Reed	3/22/2012	C	MITA
Rick Smith	10/22/2017	C	Click Safety
Adam Walsh	3/15/2017	C	Click Safety
Clay Malloure	3/10/2017	C	Click Safety
Mark Doolin	6/15/2015	C	Click Safety
Jeff Buckley	12/7/2007	C	MITA
Brandon Fiebiger	1/7/2015	C	Click Safety
Ben Erdei	12/11/2008	C	MITA
Jordan Gilardone	12/12/2013	C	Click Safety
Ben Stachnik	10/26/2016	C	Click Safety
Ken Rochelle	9/25/2019	C	Click Safety
Brandon Webber	2/8/2019	C	Click Safety
Harley Fournier	4/28/2011	C	Click Safety
Curtis Vogel Jr	6/3/2021	C	FSU
Jake Welliver	6/11/2021	C	Click Safety

OSHA 10HR

Name	Date	Type	Instructor
Greg Gillard	2/27/2020	C	Oscar M
Tiffany Ribble	2/27/2020	C	Oscar M
Bob Grifka	2/27/2020	C	Oscar M
Larry Reinardy	2/27/2020	C	Oscar M
Larry Perez JR	2/27/2020	C	Oscar M
Javier Araiza	2/27/2020	C	Oscar M
Pat Fitzgerald	2/27/2020	C	Oscar M
Peter Marcella	2/27/2020	C	Oscar M
James Marcella	2/27/2020	C	Oscar M
Pat Vinokurow	2/27/2020	C	Oscar M
Joe Vinokurow	2/27/2020	C	Oscar M
Jacob Roberson	2/27/2020	C	Oscar M
Jorge Garcia Jr	2/27/2020	C	Oscar M
JC Williams	2/27/2020	C	Oscar M
Klay Gillham	2/27/2020	C	Oscar M
John Jurgers	6/26/2020	C	Oscar M
James Turner	6/26/2020	C	Oscar M
Dave Romatz	6/26/2020	C	Oscar M
Sarah Schafer	6/26/2020	C	Oscar M
Shane Smielewski	6/26/2020	C	Oscar M
Glen Ludeman	6/26/2020	C	Oscar M
Mike Dietrich	6/26/2020	C	Oscar M
Joe Peters	6/26/2020	C	Oscar M
Mike Soule	6/26/2020	C	Oscar M

Last name, First name	Home Email	Job Title	Supervisor	Silica	LEAD	COVID-19	Respirator
Meza, Christian	cmeza@cahull.com	Foreman	Jeremy Handley	X	X	X	X
Witt, Alexander	awitt13@gmail.com	Field Labor	Curt Vogel	X	X	X	X
Harter, Daniel	danielharter1123@gmail.com	Field Carpenter	Jeremy Handley	X	X	X	X
Clinton, Dylan	dylanclinton.DC@gmail.com	Shop Employee	Tiffany Ribble	X	X	X	X
Coaster, Kevin	kcoaster@cahull.com	Foreman	Jeremy Handley	X	X	X	X
Minckiewicz, Craig	Cminck86@gmail.com	Field Carpenter	Jeremy Handley	X	X	X	X
Martinez, Julio	savageadrian873@gmail.com	Field Labor	Jeremy Handley	X	X	X	X
Meehleder, David	meehleder1999@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Franzel, Patrick	Pfranzel24@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Fiedler, Jared	Jfiedler94@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Stolicker, Tyler	Tystolicker@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Kellogg, Steven	stevenkellogg950@yahoo.com	Field Labor	Bob Grifka	X	X	X	X
Lawson, William	Blawson2017@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Jones, Tyler	tylerhjones55@icloud.com	Field Labor	Bob Grifka	X	X	X	X
Mendez Moreno, Noe	noem09044@gmail.com	Field Labor	Curt Vogel	X	X	X	X
Dhooghe, Anna	annadhooghe555@gmail.com	Field Labor	Curt Vogel	X	X	X	X
Vazquez Hernandez, Luis	Luis.vazquezhdz17@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Calzada, Eleazar	eleazarcalzada@yahoo.com	Field Labor	Gary Bischer	X	X	X	X
Rothley, Jeffrey	yeaenjoy@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Marcella, Peter	pmarcella@cahull.com	Foreman	Mark Lindstrom	X	X	X	X
Miller, William	xteam2001@yahoo.com	Field Painter	Mark Lindstrom	X	X	X	X
Becerra-Soto, Cesar	cesarbecerra1990@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
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Wiechert, James	Wickjames22@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Mota, Francisco	fjmota07@yahoo.com	Field Painter	Mark Lindstrom	X	X	X	X
Fetters, Robert	fettersrobert@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
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Yee, Joseph	yeejosep@gmail.com	Field Carpenter	Joe Wesley	X	X	X	X
Heie, Dennis	dennyrheie@gmail.com	Field Carpenter	Joe Wesley	X	X	X	X
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Hornback, Donald	hornback@tds.net	Field Operator	Gary Bischer	X	X	X	X
Jones, Dillard	dillardjones@live.com	Field Carpenter	Jamie Moore	X	X	X	X
Tobias, Nicholas	ntobias015@gmail.com	Field Carpenter	Gary Bischer	X	X	X	X
Yott, Dylan	Dylanyott123@gmail.com	Field Labor	Joe Wesley	X	X	X	X
Acencio, Javier	jacencio@cahull.com	Foreman	Jeremy Handley	X	X	X	X
Ramos, Joel	jramos@cahull.com	Foreman	Jeremy Handley	X	X	X	X
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Molina, Mario	mariomolina2003@hotmail.com	Field Labor	Gary Bischer	X	X	X	X
Araiza, Alejandro	alejandrosjp@gmail.com	Field Labor	Gary Bischer	X	X	X	X
Ballard, Lawrence	Ballardcareer@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Willis, Robert	robertwillis612@gmail.com	Field Labor	Joe Wesley	X	X	X	X

Keller, Nathan	Kellernathan4@gmail.com	Field Labor	Jeremy Handley	X	X	X	X
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Bischer, Bailey	bailey.bischer@gmail.com	Field Carpenter	Gary Bischer	X	X	X	X
Garza, Fredrico	fredgeezy22@yahoo.com	Field Carpenter	Gary Bischer	X	X	X	X
Gengler, Tyler	Tgengler39@yahoo.com	Field Labor	Curt Vogel	X	X	X	X
Marshall, Jeremy	Jeremy.marshallchloe@gmail.com	Field Labor	Jason Cadreau	X	X	X	X
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Stein, Mark	stein.mark84@gmail.com	Field Labor	Curt Vogel	X	X	X	X
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Stanislawski, Nicole	nstanislawski6485@gmail.com	Field Carpenter	Curt Vogel	X	X	X	X
Raymond, Michael	clutteringhen@aol.com	Field Carpenter	Curt Vogel	X	X	X	X
Regentin, Jeffrey	jregentin@gmail.com	Field Carpenter	Curt Vogel	X	X	X	X
Vallade II, Robert	firebob3728@gmail.com	Field Carpenter	Bob Grifka	X	X	X	X
Chamberlain, Ralph	rchamberlain@cahull.com	Foreman	Curt Vogel	X	X	X	X
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Simbler, Dontae	Simbler42@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Short, Tyler	shorttyler2001@gmail.com	Field Labor	Jason Cadreau	X	X	X	X
Hendra, Brendin	Brendinhendra@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Amolsch, David	davidamolsch@gmail.com	Field Carpenter	Bob Grifka	X	X	X	X
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Brabant, Randy	jamielee1577@yahoo.com	Field Labor	Jeremy Handley	X	X	X	X
Wallman, Benjamin	benwallman96@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Rubalcava, Rodolfo	rodolfo.rubalcava67@gmail.com	Field Labor	Gary Bischer	X	X	X	X
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Molina, Sergio	smolina@cahull.com	Foreman	Curt Vogel	X	X	X	X
Diggs, Randi	diggsjr1988@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Moss, Tammy	tammy.lynn73@yahoo.com	Field Carpenter	Gary Bischer	X	X	X	X
Lopez-Romero, Jorge	jromerolopez123@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Hazard, Pierce	pierce_hazard@yahoo.com	Field Painter	Mark Lindstrom	X	X	X	X
Vazquez, Luis	mirna_eagle09@hotmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Lindstrom, Mark	Mlindstrom@cahull.com	Superintendent	Randy Rossow	X	X	X	X
Torres-Mireles, Martin	rocky4mt@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Aguirre-Barajas, Abel	aaguirre@cahull.com	Foreman	Mark Lindstrom	X	X	X	X
Marcella, James	jfm1372@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Ludeman II, Glenn	gludeman@cahull.com	Foreman	Mark Lindstrom	X	X	X	X
Aguirre-Barajas, Alejandro	alejandroaguirre0317@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Savala, J. Javier	javier.savala.59@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Torres, Victor	Ta9184183@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Vela, Michael	michaelvela12@yahoo.com	Field Painter	Mark Lindstrom	X	X	X	X
Strong, Anthony	anthony.strong810@yahoo.com	Field Painter	Mark Lindstrom	X	X	X	X

Brown Jr, David	Draddbrown@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Dietrich Jr, John	jdietz2015@yahoo.com	Foreman	Mark Lindstrom	X	X	X	X
Gibbs, Andrew	agibbs@cahull.com	Foreman	Curt Vogel	X	X	X	X
Nicholas, Rick	rick.c.nicholas@gmail.com	Shop Employee	Tiffany Ribble	X	X	X	X
Howarth, Anthony	Thowarth0215@gmail.com	Shop Employee	Tiffany Ribble	X	X	X	X
Resendez, Emmilliano	sasqua8tch@gmail.com	Field Labor	Jason Cadreau	X	X	X	X
Kelley, Michael	mkelley@cahull.com	Foreman	Mark Lindstrom	X	X	X	X
Roberson, Jacob	jroberson@cahull.com	Foreman	Jason Cadreau	X	X	X	X
Araiza, Javier	jarazia@cahull.com	Foreman	Gary Bischer	X	X	X	X
Garcia, Jr, Jorge	jgarcia@cahull.com	Foreman	Gary Bischer	X	X	X	X
Vinokurow, Patrick	pvinokurow@cahull.com	Foreman	Jeremy Handley	X	X	X	X
Vinokurow, Joseph	jvinokurow@cahull.com	Foreman	Jason Cadreau	X	X	X	X
Moss, Michael	mmoss@cahull.com	Foreman	Gary Bischer	X	X	X	X
Chesney, Charles	chesney.chuck@yahoo.com	Field Labor	Curt Vogel	X	X	X	X
Peters, Joseph	jpeters@cahull.com	Foreman	Jeff Buckley	X	X	X	X
Cobb, Lawrence	lcobb@cahull.com	EHS- Field	Paul Louzecky	X	X	X	X
Brandel, Jonathan	jbrandel@cahull.com	Foreman	Joe Wesley	X	X	X	X
Reinardy, Lawrence	lreinardy@cahull.com	Foreman	Bob Grifka	X	X	X	X
Jones, Michael	mikejonesriver@gmail.com	Field Carpenter	Gary Bischer	X	X	X	X
Weaver, Jacob	jacobweaver34@yahoo.com	Field Labor	Curt Vogel	X	X	X	X
Gernot, Jeffrey	j.gernot23@gmail.com	Field Carpenter	Gary Bischer	X	X	X	X
Wheeler, Joseph	Cloudedbroly@yahoo.com	Field Labor	Gary Bischer	X	X	X	X
Molina, Jesus	imolina42@yahoo.com	Field Labor	Bob Grifka	X	X	X	X
Garcia, Juan	maneljuan65@gmail.com	Field Labor	Bob Grifka	X	X	X	X
Gillham, Klay	Kgillham@cahull.com	Foreman	Jason Cadreau	X	X	X	X
Perez, Larry	lperez@cahull.com	Foreman	Bob Grifka	X	X	X	X
Fisher, Timothy	tfisher_2011@hotmail.com	Field Labor	Bob Grifka	X	X	X	X
Vogel Jr, Curtis	Curtisvogel3481@gmail.com	Field Labor	Curt Vogel	X	X	X	X
Tapia, Victor	victortapia20@yahoo.com	Field Labor	Gary Bischer	X	X	X	X
Gerhardt Jr, Steven	sgerhardt@cahull.com	Foreman	Joe Wesley	X	X	X	X
Garcia, Daniel	d_garcia34@yahoo.com	Field Labor	Gary Bischer	X	X	X	X
Saylor, Grover	gconleysaylor@gmail.com	Field Labor	Curt Vogel	X	X	X	X
Smielewski, Shane	ssmielewski@cahull.com	Foreman	Gary Bischer	X	X	X	X
Romat, Dave	dromatz@cahull.com	Foreman	Gary Bischer	X	X	X	X
Salowitz, Samuel	samuelsalowitz@gmail.com	Field Labor	Curt Vogel	X	X	X	X
Amador, Nicholas	nickamador09@yahoo.com	Field Labor	Joe Wesley	X	X	X	X
Stringer, Hugo	twesley1027@gmail.com	Field Painter	Mark Lindstrom	X	X	X	X
Cejmer, Jeffrey	cejmerj@gmail.com	Shop Employee	Tiffany Ribble	X	X	X	X

NAME	COURSE	COMPLETED	EXPIRATION
GRIFKA, RC	Adult CPR & First Aid	6/7/2021	6/7/2023
BUCKLEY, J	Adult CPR & First Aid	12/16/2021	12/16/2023
SHINN, JAS	Adult CPR & First Aid	2/22/2022	2/22/2024
POPA, MAI	Adult-Child-Infant CPR Classes/AED & First Aid	1/26/2021	1/26/2023
WINWRIGHT	Adult-Child-Infant CPR Classes/AED & First Aid	2/25/2022	2/25/2024
UNDERWOOD	Adult-Child-Infant CPR Classes/AED & First Aid	2/7/2022	2/7/2024
DOOLIN, M	Adult-Child-Infant CPR Classes/AED & First Aid	2/8/2022	2/8/2024
ROSSOW, F	Adult-Child-Infant CPR Classes/AED & First Aid	1/25/2021	1/25/2023
MOLINA, SI	Adult-Child-Infant CPR Classes/AED & First Aid	2/5/2022	2/5/2024
VINOKURO	Adult-Child-Infant CPR Classes/AED & First Aid	2/7/2021	2/7/2023
MORSE, DA	Adult-Child-Infant CPR Classes/AED & First Aid	5/12/2021	5/12/2023
VOGEL, CU	Adult-Child-Infant CPR Classes/AED & First Aid	2/12/2021	2/12/2023
STACHNIK,	Adult-Child-Infant CPR Classes/AED & First Aid	1/27/2021	1/27/2023
CHAMBERLAIN	Adult-Child-Infant CPR Classes/AED & First Aid	4/30/2021	4/30/2023
GIBBS, ANI	Adult-Child-Infant CPR Classes/AED & First Aid	2/3/2021	2/3/2023
MOTZ, ELIA	Adult-Child-Infant CPR Classes/AED & First Aid	2/4/2022	2/4/2024
BROTHERTON	Adult-Child-Infant CPR Classes/AED & First Aid	3/15/2021	3/15/2023
VOGEL, CU	Adult-Child-Infant CPR Classes/AED & First Aid	5/3/2021	5/3/2023
STARK, JUS	Adult-Child-Infant CPR Classes/AED & First Aid	5/3/2021	5/3/2023
WELLIVER,	Adult-Child-Infant CPR Classes/AED & First Aid	5/3/2021	5/3/2023
EDWARDS,	Adult-Child-Infant CPR Classes/AED & First Aid	2/8/2022	2/8/2024
WEBBER, B	Adult-Child-Infant CPR Classes/AED & First Aid	2/4/2022	2/4/2024
FERGUSON	Adult-Child-Infant CPR Classes/AED & First Aid	2/8/2022	2/8/2024
GENGLER, I	Adult-Child-Infant CPR Classes/AED & First Aid	2/13/2022	2/13/2024
ACENCIO, J	Adult-Child-Infant CPR Classes/AED & First Aid	2/16/2022	2/16/2024
WILLIAMS,	Adult-Child-Infant CPR Classes/AED & First Aid	2/4/2022	2/4/2024
BUCKLEY, J	Adult-Child-Infant CPR Classes/AED & First Aid	2/9/2022	2/9/2024
JURGES, JO	Adult-Child-Infant CPR Classes/AED & First Aid	2/21/2022	2/21/2024
BRANDEL, J	Adult-Child-Infant CPR Classes/AED & First Aid	2/7/2022	2/7/2024
COBB, LO	Adult-Child-Infant CPR Classes/AED & First Aid	2/19/2022	2/19/2024
LINDSTROM	Adult-Child-Infant CPR Classes/AED & First Aid	2/7/2022	2/7/2024
KELLY, MIK	Adult-Child-Infant CPR Classes/AED & First Aid	2/24/2022	2/24/2024
MARCELLA	Adult-Child-Infant CPR Classes/AED & First Aid	2/8/2022	2/8/2024
RIBBLE, TIF	Adult-Child-Infant CPR Classes/AED & First Aid	2/4/2022	2/4/2024
LOUZECKY,	Adult-Child-Infant CPR Classes/AED & First Aid	2/4/2022	2/4/2024
SMITH, BR/	Adult-Child-Infant CPR Classes/AED & First Aid	2/4/2022	2/4/2024
PETERS, JO	Adult-Child-Infant CPR Classes/AED & First Aid	2/15/2022	2/15/2024
GIBBS, ANI	Adult-Child-Infant CPR Classes/AED & First Aid	2/14/2022	2/14/2024
MALLOURE	Adult-Child-Infant CPR Classes/AED & First Aid	2/11/2022	2/11/2024

Year

2017

Training Topic: All things fall related

Instructor: Paul Louzecky

Date	Name	Group ID	Duty to have fall protection	Inspection and maintenance	How to wear fall protection	Ladders and stairs	Housekeeping	Guardrails and barricades
3/16/2017	Mike Copeland SR	Jeremy H	X	X	X	X	X	X
3/16/2017	Louey Mnsor	Jeremy H	X	X	X	X	X	X
3/16/2017	Tom Kipen	Jeremy H	X	X	X	X	X	X
3/16/2017	Mike Copeland JR	Jeremy H	X	X	X	X	X	X
3/16/2017	Pat Vinokurov	Jeremy H	X	X	X	X	X	X
3/16/2017	Walter Diyon	Jeremy H	X	X	X	X	X	X
3/16/2017	Randy Brabant JR	Jeremy H	X	X	X	X	X	X
3/16/2017	Tim Gardner	Jeremy H	X	X	X	X	X	X
3/16/2017	Christian Meza	Jeremy H	X	X	X	X	X	X
3/16/2017	William Perez	Jeremy H	X	X	X	X	X	X
3/16/2017	Javier Acencio	Jeremy H	X	X	X	X	X	X
3/16/2017	Kevin Coaster	Jeremy H	X	X	X	X	X	X
3/16/2017	Joel Ramos	Jeremy H	X	X	X	X	X	X
3/16/2017	Brian Handley	Jeremy H	X	X	X	X	X	X
3/17/2017	Luke Copeland	Gary B	X	X	X	X	X	X
3/17/2017	Dennis Wilson	Gary B	X	X	X	X	X	X
3/17/2017	Terry Wright	Gary B	X	X	X	X	X	X
3/17/2017	Miguel Mendez	Gary B	X	X	X	X	X	X
3/17/2017	James Turner	Gary B	X	X	X	X	X	X
3/17/2017	Cardell Morron	Gary B	X	X	X	X	X	X
3/17/2017	Joe Paget	Gary B	X	X	X	X	X	X
3/17/2017	Seth Lott	Gary B	X	X	X	X	X	X
3/17/2017	Shane Smielenski	Gary B	X	X	X	X	X	X
3/17/2017	Rudy ?	Gary B	X	X	X	X	X	X
3/17/2017	Dave Romatz	Gary B	X	X	X	X	X	X
3/17/2017	Lisandro Lopez	Gary B	X	X	X	X	X	X
3/17/2017	Mario Molina	Gary B	X	X	X	X	X	X
3/17/2017	David Weaver	Gary B	X	X	X	X	X	X
3/17/2017	Eric Briolot	Gary B	X	X	X	X	X	X
3/17/2017	Bailey Bischer	Gary B	X	X	X	X	X	X
3/17/2017	Tammy Moss	Gary B	X	X	X	X	X	X
3/17/2017	Samantha Jordan	Gary B	X	X	X	X	X	X
3/17/2017	John Jurges	Gary B	X	X	X	X	X	X
3/17/2017	Eric Kantz	Gary B	X	X	X	X	X	X
3/17/2017	William Sancen	Gary B	X	X	X	X	X	X
3/17/2017	Tyrell Dalton	Gary B	X	X	X	X	X	X
3/17/2017	Scott Osenetoski	Gary B	X	X	X	X	X	X
3/17/2017	Artuno Sancen	Gary B	X	X	X	X	X	X
3/17/2017	Josh Lott	Gary B	X	X	X	X	X	X
3/17/2017	Victor Lont	Gary B	X	X	X	X	X	X
3/17/2017	Scott Danaldson	Gary B	X	X	X	X	X	X
3/17/2017	Evan Gejerstsaeen	Gary B	X	X	X	X	X	X
3/17/2017	Jamie Holley	Gary B	X	X	X	X	X	X
3/17/2017	Patrick Fellows	Gary B	X	X	X	X	X	X
3/17/2017	Ben Erdei	Gary B	X	X	X	X	X	X

2018

Name	Date	Primary Trainer(s)	Location	Company	Duty to have fall protection	Inspection and maintenance	How to wear fall protection	Ladders and stairs	Housekeeping	Guardrails and barricades	Scaffolding
Stanley Krug	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Angelo Manning	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Nicolas Amador	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Perry Blair	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bryon Thompson	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Darren Dockery	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
David Brown Jr	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brandon Dietrich	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Girard Goode	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kevin Koop	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kevin MacKenzie	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Victor Tapia	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
David Vela	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Joshua Horstman-Foster	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jose Reyes	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Nathan Davis	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Corey Grantham	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
DonJuan Jackson	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jennifer Jordan	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jamie Kaslowski	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jamie Kaslowski	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hunter McGough	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Richard Miller II	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jacob Moody	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Rick Moss	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Trenton Peruski	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kenneth Rochelle Jr	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brian Tibai	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kenneth Nelson Jr	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Reynaldo Marquez	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jay Bowden	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Esteban Cisneros	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jason Reed	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Chad Schaffner	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Shawn Shelton	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jerrold Lang	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
David Shaw	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kelsey Capling	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Aaron Duda	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jared Fiedler	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Patrick Franzel	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
J Cruz Ibarra-Davila	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X

Joey	Neely	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Richard	Reich	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jonathan	Street II	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Robert	Zielinski	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Andree	Spolsky	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Colton	Dietz	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Steven	Frost	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Cody	Hodgins	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
White	Michael	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Nicole	Stanislawski	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Todd	Strozeski	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Matthew	Tankersly	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Matthew	Tankersly	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Christopher	Vaquera	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Joseph	Wheeler	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Charles	Maida III	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kenya	Jennings	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gary	Allyn	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Mitchell	Hawkins	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Anthony	Hensley	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Alan	Sutton	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Matthew	Thomas	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Nathan	Brandt	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
David	Gorkowski	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bradley	Muckenhirn	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Robert	O'Quinn III	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Michael	Thomsen	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kisha	VanBuren	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Adam	Willis	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Scott	Wood	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jamar	Jordan	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Ronald	Redmond	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Michael	Roussey	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Josh	Sharpe	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Alejandro	Tabarez-Garcia	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jason	Yurek	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Leandro	Chavez	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Adam	Worley	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Matthew	Zweng	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kyle	Barger	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Alisha	Drain	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brennis	Harrison	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Chiranjiv	Singh	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Anthony	Strong	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Michael	Vela	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Steve	Hildreth	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Scottie	Risden	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Juan	Nunez-Segura	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Marteez	Johnson	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Victor	Torres	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Levi	Block	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Roderick	Covington	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brenden	Handley	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Donte	Jones	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
David	Starnes	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Mark	Pero	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Adam	Zebley	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Dylan	Fritz	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Keenan	Beattie	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brandon	Muckenhirn	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Javier-Jose	Savala	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Veronica	Coke	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Dezmon	Jamerson	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jorge	Bueno Jr	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gino	Quintana	5/6- 5/10/18	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X

2019

Name	Date	Primary Trainer(s)	Location	Company	Duty to have fall protection	Inspection and maintenance	How to wear fall protection	Ladders and stairs	Housekeeping	Guardrails and barricades	Scaffolding
Acencio, Javier	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Adams Jr, James	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Aguirre-Barajas, Abel	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Aguirre-Barajas, Alejandro	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Amador, Nicholas	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Amolsch, David	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Araiza, Alejandro	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Araiza, Javier	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Archibald, Brandon	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Armstead, Daniel	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Armstead, Edward	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
August, Marcus	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Austin, Eric	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Baker, Austin	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Balazy, Ryan	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Barger, Keith	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Barger, Kyle	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Becerra-Soto, Cesar	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Becker, Jesse	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bergtold, John	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bischer, Bailey	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bischer, Gary	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bischer, Josh	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Block, Evan	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Block, Levi	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brabant, Randy	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brandel, Jonathan	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brazill, Denzel	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brennan, Brian	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brown Jr, David	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brown, Michael	5/6- 5/10/19	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X

Jay	Desai	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Veronica	Coke	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Jacob	Kruse	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Mike	Colandra	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Matt	Thomas	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Lane	Schmid	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Bill	Fish	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Seth	Rossov	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
Anthony	Howarsil	7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X
		7/18/2019	Greg G	Shop	CAH	X	X	X	X	X	X	X

2020												
Name	Date	Primary Trainer(s)	Location	Company	Duty to have fall protection	Inspection and maintenance	How to wear fall protection	Ladders and stairs	Housekeeping	Guardrails and barricades	Scaffolding	
Acencio, Javier	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Adams Jr, James	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Aguirre-Barajas, Abel	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Aguirre-Barajas, Alejandro	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Amador, Nicholas	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Amolsch, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Araiza, Alejandro	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Araiza, Javier	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Archibald, Brandon	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Armstead, Daniel	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Armstead, Edward	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
August, Marcus	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Austin, Eric	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Baker, Austin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Balazy, Ryan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Barger, Keith	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Barger, Kyle	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Becerra-Soto, Cesar	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Becker, Jesse	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Bergtold, John	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Bischer, Bailey	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Bischer, Gary	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Bischer, Josh	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Block, Evan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Block, Levi	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Brabant, Randy	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Brandel, Jonathan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Brazill, Denzel	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Brennan, Brian	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Brown Jr, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Brown, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Brown, Trey	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Bruce, Eric	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Cadrea, Jason	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Calandra, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Calzada, Eleazar	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Cantu, Juancristobal	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Cejmer, Jeffrey	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Cejmer, Kyle	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Chamberlain, Ralph	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Chavez, Leandro Emanuel	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Chesney, Charles	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Clinton, Dylan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Coaster, Kevin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Cobb, Lawrence	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Coke, Veronica	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Collins, Bradley	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Collins, Frank	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Conant, Mathias	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Cope, Basil	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Crandall, Timothy	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Davis, Raymond	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
DeLand, Sonny	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Desai, Jayasing	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Dietrich Jr, John	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Dietrich Jr, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Dietrich, Brandon	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Diggs, Randi	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Dockery, Darren	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Doolin, Mark	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Dowling, Christopher	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Dungerow, Erik	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Easlick, Tristan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Edwards, Robert	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Ennis, Brian	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Erdei, Benjamin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Erdmann Jr, Daniel	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Falsetta, Nicholas	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Fiedler, Jared	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Fish, William	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Fisher, Timothy	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Foshie, John	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Franzel, Patrick	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Frazier, Robert	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Fritz, Dylan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Garcia, Jorge	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Garcia, Jr, Jorge	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Garcia, Juan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Gardner, Timothy	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Garry, Zave	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Garza, Fredrico	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Gater, Kendric	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Geiersbach, Evan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Gengler, Craig	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Gengler, Curt	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	
Gengler, Damon	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	

Gengler, Erica	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
George, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gerhardt Jr, Steven	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gernot, Jeffrey	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gibbs, Andrew	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gillard, Gregory	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gillham, Klay	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gonzalez, Jesus	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Goode, Girard	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Graff, Jeffrey	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Grantham, Gerald	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gray, Brian	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Greer, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Greer, Markese	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Greyerbiehl, Paul	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Grifka, John	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Grifka, Robert	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Grifka, Thomas	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Grochowski, Brock	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Guardiola, Henry	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Gutierrez, Leonardo	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Handley, Brenden	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Handley, Brian	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Handley, Jeremy	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hardy, Joshua	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Havens, Brett	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hazard, Pierce	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Heie, Dennis	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hendra, Brendin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hermes, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hester, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hildreth, Steve	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hogue, Taylor	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Holcomb, Jonathan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Holmes, Demetrius	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Holmes, Hunter	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hornback, Donald	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Horst, Bradley	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Horton, Gary	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Howard, Amir	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Howard, Patrick	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Howarth, Anthony	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Howell, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Howlett, Marla	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hull, Gar	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hunt, Daniel	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Hunter, Christopher	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Ibarra, Joaquin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Ingram, Loren	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Innes, Don	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jimenez, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Johnson, Kenneth	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jones, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jones, Tyler	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jordan, Jennifer	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jordan, Matthew	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jordan, Reese	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jordan, Samantha	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jozwiak, Stephen	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Jurges, John	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Katz, Eric	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Keller, Gregory	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kelley, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Klee, Ronald	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Klein, Jason	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Koop, Nathan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Krohn Sr, Ryan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Krusen, Jacob	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Kubacki, Jason	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
LaBrecque, Vincent	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lara, Jesus	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Leo, Joshua	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Leppien, Joseph	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Leppien, Robert	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lindauer, George	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lindstrom, Mark	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lopez-Romero, Jorge	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lopez, Anthony	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lopez, Lisandro	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Losey, Marcus	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lott, Austin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Lott, Joshua	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Ludeman II, Glenn	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
MacDonald, Joseph	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Maldonado Plascencia, Jose	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Mallory, James	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Mallory, Richard	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Mansfield, Devin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Marcella, James	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Marcella, Peter	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Marrero Diaz, Fernando	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Martinez, Francisco	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
McDonald, Keenan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
McKay, Jacqueline	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Mendez, Miguel	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Meza, Christian	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Miller, Eric	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Miller, Jonathan	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Miller, William	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Mitchell, Kandice	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Molina, Jesus	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X

Theis, Lee	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Thomas, Matthew	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Thompson, Bryon	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Thomsen, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Tobias, Nicholas	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Torres-Mireles, Martin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Torres, Victor	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Turner, James	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Twitchell, Brad	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vallade II, Robert	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
VanBuren, Kisha	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vargas, Xavier	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vazquez, Luis	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vega, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vela, Michael	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vinokurov, Joseph	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vinokurov, Patrick	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vogel Jr, Curtis	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Vogel, Curtis	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wainwright, Teresa	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wallman, Benjamin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wcisel, Kenneth	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Weaver, David	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Weaver, Jacob	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wesley Jr, Joseph	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wesley, Chelsea	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wesley, Joseph	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wheeler, Joseph	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
White, Richard	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wiechert, James	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Williams, JC	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Williams, Nikolai	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Williams, Wilmot	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Winfrey, Jake	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Winfrey, Jerry	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Winslow, Austin	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Wright, Terrance	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Yore, Dennis	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Young, Robert	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X
Zieleck, Casey	7/13-7/17/20	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X	X

