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Subcontractors	Program Requirements Document	For Additional Info: <a href="http://EDMS">http://EDMS</a>	Effective Date: 01/09/17
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Manual: Subcontractor Requirements

\*The current revision can be verified on EDMS.

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## 1. PURPOSE

This document provides safety controls and requirements for the use of *heavy industrial equipment* (see def.) by subcontractors at the Idaho Cleanup Project (ICP) to minimize hazards to subcontractor personnel and property. This document implements requirements from codes and standards along with *contractor* (see def.) requirements. Any applicable regulatory or contractor requirements must be followed, with the most stringent requirement being met.

**NOTE 1:** *Heavy industrial self-propelled equipment operated on roadways that are outside of the job site or are not public access restricted may be subject to Department of Transportation (DOT) laws, rules, and regulations pertinent to commercial motor vehicles.*

**NOTE 2:** *All equipment must be used and maintained only as intended by the manufacturer and in accordance with the manufacturer's instructions and limitations.*

## 2. APPLICABILITY

This document applies to all subcontractors who operate heavy industrial equipment at ICP, as specified in their contract with contractor. Stricter requirements may be imposed by subcontractors upon their employees or subtier contractors. The requirements of this document must be followed by subcontractors; however, the means of implementation may vary as determined by the subcontractor.

## 3. REQUIREMENTS

### 3.1 Safety Equipment

- 3.1.1 All equipment shall be used and maintained in accordance with 29 CFR 1926.600-602.
- 3.1.2 All cab glass shall be safety glass or equivalent and shall introduce no visible distortion affecting the safe operation of the vehicle.
- 3.1.3 Rollover structures shall be used and maintained in accordance with 29 CFR 1926.1000.
- 3.1.4 All loads must be within the equipment safe capacity, including capacity of any towed loads.

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- 3.1.5 Proper attachments and locking mechanisms shall be engaged when towing trailers or other equipment to prevent separation of towed and towing vehicles. Ensure hoisting and rigging equipment is NOT used for tow straps.
- 3.1.6 When coupling heavy industrial equipment to trailers (or other equipment), all personnel must be clear of the space between the units until the equipment is stopped.
- 3.1.7 Operating levers and controlling hoisting or dumping devices on haulage bodies shall be equipped with a latch or other device, which will prevent accidental starting or tripping of the mechanism.
- 3.1.8 Trip handles for tailgates of dump trucks and heavy equipment shall be positioned so that the operator is kept clear while dumping.
- 3.1.9 All haulage vehicles, whose payload is loaded by means of cranes, power shovels, loaders, or similar equipment, shall have a cab shield and/or canopy adequate to protect the operator from shifting or falling material.
- 3.1.10 Haulage equipment shall have tailgates, tarps or documented administrative controls to prevent hazards of falling materials.
- 3.1.11 Equipment modifications or additions that affect the capacity or safe operation of the equipment can be made only with the manufacturer's written approval.

**3.2 Self-Propelled Equipment Pre-Use Checks**

- 3.2.1 Self-propelled equipment shall be inspected before their initial use at the ICP. This inspection, which must be witnessed by contractor, shall include as a minimum the following items:
  - A. Fluid leaks
  - B. Worn or deteriorating hoses, connections, etc.
  - C. Adequate guarding
  - D. Fire extinguisher (dated and currently inspected), if installed
  - E. Operator's manual
  - F. Load chart (for cranes, forklifts, etc.)
  - G. Annual inspection record (for cranes, etc.)
  - H. Proper set-up equipment (level and adequate outrigger pads)

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- I. Proper operating condition (equipment is free of functional defects)
- J. Equipment is identified with subcontractors or sub-tier contractors name
- K. If a vehicle was originally equipped with the following equipment, it shall be maintained in an operable condition:
  - L. Two headlights
  - M. Two taillights
  - N. Brake lights
  - O. An audible warning device.

3.2.2 Self-propelled equipment shall be inspected in accordance with 29 CFR 1926.601 at the beginning of each shift.

3.2.3 The inspections described above shall be performed by a *qualified* operator.

3.2.4 Unsafe equipment shall be reported immediately to subcontractor management and the contractor point of contact (POC).

3.2.5 Unsafe equipment shall be tagged out of service and not used or operated until it has been returned to a safe, operable condition.

3.2.6 All malfunctions shall be documented, including the date and method of repair.

**3.3 Equipment Pre-Operation**

3.3.1 All overhead or adjacent systems, structures and components (SSC) or obstructions in the operating area, such as power or communication lines, guy wires and cables, buildings, other equipment, and ground conditions, shall be identified.

