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Technical Procedure

PRC-PRO-SH-40473

Motor Vehicles and Heavy Equipment

Revision 2, Change 0

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Program: Occupational Safety and Industrial Hygiene

Topic: Occupational Safety and Industrial Health

Technical Authority: Robinson, Roby

Functional Manager: Knutson, Garrett

Use Type: Administrative



- Solid Waste Operations Complex :
Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)
Screener: Jacobs, Orvil
- Canister Storage Building/Interim Storage Area :
Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)
Screener: Covey, Lori
- Central Plateau Surveillance and Maintenance :
Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)
Screener: Carson, David
- Waste Encapsulation Storage Facility :
Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)
Screener: Covey, Lori
- 100 K Facility :
Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)
Screener: Williams, James
- Plutonium Finishing Plant :
Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)
Screener: King, Jeffry
- Transportation :
Screening Determination Performed: ()
TP-S-17-004
Screener: Bridges, Alvia

JHA: Administrative

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Change Summary

Description of Change

Publication correction made to the change summary, 6/6/17:

- Added clarification for vehicle “off road use” and awareness of vehicle modifications to address corrective actions in CR 2016-2121.
- Deleted bicycle related sections.
- Added Event Reporting section for clarification to reduce duplication.
- Reviewed, corrected and added applicable references.
- Reviewed and corrected course numbers.

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1.0 INTRODUCTION

This Level 1 procedure summarizes the processes for the inspection, pre-use, use, and maintenance of motor vehicles and heavy equipment by CH2M HILL Plateau Remediation Company (CHPRC) and their subcontractors.

1.1 Purpose

The purpose of this document is to protect the safety and health of all employees operating or intending on operating Government-owned or leased, Company-owned or leased or personally owned motor vehicles and heavy equipment on the Hanford Site.

1.2 Scope

Steps 4.1.2.4 and 4.1.2.5 are not applicable to subcontractor employees operating company-owned or leased motor vehicles and heavy equipment when performing CHPRC work scope. Steps 4.1.2.4 and 4.1.2.5 are applicable to subcontractors operating government-owned or leased motor vehicles and heavy equipment.

1.3 Applicability

This document is applicable to CHPRC employees and subcontractor employees operating or intending on operating government-owned or leased, company-owned or leased, or personally owned motor vehicles and heavy equipment when performing CHPRC work scope.

1.4 Implementation

This procedure is effective upon publication.

2.0 PRECAUTIONS AND LIMITATIONS

Work performed shall not exceed that for which the performer is licensed, certified, or trained.

3.0 PREREQUISITES

Employees performing work under this procedure shall be licensed, certified, or possess the necessary training for the work to be performed.

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4.0 PERFORMANCE

4.1 Motor Vehicles

Motor vehicles (MV) are generally defined as an automotive vehicle equipped with rubber tires for use on highways. For the purposes of this standard, these vehicles will also include all-terrain vehicles (ATV), side-by-side utility vehicles (e.g., Gator, Razor, Prowler, Mule), and golf-type carts.

NOTE: *Additional requirements exist for the operation of commercial motor vehicles in MSC-PRO-TRANS-483, Government Vehicle and Fleet Equipment Operation, Addition and Modification, which has been endorsed for use by CHPRC.*

4.1.1 Inspections

Actionee	Step	Action
Supervisor/ Manager	1.	INSPECT motor vehicles newly assigned to CHPRC assignees and subcontractor motor vehicles intended for use on the Hanford Site to perform CHPRC work scope using the manufacturer's operator manual or equivalent checklist to ensure all functions and controls are operating as intended by the manufacturer.

4.1.2 Pre-Use

Actionee	Step	Action
MV Operators	1.	MAINTAIN a valid license/certification and medical certification (where required) for the MV to be operated.
	2.	FOLLOW all applicable motor vehicle laws of the state of Washington.
	3.	Immediately REPORT to management any MV-related accidents, citations, or traffic infractions incurred while operating a MV in the performance of CHPRC work scope.

NOTE: *Personnel newly assigned to a Project or Functional organization having not previously attended course #301845 or 301846 and meeting criteria established under 4.1.2.4 or 4.1.2.5 shall attend one or both courses within 6 months of their assignment date.*

MV Operators/ Supervisor	4.	ATTEND course #301845, <i>Driver Awareness Computer Based Training</i> , or other approved course if operating a government- or company-owned or leased motor vehicle (excluding utility vehicles, golf-type carts, Cushman carts) one to three times per month.
	5.	ATTEND course #301846, <i>Driver Awareness Practical</i> , or other approved course if operating a government- or company-owned or leased motor vehicle (excluding utility vehicles, golf-type carts, Cushman carts) one or more times per week.

