

# Administrative Procedure

# PRC-PRO-SH-40078 Contractor Safety Processes

Revision 1, Change 7

Published: 03/12/2012 Effective: 03/12/2012

Project: CH2M HILL Plateau Remediation Company Topic: Occupational Safety & Industrial Hygiene

# **Administrative Use**



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#### **CHANGE SUMMARY**

AJHA: N/A HRB Date: N/A

Periodic Review Due Date: 10/14/2014 Validation Date: N/A

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Excluded per

PRC-PRO-NS-062, Appendix B

#### **Description of Change**

Rev 1-7: Provided clarification by adding the word "forklift" to the list of lift equipment in Appendix F, 4.1, #5 a.

Rev. 1-6: As a corrective action to CR-2011-2293 the following changes were made: Clarifies CHPRC OS&IH responsibilities with regards to subcontractor work activities; provides direction to use Appendix I as an option for use by Contractors who do not have their own approved process or choose not to use the AJHA process; revised Appendix A, SOW Option 2 trigger to include work involving a Permit-required confined space entry; removed the trigger for elevated work activities that do not have a fall protection plan; updated referenced procedures throughout the document; included the OS&IH approval of Contractor's hazard analysis documents in Appendix F; revised Appendix F requirements regarding Contractor performing lockout/tagout; and provided additional guidance and direction for the job safety analysis process described in Appendix I to include reference to the K-3 JSA.

Rev 1-5, In response to a formal corrective actions (CR-2011-0041 & 2011-1054), this change incorporates key chemical management responsibility for contractors; revises Appendix D Table and instructions; identifies expectations for Construction contractor attendance in SEHOCS and 10-Hour OSHA training; clarifies Contractor safety prequalification and performance review expectations; adds an Appendix G (Contractor Safety Pre-Qualification) accompanied by revised Site Form A-6004-812 and a new Site Form (A-6005-948) for Pre-Qualification Determination; adds an Appendix H (Contractor Safety Performance Evaluation); integrates the job safety analysis (JSA) process via Appendix I; and references an Option 3 SOW template for Construction Services; adds a new subsection 3.1.4 contractor deliverable to Appendix F for specifying periodicity of equipment inspections/maintenance when requirements identify frequency as *routine*, *periodic*, *or in accordance with manufacturer recommendations*. Site Forms A-6004-055, A-6004-784, A-6004-952, and A-6005-785 were added. Editorial changes were also completed.

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#### 1.0 INTRODUCTION

#### 1.1 Purpose

This procedure defines the process and activities for Occupational Safety and Industrial Hygiene (OS&IH) professional support of Buyer Technical Representative (BTR) responsibilities as defined in PRC-PRO-AC-192, *Buyer's Technical Representative Assignment and Duties*, and PRC-PRO-AC-186, *Statements of Work*, and PRC-PRO-MS-40213, *Subcontractor Oversight*. This procedure also incorporates Safety Program Specifications for Contractors (Appendix F).

#### 1.2 Scope

This Level 2 procedure applies to CH2M HILL Plateau Remediation Company (CHPRC) contracts whose activities trigger OS&IH requirements. It aids in assuring the flow-down of a tailored set of requirements based upon the hazards associated with the activity.

#### 1.3 Applicability

This procedure applies to CHPRC team members working under original shared resource agreements, any new Statement of Work (SOW) or Procurement, or existing contracts after their annual update for on-site service contracts for the CHPRC portion of the Department of Energy (DOE) Mission.

#### 1.4 Implementation

Existing Master Support Contracts and Basic Ordering Agreements, and associated releases will be allowed to run with the current contract language and then be updated to meet the most current CHPRC requirements during the annual review.

This procedure is effective upon publication.

#### 2.0 RESPONSIBILITIES

All responsibilities associated with this procedure are identified in the process steps.

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#### 3.0 PROCESS

# 3.1 Pre-Award Planning Support

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Actionee	Step	Action
Manager of OS&IH	1.	IDENTIFY OS&IH professionals who will support BTR contract activities.
SME	2.	VIEW Contractor Safety Process, Subject Matter Expert (SME) list (BTR Interface Representative by Project) on the CHPRC OS&IH webpage.
	3.	DIRECT the Training Coordinator or designee to place course 170097, Enhanced Buyer Technical Representative Training, in each assigned OS&IH members' ITEM Employee Training Plan per PRC-PRO-TQ-164, Integrated Training Electronic Matrix (ITEM).
	4.	ASSIGN BTR support activities to identified staff.
OS&IH SME	5.	PROVIDE the BTR with OS&IH-related support to fulfill their expectations set forth in PRC-PRO-AC-192, <i>Buyer's Technical Representative Assignment and Duties</i> .
	6.	AID the BTR by reviewing the activities/work tasks to understand the potential hazards that may be encountered during the duration of the contract.
	7.	PROVIDE input into the selection of the appropriate template option to support the BTR's development of the safety portion of the SOW (Appendix A, Options 1, 2 or 3). Standard templates are located at http://prc.rl.gov/rapidweb/Procurement/index.cfm?PageNum=13.
		<ul> <li>Option 1 – CHPRC managed on-site activities which are non- hazardous or non-complex.</li> </ul>
		<ul> <li>Option 2 – CHPRC managed on-site activities which are either hazardous or complex, per PRC-PRO-WKM-40004, or meet <u>any</u> of the following:</li> </ul>
		<ul> <li>Contracted activity triggers regulatory occupational medical examination(s).</li> <li>Activity requires a unique safety plan(s) or adherence to selected CHPRC procedures.</li> <li>Hazards encountered during the duration of the contract require safety-related training beyond CHPRC General Employee Training and Facility specific safety orientation.</li> </ul>
		<ul> <li>Option 3 - CHPRC managed on-site construction services.</li> </ul>

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Actionee	Step	Action
OS&IH SME	8.	AID the BTR in developing occupational safety related selection criteria, to include completion of Site Form A-6004-812, CHPRC Contractor Occupational Safety and Industrial Hygiene – Pre-Qualification Form, and Site Form A-6005-948, CHPRC Contractor/Lower Tier Contractor Safety Prequalification Determination and Worksheet. REFER to Appendix G.
	9.	AID the BTR and Contracting Specialist with evaluating the Occupational Safety and Health related selection of the SOW (See Appendix B).

**NOTE:** Appendix D is set up with a crosswalk to the source document (Appendix B) requiring the training.

- 10. AID the BTR and Contracting Specialist in evaluating Contractor Pre-Qualification outcomes in terms of effective safety management systems, proactive safety cultures, and past safety performance.
- 11. AID the BTR to pre-identify OS&IH related training during the course of the contracted activity (See Appendix D).
- 12. AID the BTR to pre-identify OS&IH-related permits required during the course of the contracted activity (See Appendix E).
- 13. AID the BTR in ensuring the proper level of Safety Program Specifications are included by reference in the SOW (See Appendix F) for hazardous or complex or Construction-related work scopes.

SHS&Q and Environm ental SME

- 14. AID the BTR in planning the OS&IH-related information to be provided at the Kickoff and Pre-mobilization meeting with the Contractor.
- 15. AID the BTR in developing the contractor oversight plan, as defined in PRC-PRO-MS-40213, *Subcontractor Oversight*.

#### 3.2 Initial On-Boarding Support

Actionee	Step	Action
OS&IH SME	1.	SUPPORT the BTR to deliver the OS&IH-related materials at the Kick-off meeting.
	2.	SUPPORT the BTR by reviewing for approval any Contractor provided portions of the safety plan.

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Actionee	Step	Action
OS&IH SME		SUPPORT the BTR by reviewing for approval any Contractor provided Job Hazard Analysis (JHA) documents. The Contractor may use one of the following three methods: the CHPRC Web-based Automated Job Hazard Analysis (AJHA) Tool; the CHPRC provided Job Safety Analysis/Activity Hazard Analysis for Subcontractors (JSA/AHA), described in Appendix I using Site Forms A-6004-784 and A-6004-785; or other documented safety analysis as chosen by the Contractor and approved by the BTR.
	4.	SUPPORT the BTR to deliver the OS&IH-related materials at the Premobilization meeting.
	5.	SUPPORT the BTR by providing safety-related training as appropriate.
	6.	DOCUMENT the training per PRC-PRO-TQ-164, <i>Integrated Training Electronic Matrix</i> .
	7.	SUPPORT the BTR <u>AND</u> ASSIST the CONTRACTOR with their completion of a work site hazard analysis meeting PRC-PRO-WKM-079, <i>Job Hazard Analysis</i> expectations.
	8.	SUPPORT the BTR to ensure that Contract required occupational medical monitoring, meeting PRC-RD-SH-11058, <i>Occupational Medical Qualification and Monitoring Requirements</i> , has been completed.

**NOTE:** The following form may be used by a group or individually. This form should be completed initially during mobilization and then frequently thereafter to support evaluation documentation (Site Form A-6004-815).

9. SUPPORT the BTR in completing the *Contractor Job Site Safety Inspection/Observation Checklist* (Site Form A-6004-815).

#### 3.3 On-Site Work Support

Actionee	Step	Action	
OS&IH	1.	SUPPORT the BTR with field presence to monitor the contractor's	
SME		compliance with the OS&IH requirements during the period of performance.	

**NOTE:** The presentation CHPRC-SH-2009-01, Contractor Safety Orientation, is located on the OS&IH organization website under General Information.

- 2. SUPPORT the BTR in safety communications.
- 3. SUPPORT the BTR investigation of contract-related OS&IH events.

**NOTE:** A Condition Report Form should be completed per PRC-PRO-QA-052, Issues Management, for any deficiency.

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Actionee	Step	Action
OS&IH SME	4.	NOTIFY the BTR immediately of any Stop Work action, or OS&IH program or practice deficiency.
	5.	SUPPORT the BTR in completion of Contractor OS&IH-related performance evaluations every six months, or for the duration of the contract for those contracts less than 6 months in duration. REFER to Appendix H and Site Form A-6004-782, Contractor Occupational Safety and Industrial Hygiene Performance Evaluation.

#### 3.4 Contract Changes

Actionee	Step	Action	
OS&IH	1.	SUPPORT th	ne BTR when a change to the contract is needed due to
SME		recognition of	f a new OS&IH hazard or requirement.

#### 3.5 Contract Final Acceptance

Actionee	Step	Action
		SUPPORT the BTR in verifying the adequacy of OS&IH-related aspects of the Contractor's completion of work.
	2.	SUPPORT the BTR verification that the work location is in a safe condition.

#### 3.6 Contracted Labor Resources

Actionee	Step	Action	
OS&IH	1.	SUPPORT the	BTR to identify/communicate OS&IH-related policies,
SME		procedures, an	d job hazards to the Contracted Labor Resource.

#### 4.0 FORMS

A-6004-055, Enhanced Pre-Work Walk Down and Post Performance Checklist

A-6004-782, Contractor Occupational Safety and Industrial Hygiene Performance Evaluation

A-6004-784, Job Hazard Analysis/Activity Hazard Analysis (JSA/AHA) For Subcontractors

A-6004-812, CHPRC Contractor Occupational Safety and Industrial Hygiene – Pre-Qualification Form

A-6004-813, Pre-mobilization Meeting Safety Checklist

A-6004-814, Contractor Occupational Safety and Industrial Hygiene Documentation Requirements Checklist

A-6004-815, Contractor - Job Site Safety Inspection/Observation Checklist

A-6004-952, Pre-Job Briefing Checklist

A-6005-785, Pre-Job Safety Walkdown

A-6005-948, CHPRC Contractor/Lower Tier Contractor Safety Prequalification Determination and Worksheet

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#### 5.0 RECORD IDENTIFICATION

Performance of this procedure may generate the following records.

Name of Record	Submittal Responsibility	Retention Responsibility	OCRWM Retention Schedule (If OCRWM Related)
Condition Report File	Issues Management	Per Records Inventory Disposition Schedule	None
A-6004-055, Enhanced Pre- Work Walk Down and Post Performance Checklist	BTR	Per Records Inventory Disposition Schedule	None
A-6004-813, Pre-mobilization Meeting Safety Checklist	BTR	Per Records Inventory Disposition Schedule	None
A-6004-782, Contractor Occupational Safety and Industrial Hygiene Performance Evaluation	BTR	Per Records Inventory Disposition Schedule	None
A-6004-784, Job Hazard Analysis/Activity Hazard Analysis (JSA/JHA) For Subcontractors	BTR	Per Records Inventory Disposition Schedule	None
A-6004-812, CHPRC Contractor Occupational Safety and Industrial Hygiene – Pre-Qualification Form	BTR	Per Records Inventory Disposition Schedule	None
A-6004-814, Contractor Occupational Safety and Industrial Hygiene Documentation Requirements Checklist	BTR	Per Records Inventory Disposition Schedule	None
A-6004-815, Contractor - Job Site Safety Inspection/ Observation Checklist	BTR	Per Records Inventory Disposition Schedule	None
A-6004-952, Pre-Job Briefing Checklist	BTR	Per Records Inventory Disposition Schedule	None
A-6005-785, Pre-Job Safety Walkdown	BTR	Per Records Inventory Disposition Schedule	None

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Name of Record	Submittal Responsibility	Retention Responsibility	OCRWM Retention Schedule (If OCRWM Related)
A-6005-948, CHPRC Contractor/Lower Tier Contractor Safety Prequalification Determination and Worksheet	BTR	Per Records Inventory Disposition Schedule	None

#### 6.0 SOURCES

#### 6.1 Requirements

10 CFR Part 20, Standards for Protection Against Radiation

10 CFR Part 835, Occupational Radiation Protection

10 CFR Part 851, Worker Safety and Health Program

29 CFR Part 1910, Occupational Safety and Health Standards (excluding 1096, Ionizing Radiation)

29 CFR Part 1904, Recording and Reporting Occupational Injuries and Illness

29 CFR Part 1926, Safety and Health Regulations for Construction

49 CFR, Transportation

49 CFR Part 393, Parts and Accessories Necessary for Safe Operations, Subpart I, Protection Against Shifting or Falling Cargo

American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (2004)

ANSI A14.10-2000, American National Standard for Ladders - Portable Special Duty Ladders

ANSI A14.5-2000, American National Standard for Ladders – Portable Reinforced Plastic – Safety Requirements

ANSI C2-2007, National Electrical Safety Code (NESC)

ASME B31, Standards of Pressure Piping

DEAR 970.5223-4, Workplace Substance Abuse Programs at DOE Sites (DEC 2000)

DOE M 440 1-1A, DOE Explosives Safety Manual, Att. 2 "Contractor Requirements Document"

NEMA MG-1-2007, Information Guide for General Purpose Industrial AC Small and Medium Squirrel-Cage Induction Motor Standards

NFPA 70-2008. National Electrical Code

NFPA 70E-2009, Standard for Electrical Safety in the Workplace

DE-AC-06-08RL14788, CH2M HILL Plateau Remediation Contract

RCW 46.61, Rules of the Road

Special Provisions – On Site Services (SP-5)

WAC 296-155 Part L. Crane Certifier Accreditation and Certification

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#### 6.2 References

Bureau of Labor Statistics, Incident rates of non-fatal injuries and illnesses by industry and select cases (http://www.bls.gov/iif/)

Occupational Safety and Health Administration, OSHA inspection/violation, database. Link: http://www.osha.gov/pls/imis/establishment.html.

ANSI A14.5-2000, American National Standard for Ladders – Portable Reinforced Plastic – Safety Requirements

ANSI A14.10-2000, American National Standard for Ladders - Portable Special Duty

CHPRC-00073, CHPRC Radiological Control Manual

DOE-0342, Hanford Site Chronic Beryllium Disease Prevention Program

DOE-0336, Hanford Site Lockout/Tagout

DOE-343, Stop Work

DOE-0346, Hanford Site Fall Protection Program (HSFPP)

DOE-0360, Hanford Confined Space Procedure (HSCSP)

DOE-RL-92-36, Hanford Site Hoisting & Rigging Manual

MSC-PRO-066, Electrical Utilities Lock and Tag Program

MSC-RD-8589, Hanford Fire Marshal Permits

PRC-CHRT-SH-9982, Presidents' and Employee Zero Accident Councils

PRC-GD-SH-29950, Human Performance Culpability Matrix

PRC-GD-WKM-17132, Automated Job Hazards Analysis Process Guide

PRC-MP-SH-32219, 10 CFR 851CHPRC Worker Safety and Health Program Description

PRC-MP-SH-38174, Written Respiratory Protection Program

PRC-MP-TQ-011, CH2M HILL Plateau Remediation Company Qualification and Training Plan

PRC-POL-SH-5053, CHPRC Safety, Health, Security, Quality, and Environmental Policy

PRC-PRO-AC-186, Statements of Work

PRC-PRO-AC-192, Buyer's Technical Representative Assignment and Duties

PRC-PRO-EC-410, Employee Concern Resolution

PRC-PRO-EM-060, Reporting Occurrences and Processing Operations Information

PRC-PRO-EM-40360, Building Emergency Plans and Facility response Plans

PRC-PRO-QA-052, Issues Management

PRC-PRO-SH-077, Reporting, Investigating, and Managing Health, Safety and Property/Vehicle Events

PRC-PRO-SH-095, Scaffolding

PRC-PRO-SH-10321, Walking/Working Surfaces

PRC-PRO-SH-104, Aviation Safety Program

PRC-PRO-SH-10468, Chemical Management Process

PRC-PRO-SH-105, Steam Generation and Distribution System Safety

PRC-PRO-SH-10648, Automated External Defibrillators

PRC-PRO-SH-11166, Control of Working Hours and Working Alone

PRC-PRO-SH-120, Respiratory Protection Program

PRC-PRO-SH-121, Heat Stress Control

PRC-PRO-SH-17916, Industrial Hygiene Baseline Hazard Assessments

PRC-PRO-SH-28034, Adverse Weather

PRC-PRO-SH-31697, Controlling Exposures to Hexavalent Chromium

PRC-PRO-SH-32621, Closure Facilities Hazards

PRC-PRO-SH-37485, Material Handling & Control of Loads

PRC-PRO-SH-40112, Roof Assessment Process

PRC-PRO-SH-40143, Biological Hazards

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PRC-PRO-SH-40145, Maintenance for MSA OptimAir 6A Powered Air Purifying Respirators