3.3.2 A determination shall be made whether or not a spotter will be required for the job based on the following criteria:

1. The equipment is in transit under overhead energized lines
2. The equipment is/could be in close proximity to overhead energized lines during work activities
3. Additional hazards such as close proximity to a structure, near pedestrian walk areas, proximity to equipment, or limited visibility by the equipment operator.

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3.3.2.1 If a spotter is determined to be required, the spotter shall be documented on the pre-job briefing form used per PRD-1501, “Work Control.”

3.3.3 The following shall be considered and the hazard mitigated prior to operating or transit of heavy industrial equipment:

1. Has pre-job planning and hazard analysis restricted heavy industrial equipment travel and activities in any areas with overhead lines or other hazards?
2. Have overhead obstructions including power or communications lines and their respective heights been identified for the planned travel routes and activities?
3. Is the width clearance and turn-radius clearance adequate along the proposed pathway?
4. Will any operation of heavy industrial equipment place it or its load within 10 ft of overhead lines, utility poles, or supporting guy wires?
5. Will overhead power and communication lines, guy wires, and utility poles be clearly visible to the operators of heavy industrial equipment, or their spotters?

3.3.4 Heavy Equipment transported or used near power lines and electrical hazards must be mitigated using the requirements of NFPA 70E-2004 and PRD-2011, “Electrical Safety,” and to maintain clearances distances and requirements listed in 29 CFR 1910.333(c)(3)(iii), “Vehicular and Mechanical Equipment.”

3.3.4.1 Demarcation lines and/or spotters can be used to assist in maintaining clearances distances from electrical sources.

**3.4 Equipment Operation**

3.4.1 Only operators who are qualified by training, experience, and reviewing the operator’s manual for the specific equipment to be operated shall be allowed to operate heavy industrial equipment.

3.4.2 Employees exhibiting a lack of knowledge to operate heavy industrial equipment shall not be permitted to operate these vehicles until the employee completes training and demonstrates the ability to safely operate the equipment.

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- 3.4.3 Managers or supervisors shall ensure that operators shall use seat belts (if provided) while operating equipment.
- 3.4.4 Spotters shall maintain 100% visual contact of the operational area when it has been determined that a spotter is required to mitigate hazards while the equipment is being moved or operated.
  - 3.4.4.1 Spotters shall be proficient with standard hand signals and radio communications to communicate with operator. Radio communication the required method except when radio interference, high background noise, or the radio introduces an additional hazard, then hand signals may be used.
    - 3.4.4.1.1 When hand signals are required, spotters shall remain within the visual line of sight of the operator.
  - 3.4.4.2 Spotters shall provide operational signals to the operator when the actual load is restricted from the visual line of sight of the operator.
- 3.4.5 Spotters shall lead the heavy industrial equipment on a previously established route.
  - 3.4.5.1 Spotters shall maintain visual contact from a position in front of the direction of travel of heavy industrial equipment and behind the equipment when it is being reversed, especially when a trailer is being hauled.
  - 3.4.5.2 Spotters shall maintain communications with the equipment operator.
  - 3.4.5.3 Spotters shall use a previously established method to ascertain adequate height and width clearance to safely maneuver heavy industrial equipment through a congested area or gate.
  - 3.4.5.4 Spotters shall wear fluorescent/reflective clothing.
- 3.4.6 Operation of slow moving equipment on public roadways shall meet the requirements of PRD-2019, "Motor Vehicle Safety."
- 3.4.7 Operators shall be acutely aware of surroundings, especially when operating heavy industrial equipment such as cranes and bulldozers.

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- 3.4.7.1 Operators shall pay special attention to surfaces over which the equipment will be operated and the proximity to other ongoing work, such as digging activities in adjacent trenches and culverts that could present additional hazards.
- 3.4.7.2 Equipment shall be operated safely and properly.
- 3.4.7.3 Any concerns (e.g., feeling uncomfortable or not qualified) about the ability to safely operate a piece of equipment shall be reported to supervision.

**3.5 Maintenance**

- 3.5.1 A preventive maintenance system shall be established for heavy industrial vehicles in accordance with the manufacturer's recommendation and regulatory standards.
- 3.5.2 The contractor POC shall be informed and must approve of any vendors coming on-site to perform repair/maintenance.
  - 3.5.2.1 The contractors POC must ensure that any vendors coming on site shall be properly trained and/or escorted before authorizing the work.
- 3.5.3 Trucks with dump bodies shall be equipped with a positive means of support, permanently attached, and capable of being locked in position to prevent accidental lowering of the body while maintenance or inspection work is being done.
- 3.5.4 Servicing wheels, tires and rims must be done per the requirements of 29 CFR 1910.177, "Servicing multi-piece and single piece rim wheels," including training, equipment, and safe operating procedures.
- 3.5.5 Batteries must be maintained in accordance with applicable portions of 29 CFR 1926.441, "Batteries and Battery Charging."
- 3.5.6 Precautions must be taken to eliminate and control spills from heavy equipment. Spills (not emergency spills or large spills requiring response) must be controlled and cleaned up immediately and reported to the contractor's point of contact.