2021

Name	Date	Primary Trainer(s)	Location	Company	Duty to have fall protection	Inspection and maintenance	How to wear fall protection	Ladders and stairs	Housekeeping	Guardrails and barricades	Scaffolding
Acencio, Javier	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Adams Jr, James	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Aguirre-Barajas, Abel	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Aguirre-Barajas, Alejandro	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Amador, Nicholas	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Amolsch, David	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Araiza, Alejandro	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Araiza, Javier	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Archibald, Brandon	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Armstead, Daniel	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Armstead, Edward	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
August, Marcus	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Austin, Eric	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Baker, Austin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Balazy, Ryan	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Barger, Keith	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Barger, Kyle	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Becerra-Soto, Cesar	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Becker, Jesse	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bergtold, John	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bischer, Bailey	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bischer, Gary	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bischer, Josh	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Block, Evan	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Block, Levi	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brabant, Randy	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brandel, Jonathan	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brazill, Denzel	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brennan, Brian	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brown Jr, David	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brown, Michael	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Brown, Trey	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Bruce, Eric	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Cadreau, Jason	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Calandra, Michael	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Calzada, Eleazar	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Cantu, Juancristobal	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Cejmer, Jeffrey	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Cejmer, Kyle	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Chamberlain, Ralph	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Chavez, Leandro Emanuel	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Chesney, Charles	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Clinton, Dylan	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Coaster, Kevin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Cobb, Lawrence	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Coke, Veronica	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Collins, Bradley	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Collins, Frank	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Conant, Mathias	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Cope, Basil	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Crandall, Timothy	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Davis, Raymond	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
DeLand, Sonny	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Desai, Jayasing	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Dietrich Jr, John	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Dietrich Jr, Michael	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X

Smielewski, Shane	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Smith, Justin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Snyder, Matthew	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Sojka, Brian	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Soule, Darren	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Soule, Douglas	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Soule, Michael	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Spangler, Shannon	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stachnik, Benjamin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stanford, Jared	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stanislawski, Nicole	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stanton, Juanita	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stark, Justin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Starnes, David	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stein, Mark	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stimson, Charles	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stolicker, Drew	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stone Jr, Jeffrey	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stover, Eric	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Stringer, Hugo	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Strong, Anthony	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Studer, Blake	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Tapia, Victor	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Tatangelo, Michael	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Taylor, Barbryallen	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Theis, Lee	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Thomas, Matthew	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Thompson, Bryon	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Thomsen, Michael	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Tobias, Nicholas	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Torres-Mireles, Martin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Torres, Victor	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Turner, James	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Twitchell, Brad	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vallade II, Robert	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
VanBuren, Kisha	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vargas, Xavier	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vazquez, Luis	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vega, David	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vela, Michael	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vinokurov, Joseph	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vinokurov, Patrick	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vogel Jr, Curtis	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Vogel, Curtis	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wainwright, Teresa	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wallman, Benjamin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wcisel, Kenneth	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Weaver, David	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Weaver, Jacob	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wesley Jr, Joseph	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wesley, Chelsea	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wesley, Joseph	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wheeler, Joseph	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
White, Richard	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wiechert, James	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Williams, JC	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Williams, Nikolai	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Williams, Wilmot	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Winfrey, Jake	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Winfrey, Jerry	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Winslow, Austin	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Wright, Terrance	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Yore, Dennis	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Young, Robert	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X
Zieleck, Casey	9/6-9/10/21	CAH/ Paul L	All Jobs	CAH	X	X	X	X	X	X	X

Fork-lift/ Man-lift/ Signal training

EXP 2024

Date	Name	Trainer	Location	RT-FL	RT Basket	Man/ Sci- I	Signal
4/28/2021	Brittany Clark	Lo, C	Field	X	X	X	X
4/28/2021	Jared Fiedler	Lo, C	Field	X	X	X	X
4/28/2021	Dylan Cunton	Lo, C	Field	X	X	X	X
4/28/2021	Griffen Peruski	Lo, C	Field	X	X	X	X
4/28/2021	Randy Brabant Jr	Lo, C	Field	X	X	X	X
4/28/2021	Nick Bartel	Lo, C	Field	X	X	X	X
4/28/2021	Mark Davis	Lo, C	Field	X	X	X	X
4/28/2021	Greg Keller	Lo, C	Field	X	X	X	X
4/28/2021	Mike Jones	Lo, C	Field	X	X	X	X
4/29/2021	Logan Ashley	Lo, C	Field	X	X	X	X
4/29/2021	Brian Brennan	Lo, C	Field	X	X	X	X
4/29/2021	Brayden Jandell	Lo, C	Field	X	X	X	X
4/29/2021	Chris Burnush	Lo, C	Field	X	X	X	X
5/5/2021	John Brandel	Lo, C	Field	X	X	X	X
5/5/2021	Patrick Seifert	Lo, C	Field	X	X	X	X
5/5/2021	Jenna Sawyer	Lo, C	Field	X	X	X	X
5/5/2021	Marvin Harding III	Lo, C	Field	X	X	X	X
5/5/2021	Aaron Bland	Lo, C	Field	X	X	X	X
5/11/2021	Brandan Christensen	Lo, C	Field	X	X	X	X
5/11/2021	Cory Limberger	Lo, C	Field	X	X	X	X
5/12/2021	Glenn Sturgis	Lo, C	Field	X	X	X	X
5/12/2021	Orlando Meza	Lo, C	Field	X	X	X	X
5/12/2021	Ethan Yore	Lo, C	Field	X	X	X	X
5/13/2021	Rain Norris	Lo, C	Field	X	X	X	X
5/24/2021	Jake Winfrey	Lo, C	Field	X	X	X	X
5/24/2021	Sam Kreiner	Lo, C	Field	X	X	X	X
5/24/2021	Spencer Lake	Lo, C	Field	X	X	X	X
5/24/2021	Nathan Weatherford	Lo, C	Field	X	X	X	X
5/24/2021	Ian Carsten	Lo, C	Field	X	X	X	X
5/24/2021	James Stidham	Lo, C	Field	X	X	X	X
5/24/2021	Nick Burgess	Lo, C	Field	X	X	X	X
5/24/2021	Henery Gugrdiola	Lo, C	Field	X	X	X	X
5/24/2021	Hunter Anderson	Lo, C	Field	X	X	X	X
5/24/2021	Victor Tapia	Lo, C	Field	X	X	X	X
6/15/2021	Joseph Matichak	Lo, C	Field	X	X	X	X
6/15/2021	Chad Laidler	Lo, C	Field	X	X	X	X
6/15/2021	Jalal Muhammad	Lo, C	Field	X	X	X	X
6/15/2021	Dustin Cummings	Lo, C	Field	X	X	X	X
6/15/2021	Chris Hoort	Lo, C	Field	X	X	X	X
6/15/2021	Tim Beringer	Lo, C	Field	X	X	X	X
7/7/2021	Matt Sarver	Lo, C	Field	X	X	X	X
7/7/2021	Dozzio Trapiss	Lo, C	Field	X	X	X	X

7/7/2021	Angelo Garcia	Lo, C	Field	X	X	X	X
7/7/2021	Mike Ellis	Lo, C	Field	X	X	X	X
7/7/2021	Ellis Hamerweeks	Lo, C	Field	X	X	X	X
7/7/2021	Gavin Weber	Lo, C	Field	X	X	X	X
7/7/2021	Gabe Weber	Lo, C	Field	X	X	X	X
8/4/2021	Curt Gangler	Lo, C	Field	X	X	X	X
8/4/2021	Amber Szakal	Lo, C	Field	X	X	X	X
8/4/2021	Andrew Corravo	Lo, C	Field	X	X	X	X
8/4/2021	Kodey Trudell	Lo, C	Field	X	X	X	X
8/4/2021	Mike Brown	Lo, C	Field	X	X	X	X
8/4/2021	Elijah Voss	Lo, C	Field	X	X	X	X
8/4/2021	Joseph Yee	Lo, C	Field	X	X	X	X
8/4/2021	Issa Ball	Lo, C	Field	X	X	X	X
9/8/2021	William Graham	Lo, C	Field	X	X	X	X
9/13/2021	Ryan Krohn Sr	Lo, C	Field	X	X	X	X
9/13/2021	Mackenzie Wonifanth	Lo, C	Field	X	X	X	X
9/13/2021	Nick Davis	Lo, C	Field	X	X	X	X
9/13/2021	Jerel Cowart	Lo, C	Field	X	X	X	X
9/13/2021	Greg Fekin	Lo, C	Field	X	X	X	X
9/13/2021	Tammy Moss	Lo, C	Field	X	X	X	X
9/17/2021	Andrew White	Lo, C	Field	X	X	X	X
9/17/2021	Anthony Dear	Lo, C	Field	X	X	X	X
9/17/2021	Chad Haynes	Lo, C	Field	X	X	X	X
10/4/2021	Cody Brown	Lo, C	Field	X	X	X	X
10/4/2021	Jeff Cesal	Lo, C	Field	X	X	X	X
11/1/2021	Johnny Duty	Lo, C	Field	X	X	X	X

Rigging Safety Training

2018								
Name	Date	Primary Trainer(s)	Location	Company	Inspection	Slings/ hook	Lifting Safety	Signal
Jamie Moore	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Ben Stachwin	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Lawrence Cobb	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Donte Jones	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Lee Theis	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Paul Louzecky	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Dan Hunt	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
ED Armstead	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Todd Strozeks	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Larry Perez	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Joe Brandel	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Klay Gillham	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
David Starnes	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Joe Peters	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Kyle Barger	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Jesse Moody	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Paul Greyebiehl	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
James Adams Jr.	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Damon Morse	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Loren Ingram	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Dave Amolsch	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Alejandro Aguirre	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Cal Ludeman	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Glenn Lindermin	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
William Miller	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Ben Erdei	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Victor Torres	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Luis Vazquez	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Patrick Howard	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Mike Habiau	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Tristan Enslick	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Kenya Jennings	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Jason Reed	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Pat Franzel	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Taylor Hogue	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Dylan Fritz	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Matthew Thomas	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Charles Maida	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Thomas Brennon	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Justin Chamberlain	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Blake Stnder	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Richard Smith	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Keenan Beattie	7/20/2018	Denny D/ Stephan H	Allen Rd/ Yard	Crosby	X	X	X	X
Michael Thomsen	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Arionna Hutchinson	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Brenda Davis	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Eugene Montgomery	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Tim Gardner	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Zack Vinderlan	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Ben Edwards	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Elias Motz	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Jeremy Handley	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
J.. Cadreau	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Mike Coyeland	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X

Joe Vinokarow	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Chad Lossing	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Gary Horton	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Gary Jones	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Chris Dowling	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Tiffany Ribble	7/21/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Brad Horst	7/22/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Mark Brown	7/23/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Rod Covington	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Dan Arstead	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Dariya Protcheva	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Greg Keller	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Raovisy Rossow	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Dan Harter	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Emmilliano Resendez	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Jorge A. Garcia Jr.	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Homberto Guzmon	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Andree Spalsky	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Louay Mansow	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
J.E. Williams	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Chris Dowling	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Mike White	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Jim Phalar	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Dave Shaw	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Randy Boni	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Jake Roberson	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X
Jerrold Ahang	7/20/2018	Denny D/ Stephan H	I-94 & Gratiot	Crosby	X	X	X	X

2019

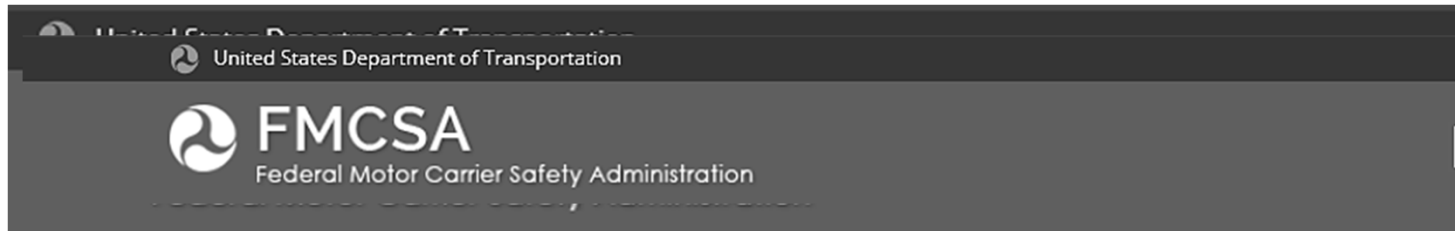
Name	Date	Primary Trainer(s)	Location	Company	Inspection	Slings/ hook	Lifting Safety	Signal
Elias	Motz	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Ray	Davis	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Nick	Amadoe	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Soney	Deland	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Erica	Gengler	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Damon	Morse	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Joe	Wesley	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Joey	Wheeler	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Brad	Twichel	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Curt	Gengler	7/15/2019 Paul W	Jackson	AGC	X	X	X	X
Clay	Malloure	12/9/2019 Paul W	Lansing	AGC	X	X	X	X
Ben	Stachnik	12/9/2019 Paul W	Lansing	AGC	X	X	X	X

2021

Name	Date	Primary Trainer(s)	Location	Company	Inspection	Slings/ hook	Lifting Safety	Signal
Clay	Malloure	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Matt	Shasard	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Mike	Copeland	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Dalton	Yore	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Ben	Senkowski	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Jordan	Oneal	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Evan	Yore	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Jacob	Presson	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Austin	Peruski	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Shane	osentoski	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Camron	Peruski	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Eithan	Peruski	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Blake	Badger	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Jeff	Casei	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X
Luke	Copeland	10/18/2021 Oscar Milian	I-275	AOSH	X	X	X	X

David	Jumenez	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Craig	Minetienies	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Scottie	Risden	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Steve	Turner	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Clarence	Hayes	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Anguians	Roberto	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Lo	Cobb	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Jim	Turner	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
John	Jurges	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Nick	Maikrzek	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Ron	Redmond	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X
Ruddy	Redolfo	10/18/2021	Oscar Milian	I-275	AOSH	X	X	X	X

New Driver Orientation



Employer Requirements :

- Set-up & maintain a hardcopy Driver HR file
- Provide each Driver with reference materials, such as:
 - Driver specific company policy
 - Basic education of driving requirements & company expectations
 - Contact information for drivers with questions
- Maintain a company drug & alcohol program specifically for DOT regulated drivers
- Participate in the FMCSA's Drug & Alcohol Clearinghouse, requiring all new CDL drivers to register

Federal Motor Carrier Safety Administration
**DRUG & ALCOHOL
 CLEARINGHOUSE**

- Record
- Consent
- Query
- Safety

QUERIES AND CONSENT REQUESTS

Beginning January 6, 2020, employers, or their designated consortium/third-party administrator (C/TPA), will be required to conduct queries to check if current and prospective employees are prohibited from performing safety-sensitive functions, such as operating commercial motor vehicles (CMVs), due to an unresolved drug and alcohol program violation.

THERE ARE TWO TYPES OF QUERIES:



All queries require driver consent; the type of consent depends on the query type.

If you have a CDL, the step-by-step instructions for you required registration is included in the info packet PDF you received with the invitation to this orientation.

Please make sure you sign and return the *CDL General Consent for Limited Queries of FMCSA Clearinghouse* fillable form provided as a separate fillable PDF.

For any questions on this matter, please contact Christine Niswander, HR Generalist

This only applies to CDL Drivers, not to Chauffeur license holders.

Query Type	Reason for Query	Consent Requirements	Consent Responses and Required Actions	Query Results and Required Actions
LIMITED QUERY 	Annual check on currently-employed driver OR Ad hoc/periodic check on driver	Outside the Clearinghouse May be electronic or wet signature Limited consent form must specify time range	Consent refused <ul style="list-style-type: none"> Query cannot be conducted Driver removed from safety-sensitive functions Consent provided <ul style="list-style-type: none"> Retain via paper or electronically in driver's qualification file Request limited query in the Clearinghouse 	No records found in the Clearinghouse for queried driver <ul style="list-style-type: none"> No action required Records found in the Clearinghouse for queried driver; full query needed <ul style="list-style-type: none"> Full query must be conducted for violation and/or return-to-duty (RTD) details to be released If full query is not conducted within 24 hours, driver is removed from safety-sensitive functions, including operating a CMV
FULL QUERY 	Pre-employment check on prospective driver OR Limited query returned records found for queried driver OR Ad hoc/periodic check on driver	Electronically within the Clearinghouse, for each full query for individual driver	Consent refused <ul style="list-style-type: none"> Employer notified of refused consent Query cannot be conducted Driver cannot perform/ removed from safety-sensitive functions Consent provided <ul style="list-style-type: none"> Query conducted Full violation and/or RTD details released, if any 	Prohibited <ul style="list-style-type: none"> If driver has a violation and no negative RTD test result, driver is removed from safety-sensitive functions Not Prohibited <ul style="list-style-type: none"> If a driver has no violations, or a violation and a negative RTD test result, no action required



C.A. Hull Co., Inc.
8177 Goldie Road
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www.cahull.com

**ALCOHOL AND DRUG DRIVER EMPLOYEE'S
CERTIFIED ACKNOWLEDGMENT AND RECEIPT**

I have received a copy of the CA Hull's D.O.T. Drug Testing Program and understand that in order to continue my employment with C.A. Hull Co., Inc., I must abide by the terms of this policy. I certify that I have been provided educational materials required by 382.601 and that I have received information on the effects of alcohol and controlled substances on my health, work and personal life, signs and symptoms of a problem and available methods of intervening when a problem is suspected.

I UNDERSTAND THAT THIS POLICY IN NO WAY MODIFIES MY STATUS AS AN AT-WILL-EMPLOYEE AND IN NO WAY IMPLIES, INFERS, OR GUARANTEES MY CONTINUED EMPLOYMENT FOR ANY DEFINITE TERM AND THAT I MAY BE DISMISSED AT THE DISCRETION OF THE CA HULL CO., INC. FOR OTHER REASONS THAN FAILING TO FOLLOW THE TERMS OF THIS POLICY.

The materials received include detailed discussion of the following items :

- _____ 1. The designated person(s) to answer questions about the materials
- _____ 2. The categories of drivers subject to Part 382
- _____ 3. The safety-sensitive functions and periods of the workday for which compliance is required
- _____ 4. Specific Information concerning prohibited driver conduct
- _____ 5. Circumstances under which a driver will be tested
- _____ 6. Test procedures, driver protection and integrity of the testing processes, and safeguarding the validity of the test
- _____ 7. The requirement that drivers submit to tests administered in accordance with Part 382
- _____ 8. An explanation of what will be considered a refusal to submit to a test & the consequences
- _____ 9. The consequences for Part 382, Subpart B violations, including removal from safety-sensitive functions, and Part 40, Subpart O procedures
- _____ 10. The consequences for drivers found to have an alcohol concentration of 0.02 or greater but less than 0.04
- _____ 11. Information on :
 - The effects of alcohol and controlled substances use on an individual's health, work, or personal life
 - Signs and symptoms of a problem
 - Available methods of intervening when a problem is suspected (confrontation, referral, etc.)

Once these topics have been reviewed, please initial, sign, and return the fillable PDF called :
02 - CAH DOT Drug Alcohol Policy - Certified Receipt

A complete copy of the C.A. HULL CO., INC. DRUG & ALCOHOL TESTING POLICY AND PROCEDURE FOR COMPANY DRIVERS IN COMPLIANCE WITH MINIMUM DOT REGULATIONS with the detailed explanation of the topics just covered, .



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C.A. HULL CO., INC. DRUG & ALCOHOL TESTING POLICY AND PROCEDURE FOR COMPANY DRIVERS IN COMPLIANCE WITH MINIMUM DOT REGULATIONS

I. Purpose

C.A. Hull Co., Inc. is committed to a safe, healthy, and productive work environment for all Employees free from the effects of substance abuse. Drug or alcohol use may pose a serious threat to health and safety. Abuse of alcohol, drugs, and controlled substances impairs Employee judgment, resulting in increased safety risks, injuries, and faulty decision-making, which may impact the entire organization. The use of controlled substances and the misuse of alcohol increase the risk of accidents, jeopardize the safe work environment, causes harm to an individual's health and personal life, and may affect the well being of others. The purpose of this policy is to establish procedures to support a safety and health program and to comply with minimum federal safety standards for safety-sensitive functions regulated by the Department of Transportation (DOT). These standards were designed to reduce accidents that result from Employee use of controlled substances and alcohol.

II. Scope

This policy applies to all drivers who are required to hold a commercial driver's license (CDL) or Chauffeurs License in order to perform their jobs for Hull. For purposes of this policy, a driver is covered by DOT regulations as those regulations relate to the driver's finite-for-duty and use of alcohol prior to going on duty, while on duty, or while operating or having physical control of a commercial or Hull motor vehicle. DOT testing for controlled substances under this policy requires that drivers obtain from the use of controlled substances at any time or risk violating DOT regulations prohibiting the presence of controlled substances in their body.

Under this policy performing a safety sensitive function means all of the time after a driver begins to work or is required to be ready to work until the time the driver is released from work and all responsibility for performing work. Safety sensitive functions include: (1) All time at the Hull facility; or other property, including job sites or on any public property, waiting to be dispatched, or while using any Hull vehicles; (2) All time inspecting equipment as required by law or otherwise inspecting, servicing, or conducting any commercial or Hull motor vehicle at any time; (3) All time spent at the driving controls of a commercial motor vehicle in operation; (4) All time, other than driving time, in or upon any commercial motor vehicle; (5) All time loading or unloading a vehicle, supervising, or assisting in the loading or unloading, attending a vehicle being loaded or unloaded, remaining in readiness to operate the vehicle, or in giving or receiving receipts for shipments loaded or unloaded; and (6) All time requiring, obtaining assistance, or remaining in attendance upon a disabled vehicle. Employees shall, when drugs are prescribed by a medical professional, inquire of the prescribing professional whether the drug prescribed has any side effects which may impair the Employee's ability to safely perform the Employee's job duties. If the answer from the medical professional is yes, the Employee shall obtain a statement from the medical professional indicating any work restrictions and their duration. The Employee shall present that statement to his or her supervisor prior to being on duty.

III. Statement of Policy

1. No driver shall intentionally manufacture, use, possess, or distribute controlled substances.
2. No driver shall report for work, perform any safety-sensitive functions or, while in the employ of the Hull, have at any time, any controlled substance present in their body. Presence of controlled substances will be determined by testing performed as described in this policy.
3. No driver shall perform safety-sensitive functions within 8 hours after consuming alcohol.
4. No driver shall consume alcohol while performing safety-sensitive functions.
5. No driver shall possess alcohol while on duty.
6. No driver shall report to work or perform safety-sensitive functions while having an alcohol concentration of .00 or greater. Drivers' alcohol concentration will be determined by testing performed as described in this policy.
7. No driver shall leave the scene of an accident, without a valid reason, before arranging to have both a controlled substance and alcohol test performed.
8. No driver shall consume alcohol after an accident unless 8 hours have expired, the Employee has been tested, or Hull has determined that the driver's performance could not have contributed to the accident, whichever occurs first.
9. No driver shall report for duty or remain on duty requiring the performance of safety-sensitive functions while having an alcohol concentration of .00 or greater.
10. No driver shall refuse to take a required test.

IV. Consequences of Violation under Hull Policy

Any violation of this policy will result in discipline up to and including termination under Hull's Independent authority, as provided for by the DOT. Employees who adulterate or otherwise interfere with accurate testing required pursuant to this policy are in violation of this policy. Any driver, who has been observed using or possessing illegal drugs or alcohol during work time, including lunch breaks, or on Hull's premises in violation of this policy, Hull will not hire applicants who test positive for controlled substances. Hull can provide to any Employee who violates a DOT drug and alcohol regulation a listing of Substance Abuse Professionals available to the Employee.

V. Minimum Consequences of Violation as Mandated by D.O.T.

If a driver tests positive for a controlled substance or has an alcohol concentration of .00 or greater, the driver will be removed from safety-sensitive functions and employment will be terminated.

VI. Substance Screening

For the purpose of assuring compliance with the Federal DOT regulations and this policy, applicants for safety sensitive positions and Employees who perform safety sensitive functions will be subject to controlled substance and alcohol screening under the circumstances described below. Applicants and drivers are required to submit to testing in the following circumstances as a condition of their employment. Hull encourages employees to seek treatment for substance abuse problems, however the Company does not provide a Voluntary Employee Self-Identification Program.

VII. Types of Testing

Applicants for driver-related positions shall undergo a test for the presence of controlled substances prior to being hired or used by Hull. Under no circumstances may a driver perform a safety-sensitive function until a confirmed negative result is received. Applicants who refuse to submit to testing will not be hired.

Testing for Current Employees

1. Post-Accident Testing
Any driver involved in an accident, whether at fault or not, must immediately submit to a controlled substance and an alcohol test. Any driver who receives a citation for a moving traffic violation must immediately submit to a controlled substance test and an alcohol test upon request.

2. Reasonable Suspicion Testing

A driver will be required to submit to controlled substance or an alcohol test upon reasonable suspicion. Reasonable suspicion means that the actions, appearance or conduct of the driver on duty are indicative of the use and/or presence in the driver's body of a controlled substance or alcohol. Reasonable suspicion is based on specific, contemporaneous, articulable observations concerning the appearance, behavior, speech and/or body odors of the driver. A driver will not be allowed to return to driving a Hull vehicle until a confirmed negative test result is received.

3. Random Testing

Drivers will be subject to controlled substance testing and alcohol testing at any time, on a random basis, as a term and condition of holding a driver position. Upon being notified of selection, the driver must immediately proceed to the testing site. Random testing will be spread reasonably throughout the year and will be unannounced to ensure that no driver receives advance knowledge of the time of testing. All drivers will have an equal chance of being selected each time a random selection is made.

The number of controlled substance tests conducted annually shall equal or exceed 50 percent of the number of driver positions subject to testing. The number of alcohol tests conducted annually shall equal or exceed 50 percent of the number of driver positions subject to testing. A driver shall only be tested for alcohol while the driver is performing safety sensitive functions, just before the driver is to perform safety-sensitive functions, or just after the driver has ceased performing such functions.

VIII. Testing Procedures

1. Controlled Substances
Controlled substance screening shall be conducted in a laboratory certified by the Department of Health and Human Services (DHHS) and in accordance with the Procedures for Transportation Workplace Drug Testing Programs. All controlled substance screening includes split sampling which provides that a urine sample be split into two separate containers. The substance screen will test the following drugs: marijuana, cocaine, opiates, amphetamines and phencyclidine (PCP). Any positive initial test will be confirmed by a gas chromatography/mass spectrometry (GC/MS).

Alternative Safety and Testing solutions (ASTS) or any Certified Occupational drug testing facility Hull can provide under a Medical Review Officer (MRO) who will receive the laboratory results of the testing procedure. The MRO shall review all medical records made available by the tested individual when a confirmed positive test result, medical history, and any other relevant information. The MRO shall review all medical records made available by the tested individual when a confirmed positive test could have resulted from legally prescribed medication.

The MRO shall also review all specimens which are found to be adulterated or substituted specimens. In the instance of an adulterated or substituted specimen, the MRO may provide the driver an opportunity to present a legitimate medical explanation. If no legitimate medical explanation is provided, the MRO will report the verified adulterated or substituted specimen to Hull. Hull will consider the verified adulterated or substituted specimen as a refusal to test and immediately terminate employment and remove the driver from performing safety sensitive functions.

The MRO will be the sole custodian of the individual test results. The Medical Review Officer will advise Hull only of whether the test results were negative or positive. After receiving notification of a verified positive test, the driver may request that the split sample be analyzed. Such a request must be made within 72 hours of notification of the verified positive test. If such a request is made, the sample will be tested at another DHHS certified laboratory, at the driver's expense. Upon written request within 7 days of a verified positive test, the driver may obtain copies of any records

pertaining to his or her controlled substance tests. Precautions shall be taken to ensure that the specimen is not adulterated or diluted during the collection procedure and that the information on the bottle matches the information on the custody and control form.

2. Alcohol Testing

Alcohol testing shall be conducted by a Breath Alcohol Technician (BAT) using an Evidential Breath Testing Device (EBT). The driver will provide a breath sample, if an Employee's alcohol concentration is greater than .00, a second, confirmation test will be performed.

IX. Refusal to Submit to Testing

This provision regarding the refusal to submit to testing excludes applicants for employment. Refusal to submit to testing is a violation of this policy. Any Employee refusing to submit to testing will be terminated. The following behaviors constitute a refusal:

- Refusal to submit is defined as:
- a. refusal to appear for testing;
 - b. failure to remain at the testing site until the testing process is complete;
 - c. failure to provide a urine specimen;
 - d. in instances of observed or monitored collection failures to allow observation or monitoring;
 - e. refusal to sign the testing form;
 - f. failure to provide adequate breath;
 - g. failure to take a second test as directed;
 - h. otherwise fails to cooperate in the testing process;
 - i. performs any actions which prevent the completion of the test;
 - j. a test result reported by the MRO as a verified adulterated or substituted test;
 - k. inability to provide sufficient quantities of breath or urine to be tested without a valid medical explanation;
 - l. failure to undergo a medical examination or evaluation when directed;
 - m. tampering with, attempting to adulterate, substitution or substitution of the specimen, or interference with the collection procedure;
 - n. not reporting to the collection site in the time allotted;
 - o. leaving the scene of an accident without a valid reason before the tests have been conducted.

X. Hull Representative


Hull may contact any of the following if you have any questions about this policy or wish to discuss issues related to the use of controlled substances or the misuse of alcohol: Gill Garrard, Teri Walzgrat, or Christine Nivander.

XI. Inspection and Searches

Hull may conduct unannounced inspection for violations of this policy in the workplace, work sites, or any time an employee is using a Hull vehicle. Employees are expected to cooperate in any inspection.

XII. At Will Employment

Nothing in this policy is to be construed to prohibit Hull from maintaining a safe work environment or imposing disciplinary action as it deems appropriate for reasons of misconduct or poor performance, regardless of whether the misconduct or poor performance arises from drug or alcohol use. Such disciplinary actions may include termination of employment. Employment is at will and subject to termination by Hull or the Employee at any time, with or without notice and with or without cause.

Per the , every company with Commercial Drivers must have a separate set of policies, specifically for their Drivers.



Policies For Drivers

- 1) Road test
 - a) All new-hire Chauffeur License drivers must take a road test given by C.A. Hull
 - b) All new-hire CDL drivers will have to take a road test given by C.A. Hull
- 2) Medical cards
 - a) All medical cards will have to be renewed during the off season January-March
 - b) All new-hire driver will be encouraged to be able to receive a two year medical card
 - c) No family doctors
 - d) Carry your med card with your drivers license at all times
 - e) It is a CDL holders personal responsibility to make sure the State of Michigan Secretary of State gets updated with all med card renewals. Your license will be downgraded without notice if you fail to do this.
 - f) It is every C.A. Hull Driver's responsibility to send pictures of every updated Drivers Licenses & Med Cards to C.A. Hull's DOT File Manager
- 3) All new-hire drivers will have completed their driver files before driving vehicles owned/rented by C.A. Hull Co Inc.
- 4) Company drug pool CDL driver
 - a) C.A. Hull Does run a DOT compliant drug pool which includes all active CDL drivers
 - b) The C.A. Hull drug pool will be administrated and maintained by a third party
 - c) All CDL drivers must have a "Pre-employment" drug screen after every 30 day lay-off or absence from work at C.A. Hull . A negative result must be received by Hull before you can return to work.
 - d) When drivers are sent in for a post-accident/post injury drug test they will be required to take two tests. Drivers must take the federal DOT test and the non-regulated C.A. Hull test.
 - e) By accepting employment, all drivers agree to submit to a drug test at any time, for any reason, when requested by the Company or its TPA (third-party administrator).