PRC-PRO-SH-40146, Maintaining 3M GVP Powered Air Purifying Respirators

PRC-PRO-SH-40410, Hazard Communication Program

PRC-PRO-SH-40435, CHPRC Electrical Safety Program

PRC-PRO-SH-409, Industrial Hygiene Monitoring, Reporting and Records Management

PRC-PRO-SH-7085, Safety Responsibility

PRC-PRO-WKM-14047, Pre-Job Briefings and Post-Job Reviews

PRC-PRO-WKM-079, Job Hazard Analysis

PRC-PRO-WKM-40004, Hazard Review Board

PRC-RD-AC-10320, CHPRC Acquisition System Requirements

PRC-RD-EM-7647, Emergency Preparedness Program Requirements

PRC-RD-SH-10743, Safety Communications

PRC-RD-SH-10972, Elevating Work Platforms

PRC-RD-SH-10994, Occupational Carcinogen Control

PRC-RD-SH-11058, Occupational Medical Qualification and Monitoring

PRC-RD-SH-11183, Personal Protection

PRC-RD-SH-11198, Storing, Using and Handling Compressed Gases

PRC-RD-SH-11812, Occupational Noise Exposure and Hearing Conservation

PRC-RD-SH-12389, Occupational Lead Exposure Control

PRC-RD-SH-13299, Hazard Communication

PRC-RD-SH-15097, Asbestos Control – Construction Industry

PRC-RD-SH-15245, Asbestos Control - General IndustryPRC-RD-SH-28954, Equipment Operation near Overhead Electrical Lines

PRC-RD-SH-7459, Safety Showers and Eyewashes

PRC-RD-SH-7652, Safety and Health Inspections

PRC-RD-SH-7769, OSH Compliance

PRC-RD-SH-8471, Ergonomics

PRC-RD-SH-8801, Fall Protection

PRC-RD-SH-9237, Motor Vehicle/Bicycle Safety

PRC-RD-SH-36716, Respiratory Protection Program Requirements

PRC-RD-TQ-11061, Training RequirementsPRC-STD-SH-40314, Portable and Fixed Ladder Standard

PRC- STD-SH-40418, Tags, Signs, & Barriers

PRC-STD-CN-40381, Construction Work Management Integration

#### 7.0 APPENDIXES

Appendix A - Statement of Work Template Options

Appendix B - Determining CHPRC OS&IH Required Documents

Appendix C - Determining Contract Required Occupational Medical Examinations

Appendix D - Determining Contract Required OS&IH Training
Appendix E - Determining Occupational Safety related Permits
Appendix F - Safety Program Specifications For Contractors

Appendix G - Contractor Pre-qualification

Appendix H - Contractor Performance Evaluation

Appendix I - Job Hazard Analysis Process for Subcontractors

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#### **Appendix A - Statement of Work Template Options**

There are three options for OS&IH SME's to select from when supporting the BTR in development of a SOW. Each option aides in the uniform, but tailored, identification and flow-down of CHPRC requirements to those companies to which CHPRC extends contracts.

#### Options are:

- Option 1: CHPRC managed on-site activities which are non-hazardous or non-complex.
- Option 2: CHPRC managed on-site activities which are hazardous or complex or meet any of the following:
  - i. Contracted activity triggers regulatory occupational medical examination(s)
  - ii. Activity requires unique safety plan(s) or adherence to selected CHPRC procedures
  - iii. Hazards encountered during the duration of the contract require safetyrelated training beyond CHPRC General Employee Training and Facility specific safety orientation.

Option 3: CHPRC managed on-site construction services.

# <u>OPTION 1:</u> Hanford Site activities which are non-hazardous or non-complex and will be under the direction of CHPRC supervision

The following (1-7) is the minimum to be inserted into the SOW:

- CONTRACTOR may submit for approval to the BUYER, a comprehensive OS&IH plan, or meet all applicable CHPRC OS&IH requirements including but not limited to PRC-MP-SH-32219, 10 CFR 851CHPRC Worker Safety and Health Program Description, Appendix B.
- 2. Prior to on-site work, Contractor shall submit for approval to the Contract Specialist, a completed job hazard analysis covering the intended work scope. Unless specifically directed by the Contract Specialist, the Contractor may elect to use one of the following three methods: the CHPRC Web-based Automated Job Hazard Analysis (AJHA) Tool, the CHPRC-provided Job Safety Analysis/Activity Hazard Analysis for Subcontractors (JSA/AHA), described in Appendix I using Site Forms A-6004-784 and A-6004-785, or other documented safety analysis as chosen by the Contractor and approved by the BTR.
- CONTRACTOR shall comply with Special Provisions On Site Services (SP-5).

**NOTE:** Special Provisions – On Site Services (SP-5), is available at the following link: (http://www.plateauremediation.hanford.gov/index.php/page/39/)

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## **Appendix A - Statement of Work Template Options (continued)**

- 4. CONTRACTOR and its subcontractors shall be responsible to comply with State, Federal, and DOE requirements or regulations. Where there is a difference in regulations or requirements, the most stringent shall apply.
- 5. CONTRACTOR and its subcontractors shall be responsible to comply with all applicable sections of *Special Provisions On Site Services (SP-5)*.
- CONTRACTOR shall perform work in compliance with facility-specific procedures and requirements documents applicable to the work area.
- 7. CONTRACTOR shall take appropriate action, up to and including stopping work, and immediately notify the BUYER if an unplanned risk or hazard is discovered that is not covered by directions provided by the BUYER. This action includes notifying the BUYER if the work exposes their workers to hazards that require medical monitoring.

#### **End - OPTION 1**

#### Option 2 is to be used if:

- Contracted activity triggers regulatory occupational medical examination(s).
- Activity requires unique safety plan(s) or adherence to selected CHPRC procedures.
- Hazards encountered during the duration of the contract require safety-related training beyond CHPRC General Employee Training and Facility specific safety orientation.
- Any of the following listed hazardous or complex activities (a-v) apply to the work scope per PRC-PRO-WKM-40004, Hazard Review Board, criteria listed below:
  - a. First time or infrequently performed (less often than once per year) activities or application of controls that have not been previously employed on the project. This is not intended to capture low hazard activities performed on an infrequent basis such as annual or 5 year surveillance activities, but rather to include those that may present a beyond skill-based hazard requiring additional consideration because of infrequent performance.
  - b. Temporary modification, installation and use, or an activity that requires a change to a documented safety analysis (DSA), or otherwise results in a positive unreviewed safety questions (USQ).
  - c. Estimated collective dose exceeds 2500 person-mrem, airborne radioactivity concentrations exceed 10 DAC or result in an integrated exposure of 200 DAC hours, removable contamination greater than 1000 times values of limits provided in Table 2-2 of the CHPRC Radiological Control Manual, or whole body dose rates greater than 1 rem/hr (see CHPRC-00073, CHPRC Radiological Control Manual, Table 3-1).
  - d. Work involving a Permit-required confined space entry.

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## **Appendix A - Statement of Work Template Options (continued)**

- e. Surface penetrations of walls, floors, or ceilings deeper than 2 inches unless:
  - Obstruction and hazards have been positively identified and controlled through visual observation (both sides visible, and construction material would not support embeds, e.g. sheet steel), drawings reviews and scanning, or
  - Facility has been placed in Cold & Dark status.
- f. Activities where severe consequence could result from the failures of a single control during performance of a non-routine task (e.g., use of a single valve isolation of a pressurized system when double valve isolation would be required, but cannot be accomplished). Severe consequence includes death or injury that requires offsite medical attention to workers, an impact or potential impact to the environment or to public safety that requires action per emergency procedures.
- g. Complex work that is non-routine, complicated by the presence of multiple hazards and work involving multi-disciplinary teams of craft, operations, and support resources or co-located teams working simultaneously which requires continuous Field Work Supervisor (FWS) oversight to safely coordinate resources. Most work packages involve multiple crafts; this is intended to capture extraordinary coordination where a misstep would be the cause of release, exposure or severe consequences as described in step f above.
- h. Hoisting and rigging involving critical lifts where failure could result in:
  - Personnel injury requiring offsite medical attention or chronic adverse health impact (on-site or off-site)
  - Release of radioactivity or other hazardous material or other undesirable conditions requiring emergency response
  - Equipment or component damage that would jeopardize current or future operations or the safety of a facility.
- i. Work on energized electrical equipment/components greater than 50 volts (AC or DC) which are not locked/tagged out of service, specifically excluding voltage checks, implementation of lockout/tagout, or troubleshooting and testing.
  - All other live electrical work must be performed in accordance with the requirements of PRC-PRO-SH-40435, *CHPRC Electrical Safety Program*, using an energized work permit.
- j. Work on pressurized fluid systems with operating temperature exceeding 125°F or operating pressure exceeding 150 psig that are not locked/tagged out of service with at least one isolation from each energy source.
- k. Steam systems or equipment whose operating temperature exceeds 200°F, operating pressure exceeds 500 psig, which are not locked/tagged out of service with double valve isolation.

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#### **Appendix A - Statement of Work Template Options (continued)**

- I. Maintenance and repair of pressurized systems with cryogenics.
- m. Movement of liquid sodium.
- n. System being used in a manner different from its approved design/function.
- Work where exposure to asbestos, lead, and other chemicals may be at levels greater than 100% of the occupational exposure limit (OEL) without regard to respiratory protection.
- p. Work where exposure to beryllium may be at levels greater than 50% of the action level.
- q. Work with chemical hazards which are shock sensitive, chemicals not in their original containers without proper identifying information and which may warrant special personal protection equipment.
- r. Handling fissile material (in a single container) exceeds minimum critical mass, or performing an activity that relies upon a single contingency. Excludes approved packaging configuration (e.g., 3013) or sealed sources.
- s. Work that has the potential through rotation or extension to enter the Limited Approach Boundary (within 10 ft) for energized overhead electrical transmission or distribution lines (see PRC-PRO-SH-40435 and PRC-RD-SH-28954, *Equipment Operation near Overhead Electrical Lines*).
- t. Other work defined by the Project Manager/Vice President.
- u. Where workplace hazards have changed requiring personal protective equipment to be upgraded from a Chemical Protective Clothing Level B to Level A ensemble.

# **Contractor Safety Processes**

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#### **Appendix A - Statement of Work Template Options (continued)**

- v. Work where the fall hazard is more than 20 feet (the vertical distance measured from the bottom of one's feet is 20 feet or more above another surface), and involves any of the following:
  - Erecting, dismantling or modifying scaffolding or elevated work platforms without fall protection
  - Work that impacts or compromises engineered fall protection, (such as removing handrail, altering engineered work platforms, etc.)
  - Work over water where there is potential for drowning (29 CFR 1926.106, Working Over Or Near Water)
  - Work over dangerous equipment (29 CFR 1926.500).

**NOTE:** <u>Dangerous equipment</u> means equipment (such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment, and other units) which, as a result of form or function, may be hazardous to employees who fall onto or into such equipment.

# OPTION 2: Hanford Site activities which are hazardous or complex and will be under the direction of CHPRC supervision

The following (1-12) is the minimum to be inserted into the SOW:

- CONTRACTOR may submit for approval to the BUYER a comprehensive OS&IH plan or meet all applicable CHPRC OS&IH requirements including, but not limited to, PRC-MP-SH-32219, 10 CFR 851 CHPRC Worker Safety and Health Program Description, Appendix B.
- 2. Prior to on-site work, CONTRACTOR shall submit for approval to the Contract Specialist, a completed job hazard analysis covering the intended work scope. Unless specifically directed by the Contract Specialist, the Contractor may elect to use one of the following three methods: the CHPRC Web-based Automated Job Hazard Analysis (AJHA) Tool, the CHPRC-provided Job Safety Analysis/Activity Hazard Analysis process described in Appendix I using Site Forms A-6004-784 and A-6004-785, or other documented safety analysis as chosen by the Contractor.
- 3. CONTRACTOR and its subcontractors shall identify a staff member as the "Designated Safety Representative" prior to the start of work, if the CONTRACTOR has more than one employee working on site in performance of this contract, in accordance with Special Provisions On Site Services (SP-5). CONTRACTOR shall notify the BUYER if the name of the Designated Safety Representative changes. At a minimum, the Designated Safety Representative will serve in an oversight role during periods of active work to identify and correct safety and health related issues.

# **Contractor Safety Processes**

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## **Appendix A - Statement of Work Template Options (continued)**

**NOTE:** Special Provisions – On Site Services (SP-5) is available at the following link: (http://www.plateauremediation.hanford.gov/index.php/page/39/)

- 4. CONTRACTOR and its subcontractors shall be responsible to comply with all applicable sections of both *Special Provisions On Site Services (SP-5)* and Appendix F, *Safety Program Specifications for Contractors*.
- 5. BUYER will identify hazard(s) requiring a unique safety plan: (Insert unique hazard requiring the plan i.e., Drilling, Railway use, Special chemical or process, etc.).
- CONTRACTOR shall either use the BUYER provided plan or submit its own plan for BUYER approval prior to mobilization for unique hazards.
- 7. CONTRACTOR shall perform work in compliance with facility-specific procedures and requirements documents applicable to the work area. These procedures and requirements comply with State, Federal, and DOE requirements or regulations. Where there is a difference in regulations or requirements, the most stringent shall apply.
- 8. CONTRACTOR must become familiar with the following CHPRC documents as they will define programs and processes CONTRACTOR employees will be expected to follow: (Insert documents selected from Appendix B).
- 9. CONTRACTOR shall arrange for their and subcontract employees to obtain the following regulatory required-occupational medical examinations which are triggered by the activities of this contract: (Insert medical examinations selected from Appendix C).
- 10. CONTRACTOR shall utilize the Site Occupational Medical Service Provider (OMSP) to obtain the identified medical examinations.
- 11. CONTRACTOR shall use the Site OMSP for first aid treatment, and return to work evaluations and the Hanford Fire Department (HFD) for ambulance service for urgent medical situations requiring care and transport.
- 12. CONTRACTOR shall take appropriate action, up to and including stopping work, and immediately notify the BUYER if an unplanned risk or hazard is discovered that is not covered by directions provided by BUYER. This action includes notifying the BUYER if the work exposes their workers to hazards that require medical monitoring.
- 13. The contract's SOW, Section 5.1, will identify the safety-related training.

OPTION 3: Hanford Site activities related to acquisition of construction services to be performed by contractors under the direction of CHPRC supervision.

Standard content for insertion into the SOW is found in the **SOW Template EPC Construction** located at http://prc.rl.gov/rapidweb/Procurement/index.cfm?PageNum=13

## **Contractor Safety Processes**

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#### **Appendix B - Determining CHPRC OS&IH Required Documents**

Appendix B is applicable to Appendix A's OPTION 2 and OPTION 3, only.

The OS&IH SME uses this Appendix B to support the BTR completion of the SOW, Section 6.1, Safety Requirements, for Option 2; and Section 01110, Occupational Safety/Industrial Hygiene, for Option 3.

#### **PROCESS**

- 1. Review the proposed contracted work scope with the BTR.
- 2. Walk-down the area where the Contracted activity will occur.
- 3. Determine which CHPRC OS&IH requirements documents must be made available to the proposing contractor based on the hazards of the activity.
- 4. Provide the BTR the list to place in the SOW.
- 5. Utilize the results to aid in selecting the necessary medical examinations and training requirements.
- 6. Utilize the results to aid the BTR in determining the training needs of the Contractor.