**NOTE:** *Emergency spills must be reported by dialing 911 at in town facilities and dialing 777 or cell phone 526-7777 for site facilities.*

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**3.6 Heavy Equipment Left Running**

**NOTE:** *Steps 3.6.1 and 3.6.2 NEVER apply to powered industrial trucks (forklifts), which CANNOT be left unattended, UNLESS authorized by the contractor management.*

- 3.6.1 Before leaving heavy equipment, excluding powered industrial trucks (forklifts), running and unattended for short durations such as for lunch breaks, breaks, or other tasks, operators shall do the following and any other appropriate actions to ensure that the equipment is left in a safe manner and WILL NOT move:
- 3.6.1.1 Lower ground-engaging equipment.
  - 3.6.1.2 Put transmission in neutral or park.
  - 3.6.1.3 Set the emergency brake or similar equipment.
- 3.6.2 Before leaving heavy equipment, excluding powered industrial trucks (forklifts), running and unattended (for longer periods (such as during a work shift or overnight) to accommodate ongoing activities and ease of remobilization, operators shall follow Steps 3.6.1.1 through 3.6.1.3, and do the following:
- 3.6.2.1 Move equipment away from *sensitive areas* (see def.).
  - 3.6.2.2 Notify the job supervisor.
  - 3.6.2.3 Notify the plant shift supervisor (PSS) or facility manager or nuclear facility manager, as applicable.
  - 3.6.2.4 Notify security.
  - 3.6.2.5 All vehicles shall be properly chocked;
  - 3.6.2.6 A competent vehicle watch shall be assigned to check all running vehicles every hour (or as determined by the plant shift supervisor or facility manager) to assure the process can continue safely. The vehicle watch shall ensure fuel levels remain adequate and overheating and other signs of engine failure are recognized and addressed before undue damage to the engine occurs. The vehicle watch should also ensure the status (pans, bucket, blades, etc. are down; transmission in park or neutral; emergency brake set and chocks in place) of each running vehicle.

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- 3.6.3 Before leaving heavy equipment running for longer periods (such as overnight) in sensitive areas, operators shall contact the subcontractor technical representative (STR), job site supervisor (JSS), or PSS.
- 3.6.3.1 The STR, JSS, or PSS shall evaluate any sensitive area to determine whether it is necessary and safe to leave heavy equipment in operation there. If so, the operator shall be notified to leave the equipment in the sensitive area.
- 3.6.3.2 If notified by the STR, JSS, or PSS to leave heavy equipment running in a sensitive area, operators shall follow Steps 3.6.2.2 through 3.6.2.4.
- 3.6.3.2.1 Operators shall remain in attendance of equipment left in sensitive areas at all times UNLESS determined otherwise by the contractor management.
- 3.6.4 The STR, JSS, or PSS shall document in daily logs and work control documents (e.g., job safety analysis) the actions taken to leave equipment running in a safe manner.

**4. DEFINITIONS**

See LST-27, “Glossary”

**5. REFERENCES****5.1 Source Documents**

- 10 CFR 851, “Worker Safety and Health Program”
- 29 CFR 1910.177, “Servicing Multi-piece and Single Piece Rim Wheels”
- 29 CFR 1910.333, “Selection and Use of Work Practices”
- 29 CFR 1926.441, “Batteries and Battery Charging”
- 29 CFR 1926.600, “Equipment”
- 29 CFR 1926.601, “Motor Vehicles”
- 29 CFR 1926.602, “Material Handling Equipment”
- 29 CFR 1926.1000, “Rollover Protective Structures”
- SAE J319b-1971, “Self-Propelled Scrapers”



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SAE J236-1971, “Self-Propelled Graders”

SAE J166-1971, “Trucks and Wagons”

SAE J237-1971, “Front-End Loaders and Dozers”

SAE J386-1969, “Seat Belts for Construction Equipment”

**5.2 Related Requirements”**

The following documents may also contain requirements that apply to this activity:

PRD-1501, “Work Control”

PRD-2011, “Electrical Safety”

PRD-2019, “Motor Vehicle Safety”

**6. APPENDIXES**

None