100% MANDATORILY required seatbelt use at all times.

Polices For Drivers

360 Walk Around Daily Inspection

- 5) All drivers must perform & note both Pre-Trip & Post-Trip Vehicle Inspections on their Daily Driver's Log
- Set one 360 Walk Around Inspection green cone in front of vehicle, and one behind prior to beginning inspection before every move. Place cones again and re-inspect vehicle and surroundings prior to moving the vehicle.
 - All inspections are to be kept with the truck
 - All problems need to be turn into the supervisor immediately
 - If it cannot be repaired in the field, call the main office for the next directions
 - If repaired in the field, the daily inspection and all receipts need to be filed in the main office (the daily inspection needs to be signed off)
 - All inspection forms with problems need to be turned in daily. It is considered an FMC violation if these forms are not received by the main office within 13 days.

Clean litter out of all vehicle cabs and beds daily

Daily Driving Log Books

- 6) All CDL & Chauffeur drivers are required to show all working hours on Daily Drivers Logs, including On-Duty Not Driving hours for other employers to be legally compliant per the FMCSA's regulations
- All CDL drivers who are assigned a vehicle, on the E-Log system, or hold a Hazmat endorsement must fill out Driver's Daily Logs every working day.
 - All CDL & Chauffeur drivers who driver over 100 air miles in a day are required to fill out "Daily" Log and have the prior 7 days logged as proof of Hours of Service compliance prior to driving that day.
 - All CDL & Chauffeur drivers turn Logs in as often as possible, weekly at minimum. It is considered an FMC violation if these forms are not received by the main office within 13 days.

Disciplinary polices

- 7) Drivers who fail to complete daily inspection, log books, and over look safety sensitive repairs (including, but not limited to tires and brake lights) will face the following disciplinary action :
- ALL SAFETY RELATED will immediately be reviewed at the office level with 1 to 3 days off unpaid
- 1st will be a verbal warning
 - 2nd will be a written warning
 - 3rd company review at the office level with 1 to 3 days off unpaid
 - 4th company review at the office level with 3 day to a week off unpaid, also could go as far as termination



Hours of Service

Regulations

Regulatory Impact Analysis for 2011 Final Rule

Environmental Assessment for 2011 Final Rule

Summary of Hours of Service Regulations

The following table summarizes the HOS regulations for property-carrying and passenger-carrying drivers.

HOURS-OF-SERVICE RULES

PROPERTY-CARRYING DRIVERS

11-Hour Driving Limit

May drive a maximum of 11 hours after 10 consecutive hours off duty.

14-Hour Limit

May not drive beyond the 14th consecutive hour after coming on duty, following 10 consecutive hours off duty. Off-duty time does not extend the 14-hour period.

Rest Breaks

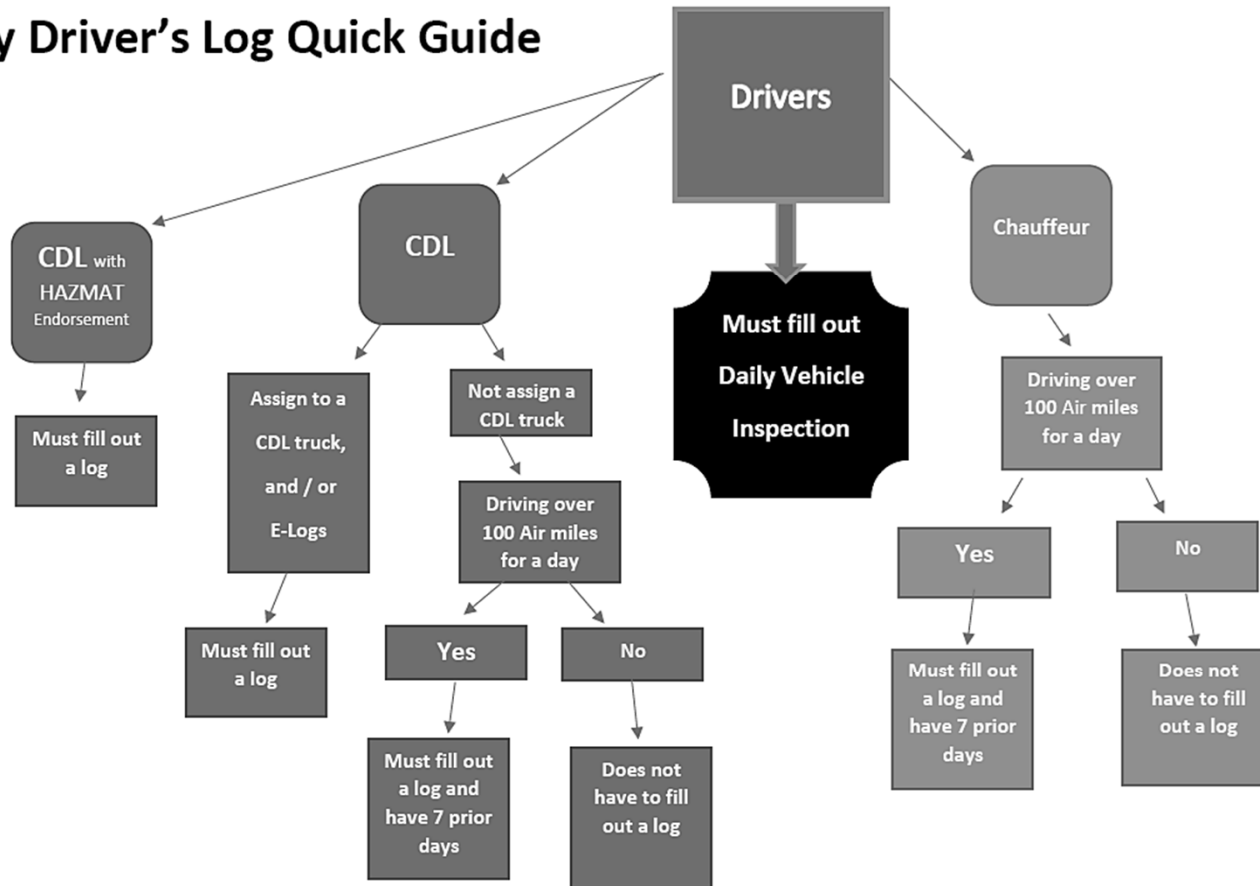
May drive only if 8 hours or less have passed since end of driver's last off-duty or sleeper berth period of at least 30 minutes. Does not apply to drivers using either of the short-haul exceptions in 395.1(e). [49 CFR 397.5 mandatory "in attendance" time may be included in break if no other duties performed]

60/70-Hour Limit

May not drive after 60/70 hours on duty in 7/8 consecutive days. A driver may restart a 7/8 consecutive day period after taking 34 or more consecutive hours off duty.

NOTE: C.A. Hull Co, Inc. operates under the 60 Hours worked in 7 consecutive days rule.

Daily Driver's Log Quick Guide



“Driving” = Vehicles marked with the company’s D.O.T. number

(i.e. 1-ton Pick-up Trucks, Stake Trucks, Highway Tractors, Van Trucks, Specialty Trucks, etc.)

Daily Drivers Log Basics

(Below is an example of the average work day for most drivers who park their car, drive a company pick-up & trailer combo, or stake truck & larger, to the jobsite from the yard, then park it while working)

Form 0601

Month: 7 Day: 19 Year: 17 Total Miles Driving Today: 20

CARRIER NAME & ADDRESS: C A HULL CO., INC. 8177 GOLDIE RD. - WALLED LAKE, MI 48390

Tractor Number: 02429 Driver's ID / Code: EMPLOYEE # GOES HERE 1234

Trailer Number: Driver's Signature in Full: Signature Driver's Printed Name: PRINTED NAME

RECAP Complete at end of workday.

On-duty hours today. (Total lines 3 & 4): 13.75

60 Hour/7 Day Drivers

Mid-Night	1	2	3	4	5	6	7	8	9	10	11	NOON	1	2	3	4	5	6	7	8	9	10	11	
1: OFF DUTY																								
2: SLEEPER																								
3: DRIVING																								
4: ON DUTY (NOT DRIVING)																								

TOTAL HOURS: 13.75

00.00

1.00

9.25

24

1.4 = 28
1.2 = 60
0.4 = 75

REMARKS: DETROIT, MI ALLEN PARK, MI ALLEN PARK, MI DETROIT, MI

Normal Work Location (City & State): DETROIT, MI

Shipper/Consignee: CONSTRUCTION TOOLS / EQUIPMENT / MATERIALS

4022341

Original File at home terminal Duplicate Driver retains in his/her possession for eight days

USE TIME STANDARD AT HOME TERMINAL Copyright 2010 J. J. Keller & Associates, Inc. All rights reserved.

Write clearly & Include the following:

- 1) The date, each working day does require an individual own log
- 2) Miles driven, located next to the date at the top
- 3) Your name & Employee Number
- 4) Signatures must happen at the end of the day, or next morning to verify accuracy of every log. You cannot verify what has not happened in the eyes of the law
- 5) Draw your hours on the grid to match your function throughout the entire day (for DOT Audits, they will look at your payroll records to verify accuracy of the information you record on your logs. Please be vigilant in recording your functions accurately.
- 6) Total the hours performing each task at the right end of the row.
- 7) City & State of your normal Work Location, at the bottom
- 8) City & State whenever changing status in the Remarks area, under the grid
- 9) # of days off in the last 7 days, including today
- 10) Check when Pre-trip & Post-trip Vehicle Inspections are completed
- 11) Where you see green numbers at the right, track how many of your 60 Hours you have remaining for the week

Daily Drivers Log Basics

(Below is an example of a day driving)

Form 0801

Month Day Year Total Miles Driving Today
 7-21-17 485

TRACTOR NUMBER 07115
 TRAILER NUMBER 10105

DRIVER'S ID / Code
 EMPLOYEE # GOES HERE 1234

CARRIER NAME & ADDRESS
 C A HULL CO., INC.
 8177 GOLDIE RD. - WALLED LAKE, MI 48390

Will be Scanned
 Please Print Clearly Within the Boxes

RECAP
 Complete at end of workday.

10
 On-duty hours today (Total Hours 3 & 4)

60 Hour / 7 Day Drivers

50.5
 Total hours on duty last 6 days, including today.

9.5
 Total hours available tomorrow, 60 hr. minus A.*

50.5
 Total hours on duty last 7 days, including today.
 *If you meet the 50-hour restrict requirement in 60 hrs., you have 60-70 hours available again.

101 = 25
 102 = 63
 204 = 75

4022341
 Shipper / Consignee
 CONSTRUCTION TOOLS / EQUIPMENT / MATERIALS

Original File at home terminal
 Duplicate Driver retains in his/her possession for eight days

USE TIME STANDARD AT HOME TERMINAL
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REMARKS:
 FLINT, MI
 GRAND HAVEN, MI
 NUNICA, MI
 FLINT, MI

Normal Work Location (City & State)
 FLINT, MI

Lock
 Returned to normal work location at end of day: XX

of Days Off Duty today: 1
 Pre-Trip Inspection Signed: XX
 Post-Trip Inspection Signed: XX

14.00
 00.00
 7.50
 2.50
 24

TOTAL HOURS

1 2 3 4 5 6 7 8 9 10 11 NOON 1 2 3 4 5 6 7 8 9 10 11

1: OFF DUTY
 2: SLEEPER
 3: DRIVING
 4: ON DUTY (NOT DRIVING)

MID-NIGHT 1 2 3 4 5 6 7 8 9 10 11 NOON 1 2 3 4 5 6 7 8 9 10 11

Additional items to include on driving days:

- 1) Miles driven, located next to the date at the top
- 2) City & State for every time you leave one location, and stop at another
- 3) Slashes on the Driving line of the grid to indicate you stopped to confirm your load is still secure whenever driving over an hour and a half straight. No need to note City & State when confirming the securement of your load.



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VEHICLE INSPECTION FORM BASICS

- Report all defects to your supervisor immediately
- Either form is acceptable
- Vehicle Inspection pads stay in the trucks
- The boxes or Check lines are for indicating defects, not acknowledging you have inspected the item
- Once you have filled one out, remove the white & yellow copies to turn in weekly with your Driver's Daily Logs

Items to check which are not included on the Vehicle Inspection Reports:

- License Plate with current tab
- Registration
- Proof of Insurance
- DOT Annual Inspection Report (or window decal) when applicable

NOTE : Attenuators (i.e. "Crash trucks" or "TMA's") are technically equipment, not vehicles, and therefore are not plated, and have a 3-page exemption letter instead of Registration

SOUND EDGE

REV. 2/15

DRIVER'S INSPECTION REPORT

COMPLETION OF THIS REPORT REQUIRED BY FEDERAL LAW, 49 CFR 395.11 & 395.12.

Truck or Trailer No. _____ Trailer No. _____

ATA MMS System Code Number for Shop Use Only _____

DATE No. _____ Trailer No. _____ Location _____

POWER UNIT

GENERAL CONDITION	IN-CAB	EXTERIOR
<input type="checkbox"/> 01 Cab/Doors/Windows	<input type="checkbox"/> 03 Gauges/Warning Indicators	<input type="checkbox"/> 24 Lights
<input type="checkbox"/> 02 Body/Doors	<input type="checkbox"/> 02 Windshield Wipers/Washers	<input type="checkbox"/> 31 Reflectors
<input type="checkbox"/> 03 Oil Leak	<input type="checkbox"/> 04 Horns	<input type="checkbox"/> 16 Suspension
<input type="checkbox"/> 04 Grease Leak	<input type="checkbox"/> 01 Heater/Defroster	<input type="checkbox"/> 17 Tires
<input type="checkbox"/> 05 Coolant Leak	<input type="checkbox"/> 02 Mirrors	<input type="checkbox"/> 18 Wheels/Rims/Lugs
<input type="checkbox"/> 06 Fuel Leak	<input type="checkbox"/> 15 Steering	<input type="checkbox"/> 32 Battery
<input type="checkbox"/> 07 Other _____	<input type="checkbox"/> 03 Clutch	<input type="checkbox"/> 43 Exhaust
	<input type="checkbox"/> 10 Service Brakes	<input type="checkbox"/> 33 Brakes
	<input type="checkbox"/> 10 Parking Brake	<input type="checkbox"/> 15 Air Lines
	<input type="checkbox"/> 13 Emergency Brakes	<input type="checkbox"/> 14 Light Loe
	<input type="checkbox"/> 51 Tangles	<input type="checkbox"/> 49 Eye-Miscel
	<input type="checkbox"/> 53 Fire Extinguisher	<input type="checkbox"/> 49 Other Coupling
	<input type="checkbox"/> 50 Other Safety Equipment	<input type="checkbox"/> 71 Tie-Downs
	<input type="checkbox"/> 54 Spare Parts	<input type="checkbox"/> 10 Rear-End Protection
	<input type="checkbox"/> 56 Seat Belts	<input type="checkbox"/> Other _____
	<input type="checkbox"/> 56 Other _____	

NO DEFECTS

TOWED UNIT(S)

<input type="checkbox"/> 71 Body/Doors	<input type="checkbox"/> 16 Suspension	<input type="checkbox"/> 77 Landing Gear	<input type="checkbox"/> 72 Rear-End Protection
<input type="checkbox"/> 71 Tie-Downs	<input type="checkbox"/> 17 Tires	<input type="checkbox"/> 59 King Pin/Upper Plate	<input type="checkbox"/> Other _____
<input type="checkbox"/> 31 Lights	<input type="checkbox"/> 17 Wheels/Rims/Lugs	<input type="checkbox"/> 59 Fifth Wheel (Dolly)	
<input type="checkbox"/> 31 Reflectors	<input type="checkbox"/> 13 Brakes	<input type="checkbox"/> 59 Other Coupling Devices	

NO DEFECTS

REMARKS _____

REPORTING DRIVER: Name _____ Date _____ Emp. No. _____

REVIEWING DRIVER: Name _____ Date _____ Emp. No. _____

SHOP REMARKS: _____

MAINTENANCE ACTION: Date _____
 Repair Made No Repair Needed
 R.O.S. _____
 Certified By _____ Location _____

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NOTICE OF LOGGING VIOLATIONS

(DRIVER'S LOG AUDIT / MANAGEMENT SYSTEM)

LOCATION / JOB # _____

EMPLOYEE NAME : _____ DATE : _____

THE FOLLOWING DISCREPANCIES HAVE BEEN DETECTED IN THE PREPARATION OF YOUR DAILY LOG(S)

FOR THE (MONTH/PERIOD) : _____

✓	CODE	VIOLATION	FMCSR	DATE(S) VIOLATION OCCURRED
	01	Logs Missing	395.8 (e)	
	02	Rest / Break Violation - Property Carrying Vehicles (LUNCH)	395.3 (a)(3ii)	
	03	Date Missing / Inaccurate Date / Duplicate Logs	395.8 (f)(3)	
	04	Miles Driven Missing / In Error	395.8 (f)(4)	
	05	Name and Address of Carrier Missing / In Error	395.8 (f)(6) & (f)(9)	
	06	Vehicle Identification Missing / In Error	395.8 (f)(5)	
	07	Driver's Signature Missing / In Error	395.8 (f)(7)	
	08	Employee Number Missing (For illegible signatures) *		
	09	Hour Missing / In Error (FROM "Total Hours" Column)	395.8 (f)(11)	
	10	Hour Missing / In Error (FROM "Total Hours" Column)	395.8 (f)(11)	
	11	Changes in Duty Status Missing / In Error	395.8 (b)	
	12	Location Missing / In Error (CITY & STATE)	395.8 (h)(5)	
	13	DVIR Not Completed (Vehicle Condition Report)	396.11 (a)	
	14	Pre-Trip AND/OR Post-Trip Inspections Missing	396.13	
	15	Travel Time Improperly Logged	395.1 (j)	
	16	Ten-Hour Off-Duty Violation - Property Carrying Vehicles	395.3 (a)(1)	
	17	Eleven-Hour Off-Duty Violation - Property Carrying Vehicles	395.3 (a)(3)	
	18	Fourteen-Hour Off-Duty Violation - Property Carrying Vehicles	395.3 (a)(2)	
	19	Violation of 60 Hour Rule - Property Carrying Vehicles	395.3 (b)(1)	
	20	34-Hour Restart Violation - Property Carrying Vehicles	395.3 (c)(d)	

YOU ARE DIRECTED TO CONTACT THE FOLLOWING REGARDING THIS MATTER :

NAME : _____ TITLE : _____

PHONE : (_____) _____ - _____ DEADLINE DATE : _____

NOTES : * Item required by company policy, not required by regulation

DISPOSITION

REASON(S) GIVEN BY DRIVER FOR VIOLATION(S) : _____

ACTION TAKEN : _____

DRIVER SIGNATURE : _____ SIGNED : _____

DATE : _____ TITLE : _____

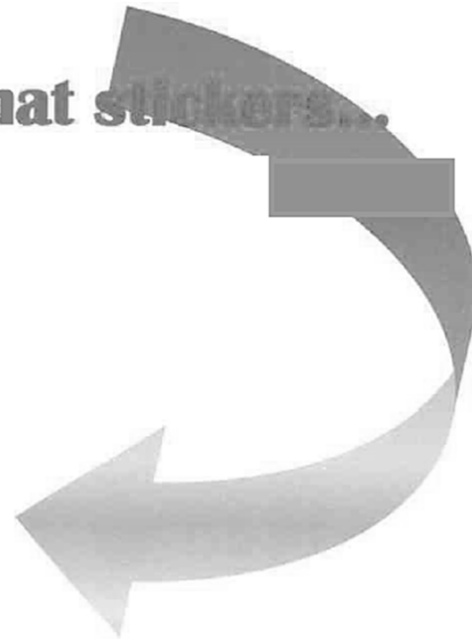
The company tracks repeat offenders of inaccurate or incomplete Hours of Service logging are provided with a written notice of their violations.

KEEP

Have you ever wondered...

“How can I recognize C.A. Hull’s Compliant Drivers on the job sites? You know... The drivers who understand how to fill out Daily Driver Logs & Vehicle Inspections & when to turn them in? “

Look for these hardhat stickers...





C.A. Hull Co., Inc.
8177 Goldie Road
Walled Lake, MI 48390
p 248 363 3813
f 248 363 2399

www.cahull.com

Towed Unit Instructions (i.e. Tag-along Trailer & Towable Equipment)

C.A. Hull uses several light and medium duty trailers that are to move materials on our jobs. Small machines such as air compressors and light plants, among others, would also be considered towed unit.

Drivers towing these trailers will use three different hitch types that they must be familiar with in order to safely tow company trailers and machines as well as any that Hull may rent during the construction season.

Your understanding of the use of each type is critical to safely towing of all trailers and equipment.

The three types are:

- 2" ball on single axle trailers and light duty equipment that includes most light plants, rental air compressors and light plants, in addition to other rental equipment
- 2 5/16" ball on two axle trailer used on carpenter's box trailers and a few flatbed tag trailers. All trailers with a 2 5/16" ball hitch will be marked to clearly inform everyone that a 2 5/16" ball is required.
- Ring type (or Pintle) hitch on all of Hull's towed equipment and all flatbed tag-along trailers.

Instructions to connect towing trucks to all towed units:

- 1) Make sure the rear wheels are chocked at the down-hill side of the tires
- 2) Check the trailer to see the type of hitch is required
- 3) Select the correct hitch setting and insert the hitch in the truck's receiver
- 4) Back the truck up to the hitch on the trailer
- 5) Use the tongue jack to lower the trailer tongue onto the truck's hitch
- 6) Close the latch on the truck's hitch and pin with manufacturer's pin.
- 7) On all trailers, test the hitch connection by cranking the tongue jack down to the ground to force the tongue up against the hitch. This ensures that the trailer is properly connected to the truck. If the tongue disengages from the hitch, notify your supervisor immediately. Do not attempt to tow a trailer using a defective or the wrong hitch.
- 8) Plug in the trailer lights
- 9) Connect the safety chains to the truck. Do not use either chain in the choker position.
- 10) Turn on the 4-way flashers and the headlights
- 11) Walk around the truck and trailer to check that all lights are working.
- 12) Update your Driver's Log Book as needed.
- 13) Head out.

I understand the safety requirements of connecting a towable unit to a truck. I understand it is my responsibility to adhere to these instructions as required by C.A. Hull Co., Inc.

By checking this box, I am requesting one-on-one safety training/mentoring on hooking up and/or driving with a towed unit, before I would feel competent operating a vehicle with a towed unit for the company.

Text/e-signature

Date :



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CAH Cell Phone Policy for Truck Drivers

The Federal Motor Carrier Safety Administration (FMCSA) has published a final rule that specifically prohibits truck and bus drivers from using hand-held cell phones while operating Commercial Motor Vehicles (CMV). This new rule became effective in Michigan on January 2, 2012 and applies to all CMV truck drivers (operating vehicles in excess of 10,000 pounds).

Both drivers and employers are held accountable under this rule. Drivers who violate the restriction may face civil penalties up to \$2,750 for each offense; and disqualification from operating a CMV for multiple offenses, given that this violation is considered "Serious" under the Disqualification Rules. Companies that allow their drivers to use hand-held cell phones could face fines up to \$11,000 per incident.

In addition to the possible Federal fines listed above, fines for texting in Michigan are \$100 for a first offense and \$200 for subsequent offenses. Michigan's texting law is considered a "primary" law. A primary law means that an officer can pull you over for the offense without having to witness some other violation. That is, the officer sees you texting and issues a citation.

In summary, the rule prohibits holding a cell phone to the ear. Drivers are allowed to use a speaker, earphones, a Bluetooth set up, CB's and two-way radios. Push-to-talk cell phones (Nextel or Sprint Direct-Connect) are not allowed. If it is not possible to use an acceptable device while on the road, the FMCSA recommends pulling off the road, out of traffic and coming to a complete stop. The use of hand-held cell phones while stopped in traffic or at a traffic light is a violation of this policy. There are no exceptions to these rules.

The exceptions include drivers who:

- Report a traffic accident, medical emergency, or serious road hazard.
- Report a situation in which the person believes his or her personal safety is in jeopardy.
- Report or avert the perpetration or potential perpetration of a criminal act against the individual or another person.
- Carry out official duties as a police officer, law enforcement official, member of a paid or volunteer fire department, or operator of an emergency vehicle.

It is against C.A. Hull policy to: (1) use a hand-held cell phone in any company vehicle over 10,000 GVW or combined weight over 10,000 LBS. (2) operate company vehicles without proper licensing and or medical requirements.

I understand and agree to the above FMCSA ruling and company policy.

Signature

Text/e-signature

Date :

HAZMAT

#1 RULE:
If you haven't been Hazmat Trained and
Certified by Hull...

Do not: 1 - Touch 2 - Load 3 - Transport

Bulk paint or epoxy

Required paperwork for HazMat
shipments:
- Physical copies of each MSDS
- Shipper detailing load contents



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Driver Violations Self Identification

If you have a violation that needs to be reported to your employer, please turn in the following form:

Driver Full Name _____

Driver License Number: _____

Date of Conviction: _____

The specific criminal or other offense(s), serious traffic violation(s), and other violation(s) of State or local law relating to motor vehicle traffic control, for which the person was convicted and any suspension, revocation, or cancellation of certain driving privileges which resulted from such conviction(s):

Was the violation in a Commercial Motor Vehicle: _____

Location of Offense: _____

Driver Signature _____

Date: _____

ATTN: Concealed Pistol License (CPL) holders :
Remember to carry your CPL with you at all times. If pulled over while working, have your CPL on top of your Drivers License & Med Card when providing documentation to the officer, and disclose your status immediately.

Driver Violations

Title 49: Transportation

Subtitle B: Other Regulations Relating to Transportation (Continued)

CHAPTER III: FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

SUBCHAPTER B: FEDERAL MOTOR CARRIER SAFETY REGULATIONS

PART 383: COMMERCIAL DRIVER'S LICENSE STANDARDS, REQUIREMENTS AND PENALTIES

Subpart C: Notification Requirements and Employer Responsibilities

383.31 - Notification of convictions for driver violations.(a) Each person who operates a commercial motor vehicle, who has a commercial driver's license issued by a State or jurisdiction, and who is convicted of violating, in any type of motor vehicle, a State or local law relating to motor vehicle traffic control (other than a parking violation) in a State or jurisdiction other than the one which issued his/her license, shall notify an official designated by the State or jurisdiction which issued such license, of such conviction. The notification must be made within 30 days after the date that the person has been convicted.

(b) Each person who operates a commercial motor vehicle, who has a commercial driver's license issued by a State or jurisdiction, and who is convicted of violating, in any type of motor vehicle, a State or local law relating to motor vehicle traffic control (other than a parking violation), shall notify his/her current employer of such conviction. The notification must be made within 30 days after the date that the person has been convicted. If the driver is not currently employed, he/she must notify the State or jurisdiction which issued the license according to ? 383.31(a).

(c) Notification. The notification to the State official and employer must be made in writing and contain the following information:

(1) Driver's full name;

(2) Driver's license number;

(3) Date of conviction;

(4) The specific criminal or other offense(s), serious traffic violation(s), and other violation(s) of State or local law relating to motor vehicle traffic control, for which the person was convicted and any suspension, revocation, or cancellation of certain driving privileges which resulted from such conviction(s);

(5) Indication whether the violation was in a commercial motor vehicle;

(6) Location of offense; and

(7) Driver's signature.

[52 FR 20587, June 1, 1987, as amended at 54 FR 40787, Oct. 3, 1989]

ACCIDENT

KEEP

Chain-of-Command

This program was designed to ensure proper documentation of accidents, but will never take precedence over the safety of the individuals involved in emergency situations.

C.A. Hull's teamwork oriented approach means that help and assistance are always available when needed. Simply reach out to Paul Louzecky, your supervisor, the office staff, or nearby crews for any assistance needed in emergent situations. Let your teammates help you manage the incident.

- If it's an emergency, call 911!
- Set out warning devices.
- Assist injured persons, but do NOT move if likely to cause further injury; call for medical assistance.
- Notify your C.A. Hull supervisor ASAP!
- Supervisors MUST notify C.A. Hull Safety Department immediately!
 - **Paul Louzecky** Safety Director (810)-217-5566
- Stop and investigate IMMEDIATELY!
- Secure the area, do not disturb/ move anything at the scene unless it will cause immediate danger to others.
- Use the camera located in the accident packet and take as many pictures as you can such as but not limited to: company vehicle, other vehicles involved, path of travel, start and stop area, all surrounding areas, skid marks, etc.
- Secure names, addresses and phone numbers of witnesses or first person at the scene. (use witness cards)
- When questioned by authorities, only answer question you know. Do not guess or estimate, just answer "I do not recall."
- Comply with any alcohol/ drug test.
- Protect your vehicle from further damage and theft.
- Complete driver's accident report at the scene before leaving.
- Return the completed packet to your supervisor upon return to the yard.





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Contacts for Driver related topics:

FMCSA Drug & Alcohol Clearinghouse:

- Christine Niswander, HR Generalist – Desk (248) 694-8060

C.A. Hull's Drug & Alcohol Testing Program:

- Christine Niswander, HR Generalist – Desk (248) 694-8060

Med Card Recertification Authorizations (any one of the following):

- Teri Wainwright, Admin Yard Asst./DOT File Mgmt – Desk (248) 694-8059
- Chelsea Wesley, Project Coordinator – Desk (248) 694-8056
- Christine Niswander, HR Generalist – Desk (248) 694-8060

Updated copies of Driver Licenses & Med Cards:

- Teri Wainwright, Admin Yard Asst./DOT File Mgmt – twainwright@cahull.com

General questions on Drivers Daily Logs & Vehicle Inspections, etc.:

- Teri Wainwright, Admin Yard Asst./DOT File Mgmt – Desk (248) 694-8059
- Lo Cobb, Safety Coordinator – Cell (248) 303-1599

General questions on Policies for Company Drivers:

- Christine Niswander, HR Generalist – Desk (248) 694-8060
- Teri Wainwright, Admin Yard Asst./DOT File Mgmt – Desk (248) 694-8059

Bluetooth requests :

- Your jobsite Superintendent

Michigan State Police Roadside & Weigh Station Inspections:

- Teri Wainwright, Admin Yard Asst./DOT File Mgmt – twainwright@cahull.com

Reporting Accidents / Incidents / Injuries / Close Calls :

- Your jobsite Superintendent
- Paul Louzecky, Safety Director – Cell (810) 217-5566



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New Employee Driver Orientation Acknowledgement

I, the undersigned, have attended the C.A. Hull Safety Orientation for new company drivers and understand the so stated C.A. Hull MANDATORY SAFETY/DRIVER'S RULES ALONG WITH THE SUBSTANCE ABUSE AND DISCIPLINARY POLICY. I have received personal copies of: the Federal Motor Carrier Safety DOT Code of Regulations weblink, a copy of C.A. Hull's Alcohol & Drug Testing Awareness booklet, and a copy of the Policies for Driver's, C.A. Hull Hours-of Service-Limits, Daily Log Book Example, Trailer Instructions, Cell Phone Policy for Drivers, and In-case of Accident Chain-of Command. I have been given contact information for whom to ask questions about these materials. I understand and commit to all which is expected of me, as a company driver for C.A. Hull Co, Inc.