#### CHPRC OS&IH (and OS&IH-related) Documents

Applies to Contract	Document Number	Title
	PRC-PRO-SH-40078	Contractor Safety Processes
	PRC-CHRT-SH-9982	Presidents' and Employee Zero Accident Councils
	PRC-PRO-SH-17916	Industrial Hygiene Baseline Hazard Assessments
	PRC-GD-SH-29950	Human Performance Culpability Matrix
	PRC-GD-WKM-17132	Automated Job Hazards Analysis Process Guide
	PRC-MP-SH-32219	10 CFR-851 CHPRC Worker Safety & Health Program Description
	PRC-MP-SH-40015	Chemical Management Plan
	PRC-POL-SH-30646	Recreation Policy
	PRC-POL-SH-5053	CH2M HILL Plateau Remediation Company Safety, Health, Security, Quality, and Environmental Policy
	PRC-PRO-EM-060	Reporting Occurrences and Processing Operations Information
	PRC-PRO-EM-40360	Building Emergency Plans and Facility Response Plans
	PRC-PRO-FP-40421	Hot Work
	PRC-PRO-FP-40426	Fire Protection System Inspection, Testing, and Maintenance
	PRC-PRO-SH-095	Scaffolding

# **Contractor Safety Processes**

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# **Appendix B - Determining CHPRC OS&IH Required Documents (continued)**

Applies to Contract	Document Number	Title
	PRC-PRO-SH-104	Aviation Safety Program
	PRC-PRO-SH-105	Steam Generation and Distribution System Safety
	PRC-PRO-SH-120	Respiratory Protection Program
	PRC-MP-SH-38174	Written Respiratory Protection Program
	PRC-RD-SH-36716	Respiratory Protection Program Requirements
	PRC-PRO-SH-40145	Maintenance for MSA OptimAir 6A Powered Air Purifying Respirators
	PRC-PRO-SH-40146	Maintaining 3M GVP Powered Air Purifying Respirators
	PRC-PRO-SH-121	Heat Stress Control
	PRC-PRO-SH-409	Industrial Hygiene Monitoring, Reporting and Records Management
	PRC-PRO-SH-6155	Implementation of the Hanford Site Chronic Beryllium Disease Prevention Program
	PRC-PRO-SH-7085	Safety Responsibility
	PRC-PRO-SH-077	Reporting, Investigating, and Managing Health, Safety and Property/Vehicle Events
	PRC-PRO-SH-31697	Controlling Exposures to Hexavalent Chromium
	PRC-PRO-SH-32621	Closure Facilities Hazards
	PRC-PRO-SH-37485	Material Handling & Control of Loads
	PRC-PRO-SH-40112	Roof Assessment Process
	PRC-PRO-SH-10321	Walking/Working Surfaces
	PRC-PRO-SH-10468	Chemical Management Process
	PRC-PRO-SH-28034	Adverse Weather
	PRC-PRO-SH-40143	Biological Hazards
	PRC-PRO-SH-40410	Hazard Communications Program
	PRC-PRO-SH-40435	CHPRC Electrical Safety Program
	PRC-PRO-WKM-079	Job Hazard Analysis
	PRC-RD-SH-7459	Safety Showers and Eyewashes
	PRC-RD-SH-7652	Safety and Health Inspections
	PRC-RD-SH-7769	OSH Compliance
	PRC-RD-SH-8471	Ergonomics
	PRC-RD-SH-9237	Motor Vehicle/Bicycle Safety
	PRC-PRO-SH-10648	Automated External Defibrillators
	PRC-RD-SH-10743	Safety Communications

# **Contractor Safety Processes**

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# **Appendix B - Determining CHPRC OS&IH Required Documents (continued)**

Applies to Contract	Document Number	Title
	PRC-RD-SH-10972	Elevating Work Platforms
	PRC-RD-SH-10994	Occupational Carcinogen Control
	PRC-RD-SH-11058	Occupational Medical Qualification and Monitoring
	PRC-PRO-SH-11166	Control of Working Hours and Working Alone
	PRC-RD-SH-11183	Personal Protection
	PRC-RD-SH-11198	Storing, Using and Handling Compressed Gases
	PRC-RD-SH-11812	Occupational Noise Exposure and Hearing Conservation
	PRC-RD-SH-12389	Occupational Lead Exposure Control
	PRC-RD-SH-13299	Hazard Communication
	PRC-RD-SH-15097	Asbestos Control – Construction Industry
	PRC-RD-SH-15245	Asbestos Control – General Industry
	PRC-RD-SH-28954	Equipment Operation near Overhead Electrical Lines
	PRC-STD-FP-40404	Fire Protection Program
	PRC-STD-SH-40314	Portable and Fixed Ladder Standard
	PRC-STD-SH-40418	Tags, Signs and Barriers
	PRC-PRO-MN-40323	Inspection – Portable and Fixed Ladders; Mobile Ladder Stands; Mobile Ladder Stand Platforms
	PRC-POL-HR-11386	Smoke Free Workplace
Applies to Contractor	Requirement documents <u>not</u> <u>controlled</u> but endorsed by CHPRC	Title
	DOE-0336	Hanford Lockout/Tagout Program
	DOE-0342	Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP)
	DOE-0343	Stop Work
	DOE-0344	Hanford Site Excavating, Trenching and Shoring
	DOE-0346	Hanford Site Fall Protection Program (HSFPP)
	DOE-0360	Hanford Site Confined Space Procedure (HSCSP)
	DOE-RL-92-36	Hanford Site Hoisting & Rigging Manual
	MSC-RD-8589	Hanford Fire Marshal Permits
	MSC-RD-11227	Use of Explosives on the Hanford Site
	MSC-PRO-066	Electrical Utilities Lock and Tag Program

## **Contractor Safety Processes**

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#### **Appendix C - Determining Contract Required Occupational Medical Examinations**

Appendix C is used when Appendix A's **OPTION 2** or **OPTION 3** is selected.

The OS&IH professional uses this Appendix C to support the BTR completion of the SOW, Section 6.1, *Safety Requirements*, for Option 2; and Section 01110, *Occupational Safety/Industrial Hygiene*, for Option 3.

OS&IH Professional will perform the following steps with the BTR:

- 1. Indicate which, if any, of the listed chemicals will be used or be exposed to during the performance of the contract.
- 2. Indicate which, if any, of the listed work assignments will be performed by the Contractor.
- 3. Based on Steps 1 and 2, place the regulatory required occupational medical examination(s) that were triggered by the contract related activity in the SOW section 5.1.

# Anticipated chemical/physical hazardous exposure(s)

## Yes Ammonia Arsenic Inorganic Asbestos Benzene Beryllium Cadmium Inorganic Carcinogens Chlorine Corrosives-Other Epichlorohydrin Formaldehyde Hexavalent Chromium Isocyanates Lasers Lead Inorganic Mercury Noise (>85 dbA) Paints/Resins **Particulates PCBs** Solvents-Chlorinated Solvents-Other Welding Fumes

# Anticipated work assignments

Yes	
	Crane Operator
	Beryllium Worker
Note:	Beryllium information packet must be provided to each worker at least one week prior to their medical evaluation. (http://www.hanford.gov/amh/file s.cfm/Beryllium Information Bo oklet.pdf)
	Driver With CDL
	Fissile Material Handler
	Hazardous Waste Worker
	Human Reliability Program
	OCRWM Testing Activities
	Quality Control Inspector
	Respirator Wearer
	Tower Climber
	Underwater Diver

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#### Appendix D - Determining Contract Required OS&IH Training

Appendix D is used to support the BTR completion of the SOW, Section 5.1 *Training and Qualification*, for Options 1 and 2; and Section 01150, *Training and Qualifications*, for Option 3.

#### **PROCESS**

- 1. OS&IH reviews the proposed contracted work scope with the BTR.
- 2. OS&IH and BTR perform walk-down the area which the Contracted activity will occur.
- 3. OS&IH and BTR determine which CHPRC OS&IH related training is required based upon the hazards of the activity, using the Training Program Table located in this Appendix.

**NOTE:** Building Trades (Construction Worker) and Off-Site equivalencies are posted at:

http://www.hammertraining.com/files.cfm/CW\_Equiv\_Matrix.pdf

- 4. The BTR incorporates the completed list into the SOW.
- 5. Facility specific facility emergency hazards identification checklist (FEHIC) training may be required.

#### **Occupational Safety-related Training**

Hanford Course Number	Course Title	CHPRC Documents
000006	CHPRC-General Employee Training	N/A
042865	Advanced Rigging Activities On the Job Evaluation (OJE)	DOE-RL-92-36
042310	Advanced Rigging Techniques	DOE-RL-92-36
040784	Basic Crane & Rigging Safety	DOE-RL-92-36
044701	Class 2 Cab Operated Crane/Hoist	DOE-RL-92-36
044691	Class 1 Overhead Cranes, Floor Operated	DOE-RL-92-36
04469A	Class 1 Overhead Cranes, Floor- Operated	DOE-RL-92-36
04469B	Class 1 Overhead Cranes, Floor- Operated	DOE-RL-92-36
04469C	Class 1 Overhead Cranes, Floor- Operated	DOE-RL-92-36
044672	Forklift Class 1 & 2 Operator Qualification (OJE)	DOE-RL-92-36
044621	Class 1 Lattice Boom Truck Crane	DOE-RL-92-36

# **Contractor Safety Processes**

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Hanford Course Number	Course Title	CHPRC Documents
044622	Class 2 Lattice Boom Crawler Crane	DOE-RL-92-36
04468B	Class 3 Self-Propelled Platform Aerial Lift	PRC-RD-SH-10972
04467B	Class 3 Forklift Operation Qualification	DOE-RL-92-36
044623	Class 3 Mobile Crane Operator Qualification	DOE-RL-92-36
04468C	Class 4 Manually Propelled Elevating Aerial Platform	PRC-RD-SH-10972
044673	Forklift Class 4 & 5 Operator Qualification (OJE)	DOE-RL-92-36
044624	Class 4 Mobile Crane Operator Qualification	DOE-RL-92-36
04468D	Class 5 Aerial Lift Vehicle Mounted Boom Supported (OJE)	PRC-RD-SH-10972
04468E	Class 6 Aerial Lift Vehicle Mounted Articulated (OJE)	PRC-RD-SH-10972
04467E	Class 6 Forklift - Electric & Internal Combustion Engine (OJE)	DOE-RL-92-36
04467F	Class 7 Forklift - Rough Terrain Vehicle (OJE)	DOE-RL-92-36
044475	Class -8 Forklift-Setup, Operation & Load Charts	DOE-RL-92-36
044676	Class 8 Forklift Operator Qualification (OJE)	DOE-RL-92-36
041885	Forklift Inspectors	DOE-RL-92-36
044470	Forklift Operational Safety	DOE-RL-92-36
170664	Hoisting and Rigging Manual (DOE-RL-92-36) Overview	DOE-RL-92-36
042860	Incidental Rigging Activities (OJE)	DOE-RL-92-36
042327	Load Charts & Load Movement Indicators	DOE-RL-92-36
042930	Mobile Crane Inspection	DOE-RL-92-36
101010	Mobile Crane Inspection-Vendor	DOE-RL-92-36
044710	Mobile Crane (OJE)	DOE-RL-92-36
042321	Mobile Crane Operation and Setup	DOE-RL-92-36

# **Contractor Safety Processes**

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Hanford Course Number	Course Title	CHPRC Documents
043010	Overhead Crane Electrical Inspection	DOE-RL-92-36
101100	Overhead Crane Manual / Electric Hoist Inspection	DOE-RL-92-36
42830	Overhead Crane Mechanical Inspection	DOE-RL-92-36
042820	Wire Rope/Rigging Hardware Inspection	DOE-RL-92-36
170661	Fire Extinguisher Training for Mobile/Cab Operated Crane Operators	PRC-RD-TQ-11061
03E500	Facility Emergency & Hazardous Info Checklist – FEHIC	PRC-PRO-EM-7647
031230	Bridge To 40 Hour HAZWOPER	PRC-MP-TQ-011
031410	1-Day Supervised Field Experience	PRC-MP-TQ-011
031210	24-Hour Hazardous Waste Site Worker	PRC-MP-TQ-011
031110	24-Hour RCRA TSD Hazardous Waste	PRC-MP-TQ-011
031420	3-Day Supervised Field Experience	PRC-MP-TQ-011
031220	40-Hour Hazardous Waste Worker – Field	PRC-MP-TQ-011
031310	8-Hour Manager/Supervisor Hazardous Waste	PRC-MP-TQ-011
026100	OSHA 10-Hour Health and Safety	N/A
172703	The Web-Based AJHA (Automated Job Hazard Analysis) Tools	PRC-PRO-WKM-079
044400	Fire Watch Training	MSC-RD-9900
041886	Aerial Lift Inspection	PRC-RD-SH-10972
042720	Aerial Lift Operator Training	PRC-RD-SH-10972
044681	Class 1 Aerial Lift Self Propelled Boom Supported (OJE)	PRC-RD-SH-10972
04468A	Class 2 Aerial Lift Self Propelled Articulated (OJE)	PRC-RD-SH-10972
043830	Vehicle Mounted Aerial Lift Operator Class	PRC-RD-SH-10972

# **Contractor Safety Processes**

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Hanford Course Number	Course Title	CHPRC Documents
044391	Portable Ladder Safety - CBT	PRC-STD-SH-40314
044373	Scaffold Safety For Erectors/Dismantlers	PRC-PRO-SH-095
044372	Scaffold Safety for Inspectors	PRC-PRO-SH-095
044371	Scaffold Users	PRC-PRO-SH-095
020049	Compressed Gas Cylinder Safety	PRC-RD-SH-11198
044674	LPG/Propane Gas Bottle Change Out (OJE)	PRC-RD-SH-11198
044480	OSHA Electric Cord and Power Tool Safety	PRC-RD-SH-11827
041680	Batteries	DOE-0336
043820	Breaker Operation Electrical Safety	MSC-PRO-066 PRC-RD-SH-11827
042870	Equipment Custodian Training	MSC-PRO-066 PRC-RD-SH-11827
044605	Equipment Operation Near Power Lines	PRC-RD-SH-28954
043692	NEC – Grounding	PRC-RD-SH-11827
043694	NEC – Over Current Protection	PRC-RD-SH-11827
043696	NEC – Wiring Methods	PRC-RD-SH-11827
043870	NFPA-70E Standards for Electrical Safety	PRC-RD-SH-11827
170500	Basic Medic First Aid/CPR/AED	PRC-RD-SH-7769
020147	Fall Hazard Recognition and Prevention	DOE-0346
020440	Fall Protection PFAS Users	DOE-0346
170609	AHERA Certified Building Inspector	PRC-RD-SH-15097 PRC-RD-SH-15245
170599	AHERA Certified Management Planner	PRC-RD-SH-15097 PRC-RD-SH-15245
170579	AHERA Certified Project Designer	PRC-RD-SH-15097 PRC-RD-SH-15245
02006L	Asbestos Awareness	PRC-RD-SH-15097 PRC-RD-SH-15245

# **Contractor Safety Processes**

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Hanford Course Number	Course Title	CHPRC Documents
170056	Asbestos Operations & Maintenance	PRC-RD-SH-15097 PRC-RD-SH-15245
170060	Certified Asbestos Supervisor	PRC-RD-SH-15097 PRC-RD-SH-15245
170055	Certified Asbestos Worker	PRC-RD-SH-15097 PRC-RD-SH-15245
020194	Hearing Conservation	PRC-RD-SH-11812
020193	Heat Stress Training – CBT	PRC-PRO-SH-121
020150	Lead (Pb) Worker Training	PRC-RD-SH-12389
021062	Air Purifying Respirator (APR) Initial – Standalone	PRC-PRO-SH-120
020510	MSA Hood - PAPR Initial	PRC-PRO-SH-120
020035	MSA PAPR (Full Facepiece) Initial	PRC-PRO-SH-120
02l510	PAPR (Hood) Initial – Standalone	PRC-PRO-SH-120
020066	Respiratory Knowledge-Based Initial	PRC-PRO-SH-120
020044	Quantitative Mask Fit	PRC-PRO-SH-120
020041	Respiratory Protection Initial	PRC-PRO-SH-120
170648	Bloodborne Pathogens – Initial	PRC-PRO-SH-40143
020134	Hanford Site Confined Space Entry	DOE-0360
021047	Bottle Cart Supplied Air System Operator	PRC-PRO-SH-120
020047	Bottle Cart Supplied Air System Qualification	PRC-PRO-SH-120
020030	SCBA Initial Training	PRC-PRO-SH-120
020032	Scott SKA-PAK Airline System – Initial	PRC-PRO-SH-120
021032	Scott SKA-PAK Airline System – Initial	PRC-PRO-SH-120
042730	Flagging and Traffic Control	PRC-RD-SH-9237
003101	Hanford Site Lockout/Tagout for Controlling Organization – Initial	DOE-0336

# **Contractor Safety Processes**

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Hanford Course Number	Course Title	CHPRC Documents
00310R	Hanford Site Lockout/Tagout for Controlling Organization – Retraining	DOE-0336
003111	Hanford Site Lockout/Tagout for Authorized Worker - Initial	DOE-0336
00311R	Hanford Site Lockout/Tagout for Authorized Worker - Retraining	DOE-0336
004100	Beryllium Worker Training	PRC-PRO-SH-6155
004107	Beryllium Training For Planners/PICS/Supervisors/Manag ers (PPSM)/Supervisor Training	PRC-PRO-SH-6155
060770	Condensate Induced Water Hammer Safety Mgrs-Overview	PRC-PRO-SH-105
060760	Condensate Induced Water Hammer -Initial	PRC-PRO-SH-105
044606	Spotter Training for Electrical Hazards	PRC-PRO-SH-40435
600078	CHPRC Vehicle Spotter Awareness Training	PRC-PRO-SH-9237
600610	Safety, Environmental, and Health Orientation for Construction Supervisors (SEHOCS)	N/A
060900	Steam Distribution. Systems Operations & Safety	PRC-PRO-SH-105
004108	Beryllium Associated Worker Training – CBT	PRC-PRO-SH-6155
750000	Competent Person – Excavating, Trenching and Shoring	DOE-0344, Appendix F

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#### Appendix E - Determining Occupational Safety related Permits

#### **PROCESS**

- 1. Review the proposed contracted work scope with the BTR.
- 2. Walk-down the area in which the Contracted activity will occur.
- 3. Determine which CHPRC OS&IH requirements documents must be made available to the proposing contractor based up the hazards of the activity.
- 4. Provide the BTR the list to place in the SOW.
- 5. Utilize the results aid in selecting the necessary medical examinations and training requirements.
- 6. Utilize the results to aid the BTR in determining the training needs of the Contractor.

Permit/Plan Title	Referenced Document	Applicability
Asbestos Work Permit	PRC-RD-SH-15097	
Beryllium Work Permit	DOE-0342	
Confined Space Entry Permit	DOE-0360	
Critical Lift Plan	DOE-RL- 92-36	
Electrical Installation Permit	PRC-PRO-SH-40435	
Energized Electrical Work Permit	PRC-PRO-SH-40435	
Electrical Utilities Disconnect Request	MSC-PRO-066	
Hanford Site Excavation Permit	DOE-0344	
Explosive Use	MSC-RD-11227	
Fall Protection Permit for Portable Ladders	PRC-STD-SH-40314	
Hot Work Permit	PRC-PRO-FP-40421	
Nonemergency Hydrant Tie-In Permit	PRC-STD-FP-40404	

# **Contractor Safety Processes**

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#### **Appendix F - Safety Program Specifications For Contractors**

**NOTE:** Applicable portions of this Appendix are to be inserted into the SOW when Option 2 or Option 3 is selected.

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#### **Appendix F - Safety Program Specifications For Contractors (continued)**

#### 1.0 GENERAL

#### 1.1 Purpose

This information is part of CHPRC OS&IH management program for use on activities contracted out by CHPRC.

#### 1.2 Scope

These specifications are applicable in their entirety and are in addition to the General Provisions and other Special Provisions that apply to this Contract. These specifications are intended to support contract-cited Special Provisions and General Provisions, by providing greater level of detail.

#### 1.3 Applicability

These specifications apply to all companies and personnel assigned to work on the Hanford Site in performance of the CHPRC contract DE-AC06-08RL-14788, which occurs under their own management, using their own means, methods, and techniques (i.e., working under fixed price terms, and other similar service contracts).

#### 1.4 Requirements

These specifications, including requirements identified in the SOW, shall be flowed down to the lowest tier subcontractor performing work.

