



BOILERMAKER, BUILDING TRADES CHA

CHPRC Craft Specific Safety Hazards Analysis

Version 4

6/12/2017

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1.0 INTRODUCTION

1.1 Purpose

This hazard analysis applies to any Boilermaker, Building Trades employed by CH2M HILL Plateau Remediation Company, CHPRC, or Other Hanford Contractor, OHC, performing general craft specific work activities for CHPRC. The Craft Specific Hazard Analysis (CHA) covers general work activities performed routinely with limited, or no, work instructions and applies to those hazards that are not normally covered in work instructions or technical procedures.

1.2 Scope

The CHA lists, by craft discipline, the hazards each craft person may be exposed to while performing work within their positions defined by the Building Trades Contract. Craft members, by discipline, are trained and experienced to recognize and mitigate those hazards consistent within the skills of their discipline.

This hazard analysis covers the Boilermaker, Building Trades performing general craft specific work activities. This hazard analysis is used in conjunction with the General Industrial Hazards Analysis document, and does not cover the environment in which these activities may be performed.

1.3 Applicability

Every CHPRC employee is expected to work safely and to maintain a safe work environment. The GHA and CHA documents identify the control measures for routine industrial hazards common to the core activities of the workers' assigned job position.

This hazard analysis is to be used in conjunction with PRC-WKM-PRO-079, Job Hazard Analysis, and Appendix B. After reviewing the work scope, location, and the hazards involved, an evaluation is made to determine if this hazard analysis adequately bounds the work activity and can be considered skill-based.

2.0 RESPONSIBILITIES

The tasks listed are examples of the variety and general nature of duties performed by a Boilermaker, Building Trades. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed nor is it intended that related duties cannot be required.

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3.0 HAZARDS

Activity / Hazard	Control
Adjacent to and/or over Water Hazards	<p>Place barricades to prevent accidental falling</p> <p>Use safety nets or use/install another active or passive means of fall protection</p> <p>Life jackets are required where safety nets or another positive means of fall protection are not provided</p> <p>Personal fall-arrest systems may be used for this purpose, provided the fall-arrest system is worn continuously while the worker is exposed to the water hazard</p> <p>U.S. Coast Guard-approved life jacket or buoyant work vest</p> <p>Ring buoys with at least 90 feet (27.4 m) of line must be provided and readily available for emergency rescue operations</p>
Blind Penetrations less than 1-½ Inches Walls, floors, ceilings, roofs, or other surfaces <i>This analysis does not apply to any work requiring drilling, cutting or penetrating deeper than 1 ½ inches</i>	<p>Check both sides of penetration location for potential hazards whenever possible; hand-over-hand piping or conduit if drawings or visual references do not provide adequate location information</p> <p>Cutting or penetrating asbestos, lead, silica, and other hazardous materials is not permitted without proper controls or applicable permits</p> <p><i>Note: Various piping systems, conduits, and electrical circuits are frequently embedded in concrete, block, piping insulation, and other inaccessible spaces. These hidden obstructions are frequently missing from drawings and may present risk of electrical shock and burns, hazardous chemicals, and other dangers. Thorough planning, hazard analysis, and safety precautions must be used whenever there is a possibility of contacting these hidden utilities.</i></p>

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Activity / Hazard	Control
Hoisting and Rigging Operations DOE/RL 92-36	Verify a Designated Leader (DL) has been assigned for each H&R activity Only assigned craft will work inside a critical lift fall zone Use a trained spotter/flagman/signalman Erect barricades for crane work areas and rotating superstructures Ensure inspection is current for rigging equipment Inspect all rigging components, prior to use All employees (within the safety boundary “fall zone”) must wear a hard hat Notify supervisor to contact Electrical Utilities or Owner of overhead power lines if there is a potential of operating within 20 feet (6.1 m) of the overhead lines Use a trained spotter/line-watch inside LAB of overhead power lines Determine mobile crane travel routes/paths (e.g., obstacles, bumps, changes in elevation, collocated workers, nearby structures) Remain current on OSHA Crane and Derrick Standard Briefing Establish Work Area and Fall Zone boundaries

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Activity / Hazard	Control
<p data-bbox="201 306 495 630">Hot Work (Includes electric arc, oxy-fuel gas welding/cutting operations, heavy grinding, brazing, light grinding, tig or mig welding, or similar activities)</p> <p data-bbox="201 727 495 787">PRC-PRO-FP-40421, Hot Work</p>	<p data-bbox="562 306 1325 334">Check the MSDS/SDS for product contents before welding</p> <p data-bbox="562 370 1892 464">Have Industrial Hygiene evaluate the process and the properties of the materials being used, including welding rod and base and filler material, and establish appropriate controls to protect workers from carcinogenic agents</p> <p data-bbox="562 500 1304 527">Verify a designated trained fire watch has been assigned</p> <p data-bbox="562 563 1224 591">Flame/fire retardant personal protective equipment</p> <p data-bbox="562 626 1793 686">Wear proper PPE for the task (previously IH approved - i.e. leather gloves, protective coveralls, leathers or FR rated clothing, protective goggles, respirator, and hoods)</p> <p data-bbox="562 722 1713 750">Remove the paint/coating at least 4 inches (10.2 cm) in every direction from the hot work</p> <ul data-bbox="611 756 1339 816" style="list-style-type: none">• When grinding wear face shield and safety glasses• Verify paint has been tested for lead prior to removal <p data-bbox="562 852 1209 880">Inspect all leads, tools and equipment prior to use</p> <p data-bbox="562 915 1724 943">Physically ensure that the grounding lead has a good connection before you start welding</p> <p data-bbox="562 979 1892 1039">Hot Work Permit - Follow applicable Hot Work Permit issued for work to be performed and have permit available for review</p> <p data-bbox="562 1075 1509 1102">All flammables/combustible material shall be kept clear of hot work areas</p> <p data-bbox="562 1138 1892 1198">Perform housekeeping regularly to prevent the build-up of flammables/combustibles (cardboard boxes, paper, etc.)</p> <p data-bbox="562 1234 1866 1294">Utilize "flash-shields" when other employees or visitors may be exposed to grinding activities or ultra-violet rays (from welding arc)</p> <p data-bbox="562 1330 1887 1390">Verify adequate ventilation/local exhaust is in use for welding, cutting, and burning operations, as specified by Industrial Hygiene. Verify cross ventilation does not interfere with capture of local exhaust</p> <p data-bbox="562 1425 1497 1453">When possible, position work so that worker is upwind of welding fumes</p>