Email :

Cell Phone : () -

Driver's License Number:

License Type / Endorsements (Check all which apply):

- Chauffeur's
- CDL-A
- CDL-B
- ENHANCED
- DOUBLE or TRIPLE TRAILERS (Triple trailers not permitted in Michigan)
- P PASSENGER
- N TANK
- H HAZARDOUS MATERIALS (To carry hazardous materials in amounts requiring placards)
- X Combined TANK and HAZARDOUS MATERIAL endorsement
- S SCHOOL BUS
- ACTIVE MILITARY DUTY
- POLICE and/or FIRE FIGHTER

Text/e-signature (Full name as it appears on your Driver License)

Date :

Revised on 04/24/2020
G:\Operations\Compliance - DOT\ -> New Driver Orientation - Current Forms and Packet\Current Year - New Driver - Forms Individually\Online Version of Forms

AN EQUAL OPPORTUNITY EMPLOYER



WELCOME TO C.A. HULL'S NEST

Your participation in NEST **does not guarantee you a job**. This is an opportunity to see how you will fit in with our Company culture and core values. Jobs are filled based on the needs of the projects and crews.

We expect you to be engaged in the presentation and contribute to the conversation so our staff can get to know you.

Please ask questions, provide your input, and have fun!

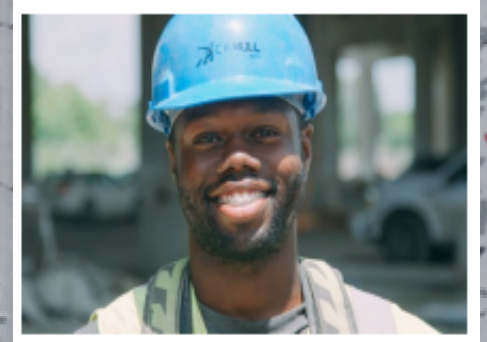
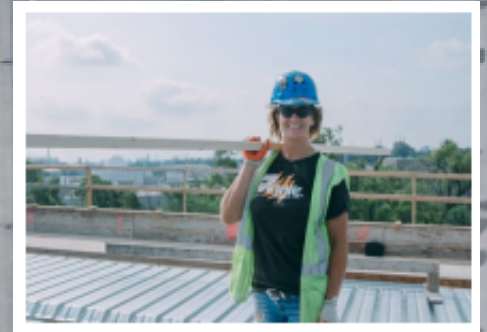
NEST HOUSEKEEPING

- The use of cellphones and other devices is strictly prohibited during class.
- If you feel sleepy, stand up and stretch. Participants that **fall asleep** will be asked to leave.
- Tobacco products/vaping are not allowed in the building.
- Familiarize yourself with exit doors in case of an emergency.
- Anyone who disrupts class in a negative way will be asked to leave.
- Tables must be clean and clear before leaving.



OUR PEOPLE

Are Our Greatest Assets



COVID-19 SAFETY PROTOCOL

- Employees required to perform daily wellness checks
- Maintain proper social distancing (6ft) from other employees
- face coverings required when social distancing cannot be maintained
- Wash hands daily- before shift, during, and end of shift
- Sanitize tools and other high touch points on the job after use
- Follow CAH COVID-19 Action Plan


STOP


THIS JOB REQUIRES A DAILY SCREENING OF ALL EMPLOYEES


PERFORM A WELLNESS CHECK

COVID-19 PROTOCOL

Have you had any of these symptoms...

 **Fever**

 **Cough**

 **Shortness of breath**

OR 2 or more of the following symptoms:
Chills, muscle aches, sore throat, diarrhea, vomiting, loss of taste/smell.

- Have you had close contact with anyone with a confirmed case of COVID-19 in the last 14 days?
- Have you travelled via airplane in the past 14 days?

If the answer is YES to any of the above CONTACT YOUR SUPERVISOR AND LEAVE LOCATION.

CA HULL
CONTRACTORS SINCE 1948
Safety • Teamwork • Innovation • Quality • Integrity

CA HULL
CONTRACTORS SINCE 1948

HEALTH & SAFETY REMINDERS
FOR YOUR SAFETY & SAFETY OF OTHERS

 Cover your mouth when coughing or sneezing.

 Wear a face mask.

 Practice social distancing & remain 6 feet apart.

 Wash your hands with soap & water or with an alcohol based hand sanitizer.

 Sanitize high touch points & tools regularly.

 Avoid touching eyes nose or mouth.

CA HULL
CONTRACTORS SINCE 1948

IN CASE OF EMERGENCY ICE

- Please complete your **ICE hardhat sticker** and place on the outside of your hardhat before starting work
- Make sure to list anything a **First-Responder** should know about you (meds/ allergies)
- List **TWO emergency contacts** (Cell Phones are best)
- If you lose your sticker or it becomes damaged, please let us know ASAP



C.A. HULL DRUG AND ALCOHOL POLICY



- It is a violation of Company policy for any employee to possess, sell, trade, or offer for sale drugs or alcohol, or otherwise engage in the use of drugs or alcohol on the job.
- It is a violation of the Company policy for anyone to report to work under the influence of alcohol or drugs.
- It is a violation of the Company policy for anyone to use prescription drugs illegally. The illegal use of prescription drugs will not be tolerated.
- If an employee legally uses prescription drugs that may have an impact on his or her ability to safely perform the functions of the job, he or she must immediately report the use of those prescriptions to his or her supervisor.
- **In states that have a Medical Marijuana or other drug-related law that conflicts with federal law, the Company will interpret the federal law as controlling. This means that the Company will not tolerate the use of drugs, such as marijuana, regardless of whether the employee has a Medical Marijuana card or not.**
- Employees using prescription drugs must observe all label warnings and inform their supervisor of all warnings associated with their prescriptions.

Please see your Employee Handbook for more information about our Drug and Alcohol Policy

HARASSMENT-FREE ZONE

- Everyone has the right to work free of harassment.
- Harassment is nothing to joke about and we take it seriously.
- Jokes, statements and slander referring to someone's race, creed, gender and/or religious beliefs are strictly prohibited.
- Report all harassment to your Supervisor, HR or Safety Department.
- You can also use Hull's hotline number found in the Employee Handbook.





ERGO WORKPLACE
DESIGNED TO FIT THE
EMPLOYEE

WE STRETCH DAILY

UTILIZE SPECIALTY
TOOLS AND
EQUIPMENT TO
REDUCE EMPLOYEE
STRAIN

RECEIVED ERGONOMIC
SUCCESS AWARD
FROM MIOSHA 2018



Training is Paramount at Hull...

Received the **AGC Cornerstone Award** for Construction Training Excellence in 2018

Average **5,906** Man Hours of Safety Training Per-Year (6,594 MH 2019)



C.A. HULL MENTORSHIP PROGRAM

What and Why?

Goals: Reduce turnover and foster employee growth.

The mentorship program aims to help new hires succeed at CAH by partnering them with seasoned employees to enable **learning and growth**.

Who and When?

- Employees new to construction.
- The program takes place throughout the construction season, and involves regular check-ins with your mentor and superintendent.



If you're new to CAH and have questions, look for this hardhat sticker





What is it?

The Click! Fix! Win! program is a “good-catch program” designed by employees to actively engage everyone in identifying hazards, finding immediate solutions, and sharing them company wide.



Click.

Take a picture of the hazard.



Fix.

Take a picture of how you fixed the hazard.



Win!

Send your pictures, with a description, to clickfixwin@cahull.com for a chance to win \$400!



Program runs March through November and winners are chosen each month. See “Click! Fix! Win!” postcard for more details.

CLICK- FIX- WIN

Good Catch Program designed to reward employees for finding hazards, correcting them and sharing with everyone.

Please see postcard for more details

SAFETY WEEK



- Every year in July, we come together as a company to celebrate safety for a week.
- This is a great, FUN week dedicated to safety, training and growing as a team.
- We require everyone to participate, learn and most of all- HAVE FUN!
- Jobs are a little slower that week and be ready to EAT some good food.

We look forward in sharing this great experience with you!!!



WHAT YOU WILL NEED - LABORERS

- Tools needed EVERY DAY:
 - Lineman Pliers
 - Pliers holder
 - Hammer (Rough Frame)
 - Hammer holder
 - 25' Tape



If you don't come prepared, you will be asked to leave the job.

WHAT YOU WILL NEED - CARPENTERS

- Tool Bags
- Hammer (Rough Frame)
- 25' Tape
- Speed Square
- Torpedo Level
- Chalk Line & Dry line
- Lineman Pliers
- 10" Crescent Wrenches
- Cat's Paw

If you don't come prepared, you will be asked to leave the job.



WHAT YOU WILL NEED - OPERATORS

- Grease Gun
- Keys



If you don't come prepared, you will be asked to leave the job.

DAILY GENERAL PPE (DAYTIME ONLY)

- Hardhat
- ANSI Z-87 Safety Glasses
 - No dark glasses at night or in low light areas/buildings
- ANSI class II Safety Vest
- Gloves for handling rough/sharp objects
- Required 24/7 on jobs, in the shop, etc.

ALL PPE will be supplied to you by CAH



ADDITIONAL GENERAL PPE (NIGHT)

- Clear/yellow safety glasses ONLY
- Headlamp
- ANSI Class III Vest
 - MUST have retroreflective stripes on sleeves
- ANSI Class III pants for working in live traffic



WORKERS MUST BE SEEN

ANSI Standard- Type R vest (II & III):

- MAX 25 washes
- Hand wash cold
- No bleach
- Hang to dry



GENERAL WORK ATTIRE REQUIRED

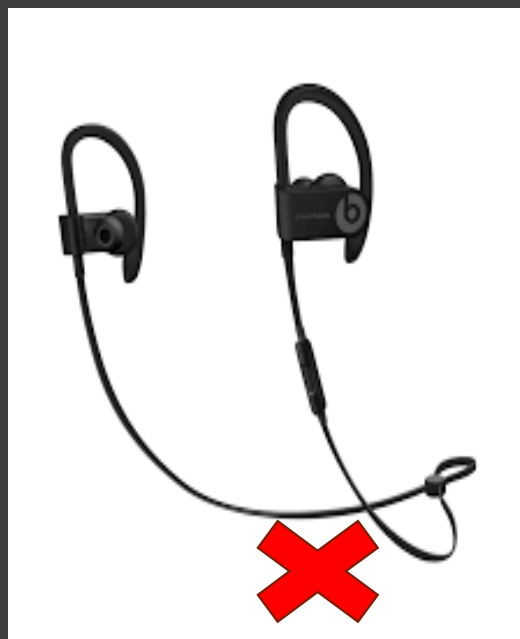
- T-shirt with 4" inch sleeves
- Work pants (Jeans)
 - No holes
- Safety-toe work boots
 - MUST have good tread on bottom
- Clothing MUST fit your body properly

No shorts or tank tops allowed



YOU NEED TO HEAR FOR SAFETY

- The use of earbuds/pods or other double ear blue-tooth devices are strictly Prohibited on C.A. Hull Jobs.





CORE VALUES WE
LIVE BY

S.T.I.Q.I.

SAFETY

TEAMWORK

INNOVATION

QUALITY

INTEGRITY

WHAT WE GRADE ON- THE FOUR A'S

- Attitude
- Awareness
- Action
- Accountability



HOW WE BUILD

PEOPLE ARE THE SOLUTION
MISTAKES WILL HAPPEN
PLAN TO FAIL SAFE
MAKE IT EASY TO DO RIGHT

WHO IS RESPONSIBLE FOR SAFETY?



YOU ARE!

**SAFETY
IS EVERYBODY'S
RESPONSIBILITY!**

YOU HAVE THE POWER TO WORK SAFE

- Everyone at C.A. Hull is empowered to STOP unsafe acts or operations.
- If you ever feel unsafe or unsure of yourself, stop and ask for help.
- If it's unsafe, your voice needs to be heard.
- No one will EVER receive punishment speaking up for safety.
- DO NOT let today's issues become tomorrow's problems.

IF YOU DON'T KNOW SOMETHING, ASK!!



COMMUNICATION IS **KEY**

Communicating is one of the biggest keys to working safely and getting the job done. Never feel you **SHOULD** know something and always make sure you know what's expected of you.

- **Do you understand that safety is a condition of employment?**
 - Work safely to the best of your ability. It's okay to make mistakes.
 - Report **unsafe conditions** immediately.
 - Report ALL **injuries** immediately.
 - Obey safe work rules and follow safety instructions.
 - Interact during safety planning meetings.
- **Do you understand your safety responsibilities?**



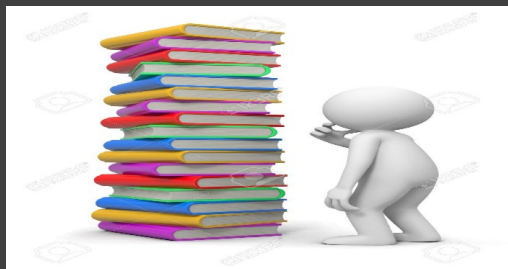
COMMUNICATION IS **KEY**

- Regardless of the type of work you are performing, do you know that you can never deviate from an established safe work procedure?
- Do you know you have the right to **discuss any work assignment with your supervisor** that you think is unsafe or you are unsure of?
 - You can assist in correcting the problems.
- We need your **full commitment** to work safely.



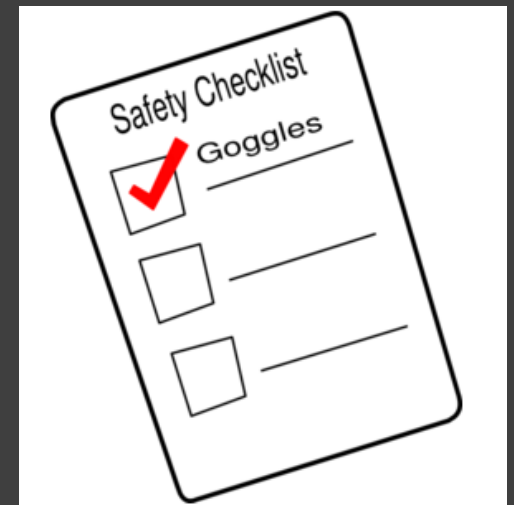
EMPLOYEE AND SAFETY POLICY

- In today's training we will **review company policies** on safety and employee conduct.
- For additional information, please review company programs and/or **ask your supervisor**.
 - All C.A. Hull rules and regulations can be found in your handbook.
 - Should be used during planning of tasks.
 - Hull employees are required to study and know required information.
 - The book is a good helpful guide, not black and white. If you have questions or feel there will be an issue performing a task like outlined in the book, **STOP** and ask for help.



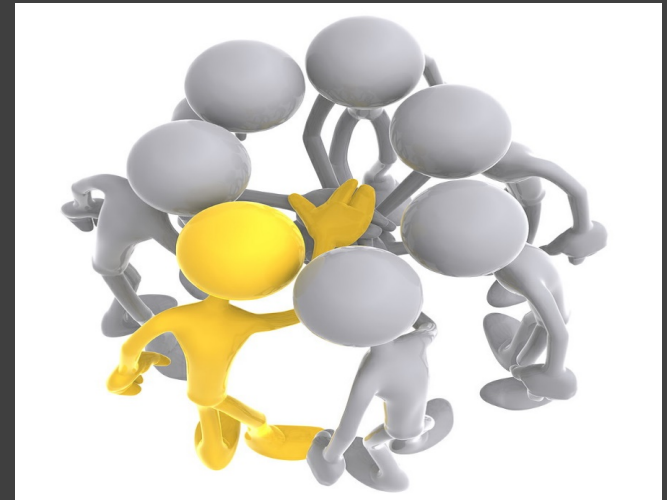
DAILY AND WEEKLY SAFETY REQUIREMENTS

- Tool box talks will be completed weekly with your crew.
- Daily huddles required by everyone.
- Daily pre-task planning is required for crews for work performed.
- Stretching required by all employees **3X times** per day.
- Attend safety training/meetings when asked.
- Correct all unsafe hazards immediately.
- Ask for help when needed.
- Always make SAFETY your top priority.



THE SAFETY HUDDLE

- There is no limit to how many can be conducted per day (minimum 1 per day).
- Required by all employees before working.
- Lead by supervisor and team.
- Supervisors will cover:
 - Current events (safety alerts/click-fix-win/safety spotlights)
 - Review tasks and PTSA for the day
 - Training, if needed
- We will allow time for questions and communication.
- We ask that ALL attendees participate in the conversation to build the BEST safety plan.
- **DO NOT LEAVE THE HUDDLE UNTIL ALL OF YOUR QUESTIONS ARE ANSWERED!!**



PRE-TASK PLANNING PTSA

- PTSA are required for ALL tasks. As tasks change, so does your plan
- The best plans are built by the **WHOLE TEAM**
- When we build a plan, we stick to it!
- If the plan will not work, we fall back and design a new plan
- **Never change an operation on your own**
- Mistakes WILL happen, plan to FAIL SAFE
- Everyone MUST sign the PTSA
- Make sure ALL your questions are answered and you know what is expected of you

You are not expected to know everything. You ARE expected to ask questions and communicate.



WE REPORT IMMEDIATELY



- **Injuries-** any change in physical status at work (BIG OR SMALL)
- **Incident**
- **Near-Misses**
- **Harassment**
- **Vandalism**
- And anything else that may cause **HARM to yourself and/the company.**

Failure to report is a direct VIOLATION of company policy

INJURY REPORTING



- **All Injuries** that occur at work are reported immediately to your supervisor, no matter how small. Supervisors MUST report all injuries to the Safety Department immediately.
- Injuries are reported day/time of accident.
- Injuries reported late are a violation of company policy.
- **No one will ever receive punishment** for reporting an injury.
- Never leave the job and seek medical treatment for a work-related injury.
- We want to ensure our people get the best care possible.

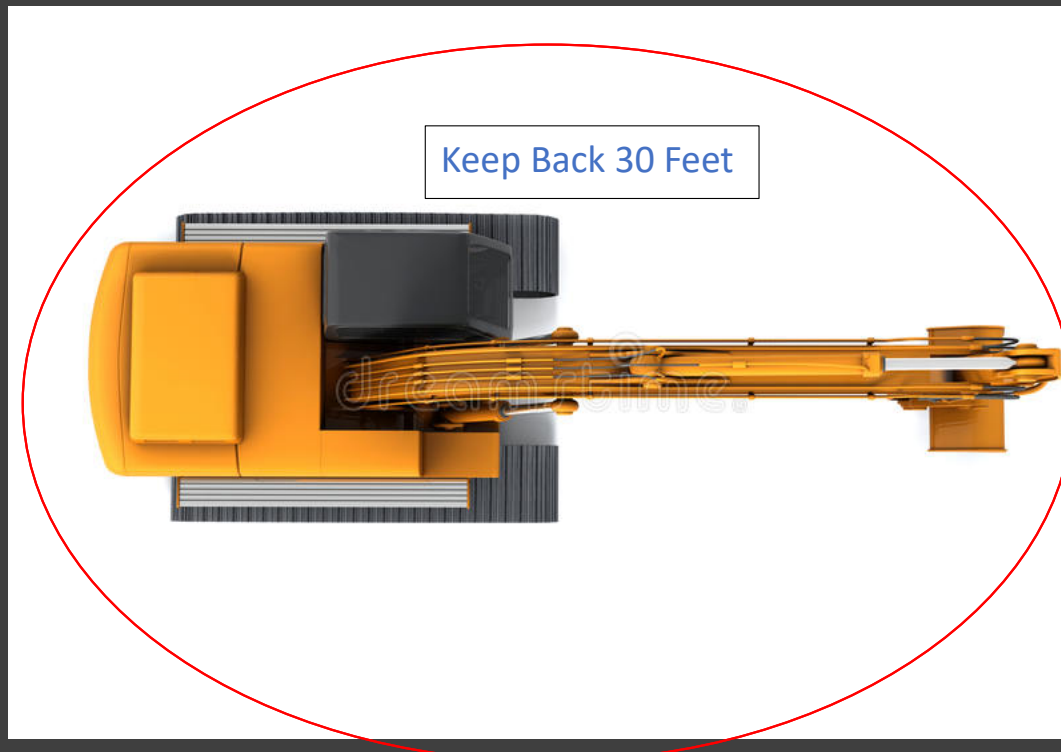
CAH has a great return-to-work program and we have light-duty work available if needed.

YOUR RIGHTS ON THE JOB

- Employees will be supplied bottled water for hydration at all work locations
- All jobsites will have portable bathrooms, at least 1 per 10 employees
 - Please help us to keep them clean for everyone
- Hand wash will be available at ALL work locations (running water and soap)
- Access to all medical records on file for you (testing/monitoring)
- Work environment free of hazards
- Have the right to stop all unsafe acts free of punishment



KEEP BACK 30 FEET FROM ALL EQUIPMENT



BLOOD BORNE PATHOGENS



- C.A. Hull and its employees have minimal potential to be exposed to bloodborne pathogens, which include:
 - Hepatitis B
 - HIV
 - Malaria
 - Syphilis
 - Brucellosis
- ONLY trained first responders and certified/trained supervisors will assist injured employees on the project

ALL fluids will be considered infectious and universal precautions such as barriers, gloves and any other method to prevent exposures will be implemented

HEARING CONSERVATION

- OSHA Permissible Exposure Limit (PEL) for noise is 90 DBA over an 8 hour day.
- CAH requires employees to protect themselves with ear plugs at 85 DBA or greater.
- CAH supplies general ear plugs with a 33 DBA reduction.
- Depending on the task, additional ear protection may be required- ask supervisor.
- CAH performs periodic testing of tasks and operations to ensure we have adequate protection for employees.

Ear-buds/ headphones for music or calls is strictly prohibited.

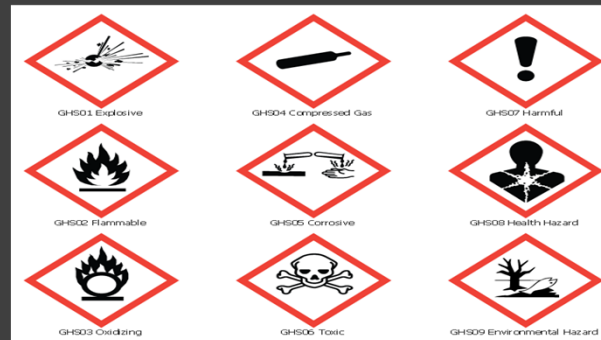


HAZARD COMMUNICATION: SDS

- CAH's Safety Data Sheets (SDS) can be found on our supervisor's phones
- We use www.MSDSONLINE.com for chemical tracking
- ALL SDSs need to be reviewed during huddles before using
 - Some chemicals require special PPE/ventilation/first-aid precautions
- Supervisors conduct chemical inventory
- All chemicals MUST remain labeled or removed from project

- **Label must read:**

- Product identifier
- Signal word (DANGER)
- Pictogram
- Precautionary statement



RESPIRATORY PROTECTION

- Respirators are used only when engineering controls cannot bring levels below the OSHA Permissible Exposure Limit (PEL)
- Respirators can be utilized by employees at anytime under “**Voluntary Use**” only if they are in the program and engineering controls are used
- Respirators can ONLY be worn by **annually trained** employees
- MUST be worn anytime directed by CAH/OSHA and/or chemical manufacturer
- NOTE: A “**paper**” dust mask is a respirator. Half-face APF₁₀ is the lowest we use

Annual fit-testing required for ALL tight-seal fitting respirators



USER SEAL CHECK- WHEN YOU DON THE MASK

User Seal Check “Fit Check”

An action conducted by the respirator user to determine if the respirator is properly seated to the face.



Positive Pressure Check



Negative Pressure Check

**THIS MUST BE PERFORMED EACH TIME
THE RESPIRATOR IS PUT ON!**

RESPIRATORY PROTECTION

Tight-seal respirator- Annual fit-test & PFT

APF 10

APF 50



Half-Face



Full-Face

Loose-seal respirator- Annual training & med exam every 3 years

APF 1,000

APF 1,000



RPB Nova 3 (blast)



RPB Z-Link (PARP)

RESPIRATORY PROTECTION

- Filters we use
 - 3M 2091 P-100 (pink) particle filters
 - Silica, Lead
 - 3M 60923 multi cartridge (partial & organic vapors)
 - Silica, Lead, Paint
 - 3M 6001 (BLACK) Organic filter
 - Paint



LEAD EXPOSURE

- Lead can most commonly be found on our bridge beams, if built before 1978
- Lead is usually an orange/red color found on the primer of beams
- All areas are tested prior to work, or will be treated as lead if not tested
- Only trained employees in our lead/blood program can: cut, grind, torch, blast, weld, etc. on lead surfaces
- OSHA's PEL for lead is 50 ug/m³ (airborne particles)
- Any operation generating exposures at or above the Action Level (AL 30 ug/m³), all lead requirements will be implemented
 - Only trained employees
 - All PPE/engineering controls
 - Signage
 - Wash/shower stations
 - NO food/drinks allowed in area



GENERAL TASKS AROUND LEAD

- Supervisors will update employees if lead is on the job
- Lead on surfaces requires employees to wear gloves and wash their hands
- Do not take it home with you:
 - Make sure to clean clothing and skin before going to break and or home
- Lead can be found mostly on bridges built **before 1978**
 - Diaphragm ends
 - Beam tops
 - Removing rivets or other connections
 - Concrete bonded to lead beams



Always wear gloves and never touch face/mouth



SILICA EXPOSURE



NO WHITE DUST CLOUDS ALLOWED ON C.A. HULL JOBS!

SILICA EXPOSURE

- Employees can be exposed to silica anytime we cut, grind, blast chip, etc. on **concrete** surfaces
- OSHA has set the permissible exposure level (PEL) at **50 ug/m³** for 8 hours
- Anytime levels reach the OSHA Action Level (AL) of **25 ug/m³**, we have to take action and implement **engineering controls**
- All operations involving cutting, grinding, drilling, milling, blasting and demo will have air levels over the OSHA PEL (50 ug/m³)
- Employees are required to follow the CAH **Exposure Control Plan** (ECP) for silica tasks
 - MUST implement engineering controls and PPE when required

Employees required to wear a respirator for more than 30 days in the year under Table 1, will be offered a medical exam (good for 3 years)

SILICA EXPOSURE

- Silica particle size- **8 Microns** and smaller
 - Human hair diameter is **100 Microns**
- Silica is linked to:
 - Lung cancer
 - COPD
 - Silicosis
- Silica is a group 1 carcinogen

NO DUST IS GOOD DUST

What jobs used to look like



SILICA EXPOSURE (THE CONTROL)

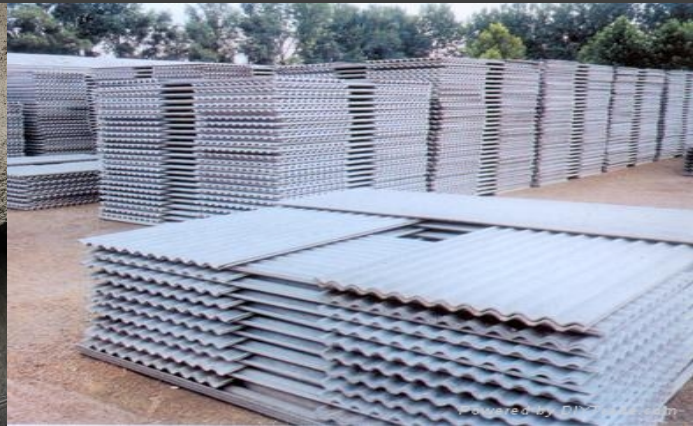


ASBESTOS EXPOSURE

- Asbestos is a naturally occurring mineral fiber that was used in numerous building materials for its strength and ability to resist heat
- Can cause cancer
- All jobs are tested prior or treated as **HOT**
- If an unknown **fibrous** material is found, it is left alone and treated as asbestos until proven otherwise (pipe, caulk, pipe insulation, etc.)
- **ONLY trained, licensed 3rd party contractors** are allowed to disturb and remove asbestos material on a C.A. Hull job

Usually found in old pipes, pipe insulation and caulk on bridge projects

ASBESTOS EXPOSURE



HEAT STRESS

- Working in elevated air temperature, high humidity, or operations that generate heat (welding) can cause heat stress on the body
- Workers are encouraged to wear lighter clothing, drink plenty of water, and let a supervisor know immediately if they are experiencing any **HEAT related illness**
- KNOW THE FIRST SIGNS:
 - Dizzy
 - Nausea
 - Weakness
 - Confusion

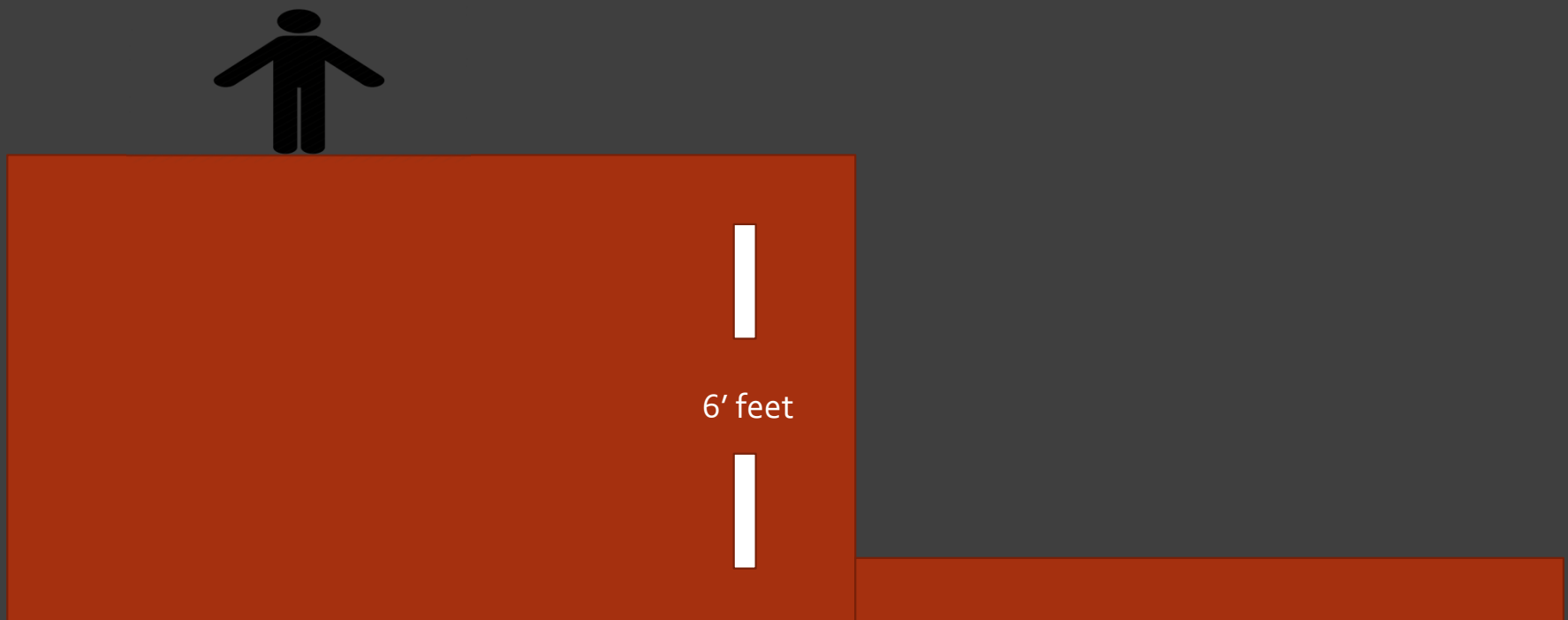
Most jobs will shutdown when temps reach 95 degrees and higher

FALL PROTECTION 6' +

- CAH requires employees to be protected from falls at **6 feet and above**
- Employees are required to be tied off with PFR system or work behind guard rails- **strictly enforced**
- Tie-off required 100% of the time within 15 feet of a leading edge
- Employees are required to perform daily fall protection inspections and discard all DAMAGED equipment
- Before using fall protection or working along a leading edge, review with your supervisor before going to work

Guardrails are not designed to hold employees or materials- NO LEANING!