#### 1.5 Definitions and Terms

For the purposes of these specifications:

- The term Safety encompasses Environmental, Safety, and Health (ES&H).
- The term *Employee* includes both CONTRACTOR and subcontractor employees.
- The term *CONTRACTOR* refers to the company, person, organization and lower-tiered subcontracted entities performing work under this Contract. For CHPRC contracting purposes, the term "contractor" generally refers to vendors, sellers and suppliers.
- The term BUYER shall mean the Contracting Specialist (as assisted by the Buyer's Technical Representative and other site organizations) authorized to represent the BUYER issuing this contract. The term "BUYER" refers directly to CHPRC, the company or organization issuing this Contract.
- The term Work shall mean supplies, services, designs and submittals provided by CONTRACTOR and its subcontractors and all work performed with respect thereto pursuant to this Contract.

#### 1.6 General Notes

The CONTRACTOR shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The CONTRACTOR shall comply with, and assist the BUYER in complying with, safety requirements of applicable laws, regulations and directives.

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#### **Appendix F - Safety Program Specifications For Contractors (continued)**

# 2.0 INTEGRATED SAFETY MANAGEMENT SYSTEM ENVIRONMENTAL MANAGEMENT SYSTEM (ISMS/EMS)

#### 2.1 General Safety

- The CONTRACTOR shall exercise a degree of care commensurate with the work and the associated hazards. The CONTRACTOR shall ensure that safety is an integral and visible part of the CONTRACTOR work planning and execution processes. As a minimum, the CONTRACTOR shall demonstrate the following:
  - Thoroughly review the defined scope of work;
  - Identify hazards and ES&H requirements;
  - Analyze hazards and implement controls;
  - · Perform work within controls; and
  - Provide feedback on adequacy of controls and continue to improve safety management.
- 2. The BUYER shall identify safety requirements to flow down to the CONTRACTOR performing work. CONTRACTOR shall ensure that:
  - a. Line management is responsible for the protection of employees, the public, and the environment. CONTRACTOR managers share this responsibility. In addition, field work supervisors and Persons in Charge (PIC) of employees performing work shall be responsible for the protection of those employees, the public, and the environment that may be impacted by their work.
  - b. Clear and unambiguous lines of authority and responsibility for ensuring safety performance are established, documented and communicated prior to starting work.
  - c. Personnel possess the experience, knowledge, skills, training and abilities that are necessary to discharge their responsibilities.
  - d. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.
  - e. Before work is performed, the associated hazards are identified, through a preliminary hazard assessment.
  - f. An agreed upon set of safety standards and requirements are evaluated, and controls are established, which provide adequate assurance that employees, the public, and the environment are protected from adverse consequences.
  - g. Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and associated hazards. Emphasis should be on designing the work and controls to eliminate or reduce the hazards and to prevent accidents and unplanned releases and exposures.

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- h. The safety requirements to be satisfied for work to be performed are established and agreed upon by the BUYER and the CONTRACTOR. These agreed upon conditions and safety requirements are requirements of the Contract and binding upon the CONTRACTOR.
- i. Workers are actively involved in the CONTRACTOR safety program, job safety analysis, and pre-job safety reviews.
- j. Open and effective communication exists between the CONTRACTOR and the BUYER to support management of safety issues and initiatives.
- k. Workers, PIC, fieldwork supervisors, and management continually check the adequacy of work processes, procedures, and equipment, and correct deficiencies when identified.
- I. Senior CONTRACTOR management is actively engaged in the implementation, feedback and improvement of the CONTRACTOR safety program.
- 3. The BUYER shall issue to the CONTRACTOR, prior to mobilization, any work documents generated for the performance of work. Such work document(s) shall be reviewed as a part of the Site walk down.
- 4. The CONTRACTOR shall promptly identify, evaluate and communicate to the BUYER any noncompliance with applicable safety requirements.
- 5. The BUYER may issue a Stop Work Order in whole or in part if the CONTRACTOR:
  - a. Fails to provide the necessary communication to BUYER.
  - b. Acts or failure to act may cause substantial harm or an imminent danger to the environment or health and safety of employees or the public.
- 6. The CONTRACTOR shall not resume work following the issuance of a Stop Work Order until authorized by the BUYER. When affected by a Stop Work Order, the CONTRACTOR has the right to participate in any associated reviews and in defining recovery actions resulting from a Stop Work Order. The CONTRACTOR shall comply with reasonable actions requested by the BUYER resulting from an investigation or recovery action as applicable to the work activities.
- 7. The CONTRACTOR shall not necessarily be entitled to an extension of time or additional costs, fee or damages by reason of, or in connection with, any work stoppage ordered. See 6.1, Stop Work Responsibility, for employee responsibilities.
- 8. The CONTRACTOR is responsible for compliance with the safety requirements applicable to this Contract regardless of whether the performer of the work is the CONTRACTOR or a lower tier subcontractor.

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#### **Appendix F - Safety Program Specifications For Contractors (continued)**

#### 3.0 SAFETY REQUIREMENTS - CONTRACTOR SAFETY PROGRAM

#### 3.1 Safety Responsibilities

#### The CONTRACTOR shall:

- 1. Comply with the following safety standards that are applicable at their covered workplace:
  - Title 10 CFR Part 851, 'Worker Safety & Health Program"
  - Title 29 CFR Part 1910, "Occupational Safety ", excluding 29 CFR 1910.1096, "Ionizing Radiation."
  - Title 29 CFR 1926, "Safety Regulations for Construction."
- 2. Provide a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers.
- 3. Ensure workers are properly trained and qualified for the job assigned to them.
- 4. Provide the financial resources and manpower to ensure the maintenance of appropriate levels of worker protection.
- 5. Clearly communicate employee's safety responsibilities and their company-level safety requirements which they are held accountable to follow.
- 6. Provide mechanisms to involve workers and their elected representatives in the development of the worker safety program goals, objectives, and performance measures and in the identification and control of hazards in the workplace.
- 7. Empower the workforce with the requisite authority and resources to meet their assigned responsibilities.
- 8. Develop organizational objectives and improvement plans to achieve established goals.
- 9. Perform routine walkthroughs of the workplace to review safety performance.
- 10. Inform workers of their rights and responsibilities by appropriate means, including posting the DOE-designated "It's the Law" Poster and "Worker's Bill of Rights" Poster in the workplace where it is accessible to all workers.
- 11. Promote safe work habits and safety awareness.

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- 12. Maintain involvement in the following activities, as they apply to the function of the organization:
  - Hazard evaluation.
  - Worksite inspections and assessments.
  - Safety meeting and committee functions.
  - Safety policy development.
  - Pre-job briefings.
  - Resolution of safety concerns.
  - Accident/near miss investigation and corrective action planning.
- 13. Consider employee physical limitations and medical work restrictions in assignment of tasks.
- 14. Communicate safety policies to workers on a periodic basis.
- 15. Enforce safety requirements with consistency in accordance with established disciplinary programs to workers, visitors, vendors, and contractors.
- 16. Exercise a degree of care commensurate with the work, associated hazards, and potential environmental impact. CONTRACTOR is expected to prevent adverse incidents, by adopting and sharing good work practices.
- 17. Perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work when performing work under this Contract, or any Task Order issued under this contract.
- 18. Take appropriate action, up to and including stopping work, and immediately notify the BUYER if an unplanned risk or hazard is discovered not covered by directions provided by BUYER. This action includes notifying the BUYER if the work exposes their workers to hazards that require medical monitoring, including near miss incidents.
- 19. Perform work in compliance with facility-specific procedures and requirements documents applicable to the work area when identified in the SOW, including drawings and specifications, work packages, facility specific procedures, and any site procedures or requirements documents specifically identified in the SOW.
- 20. Stop work and obtain specific direction from the BUYER prior to proceeding with work if a standard that has not been identified in the SOW impacts work scope, schedule, or cost.
- 21. Assume sole responsibility of cost impacts if clarification is not sought prior to proceeding.
- 22. Use the BUYER provided safety plan or submit its own plan for BUYER approval prior to mobilization for unique hazards. (The BUYER may identify hazards requiring a unique safety plan.)
- 23. Ensure that CONTRACTOR personnel entering the Hanford Site or BUYER-controlled facilities dress appropriately for the work conditions and potential hazards. When required by the BUYER or BUYER policies, personal protective equipment (hard hats, safety glasses, substantial footwear, etc.) must be worn as a condition of continued access and contract performance.

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24. Comply with, and assist the BUYER in complying with, safety requirements of applicable laws, regulations and directives including 10 CFR Part 851, *Worker Safety and Health Program* (see also below). The BUYER also has identified specific requirements within the SOW that are applicable to this Contract. The CONTRACTOR shall meet these requirements, including any additional requirements that the CONTRACTOR identifies during the duration of the contract as applicable. The CONTRACTOR shall cooperate with Federal and non-Federal agencies having jurisdiction over safety matters under this Contract. \* Where a conflict exists between regulations, requirements or standards, the CONTRACTOR shall bring the conflict to the attention of the BUYER, who shall resolve the conflict.

#### **3.1.1** Orientation

Prior to CONTRACTOR mobilization of the workforce, CONTRACTOR supervisory personnel assigned to the worksite shall attend a general orientation and site walk-down of the actual work (to be conducted by the BUYER, BTR, and the BUYER Safety Representative) to acquaint themselves with the working conditions and requirements to be imposed at the Worksite. The purpose of the walk-down is to help ensure that the hazards and potential environmental impacts associated with the activity and the surrounding environment are identified and addressed. It shall be the responsibility of the CONTRACTOR to orient all its other employees, its subcontractors and their employees, as to such working conditions and requirements.

#### 3.1.2 Pre-Job Safety Meetings/Briefings

- 1. The CONTRACTOR shall perform Pre-Job Safety meetings/briefings at the work site, prior to each shift, with an emphasis on worker safety.
- 2. Pre-Job Safety meetings/briefings will be documented and have participants sign-off. Where a formal pre-job briefing is required, per PRC-PRO-WKM-14047 (*Pre-Job Briefings and Post-Job Reviews*), Site Form A-6004-952 (*Pre-Job Briefing Checklist*) shall be used.
- 3. All Pre-Job Safety meeting/briefing participants entering the job-site shall read and sign off on the Job Safety Analysis or Automated Job Hazard Analysis (AJHA) and have a pre-job specific meeting for the day's activities (Ref. 3.2.1.1).
- 4. BUYER shall require non-contract employees to attend the morning pre-job safety meeting/briefing to minimize impact to the CONTRACTOR.
- 5. The CONTRACTOR is responsible for its own work space (e.g., construction and drilling work).
- 6. The CONTRACTOR shall take reasonable precautions in the performance of the work to protect the safety of employees and of members of the public as applicable.

#### **3.1.3** CONTRACTOR Equipment Safety Inspections/Maintenance

Where contract safety and health-related requirements specify the performance of equipment inspections and maintenance at an undefined frequency (using such terms as *routine*, *periodic*, *per manufacturer recommendation*), the CONTRACTOR shall provide the BUYER with information that describes selected periodicity and how the requirement(s) will be met.

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### 3.2 Construction Safety (cf. 10 CFR 851, Appendix A, Part 1)

- 1. For each separately definable construction activity (e.g., excavations, foundations, structural steel, roofing) the contractor shall:
  - a. Prepare and obtain CHPRC construction manager approval and OS&IH approval, of a task specific Job Hazard Analysis (JHA)/AJHA) prior to commencement of affected work.
  - b. The CONTRACTOR shall adopt the BUYER process (PRC-PRO-WKM-079, Job Hazards Analysis); use the process described in Appendix I; or submit an equivalent Job Hazards Analysis to be approved by the BUYER. CONTRACTOR provided analysis shall:
    - Identify foreseeable hazards and planned protective control measures;
      - Address further hazards revealed by supplemental site information (e.g., site characterization data, as-built drawings) provided by the construction manager.
      - Provide drawings and other documentation of protective measures for which applicable Occupational Safety Administration (OSHA) standards require preparation by a Professional Engineer or other qualified professional.
      - Identify competent persons required for workplace inspections of the construction activity, where required by OSHA standards.
      - Ensure workers are aware of foreseeable hazards and the protective measures described within the activity analysis prior to beginning work on the affected activity.
      - Require that workers acknowledge being informed of the hazards and protective measures associated with assigned work activities. Those workers failing to utilize appropriate protective measures shall be subject to the CONTRACTOR disciplinary process.
- 2. The CONTRACTOR shall assign and identify a Designated Safety Representative for the worksite that is knowledgeable of the project's hazards and has full authority to act on behalf of the CONTRACTOR during periods of active construction (i.e., excluding non-working weekends, weather delays, or other periods of work inactivity).
  - a. The CONTRACTOR *Designated Safety Representative* shall make frequent and regular inspections of the construction worksite to identify and correct any instances of noncompliance with project safety requirements.
  - b. The *Designated Safety Representative* shall have the authority and responsibility to identify and correct any unforeseen hazardous or unsafe conditions, acts or instances of non-compliance.
- 3. Workers shall be instructed to report hazards not previously identified or evaluated to the CONTRACTOR Designated Safety Representative. If immediate corrective action is not possible or the hazard falls outside of project scope, the CONTRACTOR shall immediately notify affected workers, post appropriate warning signs, implement needed interim control measures, and notify the CHPRC construction manager of the action taken. The contractor or the designated representative shall stop work in the affected area until appropriate protective measures are established.
- 4. For Construction projects, the CONTRACTOR Designated Safety Representative and Key Supervisor(s) shall attend and complete Safety, Environmental, and Health Orientation for

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Construction Supervisors (SEHOCS), and be qualified via OSHA 10-Hour Health and Safety Training.

- 5. For Construction projects, the CONTRACTOR shall prepare a written construction project safety plan to implement the requirements of this section and obtain approval of the plan by the BUYER prior to commencement of any work covered by the plan unless the plan is provided by the BUYER.
  - a. The construction project safety plans' level of detail should be commensurate with the size, complexity and risk level of the construction project.
  - b. The construction project safety plan shall designate the individual(s) responsible for onsite implementation of the plan, specify qualifications for those individuals, and provide a list of those project activities for which subsequent hazard analyses are to be performed.
  - c. The CONTRACTOR shall designate the individual(s) responsible for on-site implementation of the contract related aspects using a BUYER provided construction project safety plan.
- 6. Work Area Housekeeping. The CONTRACTOR shall keep the work area, including storage areas used by it, in an orderly condition, free from accumulations of waste materials or rubbish.
  - a. Materials shall be kept in neat piles and protected from the elements until installed.
  - b. The CONTRACTOR shall remove from the Worksite all rubbish, and all tools, scaffolding, equipment and materials not the property of the Government or the BUYER prior to or upon completion of the Work.
  - c. The CONTRACTOR shall leave the construction area in a clean, neat condition, satisfactory to the BUYER upon completion of the Work.
- 7. Work Area Limitations. The CONTRACTOR shall restrict its personnel and operations to the limits of the Work area. Any changes and or modifications to existing installations located at the outer limits of the Work area shall be permitted only after specific approval is received from the BUYER.

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- 8. System Outages. Work which requires any existing building utility system to be taken out of service shall be schedule and performed so that the length of time the utility is out of service is held to a minimum.
  - a. All material for alteration and tie-in work shall be on hand when each utility service interruption is scheduled.
  - b. The CONTRACTOR shall notify the BUYER not less than fourteen (14) calendar working days prior to each required utility shutdown.
  - c. All tie-in work shall be scheduled and performed so that the shutdown time will not exceed four (4) hours for water and two (2) hours for electrical or fire alarm.
  - d. Methods of performing the tie-in work shall be approved by the BUYER prior to any utility system outage.
  - e. Prior approval by the Hanford Fire Marshal must be obtained for connection to and use of existing fire hydrants.

### 3.3 Fire Protection (cf. 10 CFR 851, Appendix A, Part 2)

- 1. If any Fire Protection design features, egress, combustibles, protection systems will be potentially impacted by CONTRACTOR activities, contact the BUYER to obtain approval from the Project Fire Protection Engineer.
- 2. CONTRACTOR employees shall immediately contact the Hanford Site Fire Station by pulling the Fire Pull Box and calling 911 or 509-373-0911 (Cell) in the case of a fire.
- 3. The CONTRACTOR shall not impair facility and site-wide fire protection, fire alarm notification and egress features without written approval from the BUYER.
- 4. All welding, cutting and grinding operations shall be conducted under a Hot Work Permit provided by the BUYER. CONTRACTOR shall notify the BUYER when a HOT WORK Permit is needed at least 48 hours in advance in order that applicable approvals can be obtained.

**NOTE:** Hot Work permits must be reviewed and a general work area inspection completed daily or per shift, as applicable, and recorded on a log sheet.

- 5. The BUYER may require the implementation of other fire prevention methods or techniques; as dictated by the work activities and site conditions, such as a Fire Watch. The CONTRACTOR shall comply with these fire prevention methods and techniques.
- 6. The BUYER will coordinate Fire Protection Outages with the CONTRACTOR and others, and arrange for fire department standby if required.
  - a. A BUYER approved fire watch shall be provided by the CONTRACTOR, for those areas of a building affected by the outage if a fire alarm system is to be out of service for more than four (4) consecutive hours.

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- b. Work which requires a fire alarm system, fire sprinkler system or fire hydrant to be taken out of service shall be scheduled so that the length of reduced system performance is minimized.
- c. All materials required to complete the work shall be on hand before the start of the alteration or tie-in if the outage is due to the alteration or tie-in.
- d. A building shall either be evacuated or a BUYER approved fire watch shall be provided by the CONTRACTOR if a fire sprinkler system is to be out of service for more than four (4) consecutive hours. The building evacuation or fire watch shall be maintained until the fire alarm or sprinkler system is returned to service.

### 3.4 Explosives Safety (cf. 10 CFR 851, Appendix A, Part 3)

- 1. The use of explosives requires express written authorization from the BUYER.
- 2. The CONTRACTOR responsible for the use of explosive materials shall establish and implement a comprehensive explosives safety program and obtain approval of their program from the BUYER.
- 3. The CONTRACTOR shall comply with the policy and requirements specified in the DOE Manual 440. 1-1A, *DOE Explosives Safety Manual*, Attachment 2 *Contractor Requirements Document*, January 9, 2006 (or successor version) if work scope includes the transport and use of explosives.