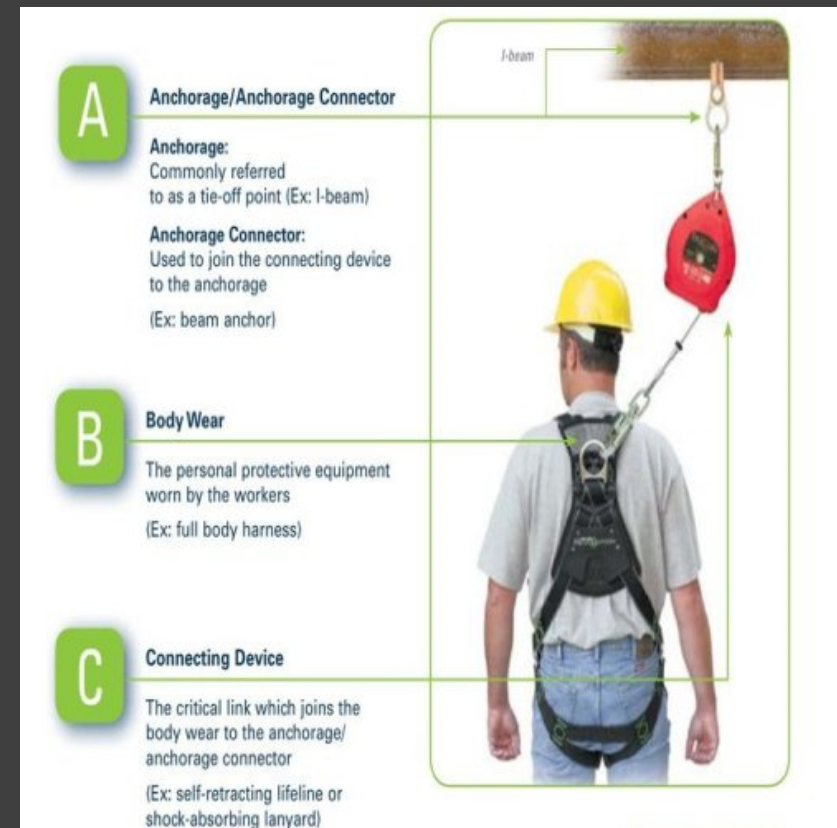
LEADING EDGE WORK



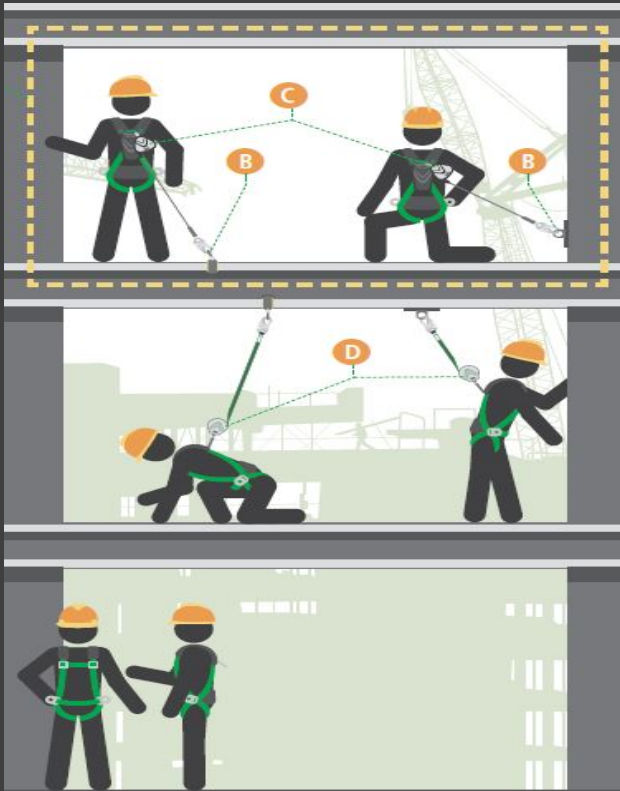
Guardrails MUST be installed within 15 feet of leading edge (top-middle-toe)

FALL PROTECTION- SIMPLE AS ABC

- **A**nchor Point
 - Rated for **5,000lb**- per employee
 - Only attach to suitable anchorage (I-beam, conc deck, etc.)
- **B**ody Harness
 - Fitted properly- NO loose straps (**2 fingers**)
 - Lanyard only connects to **Back D-ring** on harness
- **C**onnecting Device (Lanyard)
 - Only use **Self-Retracting lanyards (SRL)**
 - **MUST** use **Leading Edge** lanyards for Tie-Off at **feet level**.



SRL OR LEADING EDGE SRL???



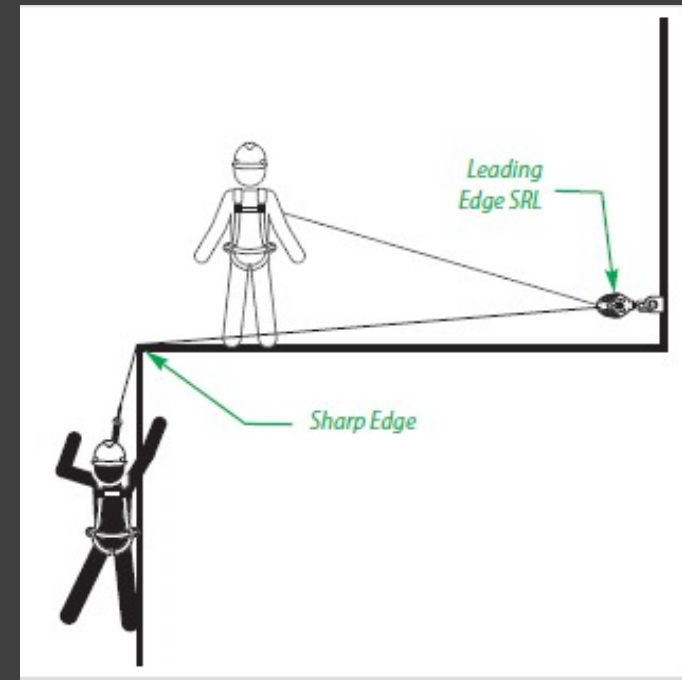
Leading Edge SRL
Below Head Anchor



Reg SRL
Overhead Anchor



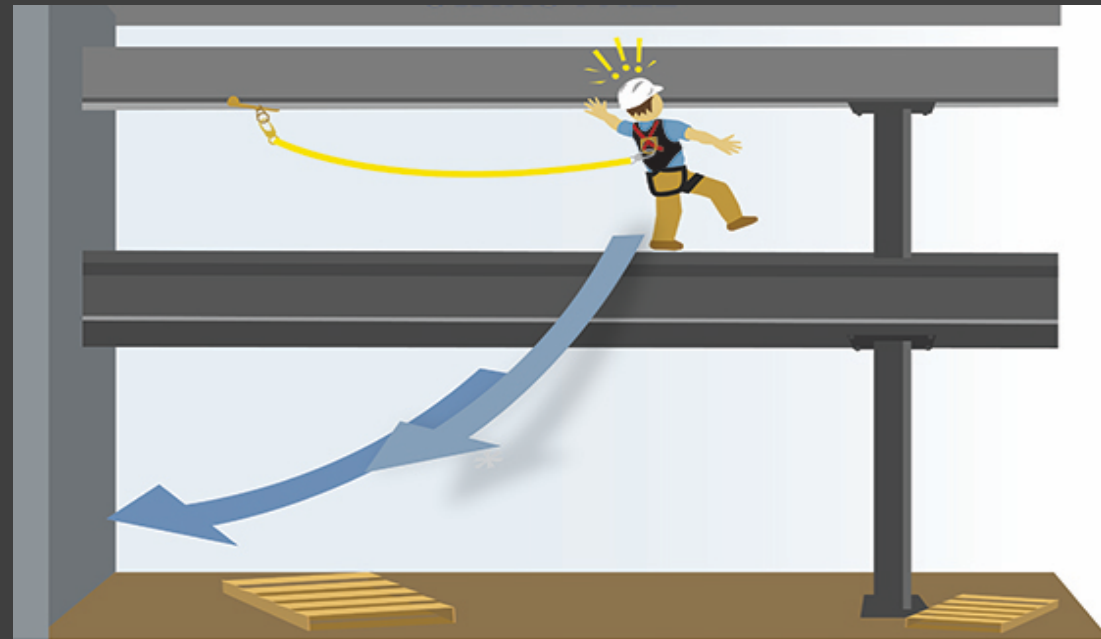
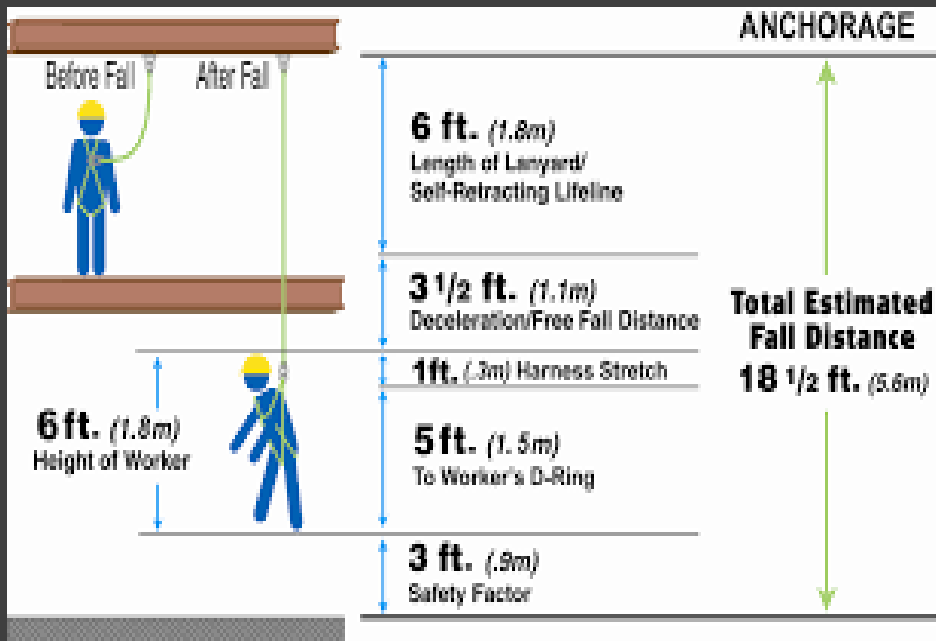
Leading Edge (Sharp Edge)



FALL PROTECTION- PLAN FOR A FALL

Fall straight and maintain at least 3'ft to next lower level

Avoid swing-fall



FALL PROTECTION

Guardrail Requirement (**within 15' leading edge**)

- Top-Rail 42" +/- 3"
- Mid-Rail 22" +/- 3"
- Toe-Board



Hole Cover for holes 2" or greater

- Must be covered
- Marked (HOLE)
- Secured
- Supports **2X** intended load



LADDERS CAN BE SAFE- USE THEM CORRECT



7 Steps to Ladder Safety

7 PASOS DE SEGURIDAD EN ESCALERAS

- 1** Extend ladder 3' above the surface
Extienda la escalera 3 pies por encima del punto que desea alcanzar
- 2** Tie off ladder at top
Asegure la escalera en la parte de arriba para que no se resbale
- 3** 3 point contact at all times when climbing ladder
Mantenga dos manos y un pie o una mano y dos pies en la escalera todo el tiempo
- 4** Don't use if ladder has broken rungs
No use la escalera si esta dañada o defectuosa
- 5** For every 4' in height, put ladder 1' back
Coloque la escalera en ángulo para que la base quede a 1 pie de distancia del lugar donde esté apoyada por cada 4 pies de altura
- 6** Secure ladder at bottom
Asegure la escalera en la base
- 7** Never carry tools or materials on ladder
Nunca cargue materiales o equipos mientras suba o descienda. Use un montacargas o una polea.

CPWR THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING
www.cprw.com www.osha.org

- Inspected **daily**
- Set on a **4-1 ratio**
- **Secured** top and bottom
- **3 feet above** elevated surface
- Use ladder **walk-through** attachments
- **3 points** of contact (up/down)
 - Don't carry material in hands
- Do not step on **top two steps** of A-frame ladders
- **Don't lean** A-frame ladders
- **KEEP body inside** the ladder- **DON'T REACH.....**

SCAFFOLDING

- CAH/OSHA requires a Scaffolding **Competent Person** to be available on site to make decisions regarding fall protection, safe access and integrity.
- We also require ALL scaffolding be **inspected daily** for safe use
 - Scaffolding **MUST** be built per manufacturer's specifications
 - Capable of supporting it's own weight plus **4X the intended load**
 - All components must be used and **free of damage/defects**
 - Designed by a **Qualified Person**
 - **MUST** be **certified** by CAH to operate **mobile scaffolding**
 - Certification is good for 3 years

There is NO place for makeshift scaffolding on our jobs



SCAFFOLDING 3 TYPES WE USE

Mobile



Stationary



Suspension



FORKLIFTS

- CAH uses a variety of forklifts on it's jobs
- ALL operators MUST be certified by CAH
- Certification is good for **3 years**
- Must perform **daily inspections** before use
- Machines are **ONLY** used to pick up and set-down material
 - Misuse of machines will result in disciplinary action
- Maintain safe distances from other employees



WORKING OVER WATER



- Lifejackets are required anytime **within 10 feet of water's edge**
- Jackets worn anytime on a **boat or barge**
- Fall distance is **6 foot or greater**, fall protection is required
- Life boat **MUST** be readily available at water's edge and boat's **population** is capable of keeping up with water conditions
- **Life Rings** posted on each side of water and every **90 feet**
- Post safety signage

CN [2]1



ELECTRICAL



- C.A. Hull uses **Ground Fault Circuit Interrupters (GFCI)** to protect
 - GFCI are inspected **Daily**
- All electrical equipment **MUST** be inspected daily before use
- All tools that are not double insulated, will/**MUST** have ground prong attached
- Keep all cords and tools out of **standing water**
- Any damaged to power cords i.e. cuts, burns, wires exposed, etc. will be taken out of service immediately
- Only trained employees will perform electrical maintenance

NO TAPE ALLOWED ON POWER CORDS



ELECTRICAL-KEEP BACK 20' FEET

- Locate ALL overhead power lines
 - Post signage- **"DANGER Overhead Lines"**
- Keep away 10 feet min requirement
 - CAH Best Practice 20 feet
 - Cranes- 20 feet min
- Do not store material/ spoils under lines
- Use spotter when needed for the task
 - Lower booms and dump-beds before driving under
- Stay at least 35 feet away from fallen lines



LOCK-OUT TAG-OUT LOTO

- All energy will be brought to **ZERO energy** and controls will be in place to prevent re-energizing by means of locks, controls and signage.
- Never work on anything live. Unplug, disconnect, turn off and place tag
- **Example-** employees need to perform maintenance on a vehicle
 - Turns vehicle off
 - Removes keys and keeps them with him
 - Places LOTO card on ignition of vehicle
 - Controls stay in place until operation is complete
- Never perform work under **suspended loads and/ or hydraulics.**
 - **Physical barriers** and supports **MUST** be used



HAND/ POWER TOOLS

- Must inspect hand/power tools daily
- Only used in accordance with manufacturer recommendations (Not a Swiss Army Knife.)
- DO NOT **remove guards** and/or safety devices
- Never use **TAPE** to fix and keep out of standing water
- All cracks/breaks in tools, including handles, will be removed from service
- All pneumatic high pressure air lines have **wire-tie on connections**
- Keep all hands/body and clothing away from moving parts
- Keep body out of line-of-fire
- Red tag any damaged/defective tools
- **Specific tools** require **specific PPE**, check with your supervisor

If the tool come with any specific devices such as "side handle" it MUST be used

HAND/POWER TOOLS



CONFINED SPACE

- What is a Confined Space? (It **MUST** have all **THREE**)
 - Large enough to enter
 - Wasn't designed for employees to work in (Bin, vat, tank, manhole)
 - Limited/restricted means of egress (up/down a ladder)
- ALL confined spaces **MUST** be labeled on the job
- **ONLY** trained **CAH employees** can enter when following **CAH plan/protocol**
- Unauthorized entry can lead to termination of employment



CRANES

- Only **certified** and **evaluated** operators can run cranes on CAH jobs
- MUST be **certified in TYPE** of crane you operate and hold a current card
- MUST be **evaluated** on type, configuration, model, etc. before operating
- Operators complete daily documented inspections before use (book found in cab)
- CAH's **assembly/disassembly** (A/D) protocol MUST be followed before cranes are assembled/dissembled.
- Crane booms and ALL other equipment MUST maintain 20 feet from ALL overhead lines
- Cranes MUST be set on stable, graded ground
- Out riggers are ALWAYS used. **NO pick-n-carry**

TAGLINES FOR LOADS



RIGGING

- ALL rigging inspected daily
- ALL hooks MUST have a locking clasp
- Rigging MUST be rated and tagged
- **30 degree** angle is the **MAX** for a sling leg. We have the right stuff, just need to plan
- ALL faulty/damaged rigging will be taken out of service immediately
- MUST complete pre-lift meeting between **Operator, Rigger and Signal person** before a lift
- Never lift a load over **anyone's head**. You must clear the area
- Always use a tag-line for lifted loads. (EVERYTHING)

Can't read the tag- NO LIFT



	WEIGHT	TYPE	TYPE
1	3100 LBS	Vertical	EE1-902
J	2480 LBS	Choker	LENGTH
			6 FT
U	6200 LBS	Basket	05/20/16

Polyester Sling 5:1 Design Factor 208-342-8919 | 1-800-342-7673

WARNING

Do not use this sling for any purpose other than that for which it was designed. Do not use this sling for any purpose other than that for which it was designed. Do not use this sling for any purpose other than that for which it was designed. Do not use this sling for any purpose other than that for which it was designed.

EXCAVATIONS



- Never enter into an unsafe excavation that hasn't been properly shored/benched, is missing egress, or spoils not pushed back
- Entering into an **UNSAFE** excavation can lead to termination of employment
- A competent person **MUST** be available and perform inspections prior to employees entering
- Two types of soils you will mostly find on our jobs:
 - **Type B** soil- Call for a **1/1 slope/bench** (every 1 foot up, you dig 1 foot over)
 - **Type C** soil- Call for a **1/ ½ slope only** (30 degree angle)
- You can use trench boxes if needed due to foot-print size
- ALL excavations **4 feet and less**, just egress every 15 feet is required
- All excavations **GREATER than 4 feet**, must have safety systems, egress and spoils pushed 3'ft back

Excavations MUST be drained prior to employees entering

UNDERGROUND UTILITY

- Before we DIG, **MISS DIG** contacted **3 days** in advance
- If we lose marks, we **DON'T dig** until utilities are re-verified
- ALWAYS **Pot-Hole** to uncover lines. Never use bucket of machine
- Marks are NEVER an exact make. Lines can be upwards of 4 feet either side of mark

COLOR CODES FOR MARKING UNDERGROUND UTILITY LINES			
RED Electric Power Lines, Cables, Conduit and Lighting Cables	YELLOW Gas, Oil, Steam, Petroleum or Gaseous Materials	ORANGE Communication, Alarm or Signal Lines, Cables or Conduit	BLUE Potable Water
GREEN Sewers and Drain Lines	PURPLE Reclaimed Water, Irrigation and Slurry Lines	PINK Temporary Survey Markings	WHITE Proposed Excavation



TRAFFIC SAFETY



TRAFFIC SAFETY



TRAFFIC SAFETY



- ONLY park personnel vehicles in designated areas, NOT the closest spot
- CAH is **NOT responsible** for damage/theft to your personal vehicle
- MUST be a CAH certified driver to operate CAH vehicles
- **SEATBELTS** are worn at ALL times in company and personnel vehicles
- When driving on the job, use your **HAZARD LIGHTS** or a strobe
- The use of electronic devices while driving is **strictly prohibited**
- Merge-in/merge-out of zone with traffic speeds
- NEVER use highway turn-arounds. Go to the next exit to make your loop

360 WALK-AROUND



CAH requires **ALL** company drivers to complete a **360 Walk-Around**

- When parking, set out your **Yellow Cones** front and back of vehicle
- If you disconnect from a trailer, cones travel with the vehicle
- Before heading to the next destination, conduct your 360 Walk-Around as you pick up the cones looking for **hazards in path of travel**
 - **Look in front and path of travel**
 - **Check sides of vehicle for hazards (material, pallets, holes/drop-offs, etc.)**
 - **Check the back and path of travel in the plan is to back up**
 - **Place your cones back in the vehicle and proceed**
 - **IF you will back up, use a spotter**

When parking, park in the direction that will not require backing up if possible



TRAFFIC SAFETY

When crossing LIVE lanes- Foot/Vehicle

- Employees will **NOT** be allowed to cross **multiple lane highways**
- Lane crossing will be **Site Specific ONLY** when project has implemented crossing plan with designated flags/cross-walk.
- Vehicles/equipment WILL follow CAH **rolling closure** plan or be placed on trailers
- Flaggers **MUST** be certified

Speed*	Distance*
• 25MPH	155 Feet
• 35MPH	250 Feet
• 45MPH	305 Feet
• 50MPH	425 Feet
• 55MPH	495 Feet
• 65MPH	645 Feet
• 70MPH	730 Feet
• 75MPH	820 Feet

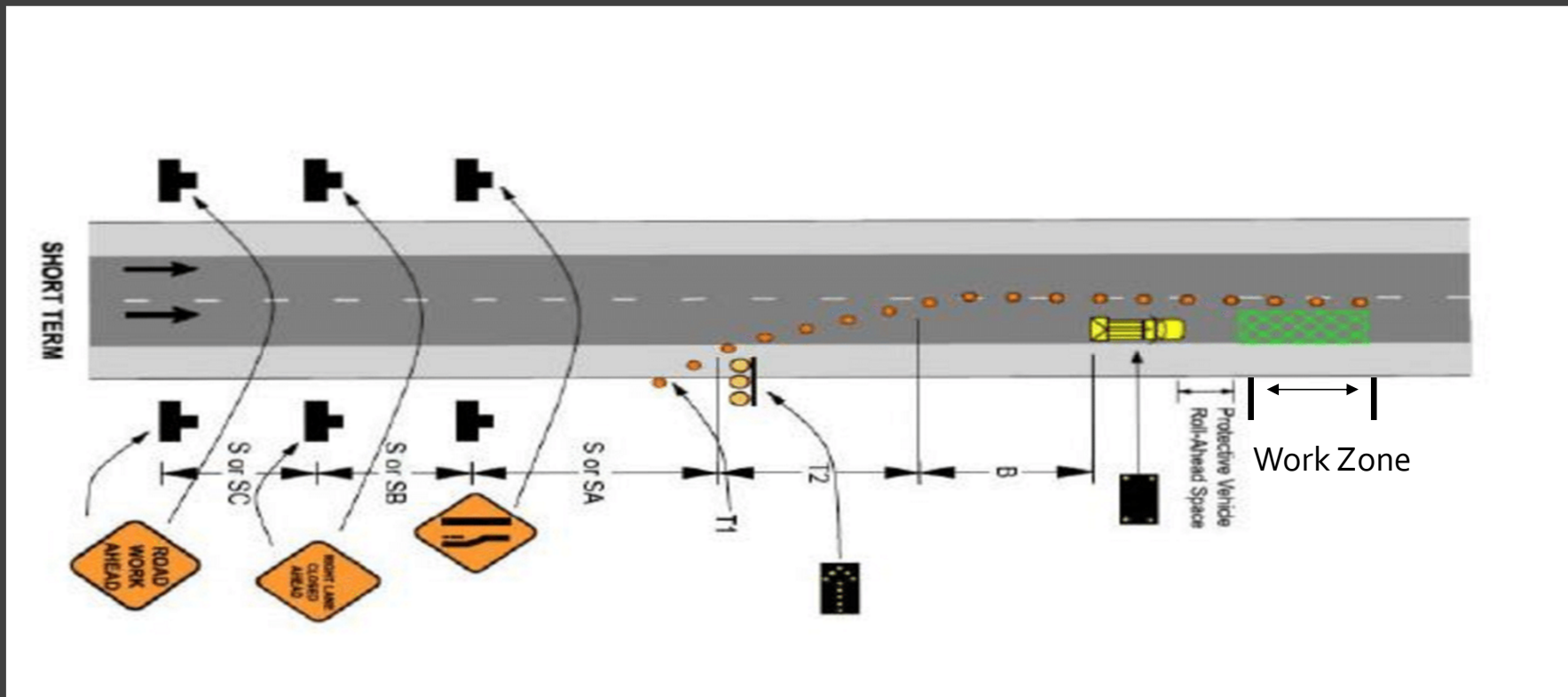
Stopping Sight Distance Function of Speed

TEMPORARY TRAFFIC CONTROL PLAN: WZTCP

- Each CAH job will have its own **WZTCP** for the project
- This plan has been approved by MDOT and CAH's traffic committee in accordance with the **MMUTCD, MDOT, etc.**
- DO NOT make changes to any traffic safety without permission from project team
- If **additional hazards** present themselves during layout of TCP (taper on a curve, hill, etc.), review possible changes with project team
- Inspect traffic safety daily and replace damaged devices
- Make sure to **replace any traffic control items** that get moved during access/egress of equipment, trucks, deliveries, etc.
- When placing temp traffic safety signs- **4 sandbags**
- Always face traffic when working/set-up of TCP



TTC PLAN



PROTECTION IN THE ZONE



PROTECTION IN THE ZONE



PROTECTION IN THE ZONE



PROTECTION IN THE ZONE

- TMA are used to keep vehicles out of the ZONE
- TMA needs a **50 foot clear zone** in front of bumper
- They are used to protect shoulder/road operations



CLEAR ZONE

50'

PROTECTION IN THE ZONE

- ABSORB 350- protect ends of barrier wall
- Are designed for the work-zone for traffic speeds
- DO NOT alter/ make changes without supervisors permission
- Report all/any damages/defects of 350s to supervisor
- 50 foot CLEAR ZONE around 350s





PEOPLE

Build the Culture

That Will Make Us Great

TOMORROW

WHAT'S NEXT?

- A jobsite superintendent will call you to work if/when they have a need.
- **Do NOT call the main office with updates on when you are expected to start work. Only superintendents have that information.**
- You will be given contact information for a jobsite superintendent, who will remain your point of contact moving forward.

The Department of

Labor and Economic Opportunity



LABOR AND ECONOMIC OPPORTUNITY / BUREAUS & AGENCIES /

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C.A. Hull Co., Inc. in Commerce Township Becomes First Construction Company to Receive MIOSHA's Ergonomic Success Award

Media Contact: LARA Communications 517-373-9280

Email: mediainfo@michigan.gov

C.A. Hull Co., Inc. in Commerce Township Becomes First Construction Company to Receive MIOSHA's Ergonomic Success Award

April 9, 2018 - C.A. Hull, a bridge building company in Commerce Township, today became the first construction company in Michigan to receive the prestigious Ergonomic Success Award from the Michigan Occupational Safety and Health Administration (MIOSHA). The MIOSHA program is part of the Dept. of Licensing and Regulatory Affairs (LARA).

"C.A. Hull is an impressive ergonomic success story," said MIOSHA Director Bart Pickelman. "They've made continuous ergo improvements over the years with collective employee input that has created a strong company culture and a robust safety and health program."



MIOSHA's Consultation Education and Training (CET) Division issues the Ergonomic Success award to employers that have instituted ergonomic improvements and have substantially reduced musculoskeletal disorders (MSDs). The criteria for the award are stringent and include: at least a 25 percent reduction of injuries;

improvements achieved through engineering controls, and employee input in the improvement process.

CET Division Director Nella Davis-Ray presented the award to C.A. Hull officials at company headquarters. The construction company has long viewed ergonomic improvements not as additional expenses, but as investments in its long-term success. This applies to an established

company culture that goes well beyond ergo with no loss time injury in more than 1.7 million worker hours. The company had one ergo injury in 2013 and two in 2014; and none for the last three years.

Company officials emphasized that safety is their highest priority and make every effort to ensure their employees' quality of life. A dedication to job planning, employee involvement, stretch 'n flex, and the use of innovative equipment over the past several years has helped their employees work safer and avoid common neck, back and repetitive motion injuries. They will continue their commitment to providing the safest work environment possible for their employees in the future, knowing that they are stronger and safer together.

Established in the 1930s and incorporated in 1954, C.A. Hull today employs approximately 350 workers. As a heavy civil contractor, the privately held company specializes in highway bridge construction, coatings and earthwork including highway, railroad and river bridges, concrete repair and rehabilitation, hydro demolition, foundation and sheet piling, and other specialty operations. For more information about C.A. Hull, go to: www.cahull.com

MIOSHA's CET Division provides a range of consultation, education and training services to assist employers and employees who wish to reduce or eliminate ergonomic injuries in their workplaces. All of these are voluntary services and may be obtained without charge by contacting the CET division. For more information regarding the CET Safety Awards, contact the CET Division at 517-284-7720.


For more information about MIOSHA, please visit www.michigan.gov/miosha

Like us on Facebook and follow us on Twitter

For more information about LARA, please visit www.michigan.gov/lara

Follow us on Twitter, "Like" us on Facebook or find us on YouTube

RELATED CONTENT

New Alliance to Promote Workplace Safety and Health Helps Protect Employees from Airborne Contaminants 

Nonprofits awarded \$870,000 to bolster worker protections through MIOSHA training grants

MIOSHA grants award to Humanetics for exemplary safety and health commitment to employees

\$250,000 in grants available to small businesses to protect workers

Brinkmann Pumps, Inc. Earns Exemplary "MSHARP" Workplace Safety and Health Status



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LABOR AND ECONOMIC OPPORTUNITY
MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
BARTON G. PICKELMAN, DIRECTOR

SUSAN CORBIN
DIRECTOR

February 17, 2022

Mr. Paul Louzeky
C.A. Hull Co., Inc.
8177 Goldie Road
Walled Lake, MI 48390

RE: Inspection I#1565825(H51)

Dear Mr. Louzeky:

On November 23, 2021, the Michigan Occupational Safety and Health Administration (MIOSHA), Construction Safety and Health Division began a programmed inspection at your worksite located at 7095 West Grand River Avenue in Lansing, Michigan.

As a result of our investigation, no violations of MIOSHA Occupational Health Standards for Construction were identified. You may therefore consider this letter as the final closing for this case investigation.

Enclosed you may also find additional information such as recommendations, and supplemental information on occupational safety and health.

MIOSHA standards as well as additional training materials are available online at www.michigan.gov/miosha. You may also wish to contact the MIOSHA Consultation, Education and Training (CET) Division. The CET Division conducts safety and health surveys in the workplace (full or partial) without fines or penalties, at no charge, and can be reached by calling (517) 284-7720.

If you have any questions associated with this inspection, please contact the Construction Safety and Health Division at (517) 284-7680. Your personal support and interest in the safety and health of your employees is appreciated.