#### 3.5 Pressure Safety (cf. 10 CFR 851, Appendix A, Part 4)

- CONTRACTOR with work scope involving the design, installation, maintenance, or repair shall ensure all pressure vessels, boilers, air receivers, and supporting piping systems conform to:
  - a. The applicable American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (2004); sections I through section XII including applicable Code Cases.
  - b. The applicable ASME B31 (Standards of Pressure Piping) standards as indicated below; and or as indicated in paragraph (b)(3) of this section:
    - B31.1-2001, Power Piping and B31.1la-2002-Addenda to ASME B31.1-2001;
    - B31.2-1968, Fuel Gas Piping;
    - B31.3-2002, Process Piping;
    - B31.4-2002, Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids;
    - B31.5-2004, Refrigeration Piping and Heat Transfer Components, and B31.5a-2004,
    - Addenda to ASME B31.5-2001;
    - B31.8-2003, Gas Transmission and Distribution Piping Systems;
    - B31.8S-2001, Managing System Integrity of Gas Pipelines;
    - B31.9-1996, Building Services Piping;

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- B31.11-2002, Slurry Transportation Piping Systems; and
- B31 G-1 991, Manual for Determining Remaining Strength of Corroded Pipelines.
- c. The strictest applicable state and local codes.
- When national consensus codes are not applicable (because of pressure range, vessel
  geometry, use of special materials, etc.), CONTRACTOR shall work with their BUYER to
  implement measures to provide equivalent protection and ensure a level of safety greater
  than or equal to the level of protection afforded by the ASME or applicable state or local
  code.
  - a. Measures shall include the following:
    - 1) Design drawings, sketches, and calculations shall be reviewed and approved by a qualified independent design professional (i.e., professional engineer). Documented organizational peer review is acceptable.
    - Qualified personnel shall be used to perform examinations and inspections of materials, in-process fabrications, non-destructive tests, and acceptance test.
    - 3) Documentation, traceability, and accountability shall be maintained for each pressure vessel or system, including descriptions of design, pressure conditions, testing, inspection, operation, repair, and maintenance.

#### 3.6 Firearms Safety (cf. 10 CFR 851, Appendix A, Part 5)

- 1. The CONTRACTOR is prohibited from bringing firearms onto the Hanford Site. This includes dangerous weapons, ammunition, explosives, incendiary devices, or similar devices which could cause damage or personal injury.
- 2. Other prohibitions are described in Special Provisions On Site Services (SP-5).

### 3.7 Industrial Hygiene (cf. 10 CFR 851, Appendix A, Part 6)

- 1. The CONTRACTOR is responsible for identifying potential worker health risks and the methods of control, typically documented in a job hazard analysis for activities associated with the industrial risks inherent in the CONTRACTOR means, methods, or techniques;
- 2. The BUYER is responsible for identifying environmental and job location specific health risks and the methods of control radioactive and chemical risks associated with the work scope arising out of risks specific to the Hanford Site and not common to the construction industry.
- 3. The CONTRACTOR and BUYER shall arrange for exposure monitoring or sampling through the BUYER Project's Industrial Hygiene staff.

**NOTE:** The CONTRACTOR may be authorized to conduct industrial hygiene monitoring if approved by the BUYER.

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- 4. The CONTRACTOR may be asked to provide qualified Industrial Hygiene personnel to manage and implement the BUYER comprehensive industrial hygiene program under the requirements of 10 CFR 851, Appendix A, Part 6.
- 5. The CONTRACTOR is responsible for complying with BUYER program as follows:
  - a. Obtaining initial or baseline surveys and periodic resurveys and exposure monitoring as appropriate of all work areas or operations to identify and evaluate potential worker health risks.
  - b. Coordinating with planning and design personnel to anticipate and control health hazards that proposed facilities and operations, or construction activities would introduce.
  - c. Complying with policies and procedures specifically flowed down to the CONTRACTOR if required to mitigate the risk from identified and potential occupational carcinogens or other identified chemical or radiological hazards.
  - d. The CONTRACTOR shall implement and provide Industrial Hygiene monitoring and support as identified in the SOW for hazards in the CONTRACTOR area of expertise.
- 6. The CONTRACTOR shall notify the BUYER of all chemicals brought to the worksite (See also item 3.12).
- 7. The CONTRACTOR shall notify the BUYER who will obtain CHPRC OS&IH approval if a chemical will be used brought on-site that is identified as a Carcinogen.
- 8. The CONTRACTOR shall meet the CHPRC Respiratory Protection Program requirements or submit a contractor plan to the BUYER for approval by the CHPRC Respiratory Protection Program Administrator compliant with 10 CFR 851, Appendix A, Part 6, (f).

#### 3.8 Biological Safety (cf. 10 CFR 851, Appendix A, Part 7)

The CONTRACTOR is prohibited to bring on site or utilize biological etiologic agents to accomplish their work scope without prior approval from BUYER and OS&IH.

### 3.9 Occupational Medicine (cf. 10 CFR 851, Appendix A, Part 8)

- The CONTRACTOR shall use the Site OMSP to obtain the following:
  - Regulatory required occupational medical examinations based on the contracted work scope. (e.g. approval to work at a Hazardous Waste Site, clearance to use a respirator, beryllium or asbestos exposure);
  - b. Immediate first-aid care;

**NOTE:** HFD ambulance service may also be used to provide urgent care and transportation while on the Hanford Site.

- c. Work injury return-to-work evaluations;
- Monitor actual or potential exposures of each potentially affected CONTRACTOR employee; and

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- e. Fitness for Duty examinations.
- 2. The CONTRACTOR shall enroll (or maintain) its personnel who will perform this work in an occupational medicine surveillance program in accordance with the requirements specified in Title 29, Code of Federal Regulations, Part 1910 & Part 1926, occupational safety standards latest edition. These services shall be maintained for workers with on-site activities who:
  - a. Work on CHPRC work scope for more than 30 days in a 12-month period; or
  - b. Are exposed to chemical, biological or physical agents at/above allowable limits.
- 3. The Employee Job Task Analysis (EJTA) will be used to evaluate worker exposure hazards and, if necessary, enroll employees into medical monitoring or clearance examinations. An EJTA is required for nearly all subcontractor employees. <u>Exception</u>: The worker will be on site for less than 30 days over the coming year AND not exposed to chemical, biological or physical agents (such as noise) above allowable levels/limits. There are currently two acceptable processes for completion of a subcontractor EJTA and scheduling of necessary EJTA physicals.

#### Process #1 (BTR coordinates the completion of the EJTA and medical scheduling)

- a. If the subcontracting company is new to the Hanford Site, then the CONTRACTOR will notify badging (/Mission Support Alliance) to create a company record.
- b. The CONTRACTOR will complete the Site OMSP's New Hire Scheduling Form and submit it to such Provider's Scheduling organization for each contracting employee who has not previously supported CHPRC.
- c. The CONTRACTOR performs a preliminary hazards assessment to identify anticipated chemical/physical hazardous exposure(s) likely to be encountered during performance of the contracted work. This assessment will be documented on a CHPRC draft EJTA (links to be added to this document.) The completed assessment will be submitted to the BTR.
- d. The Project EJTA Subcontractor Manager is responsible for entering the form data into the EJTA system, approving the completed form, and submitting it to the CHPRC Safety Representative for approval.
- The CHPRC Safety Representative approves the EJTA and submits it to the Site OMSP Scheduler.
- f. The Site OMSP Scheduler processes EJTA, schedules exam and sends email to Contractor point of contact (POC) with appointment date and time.
- g. The Project EJTA Subcontractor Manager is responsible for submitting a copy of the EJTA to the subcontracting company for review with the employee.
- h. Contractor POC notifies worker of appointment date, time and location. This completes the process.

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# <u>Process #2 (BTR chooses to utilize a CHPRC EJTA Representative to assist in completing the EJTA process)</u>

NOTE: This section contains the process to be followed if the CHPRC BTR contacts the CHPRC EJTA Representative to assist in completion of EJTA and medical scheduling process. The project specific OS&IH manager will provide the names of the project EJTA POC. The remaining steps in this section will be performed by the CHPRC EJTA representative with input from the CHPRC BTR unless otherwise noted.

- a) Contractor POC will provide a completed OMSP New Hire Scheduling Form and draft EJTA (t, or a completed CHPRC New Hire Info form (t).
- b) Using the information on these form(s), the new employees will be entered into the appropriate computer systems, including HID, badging and the OMSP scheduling system.
- c) A final EJTA will then be completed for each employee. After review by a safety and health professional, this EJTA will be submitted to the Site OMSP. Based on the information provided on the EJTA, the Site OMSP will schedule (if necessary) the individuals for appropriate clearance and medical examinations.
- d) The Site OMSP will then work through the project EJTA POCs to schedule any necessary physicals. This information will be communicated to the subcontractor employees by the CHPRC EJTA Representative. This completes this section.
- 4. The CONTRACTOR shall provide the Site OMSP with:
  - a. Current information about actual or potential work-related site hazards (chemical, radiological, physical, biological, or ergonomic) to the Site OMSP.
  - b. The opportunity to participate in, worker safety team meetings and committees.
  - c. Access to the workplace for evaluation of job conditions and issues relating to workers' health.
  - d. Personnel actions resulting in a change of job function.
- 5. The CONTRACTOR shall notify the Site OMSP when an employee has been absent because of an injury or illness for more than 5 consecutive workdays (or an equivalent time period for those individuals on an alternative work schedule).
- In the event CONTRACTOR employee is medically unable to safely perform the assigned work scope, the CONTRACTOR shall be responsible for providing an acceptable replacement.
- 7. In the event that efforts under this Contract involve work in radiological areas or result in routine exposure to radioactive materials, medical related examinations may be required before, during and after the work.

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### **Appendix F - Safety Program Specifications For Contractors (continued)**

### 3.10 Motor Vehicle Safety (cf. 10 CFR 851, Appendix A, Part 9)

- When Government Furnished Equipment (GFE) is provided to the CONTRACTOR in the form of Government owned or leased motor vehicles and powered industrial equipment (i.e., fork trucks, tractors, platform lift trucks, and other similar specialized equipment powered by an electric motor or an internal combustion engine) or when CONTRACTOR-owned or leased motor vehicles are used to perform CHPRC work scope, the CONTRACTOR shall comply with the CHPRC safety program for motor vehicle safety.
- 2. Regardless of vehicle ownership, CONTRACTOR shall ensure their employees:
  - Meet licensing requirements (including appropriate testing and medical qualification) for personnel operating motor vehicles and powered industrial equipment;
  - b. Are trained for specialty vehicle operators;
  - c. Use seat belts and provision of other safety devices;
  - d. Perform a 360° preoperational inspection of both the vehicle (to identify and report on any previously unreported vehicle damage or deficiencies) and the immediate area surrounding the vehicle (to identify any obstacles that need to be removed or avoided).
  - e. Do not use cells phones while they are driving and the vehicle is in motion;

NOTE: Hands free cell phone use is allowed.

- f. Obey uniform traffic and pedestrian control devices and road signs;
- g. Obey speed limits and other traffic rules;
- h. Meet the manufacturer's and any additional contract requirements for motor vehicle maintenance and inspection; and
- i. Meet State and Federal transportation requirements.
- 3. While on the Hanford Site, the CONTRACTOR shall operate motor vehicles only on hard surfaced or gravel roads unless prior approval is obtained from the BUYER.
- 4. The BUYER reserves the right to ban all off-road travel during extreme fire hazard periods.
- 5. The CONTRACTOR shall adhere to all restrictions of off-road travel during high fire hazard periods.
  - As applicable, vehicles traversing off established roads shall be equipped with either approved spark arresting devices or heat shields.
- 6. Vehicles are not allowed to idle when parked off surfaced roadways unless they are diesel.
- 7. Gasoline powered vehicles shall be equipped with spark arresters and appropriate shielding provided for the catalytic converters and mufflers.

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### Appendix F - Safety Program Specifications For Contractors (continued)

- 8. Contractor vehicles which may travel off-road shall carry one 10 lb, Type ABC Fire extinguisher with a 2A rating; shovel, and communication device.
  - If a vehicle fire occurs, notify the fire department immediately at by calling 911 (or 373-0911 from a cell phone).
- 9. Oversize/overweight.
  - Shippers shall require vehicle operators to obtain a permit when the vehicle or nonreducible load exceeds the following dimensions and or weight:

Legal Dimensions:	Combination:	Legal Weights:	
Width: 8 feet, 6 inches	Truck and trailer: 75 Feet	Single axle: 20,000 pounds	
Height:14 feet	Two trailers: 61 feet	Tandem axles: 34,000 pounds	
Length: with or without load Single unit: 40 feet Single trailers: 53 feet		Steering axles: Tire size x 600 pounds per square inch of width	

- Permits for overweight loads may be obtained for a higher gross weight if the load concentration upon the road surface does not exceed 600 pounds per inch width of tire, 22,000 pounds on a single axle, or 43,000 pounds on tandem axles.
- Movement of any oversize or overweight load within the Hanford Site boundaries shall be in accordance with Washington Administrative Code (WAC) and Revised Code of Washington (RCW).
- Oversize/overweight Load Permits shall be obtained by calling 376-6654 or 376-7902 before transporting oversize or overweight loads on Hanford Site roads.
- If oversize or overweight loads are transported off the Hanford Site over state or county roads, an oversize load permit must be obtained from the Washington State Department of Transportation (fees apply).
- 10. Weather permitting, Hanford Site over-dimensional load movement is restricted Monday through Friday to the hours of 8:30 a.m. through 3:00 p.m., with other days and times as stated in the permit.

#### 11. Signs:

- Oversize load signs (at least 7 feet long and 18 inches high with black lettering at least 10 inches high in 1.41 inch brush stroke on yellow background) will be mounted on the front of the towing vehicle and on the rear of the load or trailing unit.
- Such signs are to be displayed only when the unit is in transit and must be removed or retracted at all other times.
- Signs are not required on loads that are overweight only.

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### 12. Flags:

- Flags shall be clean, bright red flags at least 12 inches square.
- Flags shall be displayed so as to wave freely on all four corners of over width objects and at the extreme ends of all protrusions, projections, or overhangs.

#### 13. Escort Car Requirements:

- When the vehicle or load is over 11 feet in width, escort cars (both front and rear) are required on a two-lane highway.
- When the vehicle or load is over 14 feet wide, one escort car in the rear is required on multiple-lane highway.
- When overall length of load, including vehicles, exceeds 100 feet or when rear overhang
  of load measured from the last axle exceeds one-third of the total length, one escort car
  is required on two-lane highways. The permit may authorize a riding flag person in lieu of
  an escort car.
- If required by Site Transportation, escort cars shall be used when they are necessary to protect the traveling public.

#### 14. Communication:

- Both towing unit and escort vehicles shall have two-way radio capabilities, adequate to provide communications between drivers at all times during which the oversize unit is in motion.
- 15. Extra tall vehicles/loads (more than 14 feet high), shall have a route with safe overhead clearances approved by the BUYER with coordination with Utility Operations (373-2977 or 373-2352) and Tri-City Railroad Operations (373-8313).

#### 16. Road closures require advising:

- Hanford Patrol (373-3800),
- Fire Department (373-2745), and
- Benton County Sheriff's office (376-1022 or email: Benton County Sheriffs Office@rl.gov).
- 17. Rubber-tired heavy equipment with road capability traveling on highways shall be:
  - Equipped with "SLOW MOVING VEHICLE" signs on the rear.
  - Buckets, fork heels, etc., shall be kept as low as possible; if they extend more than 3 feet ahead of the vehicle,
  - Flagged for daylight use and marked with yellow lights in darkness.
  - Tracked units, i.e., bulldozers, are not to be operated on paved roads except for approved crossings.

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### **Appendix F - Safety Program Specifications For Contractors (continued)**

18. Special permits do not authorize the operation of any vehicle without having the load securely fastened and protected against shifting or falling in accordance with the Code of Federal Regulation, Title 49, part 393.100, RCW 46.61.655, WAC 468-38-200.

#### 19. Moving of heavy equipment:

- The CONTRACTOR shall notify the BUYER at least two (2) working days prior to the date it proposes to move any heavy equipment into or from the Worksite and
- The CONTRACTOR shall not move any such equipment into or from the Worksite until receipt of written approval from the BUYER.

### 20. Heavy Equipment:

- Heavy equipment will not be allowed to cross existing paved roadways unless such roadway
  is protected by rubber tires or other adequate protection such as heavy planking.
  - Movement of heavy equipment equipped with crawler-type treads on existing paved surfaces is forbidden and such equipment must be transported to the worksite on rubbertired trailers.
  - Upon completion of the work, the equipment shall be promptly removed from the worksite.

### 21. Rail Shipments:

- Rail shipments to the Hanford Site must be authorized at least three days in advance of a rail
  car coming onto the Hanford Site, through the BUYER, with Site Railroad Services (to
  arrange for security inspections and clearances).
  - Right of Way: Any construction activity within 25 feet of the centerline of railroad tracks, extending to 100 feet in some areas, must be coordinated, through the BUYER, with Site Railroad Services.
  - 22. Equipment deliveries involving pipe, round bar stock, or heavy round tools:
  - All such deliveries shall be fully chocked at the point of the load.
  - No piping or casing will be unloaded at the Hanford Site unless it is compliant with Department of Transportation regulations, and properly chocked at the point of the load.

#### 3.11 Electrical Safety (cf. 10 CFR 851, Appendix A, Part 10)

- 1. The CONTRACTOR shall meet the following electrical safety requirements:
  - National Fire Protection Association (NFPA) 70-2008, National Electrical Code
  - NFPA 70E-2009, Standard for Electrical Safety in the Workplace

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- 2. The CONTRACTOR shall comply with the requirements of DOE-0336, *Hanford Site Lockout/Tagout*. The document is available at www.hanford.gov on the Hanford Site Safety Standards page (www.hanford.gov/page.cfm/SiteSafetyStandards). In complying with DOE-0336, the CONTRACTOR is responsible for the following:
  - a. Members of the CONTRACTOR workforce who are assigned to function as an Authorized Worker or Controlling Organization worker shall be trained and qualified to the requirements of DOE-0336 to perform lockout/tagout.
  - b. The CONTRACTOR shall ensure electrical distribution equipment (circuit breaker panels, motor control center cubicles, disconnect switches, etc.) that could be used as a disconnecting means for electrical energy isolation (LOTO) be uniquely labeled per a design drawing or other written instruction from the owner prior to energizing the equipment.
    - Temporary labels are acceptable during construction if they contain all of the information required for the permanent label.
  - c. The CONTRACTOR shall schedule the completion of Initial and Annual Hanford (HAMMER) training, through their BTR for CONTRACTOR employees needing to be qualified as Authorized Worker or Controlling Organization to perform lockout/tagout.
  - d. The CONTRACTOR shall provide express notification to the BTR of plans to perform lockout/tagout to coordinate the work scope activity with the appropriate Controlling Organization.
  - e. The CONTRACTOR shall coordinate lockout/tagout (e.g., the hanging and removing of locks and tags) with a qualified member of the Controlling Organization.
  - f. A CONTRACTOR representative may act as Controlling Organization in the performance of "Greenfield" construction, or as otherwise assigned/designated by the BTR in cases where no physical interface with an existing facility or entity exists.
- 3. The CONTRACTOR shall comply with the requirements of MSC-PRO-066, *Electrical Utilities Lock and Tag Program,* when applicable.
- 4. Overhead restrictions:
  - Under no conditions shall the CONTRACTOR operate or move cranes, hoists or similar equipment within twenty (20) feet of overhead electrical conductors, guy wires, or substations, unless prior authorization for such operations is obtained from the BUYER, giving full details of the method of equipment operations.
  - Authorization from the BUYER shall also be obtained when transporting materials, machinery, or other equipment which establishes a height exceeding fourteen (14) feet from the road and ground surface.
  - The CONTRACTOR shall comply with Hanford-specific requirements for hazard analysis and control relating to operations in the vicinity of overhead electrical lines.
     Ref. PRC-RD-SH-28954, Equipment Operation Near Overhead Electrical Lines.

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- Questions about field implementation or difficulties with unusual conditions shall be directed to the BUYER for resolution.
- In the event that an energized overhead electrical line is inadvertently contacted, the
  reasons the line could not be de-energized and performance against the requirements of
  PRC-RD-SH-28954 shall be summarized in a written explanation by the CONTRACTOR
  to BUYER.
- 5. Electrical System Tie-ins and Equipment Testing:
  - a. When a tie-in is required to the existing plant electrical systems of four hundred eighty (480) volts or higher, the CONTRACTOR shall contact the BUYER at least fourteen (14) working days prior to the desired tie-in date and shall not tie-in until receipt of the BUYER approval.
  - b. After acceptance but prior to final energization, the BUYER will perform certain necessary testing, not included in this Contract, of new service equipment and facilities.
    - These tests will include high voltage D.C. tests of power cable, Doble test of transformers and switchgear insulation, oil sampling, transformer turn ratio, etc.
- 6. All electrical control panels and electrical equipment (a general term including material, fittings, devices, appliances, luminaries [fixtures], apparatus, and the like used as a part of, or in connection with, an electrical installation) delivered or brought onto the site in performance of this contract must be listed or labeled by an organization currently recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL).
  - a. All electrical equipment installed as part of this contract must comply with the *National Electric Code* (NEC), NFPA 70-2008 and where applicable ANSI C2-2007, *National Electrical Safety Code* (NESC).
    - The BUYER reserves the right to inspect electrical equipment and installations.
    - CONTRACTOR is responsible for notifying BUYER when installations are available for inspection.
  - b. Electric motors shall be manufactured and tested in accordance with NEMA MG-1-2007, Information Guide for General Purpose Industrial AC Small and Medium Squirrel-Cage Induction Motor Standards, as applicable, or listed by an organization currently recognized by OSHA as an NRTL.
    - Documentation of NEMA MG-1-2006 compliance shall be made available to the BUYER upon request.

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- Electrical equipment and devices for which there is a Underwriters Laboratory (UL)
   Category code identifying product categories must be Listed or Labeled by an OSHA recognized NRTL.
  - The Canadian Standard Association (CSA) marking is currently recognized by OSHA as an NRTL when the label includes "US" or "NRTL" subscript.
- d. The following labels are not recognized by OSHA.
  - The European Union "93/68 EEC, CE Markings Directive, is not currently recognized by OSHA as an NRTL marking.
  - The International Electrotechnical Commission (IEC) Standard 60529, Protection of intercom stations against ingress of moisture or dust, for enclosures, is not currently recognized by OSHA as an NRTL label.

**NOTE:** For a list of approved NRTLs, see www.osha.gov/dts/otpca/nrtl

- Electrical equipment for which there is no listing category must be evaluated or tested using a method submitted to and approved by the BUYER prior to delivery of the equipment. A Field Evaluation performed by an NRTL prior to delivery is the preferred method for BUYER approval.
- f. Electrical equipment is also subject to the "Counterfeit Suspect Item Program".

#### 3.12 Hazardous Materials

- 1. Removal and Disposal of Existing Equipment and Materials:
  - All miscellaneous items removed by the CONTRACTOR and not specified to be reused shall remain the property of the Government, and shall be placed at a location adjacent to the Worksite as directed in the field by the BUYER.
- The CONTRACTOR shall supply a list of all hazardous materials brought on Site and their corresponding Material Safety Data Sheets (MSDS) to the Facility Chemical Custodian, as reported on Site Form A-6004-750, CHPRC Chemical Inventory Worksheet for Sub-Contracted Work Involving the Use of Chemicals. All chemicals must be approved before being brought on Site, in conformance with PRC-PRO-SH-10468.
- 3. The CONTRACTOR shall provide the Facility Chemical Custodian with information on the final disposition of all hazardous materials brought on Site during the term of the contract, via completion of Site Form A-6004-750.
- The CONTRACTOR shall meet environmental requirements contained in Special Provisions

   On Site Services (SP-5). All on-site work shall be conducted in accordance with these requirements.

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### 3.13 Excavation Requirements

- 1. The CONTRACTOR shall comply with the requirements of DOE-0344, *Hanford Site Excavation, Trenching and Shoring.*
- 2. Excavation requirements shall be addressed in the Job Safety Analysis (JSA) or Hob Hazard Analysis or Job Hazard Analysis (JHA) process.
- 3. An excavation permit is required for all excavations **except** the following:
  - Hand digging or vacuum excavation that is outside of culturally sensitive areas **and** less than 305 mm (12 inches) deep.
  - Annual cutting and maintenance of firebreaks authorized by the HFD, except when
    performed inside protected areas. This authorization shall be in accordance with annual
    pre-fire planning conducted between Pacific Northwest National Laboratory (PNNL) and
    the HFD.
  - Leased and permitted land, easements, and right-of-ways on the Hanford Site that is under the control of state agencies, private companies or public utilities unless directed to do so by the U. S. DOE.
  - Excavation is determined to be an emergency in nature.
- 4. The BUYER will provide an approved permit to the CONTRACTOR prior to the CONTRACTOR initiating the excavation.
- 5. When required, the CONTRACTOR shall provide cribbing or shoring for excavation to prevent undermining or movement of any load bearing concrete slabs or footings and shall comply with 29 CFR 1926, Subpart P, Excavations (OSHA) regulations.
- 6. For any excavations, including those less than 12 inches deep, the CONTRACTOR shall notify the BUYER prior to the contractor performing excavation to allow time for BUYER to perform subsurface scanning and evaluate soil contamination (radiological or hazardous materials), if required.
- 7. In the event any underground pipe line, conduit or other object not shown on the drawings or excavation permit or otherwise indicated in the Specifications is encountered, the CONTRACTOR shall immediately stop work and notify the BUYER.
  - Conduits, ducts, and other utilities shall be safely shored, braced and guyed.

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### 3.14 Hoisting and Rigging Requirements

- 1. The CONTRACTOR shall perform onsite hoisting and rigging (e.g., cranes, hoists, forklifts, lifting devices, rigging) in strict accordance with DOE-RL-92-36, *Hanford Site Hoisting and Rigging Manual*. This document is available at www.hanford.gov on the Hanford Site Safety Standards page (<a href="https://www.hanford.gov/page.cfm/SiteSafetyStandards">www.hanford.gov/page.cfm/SiteSafetyStandards</a>).
  - a. Drill rigs are exempted from the *Hanford Site Hoisting and Rigging Manual* except as specified in the next step.
    - The maintenance and safety of drill rigs are the sole responsibility of the CONTRACTOR.
  - b. The applicable sections for drilling / well construction operations are, at a minimum:
    - Chapter 2, Responsibilities;
    - Chapter 4, Personnel Qualifications and Training Requirements;
    - Chapter 6, Forklift Trucks;
    - Chapter 9, Slings;
    - Chapter 10, Rigging Hardware;
    - Chapter 11, Below-The-Hook Lifting Devices; and
    - Chapter 14, Mobile Cranes.
- 2. In use of cranes and derricks to perform activities defined as "construction" (i.e., construction, alteration, repair), the CONTRACTOR shall comply with Occupational Safety and Health Administration regulation 29 CFR 1926, Subpart CC (sections .1400 thru .1442), Cranes and Derricks in Construction.
  - For mobile crane operations, identify and assign a Competent and Qualified Person to serve as the Assembly/Disassembly Director.
- 3. In use of cranes and derricks to perform activities defined as "construction" (i.e., construction, alteration, repair), the CONTRACTOR shall comply with Washington Administrative Code (WAC) 296-155 Part L, Crane Certifier Accreditation and Certification.

### 3.15 Exposure Control Requirements for Hexavalent Chromium

- The following requirements are currently in force for controlling exposures to airborne hexavalent chromium (Cr [VI]) dusts or fumes in accordance with OSHA 29 CFR 1926.1126 Chromium (VI).
- 2. These requirements are applicable to welding, grinding, torch-cutting, metal buffing and metal polishing, and spray painting activities.
  - Included are activities conducted on materials containing stainless steel, chromium-containing alloy steel, chromium-containing non-ferrous alloys or carbon steel containing chromium, activities using chromium-containing welding rod or wire, or activities involving the decomposition of chromium-containing coatings.

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- 3. These activities typically utilize the following processes:
  - Plasma arc cutting
  - Plasma arc gouging
  - Shielded Metal Arc Welding (SMAW)
  - Gas Tungsten Arc Welding (GTAW)
  - Gas Metal Arc Welding (GMAW)
  - Flux Cored Arc Welding (FCAW)
  - Sub Arc Welding (SAW)
  - Torch cutting through chromate-containing paints
  - Grinding, buffing and polishing
  - Spray Painting Activities involving chromium containing materials not included above.
- 4. Grinding, buffing and polishing activities of concern involve stainless steel, chromium-containing alloy steel or chromium-containing non-ferrous alloys lasting longer than 15 minutes in an eight (8) hour period.
- 5. The CONTRACTOR is advised to pay particular attention to welding rod and filler material used for overlay, cladding and hard surfacing of equipment (e.g., scrapers, back hoe buckets, etc.).
  - This type of welding may be performed by personnel not routinely involved in such activities, and hence not sensitive to the hazards of welding fume exposure.
  - Chromium contents of welding rods and filler material can be determined by reviewing the MSDS.
- At minimum, the CONTRACTOR shall implement the requirements listed below to control exposure to hexavalent chromium. These controls, to include activities that may lead to a potential exposure, shall be described in the JHA/AJHA prepared by the CONTRACTOR.

**NOTE:** Industrial hygiene monitoring data indicating exposure potentials are below CHPRC established limits may relieve the requirements 3.15.6.a through 3.15.6.i.

- a. Use of Company-Provided Coveralls:
  - Contractor employees shall wear contractor-provided overalls/work clothing, which
    could include leathers, consistent with the Hanford Fire Marshal approved hot work
    permit (hazards analysis), when conducting activities identified below.
- b. Personal Hygiene:
  - Contractor employees shall wash their hands and face before breaks and before leaving at the end of the day.
  - The requirement for hand and face washing must be documented as part of the CHPRC approved hot work permit (hazard analysis).

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### c. Plasma Arc Cutting:

- Contractor employees conducting plasma arc cutting shall use a respiratory protection with an Assigned Protection Factor (APF), of at least 50.
- Those who assist with this process and are continuously within 10 feet of the cutting for the entire time shall use the same level of protection.
- Individuals who are within 10 feet of the welding for short periods of time (up to 1 hour in any 8-hour period) do not require respiratory protection.
- Contractor employees conducting activities more than 10 feet away from the cutting do not require respiratory protection.
- d. Arc Gouging Including Plasma Arc Gouging:
  - Contractor employees conducting plasma arc gouging shall use respiratory protection with an APF of at least 25.
  - Those who are continuously within 10 feet of the gouging for the entire time shall use the same level of protection.
  - Individuals who are within 10 feet of the gouging for short periods of time (up to 1 hour in any 8-hour period) do not require respiratory protection.
  - Contractor employees conducting activities more than 10 feet away from the gouging do not require respiratory protection.
- e. SMAW, GTAW, GMAW, FCAW, and SAW Welding Using Chromium-Containing Base Metal and Rod or Wire:
  - Contractor employees conducting these activities shall use respiratory protection with an APF of at least 10 (APF of 25 for SMAW).
  - Those who are continuously within 10 feet of the welding for the entire time shall use the same level of protection.
  - Those who are within 10 feet of the welding for short periods of time (up to 1 hour in any 8-hour period) do not require respiratory protection.
  - Contractor employees conducting activities more than 10 feet away from the welding do not require respiratory protection.
- f. Torch Cutting Through Chromate-Containing Paints:
  - Contractor employees conducting this activity shall use respiratory protection with an APF of at least 10.
  - Those who are continuously within 10 feet of the welding for the entire time shall use the same level of protection.
  - Those who are within 10 feet of the welding for short periods of time (up to 1 hour in any 8-hour period) do not require respiratory protection.

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- Contractor employees conducting activities more than 10 feet away from the welding do not require respiratory protection.
- g. Torch Cutting Through Chromium-Containing Carbon Steel:
  - Contractor employees conducting this activity shall use respiratory protection with an APF of at least 10.
  - Those who are continuously within 10 feet for the entire time shall use the same level of protection.
  - Those who are within 10 feet of the cutting for short periods of time (up to 1 hour in any 8-hour period) do not require respiratory protection.
  - Contractor employees conducting activities more than 10 feet away from the cutting do not require respiratory protection.
- h. Grinding, Buffing or Polishing:
  - Contractor employees conducting this activity for more than 15 minutes in an 8 hour period shall use respiratory protection with an APF of at least 10.
  - Those who are continuously within 10 feet for the entire time shall use the same level of protection.
- Spray Painting:
  - If this spray painting activity is performed without the benefit of recent Industrial Hygienist (IH) sample results and recent Health and Safety Plan.
  - Contractor employees conducting this activity shall properly use respiratory protection with an APF of at least 10.
  - The CHPRC IH shall determine if access or proximity controls or respiratory protection is appropriate for those who need or want to work nearby.
- j. Activities involving chromium containing materials not included above:
  - The CHPRC IH will determine exposure control criteria.
  - In the absence of written criteria from CHPRC, use respiratory protection with an APF of at least 50.
  - Those who assist with this activity and are continuously within 10 feet for the entire time shall use the same level of protection.
  - For those who are within 10 feet for short periods of time (up to 1 hour in any 8-hour period) must use respiratory protection with an APF of at least 10.
  - Contractor employees conducting activities more than 10 feet away do not require respiratory protection.

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### 3.16 Ladder Safety

- The CONTRACTOR shall comply with PRC-STD-SH-40314, Portable and Fixed Ladder Standard, available at www.hanford.gov on the Site Safety Standards page (www.hanford.gov/page.cfm/SiteSafetyStandards).
  - The intent of this policy is to ensure that alternatives to Portable Ladder have been examined on a task specific basis, and that prior to using a portable ladder that it has been determined by the first line supervisor through pre-job planning that a ladder is the safest tool for the task.
  - Otherwise, alternate means shall be used (aerial lifts, powered work platforms or lifts, mobile ladder stands/mobile ladder stand platforms, construction of scaffolding instead of a portable ladder).
  - In addition this policy describes the requirements for using ladders on site.
- 2. The CONTRACTOR first line supervisor will be responsible for complying with this policy, and the JHA/AJHA process will be the mechanism for implementing this policy.
- 3. The intent of the policy is to not use ladders just because it is convenient, but also because it is the best and safest tool for the job.
- 4. Portable ladders used on-site shall meet the following safety requirements:
  - a. ANSI A14.5-2000, American National Standard for Ladders Portable Reinforced Plastic Safety Requirements.
  - b. **ANSI** A14.10-2000, American National Standard for Ladders Portable Special Duty Ladders.

### 4.0 NOTIFICATIONS

### 4.1 Notification Requirements

- 1. The CONTRACTOR shall immediately notify the BTR of any occupational injury, illness, near misses, or any "Unusual Occurrence".
  - An Unusual Occurrence is any deviation from the planned or projected behavior or course of events in connection with any operation if the deviation has safety protection significance.
- 2. Evaluation or treatment by the Site OMSP to provide proper reporting and documentation may be required for unusual occurrences even when there was no need for medical examinations based on scope of work.
- 3. The CONTRACTOR shall immediately notify the BTR of any employee occupational exposure (either measured or estimated) to toxic substances (e.g., chemical hazards) or harmful physical (e.g., noise, laser light) agents, etc. that exceed the OSHA Permissible Exposure Limit (PEL) or the American Conference of Governmental Industrial Hygienist (ACGIH) Threshold Limit Value (TLV).