Sincerely,

Dan W. Maki

Dan W. Maki, Health and Safety Manager
Construction Safety and Health Division

DWM:lv

Please note that inspections which are known to be incomplete will have the identifying Activity Nr shown in *italic*. Information for these open cases is especially dynamic, e.g., violations may be added or deleted.

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By Date

Results 1 - 8 of 8

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#	Activity	Opened	RID	St	Type	Sc	SiC	NAICS	Wt	Establishment Name
<input type="checkbox"/>	1 1414950.015	07/13/2019	0552651	MI	Planned	Complete		237310		C. A. Hull Co., Inc.
<input type="checkbox"/>	2 1414544.015	07/10/2019	0552651	MI	Referral	Partial		236220	1	C. A. Hull Company Inc
<input type="checkbox"/>	3 1413574.015	07/08/2019	0552651	MI	Unprog Ref	Partial		237310		C. A. Hull Co., Inc.
<input type="checkbox"/>	4 1410169.015	06/22/2019	0552651	MI	Planned	Partial		237310		C. A. Hull Co., Inc.
<input type="checkbox"/>	5 1403880.015	05/21/2019	0552651	MI	Planned	Complete		237310		C. A. Hull Co., Inc.
<input type="checkbox"/>	6 1359126.015	11/09/2018	0552651	MI	Unprog Ref	Partial		237310	1	C. A. Hull Co., Inc.
<input type="checkbox"/>	7 1333044.015	07/26/2018	0552651	MI	Referral	Partial		237310		C. A. Hull Co., Inc.
<input type="checkbox"/>	8 1322653.015	06/14/2018	0552651	MI	Pat/Cat	Partial		237310	1	C. A. Hull Co., Inc.



**UNITED STATES
DEPARTMENT OF LABOR**

Occupational Safety and Health
Administration
200 Constitution Ave NW
Washington, DC 20210
☎ 800-321-6742 (OSHA)
TTY
www.OSHA.gov

FEDERAL GOVERNMENT

White House
Severe Storm and Flood Recovery
Assistance
Disaster Recovery Assistance
DisasterAssistance.gov
USA.gov
No Fear Act Data
U.S. Office of Special Counsel

OCCUPATIONAL SAFETY AND HEALTH

Frequently Asked Questions
A - Z Index
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Subscribe to the OSHA Newsletter
OSHA Publications
Office of Inspector General

ABOUT THE SITE

Freedom of Information Act
Privacy & Security Statement
Disclaimers
Important Website Notices
Plug-ins Used by DOT
Accessibility statement

MI-OSHA Inspections

Year	Date	Inspection #	State	Type	SC	Vio
2018	6/14/2018	1322663	MI	Fat/Cat	Pa	1
	7/26/2018	1333044	MI	Referral	Pa	0
	11/9/2018	1359126	MI	Unprog Rel	Pa	1
2019						
	5/21/2019	1403880	MI	Planned	Co	0
	6/22/2019	1410169	MI	Planned	Pa	0
	7/8/2019	1413574	MI	Unprog Rel	Pa	0
	7/10/2019	1414544	MI	Referral	Pa	1
	7/13/2019	1414950	MI	Planned	Co	0
2020						0
2021						
	11/23/2021	1565825 (H51)	MI	Planned	Co	0

April 10, 2018

Mr. Nathan Mikolajczak
C.A. Hull
8177 Goldie Road
Walled Lake, MI 48390

RE: C.A. Hull Workers Compensation Mod

Dear Mr. Mikolajczak:

The modification for the Michigan Workers Compensation for the term of 04/01/2018 to 04/01/2019 is .64.

If you need anything further regarding the EMR please contact our office.

Very truly yours,

Anne Barick

Anne Barick, CISR, CRIS
Senior Account Manager
Guy Hurley, LLC

December 12, 2019

Mr. Paul Louzecky
C.A. Hull
8177 Goldie Road
Walled Lake, MI 48390

RE: C.A. Hull Workers Compensation Mod

Dear Mr. Louzecky:

The modification for the Michigan Workers Compensation for the term of 04/01/2019 to 04/01/2020 is .49.

If you need anything further regarding the EMR please contact our office.

Very truly yours,

Anne Barick

Anne Barick, CISR, CRIS
Senior Account Manager
Guy Hurley, LLC

December 16, 2021

CA Hull Co Inc
8177 Goldie Road
Walled Lake MI 48390

RE: Workers Compensation
Experience Modification Rating

To whom it may concern:

Please be advised that your Workers Compensation Modification factor for Michigan for the following terms are:

4/1/1/21 – 4/1/22: .73

If you need any further information regarding the EMR please contact the undersigned.

Very truly yours,

Anne Barick

Anne Barick
Account Manager
Guy Hurley, LLC
248-519-1421

APPENDIX C

WORKPLACE DEVELOPMENT DOCUMENTATION



C. A. Hull Co., Inc.
8177 Goldie Road
Walled Lake, MI 48390

P 248-363-3813
F 248-363-2399

June 1st, 2021

C.A. Hull Co., Inc. is a signatory to the Michigan Infrastructure & Transportation Association (MITA) collective bargaining agreements pertaining to the Road Building Trades. The attached wage and benefit schedules from those agreements are effective the first full pay period after June 1st, 2021 Fringe benefit payments are remitted to the following addresses:

<p>Detroit Carpenters PNC Bank c/o Michigan Regional Council Carp Fund Lock Box 777018 350 East Devon Ave Itasca, IL 60143</p>	<p>Teamsters JP Morgan Chase Bank N.A. Dept. 77158 MI Conference of Teamster Welfare PO Box 77000 Detroit, MI 48277-0158</p>
<p>Michigan Carpenters Michigan Carpenters' Fringe Funds Dept. 77878 PO Box 77000 Detroit, MI 48277-0878</p>	<p>Central States Funds Dept. 10291 Palatine, IL 60055-0291</p>
<p>Operating Engineers Operating Engineers Fringe Funds Dept. 77722 PO Box 77000 Detroit, MI 48277-0722</p>	<p>Teamsters Local 247 2741 Trumbull Ave Detroit, MI 48216</p>
<p>Michigan Laborers Michigan Laborers Fringe Funds Dept. 77948 PO Box 77000 Detroit, MI 48277-0948</p>	<p>Cement Masons Outstate Michigan Trowel Trades Fringe Benefit Funds Dept. 77761 PO Box 77000 Detroit, MI 48277-0761</p>
<p>Painters & Allied Trades District Council 1M 14587 Barber Ave Warren, MI 48088</p>	

Please direct any questions to Jennifer Fuller, Payroll Administrator for C.A. Hull Co., Inc.

Thank you,

Jason Shinn
Assistant Controller



District Council
1M Michigan

1M Michigan Website:
www.iupatdc1michigan.org

As of June 1, 2021

**COMMERCIAL & INDUSTRIAL PAINTING
FOR METRO LOCALS 514, 2352 & 2353**

METRO OFFICE
14587 Barber Ave.
Warren, MI 48088
O 586-552-4474
F 586-552-4477

OUT STATE OFFICE
P.O. Box 497
Freeland, MI 48623
O 989-695-6888
F 989-695-6889

Robert Gonzalez
*Business Manager/
Secretary-Treasurer*

Local Unions
312 • 357 • 514
591 • 826 • 845
1052 • 1803
2352 • 2353

Wages**	\$29.86
Insurance	\$7.60
Pension	\$9.61
Vac. Fund**	\$2.50
App. Fund	\$0.30
I.S.A. Fund	\$0.05
L.M. Fund	\$0.10
F.T.I. Fund	\$0.10
Ind. Adv. Fund	\$0.15
FRINGE TOTAL:	\$20.41

WAGE & FRINGE TOTAL: \$50.27

RESIDENTIAL PAINTING

Wages**	\$24.94
Insurance	\$7.60
Pension	\$9.61
Vac. Fund**	\$2.50
App. Fund	\$0.30
I.S.A. Fund	\$0.05
L.M. Fund	\$0.10
F.T.I. Fund	\$0.10
Ind. Adv. Fund	\$0.15
FRINGE TOTAL:	\$20.41

WAGE & FRINGE TOTAL: \$45.35

**subject to Federal/State Tax and F.I.C.A. withholdings

FOREMAN RATE
\$1.00 PER HOUR

NIGHT RATE
\$0.50 PER HOUR

SPRAY RATE PREMIUM
\$0.80 PER HOUR

DUES & ASSESSMENTS

Member Dues \$8.00 Weekly / Weeks Worked
3.5% Gross Wages Assessment employer deducted
remitted to District Council 1M

Painters Local 1052
Effective May 01, 2021

Section 10. Prevailing Wage Rates effective the first full pay period on/after May 01, 2021

	05-01-2021
Painters- Commercial	\$26.00
Painters-Heavy Industrial (see Industrial definition below)	\$27.35

Heavy Industrial defined: Auto Assembly Plants, Paper Mills, Power Plants, Chemical Plants, Refineries and Foundries, water towers, tanks, Industrial Spray, Blowing Off, Pulling Picks, Epoxy Coatings, Sand Blasting, Water blasting over 7500#, High Risk Nature, (**Note:** All work over a falling height of thirty feet shall be paid thirty cents (\$.30) above the base rate and there shall an additional ten cents (\$.10) premium paid for each additional fifteen feet in height), Tanks (interior enclosed),

Foreman's rate shall be negotiable between the Employer and the employee if the crew consists of four or less (including Chargemen). On jobs where the crew consists of five people or more the foremen's rate shall be at one dollar (\$1.00) per hour above the highest rate paid on the crew.

WAGES FOR APPRENTICES

		Commercial	Industrial	
Level 1	50%	\$13.00	\$13.68	Min. hours 0
Level 2	60%	\$15.60	\$16.41	Min. hours 1500
Level 3	75%	\$19.50	\$20.51	Min. hours 3000
Level 4	90%	\$23.40	\$24.62	Min. hours 4500
Journey worker				Min. hours 6000

ARTICLE IV

FRINGE BENEFITS AND PAYROLL DEDUCTIONS

Section 1. Fringe Benefits. Effective May 01, 2021 and thereafter until amended, the Employer shall pay the following at rates specified below:

Employer Paid Contributions

Michigan State Painters Insurance Fund	\$7.10/hr.
Painters Local 1052 Pension Fund	\$6.10/hr.
IUPAT Pension Fund	\$1.05/hr.
Local Apprenticeship Fund	\$0.40/hr.
FTI	\$0.10/hr.
I.S.A. (International Special Assessment)	\$0.05/hr.
PAT Labor Management Cooperation Initiative	\$0.10/hr.
TOTAL BENEFIT PACKAGE	\$14.90/hr

Employee Payroll Deduction

Vacation Savings	\$0.60/hr.
Administrative Dues Check-off	3.5% of Gross Wages + \$8.00 per week

Amounts Paid for Vacation Savings and Administrative Dues Check-off shall be deducted from Employees' wages.

ALL FRINGES MUST BE RECEIVED BY THE 15TH OF EACH MONTH.

**MITA ROAD- ZONE 1 (Wayne, Monroe, Washtenaw, Oakland, Macomb & Genesee Counties)
Wage Rates effective the first full pay period on or after 6/1/21:**

Class 1: Asphalt Shoveler or loader, asphalt plant misc., asphalt raker tender, burlap man, carpenters' tender, yard man, guard rail builder's tender, Earth Retention barrier and wall and M.S.E. Wall installers Tender, Highway and median barrier installers tender (including sound, retaining and crash barriers), fence erector's tender, dumper (wagon, Truck, etc.), joint filling labor, misc., unskilled labor, sprinkler labor, form setting labor, form stripper, pavement reinforcing, handling and placing (e.g., wire mesh, steel mats, dowel bars, etc.), mason's or bricklayer's tender on manholes, manhole builder, headwalls, etc., waterproofing, (other than buildings) seal coating and slurry mix, shoring, underpinning, bridge painting, etc., (spray, roller and brush), sandblasting, pressure grouting, bridge pin and hanger removal, Material Recycling Laborer, Horizontal Paver Laborer (brick, concrete, clay, stone and asphalt), Ground Stabilization and Modification Laborer, grouting, waterblasting, Top Man, and railroad track and trestle laborer, sign installer and remote control operated equipment.

Class 2: Mixer operator, (less than 5 sacks), air or electric tool operator (jack hammer, etc.), spreader, boxman (asphalt, stone, gravel, etc.), concrete paddler, power chain saw operator, paving batch truck dumper, tunnel mucker (highway work only), concrete saw operator (under 40 hp), dry pack machine, and roto-mill grounds person.

Class 3: Tunnel miner (highway work only), finishers tenders, guard rail builder, highway and median barrier installer, Earth Retention Barrier and wall and M.S.E. wall installer (including sound, retaining and crash barriers), fence erector, bottom man, powder man, wagon drill, and air track operator, curb and side rail setter's tender, diamond and core drills (per agreement between the Laborers and Operating Engineers International Union dated February 3, 1954), grade checker and certified welder.

Class 4: Asphalt raker.

Class 5: Pipe Layers, oxy-gun.

Class 6: Line-Form setter for curb or pavement, and asphalt screed checker/screw man on asphalt paving machines.

Class 7: Concrete Specialist - The Classification of Concrete Specialist shall include the finishing and troweling, of cast in place or precast concrete by any and all methods. Laborers who have the necessary skills to be classified as a Concrete Specialist and perform the work shall be paid the following wage and fringe benefit scale.

	<u>Class 1</u>	<u>Class 2</u>	<u>Class 3</u>	<u>Class 4</u>	<u>Class 5</u>	<u>Class 6</u>	<u>Class 7</u>
*Base	\$26.07	\$26.20	\$26.38	\$26.46	\$26.67	\$26.97	\$28.04
*Vacation	4.45	4.45	4.45	4.45	4.45	4.45	4.45
Pension	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Health Care	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Training	.45	.45	.45	.45	.45	.45	.45
Annuity	.50	.50	.50	.50	.50	.50	.50
LECET	<u>.35</u>	<u>.35</u>	<u>.35</u>	<u>.35</u>	<u>.35</u>	<u>.35</u>	<u>.35</u>
	\$44.32	\$44.45	\$44.63	\$44.71	\$44.92	\$45.22	\$46.29
Ind.Prom.	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>
TOTAL	\$44.44	\$44.57	\$44.75	\$44.83	\$45.04	\$45.34	\$46.41

*Taxable income subject to Federal Withholding & FICA.

All registered Apprentices will work in accordance with wage and training requirements.

Rate	Work Hours	Training Hours – Cumulative
75%	0 – 1,000	75 Plus
80%	1,001 – 2,000	75 Plus
85%	2,001 – 3,000	75 Plus
95%	3,001 – 4,000	75 Plus

All percentages are calculated on the Base Rate. All fringe benefits are paid at 100%.
This language must comply with all MDOT specifications.

MITA - ZONE 2 (Hillsdale, Branch, St. Joseph, Lenawee, St. Clair, Cass, Berrien, Van Buren, Kalamazoo, Calhoun, Jackson, Livingston, Ingham, Eaton, Barry, Allegan, Lapeer, Shiawassee, Clinton, Muskegon, Gratiot, Saginaw, Tuscola, Sanilac, Huron, Bay and Midland Counties)

Wage Rates effective the first full pay period on or after 6/1/21:

Class 1: Asphalt Shoveler or loader, asphalt plant misc., asphalt raker tender, burlap man, carpenters' tender, yard man, guard rail builder's tender, Earth Retention barrier and wall and M.S.E. Wall installers Tender, Highway and median barrier installers tender (including sound, retaining and crash barriers), fence erector's tender, dumper (wagon, Truck, etc.), joint filling labor, misc., unskilled labor, sprinkler labor, form setting labor, form stripper, pavement reinforcing, handling and placing (e.g., wire mesh, steel mats, dowel bars, etc.), mason's or bricklayer's tender on manholes, manhole builder, headwalls, etc., waterproofing, (other than buildings) seal coating and slurry mix, shoring, underpinning, bridge painting, etc., (spray, roller and brush), sandblasting, pressure grouting, bridge pin and hanger removal, Material Recycling Laborer, Horizontal Paver Laborer (brick, concrete, clay, stone and asphalt), Ground Stabilization and Modification Laborer, grouting, waterblasting, Top Man, and railroad track and trestle laborer, sign installer and remote control operated equipment.

Class 2: Mixer operator, (less than 5 sacks), air or electric tool operator (jack hammer, etc.), spreader, boxman (asphalt, stone, gravel, etc.), concrete paddler, power chain saw operator, paving batch truck dumper, tunnel mucker (highway work only), concrete saw operator (under 40 hp), dry pack machine, and roto-mill grounds person.

Class 3: Tunnel miner (highway work only), finishers tenders, guard rail builder, highway and median barrier installer, Earth Retention Barrier and wall and M.S.E. wall installer (including sound, retaining and crash barriers), fence erector, bottom man, powder man, wagon drill, and air track operator, curb and side rail setter's tender, diamond and core drills (per agreement between the Laborers and Operating Engineers International Union dated February 3, 1954), grade checker and certified welder.

Class 4: Asphalt raker.

Class 5: Pipe Layers, oxy-gun.

Class 6: Line-Form setter for curb or pavement, and asphalt screed checker/screw man on asphalt paving machines.

Class 7: Concrete Specialist - The Classification of Concrete Specialist shall include the finishing and troweling, of cast in place or precast concrete by any and all methods. Laborers who have the necessary skills to be classified as a Concrete Specialist and perform the work shall be paid the following wage and fringe benefit scale.

	<u>Class 1</u>	<u>Class 2</u>	<u>Class 3</u>	<u>Class 4</u>	<u>Class 5</u>	<u>Class 6</u>	<u>Class 7</u>
*Base	\$24.17	\$24.37	\$24.61	\$24.96	\$24.83	\$25.17	\$27.74
*Vacation	4.20	4.20	4.20	4.20	4.20	4.20	4.20
Pension	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Health Care	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Training	.45	.45	.45	.45	.45	.45	.45
Annuity	.50	.50	.50	.50	.50	.50	.50
LECET	<u>.45</u>	<u>.45</u>	<u>.45</u>	<u>.45</u>	<u>.45</u>	<u>.45</u>	<u>.45</u>
	\$42.27	\$42.47	\$42.71	\$43.06	\$42.93	\$43.27	\$45.84
Ind.Prom.	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>
TOTAL	\$42.39	\$42.59	\$42.83	\$43.18	\$43.05	\$43.39	\$45.96

*Taxable income subject to Federal Withholding & FICA.

All registered Apprentices will work in accordance with wage and training requirements.

Rate	Work Hours	Training Hours – Cumulative
75%	0 – 1,000	75 Plus
80%	1,001 – 2,000	75 Plus
85%	2,001 – 3,000	75 Plus
95%	3,001 – 4,000	75 Plus

All percentages are calculated on the Base Rate. All fringe benefits are paid at 100%.
This language must comply with all MDOT specifications.

MITA - ZONE 3 (Alcona, Alpena, Antrim, Arenac, Benzie, Charlevoix, Cheboygan, Clare, Crawford, Emmet, Gladwin, Grand Traverse, Ionia, Iosco, Isabella, Kalkaska, Kent, Lake, Leelanau, Manistee, Mason, Mecosta, Missaukee, Montcalm, Montmorency, Newaygo, Oceana, Ogemaw, Osceola, Oscoda, Ostego, Ottawa, Presque Isle, Roscommon, Wexford Counties)

Wage Rates effective the first full pay period on or after 6/1/21:

Class 1: Asphalt Shoveler or loader, asphalt plant misc., asphalt raker tender, burlap man, carpenters' tender, yard man, guard rail builder's tender, Earth Retention barrier and wall and M.S.E. Wall installers Tender, Highway and median barrier installers tender (including sound, retaining and crash barriers), fence erector's tender, dumper (wagon, Truck, etc.), joint filling labor, misc., unskilled labor, sprinkler labor, form setting labor, form stripper, pavement reinforcing, handling and placing (e.g., wire mesh, steel mats, dowel bars, etc.), mason's or bricklayer's tender on manholes, manhole builder, headwalls, etc., waterproofing, (other than buildings) seal coating and slurry mix, shoring, underpinning, bridge painting, etc., (spray, roller and brush), sandblasting, pressure grouting, bridge pin and hanger removal, Material Recycling Laborer, Horizontal Paver Laborer (brick, concrete, clay, stone and asphalt), Ground Stabilization and Modification Laborer, grouting, waterblasting, Top Man, and railroad track and trestle laborer, sign installer and remote control operated equipment.

Class 2: Mixer operator, (less than 5 sacks), air or electric tool operator (jack hammer, etc.), spreader, boxman (asphalt, stone, gravel, etc.), concrete paddler, power chain saw operator, paving batch truck dumper, tunnel mucker (highway work only), concrete saw operator (under 40 hp), dry pack machine, and roto-mill grounds person.

Class 3: Tunnel miner (highway work only), finishers tenders, guard rail builder, highway and median barrier installer, Earth Retention Barrier and wall and M.S.E. wall installer (including sound, retaining and crash barriers), fence erector, bottom man, powder man, wagon drill, and air track operator, curb and side rail setter's tender, diamond and core drills (per agreement between the Laborers and Operating Engineers International Union dated February 3, 1954), grade checker and certified welder.

Class 4: Asphalt raker.

Class 5: Pipe Layers, oxy-gun.

Class 6: Line-Form setter for curb or pavement, and asphalt screed checker/screw man on asphalt paving machines.

Class 7: Concrete Specialist - The Classification of Concrete Specialist shall include the finishing and troweling, of cast in place or precast concrete by any and all methods. Laborers who have the necessary skills to be classified as a Concrete Specialist and perform the work shall be paid the following wage and fringe benefit scale.

	<u>Class 1</u>	<u>Class 2</u>	<u>Class 3</u>	<u>Class 4</u>	<u>Class 5</u>	<u>Class 6</u>	<u>Class 7</u>
*Base	\$23.37	\$23.58	\$23.87	\$24.31	\$23.93	\$24.36	\$27.69
*Vacation	4.30	4.30	4.30	4.30	4.30	4.30	4.30
Pension	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Health Care	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Training	.45	.45	.45	.45	.45	.45	.45
Annuity	.50	.50	.50	.50	.50	.50	.50
LECET	.40	.40	.40	.40	.40	.40	.40
	\$41.52	\$41.73	\$42.02	\$42.46	\$42.08	\$42.51	\$45.84
Ind.Prom.	.12	.12	.12	.12	.12	.12	.12
TOTAL	\$41.64	\$41.85	\$42.14	\$42.58	\$42.20	\$42.63	\$45.96

*Taxable income subject to Federal Withholding & FICA.

All registered Apprentices will work in accordance with wage and training requirements.

Rate	Work Hours	Training Hours – Cumulative
75%	0 – 1,000	75 Plus
80%	1,001 – 2,000	75 Plus
85%	2,001 – 3,000	75 Plus
95%	3,001 – 4,000	75 Plus

All percentages are calculated on the Base Rate. All fringe benefits are paid at 100%.
This language must comply with all MDOT specifications.

MITA - ZONE 4 (All Counties in the Upper Peninsula of the State of Michigan)

Wage Rates effective the first full pay period on or after 6/1/21:

Class 1: Asphalt Shoveler or loader, asphalt plant misc., asphalt raker tender, burlap man, carpenters' tender, yard man, guard rail builder's tender, Earth Retention barrier and wall and M.S.E. Wall installers Tender, Highway and median barrier installers tender (including sound, retaining and crash barriers), fence erector's tender, dumper (wagon, Truck, etc.), joint filling labor, misc., unskilled labor, sprinkler labor, form setting labor, form stripper, pavement reinforcing, handling and placing (e.g., wire mesh, steel mats, dowel bars, etc.), mason's or bricklayer's tender on manholes, manhole builder, headwalls, etc., waterproofing, (other than buildings) seal coating and slurry mix, shoring, underpinning, bridge painting, etc., (spray, roller and brush), sandblasting, pressure grouting, bridge pin and hanger removal, Material Recycling Laborer, Horizontal Paver Laborer (brick, concrete, clay, stone and asphalt), Ground Stabilization and Modification Laborer, grouting, waterblasting, Top Man, and railroad track and trestle laborer, sign installer and remote control operated equipment.

Class 2: Mixer operator, (less than 5 sacks), air or electric tool operator (jack hammer, etc.), spreader, boxman (asphalt, stone, gravel, etc.), concrete paddler, power chain saw operator, paving batch truck dumper, tunnel mucker (highway work only), concrete saw operator (under 40 hp), dry pack machine, and roto-mill grounds person.

Class 3: Tunnel miner (highway work only), finishers tenders, guard rail builder, highway and median barrier installer, Earth Retention Barrier and wall and M.S.E. wall installer (including sound, retaining and crash barriers), fence erector, bottom man, powder man, wagon drill, and air track operator, curb and side rail setter's tender, diamond and core drills (per agreement between the Laborers and Operating Engineers International Union dated February 3, 1954), grade checker and certified welder.

Class 4: Asphalt raker.

Class 5: Pipe Layers, oxy-gun.

Class 6: Line-Form setter for curb or pavement, and asphalt screed checker/screw man on asphalt paving machines.

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	<u>Class 1</u>	<u>Class 2</u>	<u>Class 3</u>	<u>Class 4</u>	<u>Class 5</u>	<u>Class 6</u>	<u>Class 7</u>
*Base	\$24.22	\$24.43	\$24.72	\$25.16	\$24.78	\$25.21	\$28.54
*Vacation	3.90	3.90	3.90	3.90	3.90	3.90	3.90
Pension	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Health Care	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Training	.45	.45	.45	.45	.45	.45	.45
LECET	.45	.45	.45	.45	.45	.45	.45
	\$41.52	\$41.73	\$42.02	\$42.46	\$42.08	\$42.51	\$45.84
Ind.Prom.	.12	.12	.12	.12	.12	.12	.12
TOTAL	\$41.64	\$41.85	\$42.14	\$42.58	\$42.20	\$42.63	\$45.96

*Taxable income subject to Federal Withholding & FICA.

All registered Apprentices will work in accordance with wage and training requirements.

Rate	Work Hours	Training Hours – Cumulative
75%	0 – 1,000	75 Plus
80%	1,001 – 2,000	75 Plus
85%	2,001 – 3,000	75 Plus
95%	3,001 – 4,000	75 Plus

All percentages are calculated on the Base Rate. All fringe benefits are paid at 100%.
This language must comply with all MDOT specifications.



MICHIGAN REGIONAL COUNCIL OF CARPENTERS

2310 W. Washtenaw · Lansing · Michigan 48917

Phone (517) 484-1301

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MICHIGAN INFRASTRUCTURE AND TRANSPORTATION (ROAD BUILDERS)

GEOGRAPHICAL JURISDICTION: The State of Michigan, with the following exceptions: The Counties of Wayne, Oakland, Macomb, Sanilac, St. Clair Monroe and the townships of Brighton, Deerfield, Genoa, Heartland, Oceola and Tyrone within Livingston County.

RE: Road Builder wage rates, effective first full pay period following June 1, 2021

Base Rate	\$ 29.54
Special Assessment	(0.20)
MRCC Building Fund	(0.20)
UBC Per Cap	(0.07)
Healthcare Fund	5.55
Pension Fund	13.24
Apprenticeship Fund	0.70
Annuity	1.36
UBC Training	<u>0.12</u>
GROSS	\$ 50.51
Industry Promo	<u>.12</u>
TOTAL	\$ 50.63

* Foreman shall be paid \$2.66 (9%) per hour above Journeyman base rate.

* **Dues Deduction - Per Michigan Regional Council By-laws**, dues shall be deducted from the employee's Total Base Wage. The amount of the dues is included in the Base Wage as stated above (currently 4%) and deducted on all premium and overtime pay.

Carpenter Apprentices - The minimum wage for apprentices is based on the Journeyman Road Builder wage as follows. Note: Apprentice fringe benefit contributions will be the same as those for a Journeyman.

Apprentice Rates - June 1, 2021

1st year	70%	\$ 20.68
2nd year	75%	22.16
3rd year	85%	25.11
4th year	95%	28.06

Special Assessment	\$ (0.20)
MRCC Building Fund	(0.20)
UBC Per Cap	(0.07)
Healthcare Fund	5.55
Pension Fund	13.24
Apprenticeship Fund	.70
Annuity	1.36
UBC Training	.12
M.I.T.A. Industry Promo	.12



Michigan Regional Council of Carpenters • U.B.C.J.A.

JUNE 1ST, 2021

**TO: ALL MICHIGAN INFRASTRUCTURE AND TRANSPORTATION CONTRACTORS (SECTION D2)
SOUTHEASTERN MI**

The 2021-2026 labor contract with the Michigan Regional Council of Carpenters provides for a June 1, 2021 Gross Wage increase for Southeast Michigan of \$1.72/hr. effective June 1, 2021. The increase has been allocated as follows: Base Wage \$1.43, U.B.C. Per Cap \$0.02, U.B.C. Training \$0.02, Health & Welfare Supplemental \$0.10, and Annuity \$0.15.

EFFECTIVE THE FIRST FULL PAYROLL PERIOD COMMENCING ON OR AFTER JUNE 1, 2021 THROUGH MAY 31, 2022

GEOGRAPHICAL JURISDICTION: The Agreement covers Wayne, Oakland, Macomb, Sanilac, St. Clair, Monroe and part of Livingston County (the townships of Deerfield, Tyrone, Osceola, Hartland, Genoa and Brighton).

MITA CARPENTER JOURNEYMAN RATES - SOUTHEASTERN MI

	Day Shift Per Hour	2nd Shift Per Hour	3rd Shift Per Hour
*Base Wage	\$ 33.63	\$ 34.13	\$ 34.13
*Special Assessment Fund (taxed)	0.20	0.20	0.20
*Special Assessment Building Fund (taxed)	0.20	0.20	0.20
*U.B.C. Per Cap (taxed)	0.07	0.07	0.07
GROSS WAGE	<u>\$ 34.10</u>	<u>\$ 34.60</u>	<u>\$ 34.60</u>
Pension - 47.31% of base wage (funded)	15.91	16.15	16.15
Annuity Fund - 8.68% of base wage (funded)	2.92	2.96	2.96
Health & Welfare Insurance (funded)	7.05	7.05	7.05
Health & Welfare Supplemental (funded)	0.85	0.85	0.85
Apprenticeship (funded)	1.00	1.00	1.00
U.B.C. Training (funded)	0.12	0.12	0.12
Labor Management Partnership Team (funded)	0.07	0.07	0.07
Industry Advancement Fund (funded)	0.12	0.12	0.12
TOTAL	<u>\$ 62.14</u>	<u>\$ 62.92</u>	<u>\$ 62.92</u>

*Taxable

Dues Deduction - Per the Michigan Regional Council By-Laws, dues shall be deducted from the employee's Base Wage. The amount of the dues is included in the Base Wage as stated above (currently 4.00%) and deducted on all premium and overtime pay.