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- 4. The CONTRACTOR shall immediately notify the BUYER of any requests from or notifications to external agencies and regulators, required as a result of employee exposure (Ref Section 11, Item 11).
- 5. The CONTRACTOR shall notify the BUYER, not less than 24 hours prior to bringing to the Hanford Site any equipment of the type indicated below so that the BUYER may arrange for a safety inspection. Equipment includes, but is not limited to, the following:
  - a. Cranes, derricks, hoists, man lifts, and forklifts
  - b. Earth moving equipment
  - c. Off-highway motor vehicles
  - d. Pile driving equipment
  - e. Rock drilling, core drilling, well drilling and similar equipment
  - f. Pressure vessels and equipment supplied with pressure vessels, either fired or unfired
  - g. Equipment employing "laser" techniques
  - h. Powder actuated tools
  - Equipment employing radioactive materials or that develop ionizing radiation that generates, emits, or utilizes ionizing radiation requires licensing in accordance with 10 CFR 20, Standards for Protection Against Radiation, or control in accordance with 10 CFR 835.
  - j. Contaminated or potentially contaminated equipment brought onsite for controlled use, authorized under specific control provisions contained within the SOW or associated radiological specifications approved by the CHPRC Radiation Protection Organization.
- 6. The following documents must be provided upon request by the BUYER for equipment to be inspected:
  - a. A copy of the latest certified inspection (as applicable)
  - b. Manufacturer's specification and recommendations
  - Load rating charts and other information as applied to cranes and hoists
  - d. Hydrostatic test certification (if applicable)
  - e. Qualified operator certifications (i.e., powder-actuated tools).

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#### 5.0 INVESTIGATIONS

### 5.1 Investigation Support

- The CONTRACTOR shall cooperate in the conduct of accident investigations, including submission of a comprehensive report of any accident that results in a fatality, and shall cooperate as appropriate in the conduct of investigations relating to OSHA recordable injuries/illnesses and property damage.
- 2. The CONTRACTOR shall not move equipment involved in an accident resulting in an immediate or probable fatality, or serious injury. The equipment shall not be moved until a representative of the BUYER releases such equipment, except where removal is essential to prevent further property damage or serious injury/illness. Where necessary to remove the injured, such equipment may be moved only to the extent of making possible such removal.

#### 6.0 STOP WORK

### 6.1 Stop Work Responsibility

- Every BUYER and CONTRACTOR employee has the responsibility and authority to stop
  work IMMEDIATELY, without fear of reprisal, when they are convinced a situation exists
  which places themselves, their coworker(s), or the environment in danger. "Stop Work" is
  defined as stopping the specific task or activity that poses danger to human health and the
  environment.
  - a. Any employee who reasonably believes that his/her safety is in jeopardy or who is convinced a situation exists that places themselves, their coworker(s), or the environment in danger is expected to refuse work without fear of reprisal by management or coworkers and is entitled to have the safety concern resolved prior to participating in the work.
  - b. Employees are expected to report any practice or condition they believe presents an unacceptable risk. Notification should be made to the affected worker(s) and then, to the notification, resolution of the issue resides with the responsible manager.
  - c. The BUYER shall also be notified when a Stop Work affects the contract staff and the performance of work. The direction to resume work will be made in writing from the BUYER.
- 2. The CONTRACTOR shall provide for the flow-down of appropriate requirements of this clause to subcontractors performing work on-site at a DOE-owned or leased facility. Such subcontracts shall provide for the right to stop work under the conditions described herein.

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### **Appendix F - Safety Program Specifications For Contractors (continued)**

#### 7.0 SUBSTANCE ABUSE

#### 7.1 WORKPLACE SUBSTANCE ABUSE (DEAR 970.5223-4)

- 1. The CONTRACTOR effectively certifies, by providing workers on the Hanford Site or in DOE leased facilities that its employees and subcontractor employees are not under the influence of controlled substances, drugs or alcohol.
  - DEAR 970.5223-4, Workplace Substance Abuse Programs at DOE Sites (DEC 2000), requires that all personnel working on the Hanford Site or in DOE leased facilities are subject to testing under the BUYER program for controlled substances.
- Upon BUYER request, CONTRACTOR agrees to have assigned employees screened by a certified testing laboratory. Sole proprietors shall self-certify and are subject to testing requirements as well.

### 8.0 TRAINING

#### 8.1 Training Requirements

**NOTE:** Requirements include those identified within the procedures applicable to the work to be performed. These may include further qualifications and certifications for designation of competent/qualified persons.

- CONTRACTOR shall ensure that assigned personnel meet and maintain appropriate training, qualification and certification requirements as required in the SOW and appropriate for the work to be performed.
- 2. Where scope of work invokes assignment of a Competent Person, the CONTRACTOR shall provide a trained and qualified individual to fulfill such role. Validation of assignment will be initiated by the CONTRACTOR thru completion of the appropriate *Training Completion Record* for the subject area.
- 3. CONTRACTOR personnel who will be performing work in the field on the Hanford Site must complete or have completed the CHPRC *General Employee Training* (CGET, Course # 000006) prior to being issued a badge or being allowed access to the Hanford Site.
  - Completion of this Training is necessary to receive a Hanford Site Badge, and arrangements for accessing the training can be coordinated thru the CS or BTR.
  - Office and administrative visits of less than seven (7) days will be allowed without this
    course, but access will be limited to office and administrative areas of the Hanford Site.
    This requirement applies even if CONTRACTOR personnel have a valid DOE Security
    Badge issued by another site.
- 4. Drivers of CONTRACTOR arranged vendor deliveries of supplies shall receive Visitor Vendor Training at the time they pick up their self-expiring Hanford Site badge.
  - The BUYER arranges for a Delivery Point of Contact, who knows the safe route and safe drop off location to coordinate activity with the Driver according to Special Provisions – On Site Services (SP-5).

### **Contractor Safety Processes**

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### **Appendix F - Safety Program Specifications For Contractors (continued)**

5. The following training courses are required for all construction and drilling/service work scopes on the Hanford Site except for vendor deliveries under the direct supervision of a "Delivery Point of Contact" arranged by the BUYER. Additional trainings are as required by the SOW or as identified by the appropriate CHPRC training specialist.

Course Title	Off-site training acceptable (Yes/No)
CHPRC General Employee Training	N
CHPRC Facility specific Orientation	N
OSHA 10-Hour Construction Hazards Recognition course for key supervisors	Y
Safety, Environmental, and Health Orientation for Construction Supervisors (SEHOCS)	N
First-Aid/CPR for at least one crew member	Y
Other Training as specified by the SOW Section 5	See Section 5 of SOW

#### 9.0 PERMITS/PLANS/FORMS & CHECKLISTS

#### 9.1 Permits Required

- A list of potentially required permits is provided below. The CONTRACTOR is responsible for notifying the BUYER at least five (5) working days in advance of any permits required. The BUYER, with the assistance of the CONTRACTOR will interface with the appropriate site organizations and obtain the required permits.
- 2. The CONTRACTOR shall meet the following safety requirements as specified:

Permit Title	Referenced Document		
Asbestos Work Permit	PRC-RD-SH-15097		
Beryllium Work Permit	DOE-0342		
Confined Space Entry Permit	DOE -0360		
Critical Lift Plan	DOE 92-36		
Electrical Installation Permit	PRC-PRO-SH-40435		
Electrical Utilities Disconnect Request	MSC-PRO-066		
Energized Electrical Work Permit	PRC-PRO-SH-40435		
Explosive Use	MSC-RD-11227		
Fall Protection Work Permit	PRC-STD-SH-40314 & DOE 0346		
Hanford Site Excavation Permit	DOE-0344, Hanford Site Excavating, Trenching and Shoring		
Hot Work Permit	PRC-PRO-FP-40421		
Non-emergency Hydrant Tie-In Permit	PRC-STD-FP-40404		

### **Contractor Safety Processes**

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### **Appendix F - Safety Program Specifications For Contractors (continued)**

3. The CONTRACTOR shall also use applicable plans, forms and checklists, etc., as identified in the procedures and work planning documents applicable to the work to be performed.

#### 10.0 WRITTEN COMMUNICATIONS AND SUBMITTALS REQUIRED

**NOTE:** Unless otherwise specified by the BUYER, the CONTRACTOR shall provide the following documents.

- A written communication (letter or e-mail) to the Contract Specialist acknowledging the
  responsibility to conduct activities associated with the contract in accordance with contract
  requirements that include compliance with 10 Part CFR 851, Worker Safety and Health
  Program,
- 2. A written communication (letter or e-mail) to the Contract Specialist identifying a "Designated Safety Representative" when there is more than one employee working on site,
- 3. The CONTRACTOR maintained OSHA Form Number 300, or an equivalent, in compliance with Occupational Safety Standards 29 CFR 1904. *Recording and Reporting Occupational Injuries and Illness* 
  - As part of the Contract Request for Proposal
  - During the timeframe of the contracted activity
  - During the annual review of a Master Contract or Basic Ordering Agreement
- 4. The completed OS&IH Prequalification Form (Site Form A-6004-812),
- 5. The CONTRACTOR worker's compensation experience modification rate (EMR)/risk rating for the current and past 3 years,
- 6. Table of contents from the CONTRACTOR safety and health program,
- 7. The OSHA 300A Summary for the past 3 years,
- 8. Copies of transmittal letters from any Federal or State OSHA inspection during the past 3 years to include number of citations issued and a description of outcome),
- Identification and summary of occupationally-related fatalities in the past 5 years that involve self-perform or subcontracted employees - to include cause and corrective actions implemented,
- 10. Monthly reporting of total labor hours worked on the Hanford Site, as specified in Section 2.5B of SP-5 (*Special Provisions On Site Services*), using the Contractor Labor Hours Submittal Form (<a href="http://environet.hanford.gov/clhs/LaborHoursSubmittal.cfm">http://environet.hanford.gov/clhs/LaborHoursSubmittal.cfm</a>),
- 11. Report of any property damage to or losses of DOE-owned or leased property, regardless of cause.

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#### **Appendix F - Safety Program Specifications For Contractors (continued)**

- 12. By formal submittal prior to mobilization and at contract completion (ref: Contractor Document Submittal Form), a chemical inventory via completion of Site Form A-6004-750, CHPRC Chemical Inventory Worksheet for Sub-Contracted Work Involving the Use of Chemicals, and a copy of any and all MSDSs for hazardous materials brought on Site.
- 13. By formal submittal (CDSF), a letter on CONTRACTOR letterhead certifying that the personnel who will perform this work have been examined and judged by CONTRACTOR as fit to perform the work.
- 14. Written description of significant changes to CONTRACTOR program documents.
- 15. Insurance Certificate identifying the types and limits of coverage per *Special Provisions On Site Services (SP-5)* and written notice in the event of cancellation or material change of contractor provided insurance.
- 16. By formal submittal, under the cover of a CDSF, equipment safety inspection, including:
  - A copy of the latest certified inspection (as applicable)
  - Manufacturer's specifications and recommendations
  - For cranes and hoists, load rating chart and other information
  - Hydrostatic test certification (if applicable)
  - Qualified operator certifications or licenses (i.e., powder-actuated tools, driller's license number).
- 17. Copies of all employee occupational exposure records generated for work under this contract.
- 18. Employee occupational exposure records to include workplace monitoring or measuring of a toxic substance or harmful physical agent including personal, area, grab, wipe or other forms of sampling, as well as, related collection and analytical methodologies, calculations and other background data relevant to interpretation of the results.

**NOTE:** The BUYER shall provide the CONTRACTOR the appropriate exposure data collection forms. The Title to employee occupational exposure records shall be vested in DOE.

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### **Appendix G - Contractor Pre-qualification**

#### A. GENERAL

Prequalification evaluations are conducted by CHPRC to assist in predicting a contractor's likelihood for contract performance in safety and health at a level of excellence embraced by CHPRC. While the process below is not strictly a pass/fail approach, it provides a filter for *initial determination* of "responsible/not responsible" in the bidding process for contracts as specified in the second paragraph of this subsection (i.e., "A. GENERAL"). If all data – based on 3-year averages of the data submitted – is below the targets set by the CHPRC as the upper limits of acceptability, the contractor is considered "responsible." If any of the targets are exceeded, based on 3-year averages of the data submitted, a *follow-up review* will proceed to determine if perspective contractor submittal of a get-well or safety improvement plan would position the contractor for re-review consideration. Only those contractors who have successfully completed the pregualification process will be placed or remain on a CHPRC-approved contractor list.

CHPRC Project OS&IH performs safety prequalification on all contractors (including lower-tier contractors) whose work scope is identified as Construction, Well Drilling, or Demolition; and as otherwise determined by Procurement Management, BTR, and OS&IH based upon the hazardous nature or complexity of the planned work task.

Prequalification documents must be representative of the legal entity that will be performing the work.

NOTE: A "branch office," "regional office," "franchised office," "transportation or set-up office" (versus a manufacturing plant), or terms of a similar nature do not necessarily represent a separate, legal entity. While these entities may keep/maintain their individual Occupational Safety and Health (OSHA) 300 Logs, and thus meet the definition of an "establishment" under the OSHA recordkeeping standards, they must be combined with all other establishments of the legal entity for prequalification purposes (unless they are a separate legal entity).

An annual pregualification is also required.

**NOTE:** When a previously completed determination is used for a current contract, the contractor/lower tier contractor's current OSHA 300 Log is to be reviewed by CHPRC OS&IH before approval is given for each contract.

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#### Appendix G - Contractor Pre-qualification (continued)

#### **B. SUBMITTALS REQUIRED**

The following items from the contractor/lower tier contractor shall be attached to, and submitted to the BUYER along with Site Form A-6004-812, *The CHPRC Contractor Occupational Safety and Industrial Hygiene – Pre-Qualification Form.* 

- 1. Workers' Compensation risk ratings or Experience Modification Rates (EMR) (on provider's letterhead) for the past 3 years, *including the current year*, or for as many years as the company has been in existence up to 3 years covering employees in the legal entity. An inTERstate EMR is preferred over an inTRAstate EMR.
- **NOTE:** For companies who have workers' compensation through the State of Washington Labor & Industries, one can obtain the inTRAstate EMR (called a "risk rating" in the State of Washington) on the Internet at: https://fortress.wa.gov/lni/crpsi/.
- OSHA 300A Summary (or equal) signed and dated by a contractor representative for each of the past 3 years, or for as many years as the contractor has been in existence up to 3 years. If further review is deemed necessary/appropriate, actual OSHA 300 Logs may be requested by CHPRC. Upon such request, the contractor will submit them with personal identifiers redacted or removed.
- NOTE: Contractors who have less than 10 employees at any time during a year, and contractors in certain other NAICS codes are "exempt" from OSHA recordkeeping standards. If this is the case, the contractor must complete the prequalification form based on OSHA recordkeeping requirements; that is, properly classifying and annotating the recordability level of occupational injuries/illnesses, with the appropriate number of days of restricted or lost work associated with each case included.
- 3. Total hours worked by contractor employees in the legal entity for each of the past 3 years, or for as many years as the contractor has been in existence up to 3 years (this information should already be on the OSHA 300A Summary).
- 4. Copies of transmittal letters (describing the outcome and number of citations if any) from each OSHA/State Plan inspection in the past 3 years. If no inspections have ever been performed, a signed statement to this effect on contractor letterhead is required.
- 5. The Table of Contents from contractor's safety and health program manual. If further review is deemed necessary/appropriate, CHPRC may request actual copies of contractor safety and health programs.

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### **Appendix G - Contractor Pre-qualification (continued)**

# C. DETERMINING CONTRACTOR LEVEL OF RESPONSIBILITY (Site Form No. A-6005-948)

The responsibility for completion of the Site Form rests with the CHPRC Project/Function OS&IH organization.

### Workers' Compensation Risk Ratings/EMR

- Calculate a combined average from all years submitted,
- Compare the combined average to the "target" on page 1 of Form,
- The "target" for this element of the prequalification is a 3-year average at or below 1.0,
- Circle the appropriate outcome ("target is met" or "target is exceeded") on page 1 of Form.

### Incidence Rates - 3-Year Averages

- Total the employee hours from the submittals and calculate an overall average document on page 2 of Form,
- Identify and document the following categories on page 2 of Form from the OSHA 300A Summaries (or equal) submitted by the contractor/lower tier contractor:
  - Number of total recordable CASES (the "TRC" rate),
  - Total CASES involving days away from work and days of restricted work (the "DART" rate).
  - Total CASES involving only days away from work (the "DART-L" rate),
  - Total DAYS away from work and days of restricted work.
- Average the totals from each of the 3 years, in each category, to identify overall averages for each category. Document on page 2 of the Form.
- Multiply the overall average in each category by 200,000 divide the products by the overall average of employee hours. The result is the 3-year average incidence rate for each category. Document on page 2 of the Form.

The target for the "TRC" rate is a 3-year average below the national average (that is, 100% or less of the average), as published by the Bureau of Labor Statistics – most current version - for the NAICS code being used by the contractor.

The target for the "DART" rate is a 3-year average below the national average (that is, 100% or less of the average), as published by the Bureau of Labor Statistics – most current version - for the NAICS code being used by the contractor.

The target for the "DART-L" rate is a 3-year average below the national average (that is, 100% or less of the average), as published by the Bureau of Labor Statistics – most current version - for the NAICS code being used by the contractor.

The target for the "days away from work and days of restricted work" is a 3-year average 150% or less of a 3-year average of DART days for construction contractors working on Department of Energy (DOE) sites, as published by DOE as part of the CAIRS publications.

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#### Appendix G - Contractor Pre-qualification (continued)

Circle the appropriate outcome ("target is met" or "target is exceeded") on page 1 of Form <u>for</u> each of these 4 elements.

#### **Fatalities**

• ZERO fatalities is the target. Circle the appropriate outcome ("target is met" or "target is exceeded") on page 1 of the Form for this element.

#### Average Number of Serious/Repeated Violations per OSHA and State Plan Inspections

 Add the number of serious and repeat violations described in the transmittal letters submitted. Do not include "willful," "other than serious," or "de minimis" violations.

**NOTE:** A review/comparison of transmittal letters submitted is performed against inspection data contained in the "OSHA inspection/violation" database located on the Internet at: http://www.osha.gov/pls/imis/establishment.html.

Divide the total number of serious and repeat violations by the total number of inspections. The result is the number of violations per inspection. The target for this element is 0.7 or below. Circle the appropriate outcome ("target is met" or "target is exceeded") on page 1 of the Form for this element.

**NOTE:** If OSHA Federal or State Plan inspections have not been performed, identify this as "n/a" and target as "n/a" on the Site Form, and do not count it as part of the Responsibility Determination.

#### Willful Violations

• ZERO willful violations is the target. Circle the appropriate outcome ("target is met" or "target is exceeded") on page 1 of the Form for this element.

### **Past Safety Performance Evaluations**

• The target for this element is 100% satisfactory or outstanding performance evaluations in the past 3 years. Circle the appropriate outcome ("target is met" or "target is exceeded") on page 1 of the Form for this element.

**NOTE:** If performance evaluations have not been performed, identify this target as "n/a" on the Site Form, and do not count it as part of the Responsibility Determination

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#### Appendix G - Contractor Pre-qualification (continued)

### **Company Safety And Health Program**

- The target for this element depends on the nature of a company's business; a company performing heavy construction-type work (e.g., in NAICS code 237xxx) would be expected to have a comprehensive Safety and Health program as would a company performing work as a large manufacturer of products. However, a small company performing "specialty" work (including general maintenance and warranty of equipment) or testing, engineering, surveying, and the like (usually providing lower risk services) may have an Safety and Health program that is more acutely focused on their work, and not as comprehensive.
- Formulating an assessment of the comprehensive nature of the Safety and Health program is done by reviewing the responses the company provides to questions 12 through 31 of Site Form A-6004-812. Response "A" is considered "the best" response (and each is given 2 points) response "B" is a good response (and each is given 1 point) responses "C" "D" or "E" (as applicable) are considered as either negative responses or not applicable to the company (and each are given no points). The total points are divided by 23 (the total number of applicable questions on Site Form A-6004-812). A "score" of 1.5 is the target for companies conducting heavy construction or large manufacturers; a score of 1.0 is the target for smaller, specialty companies or companies providing lower risk services.

#### **Responsibility Determination**

- For items 2a, b, c, and d; item 3; and item 6 on the Form, up to two targets can be "not met" for the contractor to still potentially be identified as responsible.
- For items 4 and 5 on the Form, the contractor must "meet the target" in each item to be considered responsible.
  - If the contractor is deemed "responsible" a note to this effect will be transmitted from CHPRC OS&IH to the BTR.
- If more than two targets are not met for items 2 (a, b, c, and d) and 3 or if any target is not met for items 4 and 5 the contractor will be deemed "not responsible."

**NOTE:** If OSHA Federal or State Plan inspections or performance evaluations have not been performed, do not count the target(s) as part of the Responsibility Determination.

The Form is signed by CHPRC OS&IH. A communication describing the results will be transmitted from CHPRC OS&IH to the requestor, the BTR (if different than the requestor), and CHPRC Procurement Management. The company-in-question may also be included in the transmittal (or forward), at the discretion of CHPRC Procurement Management. When a contractor is found to be "not responsible" in the filtering process, line management must first determine if another contractor should be selected to perform the work instead of the company-in-question.

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#### Appendix G - Contractor Pre-qualification (continued)

If Project/Function and Procurement Management determines that the company-in-question is the best option for performing the work, based on the results of other evaluated criteria and potential for safety improvement, they may request OS&IH to further evaluate the contractor for *conditional approval* by risk-rating the contractor as a "low," "medium," or "high" risk. This evaluation and risk-rating will be in narrative form and include additional information such as trends, contractor control of circumstances in a fatality, and other pertinent data (see sample included at the end of this Appendix). Also included, if appropriate, should be a discussion of the impact of the standard method for calculating incidence rates on contractors with a small number of hours worked.

The Project/Function has the option of requesting that the company-in-question be allowed to perform work under a CHPRC contract, as follows:

- Contractors risk-rated as "low" or "medium" must have the approval of the Project/Function Manager and the Project OS&IH Manager to perform work; actions or measures to further reduce or eliminate the likelihood of events may be imposed as a cooperative decision between the BTR, the Project/Function Manager, and OS&IH as part of the approval.
- Contractors risk-rated as "high" must have specific programmatic measures imposed, and the approval of the Project/Function Vice President and OS&IH Director, to perform work.

All prequalification outcomes are entered onto the CHPRC Prequalification List, maintained by OS&IH Programs.

After completing the process, Procurement Management and OS&IH Programs is provided a copy of the entire prequalification file (containing all submittals and worksheets); it is suggested that the OS&IH entity performing the prequalification also retain a copy. The file documents may be provided, upon request, to CHPRC representatives with a "need to know." CHPRC Procurement Management may provide the contractor with the overall results - and the specifics may be discussed - but a copy of the Form may not be distributed outside of the CHPRC.

#### Follow-up Review Process – Questions About Submittals

 When the content of a submittal comes into question, CHPRC OS&IH should contact the submitting contractor for clarification.

#### NOTE:

- While the principles of accurate recordkeeping must be upheld at all times, it is understood that is not uncommon for companies smaller companies in particular to err on the side of conservatism when recording cases on OSHA logs (for a variety of reasons), to the extent of potentially making themselves "look bad" from a prequalification standpoint. Thus, contractors may be contacted and assisted by OS&IH in reviewing the OSHA Recordkeeping Handbook (available on the OSHA website) for appropriate classification and recording. However, OS&IH must not direct the company how to record/classify any case.
- Contractors may resubmit documents as part of a "follow-up review process questions about submittals."

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### Appendix G - Contractor Pre-qualification (continued)

# EXAMPLE - NARRATIVE DESCRIBING THE OUTCOME OF A RISK EVALUATION AND RATING

DATE: April 14, xxxx

TO: Gary D. Linemanager

FROM: Paul O. Sih

Re: Prequalification Risk Evaluation – ABC Services

RISK RATING: High (due to fatality, and negative trends in cases and days incidence rates)

Using the prequalification criteria annotated in PRC-PRO-SH-40078, this company has been found to be "not responsible" in the filtering process, and a request from Gary D. Linemanager to perform a further evaluation and risk rating has been received.

Details of the breakdown of data, and trends identified (if any), are as follows:

Year-to-Date Data	09	10	11	Comments
EMR	0.75	0.79	No info	No trend over the past 4 years – all EMRs have been well below the industry average. 2008 information has been requested, but because they are working on the site currently and require location approval anyway, we chose to proceed.

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### **Appendix G - Contractor Pre-qualification (continued)**

Year-to-Date Data	08	09	10	Comments
TRC IR/%*/# of cases	4.0/83/55	5.1/106/81	4.9/102/97	2 of 3 IRs are just above the industry average; an overall negative trend is apparent, with the IR increasing 22% over the course of 3 years.
LWDC IR/%*/# of cases	2.5/89/35	3.3/118/53	3.9/139/78	2 of 3 IRs are above the industry average; an overall negative trend is apparent, with the IR increasing 56% over the course of 3 years.
DAFWC IR/%*/# of cases	1.1/50/16	0.6/27/9	0.9/41/18	No trend; all IRs are significantly below the industry average.
TLWD IR/%**/# of days	34.3/101/478	66.2/194/1057	136.4/400/2697	Major negative trend. IR has increased 398% over the course of 3 years; all IRs are above or significantly above the national average.
Insp./Viol.	4/0	1/0	5/1	Citation was not due to an accident; serious citation per inspection ratio (0.1) is significantly below the industry average of 0.7.
Hours Worked	2,788,260	3,192,422	3,954,277	

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### Appendix G - Contractor Pre-qualification (continued)

5 Year History	2006	2007	2008	2009	2010	Comments
FATALITIES	0	1	0	0	0	See attachment 2

<sup>\*</sup> Percent of national average for NAICS 238110 (Construction – Concrete Placement), as reported by BLS for CY 2009

Discussion of the Data Submitted

The EMR for the current year – and as a 3-year average - is well below the industry average of 1.0.

The IRs for three (3) of the 4 injury/illness categories for the most recent full year - and as 3-year averages - are at or above the respective national averages (the exception being the IRs for Days Away From Work Cases [DART-L], which are well below the national average).

ABC has been inspected by a federal/state EHS agency 10 times in the last 3 years, with 1 serious citation being issued (citation was not due to an accident).

ABC has experienced 1 occupationally-related fatality over the past 5 years – which is considered to have been under the employer's control.

No performance evaluations for ABC have been submitted from the CHPRC.

The EHS programs and processes at ABC are considered to be substantial and appropriate for the size and risks of the company.

#### Summary

In accordance with the PRC-PRO-SH-40078, if the CHPRC Project feels this company is the best choice for a particular project, CHPRC could allow ABC to be considered for contract bid acceptance following additional documented review and approvals.

<sup>\*\*</sup> Percent of DOE 3-year national average for construction, as reported by DOE for CY 2007/2008/2009

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#### **Appendix H - Contractor Performance Evaluation**

### **GENERAL**

Contractors and their lower tier contractor(s) are evaluated on their performance at least every 6 months by the CHPRC OS&IH representative assigned to the contract. If the contract is less than 6 months in duration, then the evaluation period is for the duration of that contract. This practice and the evaluation criteria are briefly discussed at the Kick-Off Meeting.

For contractors (including their lower tier contractors) currently working on Site, an informational meeting is held for each at the time their evaluation period is scheduled. The meetings are coordinated by the BTR, upon request by the OS&IH representative, and attended by the BTR and the contractor and sub-/lower tier management. A brief overview of this process, evaluation criteria, and intended frequency is discussed at the meeting.

Performance evaluation results that are deemed less than adequate by the CHPRC BTR and OS&IH may give cause for the contractor to re-qualify, with such direction formally issued by the CHPRC Contract Specialist.

#### **COMPLETING A PERFORMANCE EVALUATION**

OS&IH initiates the Safety Performance Evaluation Form (Site Form A-6004-782). OS&IH completes the Safety Performance Evaluation, inputs applicable data received from the sources below, and assigns appropriate point values.

- Organization "incident tracking system" provides details on industrial injuries and illnesses.
- Organization "inspection results tracking system" provides details on the contractor and its lower tier contractor's compliance/noncompliance to OS&IH contract requirements.
- Safety inspections conducted in accordance with contract requirements.
- Event/occurrence reports.
- An overall assessment of contractor safety and health program implementation and performance, including the contractor's management of its lower tier contractors.

OS&IH assigns the following applicable rating to the overall assessment of the contractor's safety work practices:

- Outstanding = 90 to 100 points
- Satisfactory = 70 to 89 points
- Unsatisfactory = less than 70 points

The data used in the contractor safety performance evaluation process and completed evaluations are transmitted to, and maintained by the following CHPRC entities:

- OS&IH Programs
- Procurement Management
- BTR
- ORIGINATOR

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### Appendix I - Job Hazard Analysis Process for Subcontractors

Job Hazard Analysis (JHA) is a technique used to identify, evaluate and develop hazard control techniques for CH2M Hill Plateau Remediation Company (CHPRC). The information obtained in the analysis is then incorporated into the CHPRC work management process (PRC-PRO-WKM-12115, *Work Management*,) and communicated to the work team in the work planning document(s). The requirements for the performance of the JHA are contained in CH2M Hill Plateau Remediation Company (CHPRC) procedure PRC-PRO-WKM-079, *Job Hazard Analysis*. This Appendix provides subcontractors an alternative tool to complete this analysis.

### Job Safety Analysis (JSA) Tool

JSA allows the subcontractor to perform the JHA in compliance with PRC-PRO-WKM-079, *Job Hazard Analysis*. The JHA and JSA processes are the same. The difference is in the documentation of the analysis. The *Job Hazard Analysis* uses the Automated Job Hazard Analysis computer based tool, JSA does not.

### **Responsible Subcontracting Contractor**

The Responsible Subcontracting Contractor (Prime Contractor) is the contractor that has been awarded work scope by CHPRC. The Prime Contractor is responsible for the content and submittal of all JSAs including sub-tier contractors under their direction. This includes:

- Developing the hazard evaluation documents for their scope of work (as applicable);
- Obtaining and identifying the hazards associated with the work processes and working conditions where their workers or subcontracted workers could be exposed;
- Developing an Assessment Team with the skills and skill mix to assist in the development of the work task JSA(s). Typically this team will be comprised of management, work planner, supervision, craft and appropriate Subject Matter Experts. Including appropriate CHPRC personnel is highly recommended;
- Performing work site walk down with the Assessment Team in assist in the development of the work task JSA.
- Documenting the results of hazard evaluations and submitting them for review and approval in accordance with CHPRC contract requirements.

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### **Appendix I - Job Hazard Analysis Process for Subcontractors (continued)**

#### **Job Site Walk Down**

The Assessment Team will walk down the job site and evaluate the conditions where the work will be performed. These evaluations will be the initial basis of the JSA and subsequent Hazard Control Set. This walk down should include discussions with team members on:

- What is to be done?
- Where will it be done?
- How will it be done?
- When will it be done? (day, night, weather conditions)
- What tools and equipment will be used?
- What personnel will be required to complete the activity?
- What are the effects of selected work process, products to be used in those processes and the effects those process and products might have in the environment where the work is to be performed?
- Will there be multiple work groups or conflicting safety rules?
- What are the potentials for abnormal conditions or unexpected problems?

Appropriate support documents and information will be made available to Assessment Team during the walk down to ensure hazards or potential hazards are correctly identified, documented, and communicated for the activity being performed. Site Form A-6004-055 (*Enhanced Pre-Work Walk Down and Post Performance Checklist*) or A-6005-785 (*Pre-Job Safety Walkdown*) may be used to post the results of the walk down.

#### **JSA Preparation**

With the data collected during the walk down, a JSA will be developed by the subcontractor and documented on Site Form A-6004-784, *Job Hazard Analysis/Activity Hazard Analysis for Subcontractors (JSA/AHA)*, or pre-approved subcontractor forms. The JSA will address the specific work activities, the associated hazards of those activities and the controls to mitigate those hazards.

JSAs will include the following information:

- Job scope and description of activities.
- Listing of each activity or phase.
- Identification of the hazards associated with the activities being performed, including the use or presence of hazardous chemicals or products;
- Specific, effective safety measures (engineering, administrative, or personal protective equipment [PPE]) to be applied to eliminate or control the hazards;
- A list of specific applicable work control documents, such as maintenance instruction or equipment procedure;
- Required training and permits for those applicable items on the known or potential hazards;

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### Appendix I - Job Hazard Analysis Process for Subcontractors (continued)

 Identification and detail (including drawings and other documentation) of activities/hazards for which protective measures are required to be designed, inspected, or approved by a professional engineer or Competent/Qualified Person.

Evaluations, including control measures and implementing methods to mitigate or reduce the hazard, shall be addressed on the continuation page(s) and where the following situations exist:

- Any hazard/activity on page 1 is checked "yes" (if form used);
- Hazards associated with the work to be performed are not sufficiently defined on the form;
- Employees may be exposed to hazardous materials or substances;
- Other significant or unusual hazards are anticipated or could become involved.

The JSA must include clear instructions on how the identified hazards are to be mitigated. Simply referring to a procedure or "generic practice" does not constitute sufficient instruction. Detailed language of the hazard and the mitigation techniques needs to be included in the body of the JSA.

Include attachments to JSAs such as: Energized Electrical Work Permit; Confined Space Hazard Identification and Confined Space Entry Permit; Hot Work Permit; Fall Protection Work Permit, as examples.

Mitigation techniques/controls are first established through engineering or administrative controls. Only after these methods have been exhausted can Personal Protective Equipment (PPE) be prescribed.

#### JSA Evaluation

The Prime Subcontractor reviews and approves the JSA then submits the JSA to CHPRC as required by the applicable contract. All JSAs are be reviewed and approved by appointed CHPRC Occupational Safety &Industrial Hygiene (OS&IH) Upon receipt, CHPRC OS&IH has 5 working days to complete the review.

**NOTE:** If a CHPRC OS&IH professional participates in the development of the JSA and signs the JSA in place of a subcontractor OS&IH professional then an additional review and approval must be performed by another CHPRC OS&IH professional.

No field activities will be performed until the JSA covering the activity has been reviewed and approved by CHPRC OS&IH and incorporated into the work control documentation, as required by PRC-PRO-WKM-12115. The approved JSA will be returned to the Responsible Subcontracting Contractor via the contract requirements.

**NOTE:** Work cannot be performed with a hazard evaluation documents alone. These documents will be used for information in the development of the work control document(s) for the selected work task(s).

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#### Appendix I - Job Hazard Analysis Process for Subcontractors (continued)

The Responsible Subcontracting Contractor will then incorporate or rebut the recommendations resulting from the CHPRC OS&IH review until resolution is achieved and the JSA is agreed to by both parties. The results of the approved JSA will be incorporated into the work control documentation.

JSAs (including attachments) are renewed, amended, or revised when the safety requirements change, hazards change, new hazards are identified, the work scope changes, or 6 months has elapsed since the last review. CHPRC OS&IH reviews and approves all changes to the JSA.

### Task-Specific Job Safety Analysis – TSA

A TSA is a document that refers to a discrete, specialized, and singular activity or addresses change and emergent conditions to an evaluated project JSA. For example, if a new or unanticipated chemical product was needed during a work task, the product evaluation and hazard control set could be performed on the TSA. Site Form A-6004-785, CHPRC Task Specific Job Safety Analysis (K-3 JSA), may be used to document the evaluation and the control methods. This evaluation is then included in the work document. If an unforeseen hazard was identified during a work task, the TSA could be used to perform a hazard evaluation and hazard control set. The TSA could then be used to provide the necessary changes to the project's work control document.

**NOTE:** TSA is not mandatory but may be used at the discretion of the contractor. However, if TSAs are not developed or used, then the hazards associated with the changed condition will be included on a revised work task JSA. CHPRC Form A-6004-785 or equivalent may be used for the TSA.

A TSA is only used to address a changed condition or new hazard identified during an activity that has already undergone a hazard analysis.

As governed by PRC-PRO-WKM-12115 (*Work Management*), a change to a supporting work document within a work package is to be made using the procedures and processes that control that specific document, and then evaluated for impacts to the existing hazard and control set. Changes are to be noted in the work record or updated on the references as a good practice. In addition, a technical review by the Release Authority of the work document must occur prior to continuing on with the work activity, per PRC-PRO-WKM-12115.

TSAs (including attachments) are renewed, amended, or revised when the safety requirements change, or 6 months has elapsed since the last review. CHPRC OS&IH shall review and approve all TSA and any changes to the TSA.