400 Renaissance Center, Ste. 1010
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Phone: (313) 285-5000
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23401 Mound Road, Ste. 101
Warren, MI 48091
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Fax: (586) 759-5982

888-HAMMER-9
www.hammer9.com

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MITA LOFTSMAN HEIGHTS OVER 150 FT - SOUTHEASTERN MI

	Day Shift Per Hour	2nd Shift Per Hour	3rd Shift Per Hour
*Base Wage	\$ 34.63	\$ 35.13	\$ 35.13
*Special Assessment Fund (taxed)	0.20	0.20	0.20
*Special Assessment Building Fund (taxed)	0.20	0.20	0.20
*U.B.C. Per Cap (taxed)	0.07	0.07	0.07
GROSS WAGE	<u>\$ 35.10</u>	<u>\$ 35.60</u>	<u>\$ 35.60</u>
Pension - 47.31% of base wage (funded)	16.38	16.62	16.62
Annuity Fund - 8.68% of base wage (funded)	3.01	3.05	3.05
Health & Welfare Insurance (funded)	7.05	7.05	7.05
Health & Welfare Supplemental (funded)	0.85	0.85	0.85
Apprenticeship (funded)	1.00	1.00	1.00
U.B.C. Training (funded)	0.12	0.12	0.12
Labor Management Partnership Team (funded)	0.07	0.07	0.07
Industry Advancement Fund (funded)	0.12	0.12	0.12
TOTAL	<u>\$ 63.70</u>	<u>\$ 64.48</u>	<u>\$ 64.48</u>

MITA CERTIFIED WELDERS - SOUTHEASTERN MI

	Day Shift Per Hour	2nd Shift Per Hour	3rd Shift Per Hour
*Base Wage	\$ 34.63	\$ 35.13	\$ 35.13
*Special Assessment Fund (taxed)	0.20	0.20	0.20
*Special Assessment Building Fund (taxed)	0.20	0.20	0.20
*U.B.C. Per Cap (taxed)	0.07	0.07	0.07
GROSS WAGE	<u>\$ 35.10</u>	<u>\$ 35.60</u>	<u>\$ 35.60</u>
Pension - 47.31% of base wage (funded)	16.38	16.62	16.62
Annuity Fund - 8.68% of base wage (funded)	3.01	3.05	3.05
Health & Welfare Insurance (funded)	7.05	7.05	7.05
Health & Welfare Supplemental (funded)	0.85	0.85	0.85
Apprenticeship (funded)	1.00	1.00	1.00
U.B.C. Training (funded)	0.12	0.12	0.12
Labor Management Partnership Team (funded)	0.07	0.07	0.07
Industry Advancement Fund (funded)	0.12	0.12	0.12
TOTAL	<u>\$ 63.70</u>	<u>\$ 64.48</u>	<u>\$ 64.48</u>

*Taxable

Dues Deduction - Per the Michigan Regional Council By-Laws, dues shall be deducted from the employee's Base Wage. The amount of the dues is included in the Base Wage as stated above (currently 4.00%) and deducted on all premium and overtime pay.

MITA & PILEDRIVER CARPENTER FOREMAN RATES - SOUTHEASTERN MI

	Day Shift	2nd Shift	3rd Shift
	Per Hour	Per Hour	Per Hour
*Base Wage	\$ 36.66	\$ 37.16	\$ 37.16
*Special Assessment Fund (taxed)	0.20	0.20	0.20
*Special Assessment Building Fund (taxed)	0.20	0.20	0.20
*U.B.C. Per Cap (taxed)	0.07	0.07	0.07
GROSS WAGE	\$ 37.13	\$ 37.63	\$ 37.63
Pension - 47.31% of base wage (funded)	17.34	17.58	17.58
Annuity Fund - 8.68% of base wage (funded)	3.18	3.23	3.23
Health & Welfare Insurance (funded)	7.05	7.05	7.05
Health & Welfare Supplemental (funded)	0.85	0.85	0.85
Apprenticeship (funded)	1.00	1.00	1.00
U.B.C. Training (funded)	0.12	0.12	0.12
Labor Management Partnership Team (funded)	0.07	0.07	0.07
Industry Advancement Fund (funded)	0.12	0.12	0.12
TOTAL	\$ 66.86	\$ 67.65	\$ 67.65

MITA LOFTSMAN & STICKER - SOUTHEASTERN MI

	Day Shift	2nd Shift	3rd Shift
	Per Hour	Per Hour	Per Hour
*Base Wage	\$ 34.38	\$ 34.88	\$ 34.88
*Special Assessment Fund (taxed)	0.20	0.20	0.20
*Special Assessment Building Fund (taxed)	0.20	0.20	0.20
*U.B.C. Per Cap (taxed)	0.07	0.07	0.07
GROSS WAGE	\$ 34.85	\$ 35.35	\$ 35.35
Pension - 47.31% of base wage (funded)	16.27	16.50	16.50
Annuity Fund - 8.68% of base wage (funded)	2.98	3.03	3.03
Health & Welfare Insurance (funded)	7.05	7.05	7.05
Health & Welfare Supplemental (funded)	0.85	0.85	0.85
Apprenticeship (funded)	1.00	1.00	1.00
U.B.C. Training (funded)	0.12	0.12	0.12
Labor Management Partnership Team (funded)	0.07	0.07	0.07
Industry Advancement Fund (funded)	0.12	0.12	0.12
TOTAL	\$ 63.31	\$ 64.09	\$ 64.09

*Taxable

Dues Deduction - Per the Michigan Regional Council By-Laws, dues shall be deducted from the employee's Base Wage. The amount of the dues is included in the Base Wage as stated above (currently 4.00%) and deducted on all premium and overtime pay.

MITA CONTRACTORS (SECTION D2)

**MITA CARPENTER APPRENTICESHIP WAGE SCALE
SOUTHEASTERN MI**

**EFFECTIVE THE FIRST FULL PAYROLL PERIOD
COMMENCING ON OR AFTER JUNE 1, 2021 THROUGH MAY 31, 2022**

GEOGRAPHICAL JURISDICTION: The Agreement covers Wayne, Oakland, Macomb, Sanilac, St. Clair, Monroe and part of Livingston County (the townships of Deerfield, Tyrone, Osceola, Hartland, Genoa and Brighton)

MITA CARPENTER APPRENTICE RATES - SOUTHEASTERN MI

<u>First Shift</u>	*Spec	*UBC		47.31%	8.68%			UBC				
	*Base	Assmt	Per Cap	Gross	Pension	Annuity	Ins	Appr	Train	LMPT	IAF	Total
1st Yr. (70%)	\$23.54	\$0.40	\$0.07	\$24.01	\$11.14	\$2.04	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$46.40
2nd Yr. (75%)	\$25.22	\$0.40	\$0.07	\$25.69	\$11.93	\$2.19	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$49.02
3rd Yr. (85%)	\$28.59	\$0.40	\$0.07	\$29.06	\$13.53	\$2.48	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$54.28
4th Yr. (95%)	\$31.95	\$0.40	\$0.07	\$32.42	\$15.12	\$2.77	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$59.52

<u>Second & Third Shift</u>	*Spec	*UBC		47.31%	8.68%			UBC				
	*Base	Assmt	Per Cap	Gross	Pension	Annuity	Ins	Appr	Train	LMPT	IAF	Total
1st Yr. (70%)	\$23.89	\$0.40	\$0.07	\$24.36	\$11.30	\$2.07	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$46.94
2nd Yr. (75%)	\$25.60	\$0.40	\$0.07	\$26.07	\$12.11	\$2.22	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$49.61
3rd Yr. (85%)	\$29.01	\$0.40	\$0.07	\$29.48	\$13.72	\$2.52	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$54.93
4th Yr. (95%)	\$32.42	\$0.40	\$0.07	\$32.89	\$15.34	\$2.81	\$7.90	\$1.00	\$0.12	\$0.07	\$0.12	\$60.25

*Taxable

Dues Deduction - Per the Michigan Regional Council By-Laws, dues shall be deducted from the employees Base Wage. The amount of the dues deduction is included in the Base Wage as stated above (4.00%) and deducted on all premium and overtime pay.

Insurance amount of \$7.80 is \$7.05 for Health & Welfare Insurance and \$0.75 for the Health & Welfare Supplemental Fund. Special Assessment of \$0.40 includes \$0.20 for the Building Fund

WAGE RATES

- b) The following job classifications and rates of wages shall apply to all work and every workman covered by this Agreement. The wage rates upon the effective dates shall apply on all work, both old and new, in the geographical Zones, as follows:

Cement Masons

O.P.C.M.I.A. Local 514 ROAD BUILDERS WAGE RATES

EFFECTIVE FIRST FULL PAY PERIOD ON OR AFTER JUNE 1, 2021

	ZONE 1	ZONE 2
BASE RATE PER HOUR	\$32.50	\$31.00
HEALTH & WELFARE (FUNDED)	\$7.08	\$7.08
PENSION (FUNDED)	\$6.30	\$6.30
INTERNATIONAL PENSION (FUNDED)	\$0.60	\$0.60
VACATION (FUNDED)	\$2.00	\$2.00
APPRENTICESHIP (FUNDED)	\$0.35	\$0.35
INTL. APPRENT. TRAINING FUND (FUNDED)	\$0.06	\$0.06
P.P.A. CONTRIBUTION (FUNDED)	\$0.09	\$0.09
TOTAL PACKAGE	\$48.98	\$47.48
Working Dues Deduction - 4% of Total Package, report on monthly fringe form	(\$1.96)	(\$1.90)
	\$47.02	\$45.58
INDUSTRY PROMOTION FUND	\$0.12	\$0.12
TOTAL	\$47.14	\$45.70

Zone 1 is defined as including Wayne, Monroe, Washtenaw, Oakland, Macomb, Genesee, Saginaw and Livingston counties

Zone 2 is defined as including all remaining counties in the State of Michigan.

* Lead Cement Masons / Foreman is \$1.50 per hour more, added to Base Rate

Cement Masons

O.P.C.M.I.A. Local 514 ROAD BUILDERS WAGE RATES

EFFECTIVE FIRST FULL PAY PERIOD ON OR AFTER JUNE 1, 2022

	ZONE 1	ZONE 2
BASE RATE PER HOUR		
HEALTH & WELFARE (FUNDED)	\$1	\$1
PENSION (FUNDED)	INCREASE	INCREASE
INTERNATIONAL PENSION (FUNDED)	TO BE	TO BE



OPERATIVE PLASTERERS & CEMENT MASONS

International Association of U.S. and Canada

LOCAL 514

1154 E. Lincoln Avenue • Madison Heights, Michigan 48071 • Phone 248-548-0800 • Fax 248-548-0700

O.P.C.M.I.A. Local 514

ROAD BUILDERS

WAGE RATES

EFFECTIVE JUNE 1, 2021

	<u>ZONE 1</u>	<u>ZONE 2</u>
BASE RATE PER HOUR	\$32.50	\$31.00
VACATION (FUNDED)	2.00	2.00
WORKING DUES (DEDUCT)	(1.96)	(1.90)
PENSION (FUNDED)	6.30	6.30
HEALTH & WELFARE (FUNDED)	7.08	7.08
APPRENTICESHIP (FUNDED)	.35	.35
INTERNATIONAL PENSION (FUNDED)	.60	.60
INTL. APPRENT. TRAINING FUND	.06	.06
P.P.A. CONTRIBUTION (FUNDED)	<u>.09</u>	<u>.09</u>
	\$48.98	\$ 47.48
INDUSTRY PROMOTION FUND	<u>.12</u>	<u>.12</u>
TOTAL	\$49.10	\$47.60

Zone 1 is defined as including Wayne, Monroe, Washtenaw, Oakland, Macomb, Genesec, Saginaw and Livingston counties

Zone 2 is defined as including all remaining counties in the State of Michigan.



OPERATIVE PLASTERERS & CEMENT MASONS

International Association of U.S. and Canada

LOCAL 514

1154 E. Lincoln Avenue • Madison Heights, Michigan 48071 • Phone 248-548-0800 • Fax 248-548-0700

O.P.C.M.I.A. LOCAL 514 APPRENTICE M.I.T.A. – ROAD BUILDERS WAGE RATES

EFFECTIVE JUNE 1, 2021

	<u>1ST YEAR APPRENTICE</u>		<u>2ND YEAR APPRENTICE</u>	
	<u>ZONE 1</u>	<u>ZONE 2</u>	<u>ZONE 1</u>	<u>ZONE 2</u>
BASE	\$21.13	\$20.15	\$24.38	\$23.25
VACATION	2.00	2.00	2.00	2.00
W. DUES	(1.51)	(1.47)	(1.64)	(1.59)
PENSION	6.30	6.30	6.30	6.30
H & W	7.08	7.08	7.08	7.08
APPREN	.35	.35	.35	.35
I. A. T. F.	.06	.06	.06	.06
INTL PEN	.60	.60	.60	.60
P.P.A.	<u>.09</u>	<u>.09</u>	<u>.09</u>	<u>.09</u>
	\$37.61	\$36.63	\$40.86	\$39.73
IPF	<u>.12</u>	<u>.12</u>	<u>.12</u>	<u>.12</u>
TOTAL	\$37.73	\$36.75	\$40.98	\$39.85

	<u>3RD YEAR APPRENTICE</u>	
	<u>ZONE 1</u>	<u>ZONE 2</u>
BASE	\$27.63	\$26.35
VACATION	2.00	2.00
W. DUES	(1.77)	(1.72)
PENSION	6.30	6.30
H & W	7.08	7.08
APPREN	.35	.35
I.A.T.F.	.06	.06
INTL PEN	.60	.60
P.P.A.	<u>.09</u>	<u>.09</u>
	\$44.11	\$42.83
IPF	<u>.12</u>	<u>.12</u>
TOTAL	\$44.23	\$42.95

Teamsters Wage Rates

(for road building construction)

Wage Rates effective first full payroll period on or after
June 1, 2021 to May 31, 2022.

Zone 1 - Counties of Wayne, Monroe, Washtenaw, Oakland, Macomb, Genesee and Livingston.

Zone 2 – The remaining counties in the Lower Peninsula of the State of Michigan, and all the counties in the Upper Peninsula of the State of Michigan.

	Zone 1	Zone 2
Truck Driver (on all trucks except dump trucks of 8 cubic yard capacity or over, tandem axle trucks, transit mix and semis, Euclid type equipment, double bottoms and low boys)	\$28.65	\$28.55
Truck Driver on dump trucks of 8 cubic yard capacity or over (including tandem axle water trucks, transit mix and semis)	\$28.75	\$28.65
Euclid type equipment, double bottoms and low boys for hauling heavy equipment and end dump truck equipment	\$28.90	\$28.80

PENSION

June 1, 2021: Daily - \$68.40 (paid on all days worked)

HEALTH & WELFARE

As of April 2, 2021, the Contractor agrees to pay into the Michigan Conference of Teamsters' Welfare Fund (MCTWF) not to exceed \$489.35* per week for each regularly employed Owner Operator and each regularly employed Company driver.

*Employer Contribution= \$479.35

\$10.00 Employee co-pay deducted from payroll each week.

VACATION & HOLIDAY

The Contractor shall accrue fifty cents (.50) per hour on all hours worked by an employee, whether at straight-time or overtime, to be paid to the employee for Vacation & Holiday benefits or to provide monies to the employee to permit the employee to continue their welfare coverage following seasonal layoff by self-payment to the MCTWF.

INDUSTRY PROMOTION FUND

The IPF Contribution is twelve cents (.12) per hour for all hours paid each employee working under this agreement, without regard to whether the employee was working on straight time or overtime.

**MICHIGAN UNION CONTRACTORS GROUP
HIGHWAY, BRIDGE AND AIRPORT AGREEMENT
WAGE & FRINGE BENEFITS
EFFECTIVE June 1, 2021**

CLASS I – WAGE AND FRINGE BENEFIT RATES

	06/01/21
*Base Wage Per Hour	\$32.01
*Vacation & Holiday (15% Funded)	\$ 4.80
*Supplemental Vacation (funded)	\$ 0.05
Pension (Funded)	\$13.95
Health Care (Funded)	\$ 8.40
Apprenticeship Fund	\$ 1.00
Retiree Benefit (Funded)	\$ 0.45
Labor Management Education Committee	\$ 0.16
IUOE National Training Fund	\$ 0.05
DC Plan	\$ 1.00
Road Labor Management Fund	<u>\$ 0.05</u>
Gross Wage	\$61.92
Road Labor Management Fund	\$ 0.05
MUCG Industry Advancement Fund	\$ 0.03

CLASS II – WAGE AND FRINGE BENEFIT RATES

	06/01/21
*Base Wage Per Hour	\$26.16
*Vacation & Holiday (15% Funded)	\$ 3.92
*Supplemental Vacation (funded)	\$ 0.05
Pension (Funded)	\$13.95
Health Care (Funded)	\$ 8.40
Apprenticeship Fund	\$ 1.00
Retiree Benefit (Funded)	\$ 0.45
Labor Management Education Committee	\$ 0.16
IUOE National Training Fund	\$ 0.05
DC Plan	\$ 1.00
Road Labor Management Fund	<u>\$ 0.05</u>
Gross Wage	\$55.19
Road Labor Management Fund	\$ 0.05
MUCG Industry Advancement Fund	\$ 0.03

CLASS II - GREASE TRUCK WAGE AND FRINGE BENEFIT RATES

	06/01/21
*Base Wage Per Hour	\$27.29
*Vacation & Holiday (15% Funded)	\$ 4.09
*Supplemental Vacation (Funded)	\$ 0.05
Pension (Funded)	\$13.95
Health Care (Funded)	\$ 8.40
Apprenticeship Fund	\$ 1.00
Retiree Benefit (Funded)	\$ 0.45
Labor Management Education Committee	\$ 0.16
IUOE National Training Fund	\$ 0.05
DC Plan	\$ 1.00
Road Labor Management Fund	<u>\$ 0.05</u>
Gross Wage	\$56.49
Road Labor Management Fund	\$ 0.05
MUCG Industry Advancement Fund	\$ 0.03

CLASS III – WAGE AND FRINGE BENEFIT RATES

	06/01/21
*Base Wage Per Hour	\$25.67
*Vacation & Holiday (15% Funded)	\$ 3.85
*Supplemental Vacation (Funded)	\$ 0.05
Pension (Funded)	\$13.95
Health Care (Funded)	\$ 8.40
Apprenticeship Fund	\$ 1.00
Retiree Benefit (Funded)	\$ 0.45
Labor Management Education Committee	\$ 0.16
IUOE National Training Fund	\$ 0.05
DC Plan	\$ 1.00
Road Labor Management Fund	<u>\$ 0.05</u>
Gross Wage	\$54.63
Road Labor Management Fund	\$ 0.05
MUCG Industry Advancement Fund	\$ 0.03

CLASS IV – WAGE AND FRINGE BENEFIT RATES

	06/01/21
*Base Wage Per Hour	\$25.52
*Vacation & Holiday (15% Funded)	\$ 3.83
*Supplemental Vacation (Funded)	\$ 0.05
Pension (Funded)	\$13.95
Health Care (Funded)	\$ 8.40
Apprenticeship Fund	\$ 1.00
Retiree Benefit (Funded)	\$ 0.45
Labor Management Education Committee	\$ 0.16
IUOE National Training Fund	\$ 0.05
DC Plan	\$ 1.00
Road Labor Management Fund	<u>\$ 0.05</u>
Gross Wage	\$54.46
Road Labor Management Fund	\$ 0.05
MUCG Industry Advancement Fund	\$ 0.03

* Taxable Income

CLASS V – WAGE AND FRINGE BENEFIT RATES

	06/01/21
*Base Wage Per Hour	\$21.00
*Vacation & Holiday (15% Funded)	\$ 3.15
Pension (Funded)	\$ 4.00
Health Care (Funded)	\$ 6.50
Apprenticeship Fund	\$ 0.50
IUOE National Training Fund	\$ 0.05
DC Plan	\$ 1.00
Road Labor Management Fund	<u>\$ 0.05</u>
Gross Wage	\$36.25
Road Labor Management Fund	\$ 0.05
MUCG Industry Advancement Fund	\$ 0.03

* Taxable Income

**OPERATING ENGINEERS LOCAL 324
and
GREAT LAKES FABRICATORS & ERECTORS
WAGE AND FRINGE BENEFITS
EFFECTIVE June 1, 2021**

**Engineer When Operating Combination
of Boom and Jib 400' or Longer** 6/1/2021

*Base Wage	\$41.71
*Vac. & Holiday (15%)	6.26
*Supp. Vac. Fund	.05

Crane Operator W/400' of Boom or Longer W/Oiler

*Base Wage	\$42.58
*Vac. & Holiday (15%)	6.39
*Supp. Vac. Fund	.05

**Engineer When Operating Combination
of Boom and Jib 300' or Longer**

*Base Wage	\$40.41
*Vac. & Holiday (15%)	6.06
*Supp. Vac. Fund	.05

Crane Operator W/300' of Boom or Longer W/Oiler

*Base Wage	\$41.28
*Vac. & Holiday (15%)	6.19
*Supp. Vac. Fund	.05

**Engineer When Operating Combination
of Boom and Jib 220' or Longer**

*Base Wage	\$39.10
*Vac. & Holiday (15%)	5.87
*Supp. Vac. Fund	.05

Crane Operator W/220' of Boom or Longer W/Oiler

*Base Wage	\$39.97
*Vac. & Holiday (15%)	6.00
*Supp. Vac. Fund	.05

*Taxable Income

Crane Operator W/140' of Boom or Longer 6/1/2021

*Base Wage	\$38.87
*Vac. & Holiday (15%)	5.83
*Supp. Vac. Fund	.05

Crane Operator W/140' of Boom or Longer & W/Oiler

*Base Wage	\$39.74
*Vac. & Holiday (15%)	5.96
*Supp. Vac. Fund	.05

Tower Crane & Derrick Operator 50' or More

*Base Wage	\$38.48
*Vac. & Holiday (15%)	5.77
*Supp. Vac. Fund	.05

Tower & Derrick Operator 50' or More W/Oiler

*Base Wage	\$39.35
*Vac. & Holiday (15%)	5.90
*Supp. Vac. Fund	.05

Crane Operator W/120' of Boom or Longer

*Base Wage	\$37.84
*Vac. & Holiday (15%)	5.68
*Supp. Vac. Fund	.05

Crane Operator W/ 120' of Boom or Longer W/Oiler

*Base Wage	\$38.71
*Vac. & Holiday (15%)	5.81
*Supp. Vac. Fund	.05

**Crane Operator, Job Mechanic, Three Drum Hoist
And Excavator**

*Base Wage	\$37.53
*Vac. & Holiday (15%)	5.63
*Supp. Vac. Fund	.05

Crane Operator W/Oiler

*Base Wage	\$38.40
*Vac. & Holiday (15%)	5.76
*Supp. Vac. Fund	.05

*Taxable Income

**Hoisting Operator, Two Drum Hoist
Rubber Tire Backhoe**

6/1/2021

*Base Wage	\$36.97
*Vac. & Holiday (15%)	5.55
*Supp. Vac. Fund	.05

**Extended boom Forklift/, Forktruck
over 5000lb capacity, One Drum Hoist**

*Base Wage	\$34.19
*Vac & Holiday (15%)	5.13
*Supp. Vac. Fund	.05

**Industrial forklift/fork truck under 5000lb capacity/power jacks/powerpacks
composite crew only (skate)**

*Base Wage	\$29.75
*Vac & Holiday (15%)	4.46
*Supp. Vac. Fund	.05

Skidsteer forklift when working with fence and door companies

*Base Wage	\$28.52
*Vac & Holiday (15%)	4.28
*Supp. Vac. Fund	.05

**Oiler/pumps over 6" - **Applies to Operators who have previously worked
under this classification prior to 6/1/18****

*Base Wage	\$24.64
*Vac. & Holiday (15%)	3.69
*Supp. Vac. Fund	0.05

FRINGE BENEFIT PACKAGE - Applies to all Classes and Shifts

Insurance	\$8.40
Pension	13.95
Retiree Benefit Fund	.45
Apprenticeship Fund	1.00
Labor Management Education Committee	.19
DC Plan	1.00
Industry Promotion Fund	.26
IUOE National Training Fund	.05

*Taxable Income

Oiler/pumps over 6” – ** Applies to Operators with no prior work under this classification before 6/1/18**

*Base Wage	\$24.64
*Vac. & Holiday (15%)	3.69
*Supp. Vac. Fund	0.00
Insurance	6.50
Pension	4.00
Retiree Benefit Fund	0.00
Apprenticeship Fund	.45
IUOE National Training Fund	.05
Labor Management Education Committee	.14
DC Plan	1.00
Industry Promotion Fund	.26

Ground Man/Light Plants/Compressors/Welders/Pumps under 6”

*Base Wage	\$21.64
*Vac. & Holiday (15%)	3.25
*Supp. Vac. Fund	0.00
Insurance	6.50
Pension	4.00
Retiree Benefit Fund	.00
Apprenticeship Fund	.45
IUOE National Training Fund	.05
Labor Management Education Committee	.14
DC Plan	1.00
Industry Promotion Fund	.26

DWS/kl:ufew876

**GREAT LAKES FABRICATORS & ERECTORS
CONVEYOR AGREEMENT**

Engineers when working with Ironworkers and Millwrights under Conveyor Agreement on Second and Third shifts and Odd shifts that commence between 3:00 p.m. and 5:00 a.m. under the Steel Agreement.

Crane Operator W/400' of Boom 6/1/2021

*Base Wage	\$43.11
*Vac. & Holiday (15%)	6.47
*Supp. Vac. Fund	.05

Crane Operator W/400' Boom W/Oiler

*Base Wage	\$43.98
*Vac. & Holiday (15%)	6.60
*Supp. Vac. Fund	.05

Crane Operator W/300' of Boom

*Base Wage	\$41.81
*Vac. & Holiday (15%)	6.27
*Supp. Vac. Fund	.05

Crane Operator W/300' Boom W/Oiler

*Base Wage	\$42.68
*Vac. & Holiday (15%)	6.40
*Supp. Vac. Fund	.05

Crane Operator W/220' of Boom

*Base Wage	\$40.50
*Vac. & Holiday (15%)	6.08
*Supp. Vac. Fund	.05

Crane Operator W/220' Boom W/Oiler

*Base Wage	\$41.37
*Vac. & Holiday (15%)	6.21
*Supp. Vac. Fund	.05

*Taxable Income

**GREAT LAKES FABRICATORS & ERECTORS
CONVEYOR AGREEMENT**

Crane Operator W/140' Boom	<u>6/1/2021</u>
*Base Wage	\$40.23
*Vac. & Holiday (15%)	6.03
*Supp. Vac. Fund	.05

Crane Operator W/140' Boom W/Oiler	
*Base Wage	\$41.10
*Vac. & Holiday (15%)	6.16
*Supp. Vac. Fund	.05

Crane Operator W/120' Boom	
*Base Wage	\$39.17
*Vac. & Holiday (15%)	5.88
*Supp. Vac. Fund	.05

Crane Operator W/120' Boom W/Oiler	
*Base Wage	\$40.04
*Vac. & Holiday (15%)	6.01
*Supp. Vac. Fund	.05

Crane Operator, Job Mechanic, Three Drum Hoist and Excavator	
*Base Wage	\$38.86
*Vac. & Holiday (15%)	5.83
*Supp. Vac. Fund	.05

Crane Operator W/Oiler	
*Base Wage	\$39.73
*Vac. & Holiday (15%)	5.96
*Supp. Vac. Fund	.05

*Taxable Income

**GREAT LAKES FABRICATORS & ERECTORS
CONVEYOR AGREEMENT**

Hoisting Operator, Two Drum Hoist and Rubber Tire Backhoe 6/1/2021

*Base Wage	\$38.28
*Vac. & Holiday (15%)	5.74
*Supp. Vac. Fund	.05

Extended Boom Forklift, Fork truck over 5000lb capacity, and One Drum Hoist (non-crane hoist)

*Base Wage	\$35.36
*Vac. & Holiday (15%)	5.30
*Supp. Vac. Fund	.05

Industrial forklift/fork truck under 5000lb capacity/power jacks/powerpacks composite crew only (skate)

*Base Wage	\$30.96
*Vac & Holiday (15%)	4.64
*Supp. Vac. Fund	.05

Skidsteer forklift when working with fence and door companies

*Base Wage	\$29.60
*Vac & Holiday (15%)	4.44
*Supp. Vac. Fund	.05

Oiler/pumps over 6" - **Applies to Operators who have previously worked under this classification prior to 6/1/18**

*Base Wage	\$24.64
*Vac. & Holiday (15%)	3.69
*Supp. Vac. Fund	.05

Fringe Benefit Package - Applies to All Classes and Shifts

Insurance	\$ 8.40
Pension	13.95
Retire Benefit Fund	.45
Apprenticeship Fund	1.00
Labor Management Education Committee	.19
DC Plan	1.00
Industry Promotion Fund	.26
IUOE National Training Fund	.05

*Taxable Income

Oiler/pumps over 6” – ** Applies to Operators with no prior work under this classification before 6/1/18**

*Base Wage	\$24.64
*Vac. & Holiday (15%)	3.69
*Supp. Vac. Fund	.00
Insurance	6.50
Pension	4.00
Retire Benefit Fund	.00
Apprenticeship Fund	.45
Labor Management Education Committee	.14
DC Plan	1.00
IUOE National Training Fund	.05
Industry Promotion Fund	.26

Ground Man/light plants/compressors/welders/Pumps under 6”

*Base Wage	\$21.64
*Vac. & Holiday (15%)	3.25
*Supp. Vac. Fund	.00
Insurance	6.50
Pension	4.00
Retire Benefit Fund	.00
Apprenticeship Fund	.45
Labor Management Education Committee	.14
DC Plan	1.00
IUOE National Training Fund	.05
Industry Promotion Fund	.26

DWS/kl:ufcw876

APPENDIX D

SOCIAL EQUITY AND SUSTAINABILITY DOCUMENTATION



C.A. Hull Co., Inc.
8177 Goldie Road
Walled Lake, MI 48390

p 248 363 3813
f 248 363 2399

www.cahull.com

EQUAL EMPLOYMENT OPPORTUNITY POLICY 2022

To Whom It May Concern:

We have accepted as our operating policy the following statement in connection with the construction of this project:

It is the policy of this company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or natural origin. Such action shall include: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship and/or on-the-job training.

The Equal Employment Opportunity staff for C.A. Hull Co., Inc. is as follows:

- EEO Officer: Christine Niswander
- EEO Field Support: Randy Rossow

Please place this notice in an area that is readily accessible to anyone who may have an interest in this project.

C.A. Hull Co., Inc.

Michael Malloure
President

Dated: January 11th, 2022

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

Operating Engineers LU 324 JATF
275 E Highland Rd.
Howell , MI 48843

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI015780065 - OPERATING ENGINEERS LU 324 JATF**:

OPERATING ENGINEERS LU 324 JATF
275 E. HIGHLAND RD.
HOWELL , MI 48843

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2022000348		Butler, Aidan M	OPERATING ENGINEER (0365 V1) Time-Based	1/17/2022		



Certified by the U.S. Department of Labor

Date Issued: 8/8/2022

****VOID 90 DAYS FROM ISSUE DATE****

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

CA Hull
8177Goldie St
Commerce Charter Twp , MI 48390

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI017136580 - The Finishing Trades Institute of the Great Lakes:**

The Finishing Trades Institute of the Great Lakes
14587 Barber Avenue
Warren , MI 48088

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2018003812	***- **-0207	Vela, Michael R	PAINTER, INDUST COATING AND LINING APP SPECIALIST (2009HY V1) Hybrid	4/17/2021		



Certified by the U.S. Department of Labor

Date Issued: 8/16/2022

****VOID 90 DAYS FROM ISSUE DATE****

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

CA Hull
8177 Goldie Rd
Walled Lake , MI 48390

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI011780020 - Michigan Statewide Carpenters & Millwrights JATF**:

Michigan Statewide Carpenters & Millwrights JATF
11687 American Ave
Deroit , MI 48204

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2021004536		Cummings, Dustin J	CARPENTER (0067HY V1) Hybrid	7/21/2021		



Certified by the U.S. Department of Labor

Date Issued: 9/12/2022

******VOID 90 DAYS FROM ISSUE DATE******

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

CA Hull
8177 Goldie Rd.
Walled Lake , MI 48390

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI011780020 - Michigan Statewide Carpenters & Millwrights JATF**:

Michigan Statewide Carpenters & Millwrights JATF
11687 American Ave
Deroit , MI 48204

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2022001654	***- **-2311	Briggins, Bryce	CARPENTER (0067HY V1) Hybrid	4/15/2022		



Certified by the U.S. Department of Labor

Date Issued: 8/15/2022

******VOID 90 DAYS FROM ISSUE DATE******

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

CA HULL
8177 Goldie Rd
Walled Lake, , MI 48390

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI011780020 - Michigan Statewide Carpenters & Millwrights JATF**:

Michigan Statewide Carpenters & Millwrights JATF
11687 American Ave
Deroit , MI 48204

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2019001290		MUHAMMAD, JALAL H	CARPENTER (0067HY V1) Hybrid	3/4/2019		
MI2022002595	***-**-4945	Sidor, Natalie Rose	CARPENTER (0067HY V1) Hybrid	6/10/2022		



Certified by the U.S. Department of Labor

Date Issued: 9/23/2022

****VOID 90 DAYS FROM ISSUE DATE****

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

Operating Engineers LU 324 JATF
275 E. Highland Rd.
Howell , MI 48843

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI015780065 - OPERATING ENGINEERS LU 324 JATF**:

OPERATING ENGINEERS LU 324 JATF
275 E. HIGHLAND RD.
HOWELL , MI 48843

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2021005828		Brown, Cody J.	OPERATING ENGINEER (0365 V1) Time-Based	10/4/2021		



**Certified by the U.S. Department of Labor
Date Issued: 10/27/2022**

****VOID 90 DAYS FROM ISSUE DATE****

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

CA Hull
8177 Goldie Road
Walled Lake , MI 48390

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI011780020 - Michigan Statewide Carpenters & Millwrights JATF**:

Michigan Statewide Carpenters & Millwrights JATF
11687 American Ave
Derroit , MI 48204

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2022000799	***- **-6620	Anna, Reece Taylor	CARPENTER (0067HY V1) Hybrid	3/3/2022		
MI2021006559		Belew, Hunter Thomas	CARPENTER (0067HY V1) Hybrid	12/8/2021		
MI2021004541		Guinn, Justgin M	CARPENTER (0067HY V1) Hybrid	7/21/2021		
MI2020003901	***- **-6721	Liberta, Justin Joseph	CARPENTER (0067HY V1) Hybrid	9/22/2020		
MI2021006358	***- **-1364	Moffitt, Jason	CARPENTER (0067HY V1) Hybrid	11/7/2021		
MI2022000812	***- **-4850	Warren, Arnold Wesley	CARPENTER (0067HY V1) Hybrid	3/3/2022		
MI2020001811	***- **-9055	Wilson, Cornelius	CARPENTER (0067HY V1) Hybrid	6/9/2020		



**Certified by the U.S. Department of Labor
Date Issued: 10/27/2022**

****VOID 90 DAYS FROM ISSUE DATE****

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

C.A. Hull
8177 Goldie Rd.
Walled Lake , MI 48390

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI011780020 - Michigan Statewide Carpenters & Millwrights JATF:**

Michigan Statewide Carpenters & Millwrights JATF
11687 American Ave
Deroit , MI 48204

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2022001245	***-**-6014	Brinkman-Coronel, Daniel Lee	CARPENTER (0067HY V1) Hybrid	2/15/2022		



**Certified by the U.S. Department of Labor
Date Issued: 10/31/2022**

****VOID 90 DAYS FROM ISSUE DATE****

**U.S. DEPARTMENT OF LABOR - OFFICE OF APPRENTICESHIP
APPRENTICESHIP CERTIFICATION**

C.A. Hull
8177 Goldie Road
Walled Lake , MI 48390

The following individuals are apprentices registered with the U.S. Department of Labor, Office of Apprenticeship, under the sponsorship of program **MI007970001 - LIUNA Training of Michigan:**
LIUNA Training of Michigan
11155 South Beardslee Road
Perry , MI 48872

Apprentice ID	SSN	Apprentice Name	Occupation	Date Apprenticeship Began	Date Cancelled	Date Completed
MI2022002881	***- **-0159	GARON, JACOB	Construction Craft Laborer (0661 V1) Time-Based	6/13/2022		
MI2022002882	***- **-6389	GIBBS, DEVIN	Construction Craft Laborer (0661 V1) Time-Based	6/14/2022		
MI2022005762	***- **-0163	PFEIFFER, DEVIN E	Construction Craft Laborer (0661 V1) Time-Based	10/21/2022		
MI2022002883	***- **-0499	SHARRARD, DANIEL	Construction Craft Laborer (0661 V1) Time-Based	6/13/2022		



**Certified by the U.S. Department of Labor
Date Issued: 11/15/2022**

****VOID 90 DAYS FROM ISSUE DATE****

E. Schedule of Pricing/Cost – 20 Points

Pay Item	Description	Units	Quantity	Unit Price	Total Price
1047051	_ Certified Payroll Compliance and Reporting	LSUM	1	\$5,000.00	\$5,000.00
1047051	_ Project Supervision, Max \$175,000	LSUM	1	\$175,000.00	\$175,000.00
1077060	_ Relocation and Site Cleanup	Dlr	15000	\$1.00	\$1,500.00
2010001	Clearing	Acre	0.2	\$20,000.00	\$4,000.00
2040035	Guardrail, Rem	Ft	176	\$6.75	\$1,188.00
2040050	Pavt, Rem	Syd	192	\$50.00	\$9,600.00
2040061	Structures, Rem Portions (STR 11065)	LSUM	1	\$2,460,000.00	\$2,460,000.00
2040080	Exploratory Investigation, Vertical	Ft	200	\$35.00	\$7,000.00
2047001	_ Curb and Gutter, Any Type or Size, Rem	Ft	381	\$25.00	\$9,525.00
2047011	_ Sidewalk and Drive, Any Type or Thickness, Rem	Syd	645	\$15.00	\$9,675.00
2057002	_ Machine Grading, Modified	Sta	2.3	\$1,000.00	\$2,300.00
2057021	_ Non-Hazardous Contaminated Material Handling and Disposal (LM)	Cyd	400	\$30.00	\$12,000.00
2060002	Backfill, Structure, CIP	Cyd	940	\$75.00	\$70,500.00
2060010	Excavation, Fdn	Cyd	1000	\$2.00	\$2,000.00
2067050	_ Dewatering System, Excavation	Ea	2	\$5,000.00	\$10,000.00
2080036	Erosion Control, Silt Fence	Ft	1289	\$4.00	\$5,156.00
2087050	_ Erosion Control, Inlet Protection	Ea	7	\$125.00	\$875.00
2090001	Project Cleanup	LSUM	1	\$0.01	\$0.01
3027021	_ Aggregate Base Course, 21AA, Modified	Cyd	99	\$125.00	\$12,375.00
3027021	_ Sand Subbase Course, Class II, CIP	Cyd	141	\$100.00	\$14,100.00
4030005	Dr Structure Cover, Adj, Case 1	Ea	2	\$2,500.00	\$5,000.00
4030050	Dr Structure Cover, Type K	Ea	4	\$750.00	\$3,000.00
4030390	Dr Structure, Temp Lowering	Ea	4	\$750.00	\$3,000.00
4037050	_ Dr Structure Cover, Adj	Ea	2	\$750.00	\$1,500.00
5012013	HMA, 3EML	Ton	146	\$250.00	\$36,500.00
5012037	HMA, 5EML	Ton	244	\$250.00	\$61,000.00
5017011	Cold Milling HMA Surface, Modified	Syd	1527	\$10.00	\$15,270.00
5017031	_ Hand Patching, Modified	Ton	70	\$350.00	\$24,500.00
7040001	Steel Sheet Piling, Permanent	Sft	6690	\$20.00	\$133,800.00
7040002	_ Steel Sheet Piling, Temp	Sft	360	\$0.10	\$36.00
7040003	Steel Sheet Piling, Temp, Left in Place	Sft	360	\$50.00	\$18,000.00
7057050	_ Micropile, Load Test, Proof, LRFD	Ea	4	\$16,000.00	\$64,000.00
7057050	_ Micropile, Load Test, Verification, LRFD	Ea	1	\$25,000.00	\$25,000.00
7057050	_ Micropile, Type B, Furn and Install, LRFD	Ea	18	\$9,500.00	\$171,000.00
7057051	_ Micropile, Mobilization, LRFD (STR 11065)	LSUM	1	\$95,000.00	\$95,000.00
7060001	Bridge Ltg, Furn and Rem (STR 11065)	LSUM	1	\$0.01	\$0.01
7060002	Bridge Ltg, Oper and Maintain	Cyd	429	\$0.01	\$4.29
7060040	Elec Grounding System	Ea	1	\$6,350.00	\$6,350.00
7060050	Expansion Joint Device	Ft	191	\$350.00	\$66,850.00
7060060	False Decking	Sft	19840	\$0.01	\$198.40
7060092	Reinforcement, Steel, Epoxy Coated	Lb	171348	\$1.85	\$316,993.80

7060100	Substructure Conc	Cyd	289	\$2,500.00	\$722,500.00
7060110	Superstructure Conc	Cyd	101	\$225.00	\$22,725.00
7060111	Superstructure Conc, Form, Finish, and Cure (STR 11065)	LSUM	1	\$100,000.00	\$100,000.00
7060112	Superstructure Conc, Form, Finish, and Cure, Night Casting (STR 11065)	LSUM	1	\$750,000.00	\$750,000.00
7060113	Superstructure Conc, Night Casting	Cyd	429	\$250.00	\$107,250.00
7060140	Water Repellent Treatment, Penetrating	Syd	51	\$124.00	\$6,324.00
7062003	Conc, Grade 4500	Cyd	33	\$2,500.00	\$82,500.00
7067001	_Expansion Joint Device, Cover Plate, Modified	Ft	50	\$300.00	\$15,000.00
7070019	Bearing, Elastomeric, 2 3/4 inch	Sin	6696	\$2.75	\$18,414.00
7070021	Bearing, Elastomeric, 3 1/4 inch	Sin	6190	\$3.25	\$20,117.50
7070040	Shear Developers (STR 11065)	LSUM	1	\$59,945.00	\$59,945.00
7070050	Structural Steel, Mixed, Erect	Lb	52857	\$0.25	\$13,214.25
7070051	Structural Steel, Mixed, Furn and Fab	Lb	52857	\$15.00	\$792,855.00
7070070	Structural Steel, Rolled Shape, Erect	Lb	40000	\$3.00	\$120,000.00
7070071	Structural Steel, Rolled Shape, Furn and Fab	Lb	40000	\$7.00	\$280,000.00
7077051	_Structural Steel, Galvanizing (STR 11065)	LSUM	1	\$450,000.00	\$450,000.00
7100001	Joint Waterproofing	Sft	740	\$7.50	\$5,550.00
7100003	Joint Waterproofing, Expansion	Sft	10	\$15.00	\$150.00
7100030	Substructure Horizontal Surface Sealer (STR 11065)	Syd	90	\$82.25	\$7,402.50
7110005	Bridge Railing, Aesthetic Parapet Tube	Ft	321	\$300.00	\$96,300.00
7120007	Hand Chipping, Other Than Deck	Cft	112	\$500.00	\$56,000.00
7120017	Patch, Forming	Sft	447	\$125.00	\$55,875.00
7120020	Epoxy Ovly	Syd	1050	\$39.50	\$41,475.00
7120028	Adhesive Anchoring of Horizontal Bar, 3/4 inch	Ea	68	\$50.00	\$3,400.00
7120034	Adhesive Anchoring of Vertical Bar, 3/4 inch	Ea	8	\$100.00	\$800.00
7120084	Reinforcement, Mechanical Splice	Ea	794	\$55.00	\$43,670.00
7120098	Flushing Cracks, Water	Ft	124	\$0.01	\$1.24
7120099	Structural Crack, Repr	Ft	124	\$51.25	\$6,355.00
7120112	Patching Conc, C-L	Cyd	5	\$1,500.00	\$7,500.00
7120120	Embedded Galvanic Anode	Ea	555	\$20.00	\$11,100.00
7130010	Beam Plate, Seal Perimeter	Ft	2320	\$0.50	\$1,160.00
8027001	_Curb and Gutter, Conc, 18 Inch, Any Type	Ft	277	\$40.00	\$11,080.00
8027001	_Curb and Gutter, Conc, 24 Inch, Any Type	Ft	111	\$45.00	\$4,995.00
8037010	_Concrete Sidewalk, 6 Inch	Sft	5896	\$7.50	\$44,220.00
8037010	_Detectable Warning Surface	Sft	64	\$50.00	\$3,200.00
8037010	_Sidewalk Ramp, Concrete, 8 Inch	Sft	229	\$15.00	\$3,435.00
8037010	_Concrete Sidewalk, 6 Inch	Sft	1830	\$7.50	\$13,725.00
8070004	Guardrail, Type MGS-8	Ft	144	\$44.75	\$6,444.00
8070044	Guardrail Approach Terminal, Type 2M	Ea	2	\$4,950.00	\$9,900.00
8070052	Guardrail Departing Terminal, Type MGS	Ea	2	\$1,800.00	\$3,600.00
8080010	Fence, Structure	SFT	2635	\$25.00	\$65,875.00
8087001	_Fence, Temp	Ft	774	\$9.00	\$6,966.00
8087001	_Tree Fence, Protective	Ft	47	\$15.00	\$705.00

8087001	Post and Chain Fence, Salvage	Ft	84	\$10.00	\$840.00
8087050	_Gate, Temp	Ea	2	\$1,250.00	\$2,500.00
8100398	Sign, Type IIA	Sft	20	\$50.00	\$1,000.00
8100399	Sign, Type IIB	Sft	20	\$50.00	\$1,000.00
8100402	Sign, Type III, Erect, Salv	Ea	4	\$200.00	\$800.00
8107050	Hospital Sign and Foundation, Relocate	Ea	2	\$10,000.00	\$20,000.00
8110091	Pavt Mrkg, Polyurea, 4 inch, White	Ft	675	\$0.99	\$668.25
8110092	Pavt Mrkg, Polyurea, 4 inch, Yellow	Ft	504	\$0.99	\$498.96
8110110	Pavt Mrkg, Polyurea, 12 inch, Crosswalk	Ft	55	\$5.65	\$310.75
8110114	Pavt Mrkg, Polyurea, 24 inch, Stop Bar	Ft	69	\$11.50	\$793.50
8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	396	\$0.90	\$356.40
8110154	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	602	\$0.90	\$541.80
8110307	Rem Curing Compound, for Longit Mrkg, 4 inch	Ft	791	\$0.65	\$514.15
8110321	Rem Curing Compound, for Spec Mrkg	Sft	211	\$2.50	\$527.50
8110343	Rem Spec Mrkg	Sft	1000	\$2.50	\$2,500.00
8110405	Pavt Mrkg, Polyurea, Lt Turn Arrow Sym	Ea	7	\$165.00	\$1,155.00
8110410	Pavt Mrkg, Polyurea, Only	Ea	12	\$165.00	\$1,980.00
8110412	Pavt Mrkg, Polyurea, Rt Turn Arrow Sym	Ea	5	\$165.00	\$825.00
8110418	Pavt Mrkg, Polyurea, Thru Arrow Sym	Ea	3	\$145.00	\$435.00
8117001	_Recessing Pavt Mrkg, Longitudinal	Ft	2219	\$0.65	\$1,442.35
8117001	_Recessing Pavt Mrkg, Transverse	Ft	119	\$2.50	\$297.50
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	4	\$90.00	\$360.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	4	\$0.01	\$0.04
8120027	Pedestrian Type II Channelizer, Temp	Ft	60	\$25.00	\$1,500.00
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	50	\$25.00	\$1,250.00
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	50	\$0.01	\$0.50
8120040	Conc Barrier Ending, Temp, Det 2, Adj	Ea	2	\$250.00	\$500.00
8120041	Conc Barrier Ending, Temp, Det 2, Furn	Ea	2	\$450.00	\$900.00
8120042	Conc Barrier Ending, Temp, Det 2, Oper	Ea	2	\$2,500.00	\$5,000.00
8120080	Conc Barrier, Temp, Adj	Ft	100	\$2.00	\$200.00
8120081	Conc Barrier, Temp, Furn	Ft	100	\$20.00	\$2,000.00
8120082	Conc Barrier, Temp, Oper	Ft	100	\$5.00	\$500.00
8120140	Lighted Arrow, Type C, Furn	Ea	2	\$450.00	\$900.00
8120141	Lighted Arrow, Type C, Oper	Ea	2	\$600.00	\$1,200.00
8120160	Ltg for Night Work	LSUM	1	\$0.01	\$0.01
8120170	Minor Traf Devices, Max \$50,000	LSUM	1	\$50,000.00	\$50,000.00
8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	1940	\$0.65	\$1,261.00
8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	Ft	30	\$0.85	\$25.50
8120245	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, White, Temp	Ft	2755	\$1.95	\$5,372.25
8120246	Pavt Mrkg, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp	Ft	4222	\$1.95	\$8,232.90
8120252	Plastic Drum, Fluorescent, Furn	Ea	50	\$30.00	\$1,500.00

8120253	Plastic Drum, Fluorescent, Oper	Ea	50	\$0.01	\$0.50
8120257	Pavt Mrkg, Wet Reflective, Type R, Tape, Lt Turn Arrow	Ea	11	\$185.00	\$2,035.00
8120258	Pavt Mrkg, Wet Reflective, Type R, Tape, Rt Turn Arrow	Ea	2	\$185.00	\$370.00
8120259	Pavt Mrkg, Wet Reflective, Type R, Tape, Thru Arrow	Ea	22	\$165.00	\$3,630.00
8120265	Pavt Mrkg, Wet Reflective, Type R, Tape, 24 inch, Stop Bar	Ft	195	\$11.95	\$2,330.25
8120310	Sign Cover	Ea	1	\$65.00	\$65.00
8120330	Sign, Portable, Changeable Message, Furn	Ea	1	\$5,500.00	\$5,500.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	1	\$0.01	\$0.01
8120340	Sign, Type A, Temp, Prismatic, Furn	Sft	27	\$7.00	\$189.00
8120341	Sign, Type A, Temp, Prismatic, Oper	Sft	27	\$0.01	\$0.27
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	926	\$6.00	\$5,556.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	926	\$0.01	\$9.26
8120352	Sign, Type B, Temp, Prismatic, Spec, Furn	Sft	315	\$12.00	\$3,780.00
8120353	Sign, Type B, Temp, Prismatic, Spec, Oper	Sft	315	\$0.01	\$3.15
8120370	Traf Regulator Control, Max \$100,000	LSUM	1	\$0.01	\$0.01
8121000	Conc Barrier, Temp, Limited Deflection, Det 1, Furn	Ft	160	\$75.00	\$12,000.00
8121001	Conc Barrier, Temp, Limited Deflection, Det 1, Oper	Ft	160	\$5.00	\$800.00
8121100	Conc Barrier, Temp, Limited Deflection, Det 2, Furn	Ft	75	\$35.00	\$2,625.00
8121101	Conc Barrier, Temp, Limited Deflection, Det 2, Oper	Ft	75	\$5.00	\$375.00
8121102	Conc Barrier, Temp, Limited Deflection, Det 2, Adj	Ft	75	\$2.00	\$150.00
8121200	Conc Barrier, Temp, Limited Deflection, Det 3A, Furn	Ft	160	\$35.00	\$5,600.00
8121201	Conc Barrier, Temp, Limited Deflection, Det 3A, Oper	Ft	160	\$5.00	\$800.00
8122012	Pavt Mrkg, Wet Reflective, Type R, Tape, 12 inch, White, Temp	Ft	86	\$5.95	\$511.70
8122111	Pavt Mrkg, Wet Reflective, Type R, Tape, Only	Ea	4	\$185.00	\$740.00
8122145	Pavt Mrkg, Wet Reflective, Type R, Tape, Rt and Lt Turn Arrow Sym	Ea	2	\$215.00	\$430.00
8122148	Pavt Mrkg, Wet Reflective, Type R, Tape, Thru and Rt Turn Arrow Sym	Ea	11	\$215.00	\$2,365.00
8127050	_Pedestrian Type II Barricade, Temp	Ea	2	\$150.00	\$300.00
8127060	_Railroad Inspection and Flagging	Dlr	200000	\$1.00	\$200,000.00
8130015	Slope Paving Header	Ft	231	\$25.00	\$5,775.00
8130020	Slope Paving, Conc	Syd	85	\$250.00	\$21,250.00
8167011	_Slope Restoration	Syd	250	\$30.00	\$7,500.00
8182000	Conduit, Rem	Ft	510	\$2.50	\$1,275.00
8182016	Conduit, Encased, 1, 4 inch	Ft	204	\$95.00	\$19,380.00

8182021	Conduit, Encased, 6, 4 inch	Ft	126	\$200.00	\$25,200.00
8182034	Conduit, Directional Bore, 1, 1 1/2 inch	Ft	60	\$45.00	\$2,700.00
8182035	Conduit, Directional Bore, 1, 3 inch	Ft	365	\$50.00	\$18,250.00
8182048	Conduit, DB, 1, 1 1/2 inch	Ft	90	\$25.00	\$2,250.00
8182097	Conduit, Schedule 80, 4 inch, Structure	Ft	2920	\$57.00	\$166,440.00
8182133	Conduit, Schedule 40, 2 inch	Ft	403	\$17.00	\$6,851.00
8182135	Conduit, Schedule 40, 3 inch	Ft	1070	\$18.00	\$19,260.00
8182187	DB Cable, in Conduit, 600V, 1/C#6	Ft	2919	\$2.25	\$6,567.75
8182309	Hh, Polymer Conc	Ea	2	\$1,700.00	\$3,400.00
8182330	Hh, Rem	Ea	2	\$300.00	\$600.00
8182349	Wood Pole, Cl 4, 30 foot	Ea	5	\$1,750.00	\$8,750.00
8182363	Wood Pole, Rem	Ea	5	\$300.00	\$1,500.00
8182387	Wood Pole, Fit Up, TS Cable Pole	Ea	3	\$1,100.00	\$3,300.00
8187001	_ Conduit, DB, 1, 2 inch	Ft	8	\$350.00	\$2,800.00
8187050	_ Handhole Assembly, 17 inch x 30 inch	Ea	12	\$3,700.00	\$44,400.00
8187050	_ Handhole, Adjust, Any Size	Ea	1	\$325.00	\$325.00
8187050	_ Hh, Tap, 4 inch	Ea	2	\$175.00	\$350.00
8197050	_ Luminaire Installation	Ea	5	\$1,225.00	\$6,125.00
8197050	_ Pole Fit-Up	Ea	5	\$1,800.00	\$9,000.00
8197050	_ Pole Installation	Ea	5	\$2,000.00	\$10,000.00
8197050	_ Streetlight, Rem	Ea	5	\$500.00	\$2,500.00
8200100	Pedestal, Alum	Ea	3	\$1,050.00	\$3,150.00
8200101	Pedestal, Alum, Salv	Ea	1	\$300.00	\$300.00
8200105	Pedestal, Fdn	Ea	3	\$1,150.00	\$3,450.00
8200106	Pedestal Fdn, Rem	Ea	4	\$150.00	\$600.00
8200110	Pedestal, Rem	Ea	4	\$150.00	\$600.00
8200121	Pushbutton and Sign	Ea	3	\$900.00	\$2,700.00
8200122	Pushbutton, Rem	Ea	4	\$75.00	\$300.00
8200126	Pushbutton and Sign, Salv	Ea	1	\$900.00	\$900.00
8200140	Span Wire	Ea	4	\$1,100.00	\$4,400.00
8200141	Span Wire, Rem	Ea	4	\$275.00	\$1,100.00
8200168	Strut Guy	Ea	2	\$875.00	\$1,750.00
8200177	TS, Mast Arm Mtd, Rem	Ea	1	\$150.00	\$150.00
8200251	TS, One Way Mast Arm Mtd, Salv	Ea	1	\$1,000.00	\$1,000.00
8200376	Bracket, Truss, With 12 Foot Arm	Ea	1	\$1,000.00	\$1,000.00
8200444	Hemispherical Video Detection Camera	Ea	3	\$6,900.00	\$20,700.00
8200445	Hemispherical Video Detection System	Ea	1	\$25,700.00	\$25,700.00
8200446	Hemispherical Video Detection Camera, Rem	Ea	1	\$725.00	\$725.00
8200452	TS Head, Adj	Ea	2	\$900.00	\$1,800.00
8200453	TS Head, Temp	Ea	20	\$1,750.00	\$35,000.00
8200458	TS Face, Bag	Ea	6	\$550.00	\$3,300.00
8200459	TS Face, Bag, Rem	Ea	6	\$300.00	\$1,800.00
8507010	_ Soil Nails for Slope Stabilization	Sft	2723	\$66.00	\$179,718.00
8507051	_ Audio-Video Rte Survey	LSUM	1	\$8,000.00	\$8,000.00
8507051	General Conditions, Max \$650,000	LSUM	1	\$650,000.00	\$650,000.00
	ESTIMATED TOTAL				\$9,644,270.26

F. AUTHORIZED NEGOTIATOR / NEGOTIATIBLE ELEMENTS (ALTERNATES)

C. A. Hull Co., Inc. Estimated Total Bid: \$9,644,270.26



Andrew O'Connor, Senior Estimator

11/17/2022

Email: aconnor@cahull.com

ATTACHMENT B
GENERAL DECLARATIONS

City of Ann Arbor
Guy C. Larcom Municipal Building
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including City Nondiscrimination requirements and Declaration of Compliance Form, Living Wage requirements and Declaration of Compliance Form, Prevailing Wage requirements and Declaration of Compliance Form, Vendor Conflict of Interest Form, Notice of Pre-Bid Conference, General Information, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans (if applicable) and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered 1, 2, 3, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:320 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder certifies that the statements contained in the City Prevailing Wage and Living Wage Declaration of Compliance Forms are true and correct. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder declares that it has become familiar with the City Conflict of Interest Disclosure Form and certifies that the statement contained therein is true and correct.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

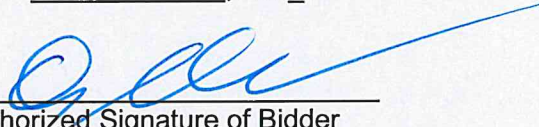
In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS 17th DAY OF November, 2022.

C. A. Hull Co., Inc.
Bidder's Name

8177 Goldie St.,
Commerce Twp., MI 48390
Official Address

(248) 363-3813
Telephone Number


Authorized Signature of Bidder

Andrew O'Connor
(Print Name of Signer Above)

bedwards@cahull.com
Email Address for Award Notice

ATTACHMENT C
LEGAL STATUS OF BIDDER

(The bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

* A corporation organized and doing business under the laws of the State of Michigan, for whom Andrew O'Connor, bearing the office title of Senior Estimator, whose signature is affixed to this Bid, is authorized to execute contracts.

NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority

~~A limited liability company doing business under the laws of the State of _____ whom _____ bearing the title of _____ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.~~


~~* A partnership, organized under the laws of the state of _____ and filed in the county of _____, whose members are (list all members and the street and mailing address of each) (attach separate sheet if necessary):~~

~~_____

_____~~

~~* An individual, whose signature with address, is affixed to this Bid: _____ (initial here)~~

Authorized Official



Date November 17, 2022

(Print) Name Andrew O'Connor Title Senior Estimator

Company:

C. A. Hull Co., Inc.

Address:

8177 Goldie St., Commerce Twp., MI 48390

Contact Phone (810) 358-0225 Fax (248) 363-2399

Email bedwards@cahull.com

ATTACHMENT E
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than \$10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than \$10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than \$10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here No. of employees__

The Contractor or Grantee agrees:

- (a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as \$14.82/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than \$16.52/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

- Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits
- Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

- (b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- (c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.
- (d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.
- (e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

C. A. Hull Co., Inc.
Company Name

8177 Goldie St.
Street Address


Signature of Authorized Representative 11/17/2022
Date

Commerce Twp., MI 48390
City, State, Zip

Andrew O'Connor, Senior Estimator
Print Name and Title

(810) 217-9979, aoconnor@cahull.com
Phone/Email address



ATTACHEMENT G

Vendor Conflict of Interest Disclosure Form

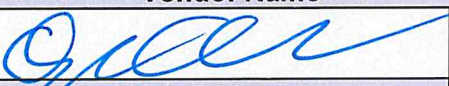
All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	<input type="checkbox"/> Relationship to employee <input type="checkbox"/> Interest in vendor's company <input type="checkbox"/> Other (please describe in box below)
NONE	

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:		
C. A. Hull Co., Inc.	(810) 217-9979	
Vendor Name	Vendor Phone Number	
	11/17/2022	Andrew O'Connor
Signature of Vendor Authorized Representative	Date	Printed Name of Vendor Authorized Representative

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500, procurement@a2gov.org

ATTACHMENT H

DECLARATION OF COMPLIANCE

Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

- (a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy, including but not limited to an acceptable affirmative action program if applicable.
- (b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.
- (c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.
- (d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

C. A. Hull Co., Inc.
Company Name


Signature of Authorized Representative

11/17/2022
Date

Andrew O'Connor, Senior Estimator
Print Name and Title

8177 Goldie St., Commerce Twp., MI 48390
Address, City, State, Zip

(810) 217-9979, aoconnor@cahull.com
Phone/Email Address

Questions about the Notice or the City Administrative Policy, Please contact:
Procurement Office of the City of Ann Arbor
(734) 794-6500

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

C.A. Hull Co., Inc.
8177 Goldie Road, Walled Lake, MI 48390

as Principal, hereinafter called Principal, and

Federal Insurance Company
202B Hall's Mill Road, Whitehouse Station, NJ 08889

a corporation duly organized under the laws of the State of **Indiana**
as Surety, hereinafter called Surety, are held and firmly bound unto

City of Ann Arbor
301 East Huron Street, Ann Arbor, MI 48104

as Obligee, hereinafter called Obligee, in the sum of **Five Percent of Accompanying Bid**

Dollars (**5%** of Bid)

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for (Here insert full name, address and description of project)

RFP# 22-76 East Medical Center Drive Bridge Rehabilitation and Widening Project

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this 17th day of November, 2022.

C.A. Hull Co., Inc.

(Principal) (Seal)

Senior Estimator
(Title)

Shawn Klosepi
(Witness)

Federal Insurance Company

(Surety) (Seal)

Holly Nichols
(Title)

Paul Hudry
(Witness)

Holly Nichols, Attorney in Fact

CHUBB

Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company

Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint Nicholas Ashburn, Anne M. Barick, Robert D. Heuer, Michael D. Lechner, Mark Madden and Holly Nichols of Troy, Michigan

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY have each executed and attested these presents and affixed their corporate seals on this 26th day of May, 2021.

Dawn M. Chloros

Dawn M. Chloros, Assistant Secretary

Stephen M. Haney

Stephen M. Haney, Vice President



STATE OF NEW JERSEY

County of Hunterdon

SS.

On this 26th day of May, 2021 before me, a Notary Public of New Jersey, personally came Dawn M. Chloros and Stephen M. Haney, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros and Stephen M. Haney, being by me duly sworn, severally and each for herself and himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2024

Katherine J. Adelaar

Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Dawn M. Chloros, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
- (ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this 17th day of November, 2022.



Dawn M. Chloros

Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:

Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com