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Actionee	Step	Action
MV Operators/ Supervisor	6.	RECEIVE indoctrination of safety requirements as specified by the MV's operator manual or equivalent training course/checklist (such as <i>Operational Checklist for Utility Vehicle, #290527</i>) and rules for operation as specified by this procedure prior to their first use of the vehicle (John Deere Gator, Arctic Cat Prowler, Kawasaki Mule, golf-type carts, Cushman carts, etc.).
Supervisor/ Flaggers	7.	MEET the requirements specified in Section 296-155-305 of the Washington State Administrative Code.
Supervisor/Pilot Car Drivers	8.	MEET the requirements specified in Section 468-38-100 of the Washington State Administrative Code.
Supervisor/ Spotters	9.	<p>COMPLETE the following:</p> <ul style="list-style-type: none"> • <i>Equipment Operation Near Power Lines</i> (Course #044605) for spotting activities involving electrical hazards in accordance with DOE-0359, Hanford Site Electrical Safety Program. • CHPRC Vehicle Spotter Safety Awareness Training (Course #600023 or 600078) or equivalent training course for general spotting activities.
MV Operators	10.	PERFORM a 360-degree inspection of both the MV and the immediate area surrounding the MV prior to use.
Supervisor/MV Operator		<ul style="list-style-type: none"> • USE the manufacturer's operating manual pre-use inspection requirements or equivalent checklist when performing pre-use inspections to identify MV damage/deficiencies.
MV Operator		<ul style="list-style-type: none"> • Immediately REPORT previously unreported damage or deficiencies to their supervisor. • REMOVE from service any MV found with deficiencies compromising safe operation, such as brakes, tires, and lights (turn signals, headlights, tail lights, etc.). • IDENTIFY all obstacles including but not limited to pedestrians, bollards, T-posts, fire hydrants, poles (light, telephone, etc.), equipment, structures, terrestrial obstructions such as holes ditches, and boulders, and other vehicles within the immediate area. • PLAN a route of travel based upon the results of the 360-degree inspection that avoids contact with all identified obstacles using appropriate driving techniques and other controls when necessary such as spotters or visual aids including but not limited to cones, flags, and sleeves that enhance the visibility of the obstacle.

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Actionee	Step	Action
NOTE:		<i>Off-road is defined as areas other than a paved or maintained gravel/dirt roadway. Off-road vehicle activities will be conducted in accordance with Fire Marshal Advisory Bulletin AB07-001, Off-Road Vehicle Travel and under their permit when required. Operators of vehicles will not operate vehicles off-road unless required to perform assigned work and authorized by line management.</i>
Supervisor/MV Operator	11.	EQUIP MVs with a two-way communication device (radio, cell phone, etc.), fire extinguisher, and a shovel, if operated off-road.
	12.	OBTAIN a <i>Hanford Site Oversized/Overweight Load Permit</i> (Site Form A-6003-609) from Mission Support Alliance (MSA) when moving oversized loads on Hanford roadways.
MV Operator	13.	PERFORM housekeeping activities prior to motor vehicle operation. <ul style="list-style-type: none"> • REMOVE any loose hard materials within the passenger compartment. • <u>IF</u> materials need to be transported in the vehicle, <u>THEN</u> STORE in the trunk or secure in other cargo areas. • REMOVE any extraneous materials such as cups, papers, and other trash from the vehicle. • CLEAN/CLEAR windows with obstructed visibility.

4.1.3 Use

Actionee	Step	Action
NOTE:		<i>Exemptions include:</i> <ul style="list-style-type: none"> • <i>Emergency response personnel and drivers who are using wireless devices to request medical emergency assistance or reporting illegal activity</i> • <i>Transportation operations controlling the safe movement of hazardous, radioactive, or other materials or equipment</i> • <i>Heavy equipment operations (including crane activities)</i> • <i>Emergency notifications to report illegal activity or to summon medical or other emergency help</i>
Vehicle Occupants	1.	UTILIZE seatbelts and other safety devices when present.
MV Operator	2.	STOP MV operation before using a wireless communications device or using an electronic wireless communications device to send, read, or write a text message in accordance with PRC-POL-IRM-52708, Appropriate Use of Personally Owned Mobile Devices.

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
MV Operator	3.	LOCATE <u>OR</u> RELOCATE the vehicle's exhaust system so as to minimize the potential for inadvertent ignition of the vegetation when operating or parking MVs over vegetation.
	4.	Immediately NOTIFY the Hanford Fire Department of any grass/brush fire whether extinguished or not arising from off-road operations.
	5.	Operators of vehicles shall not operate vehicles off-road unless required to perform assigned work and authorized by line management. Off-road is defined as areas other than a paved or maintained gravel/dirt roadway. Operators are expected to pay attention to surface conditions and ground clearance and avoid driving on a traverse grade when traveling off road.

NOTE: *Unattended is defined as no driver behind the steering wheel.*

6. PERFORM the following steps when an MV is to be left unattended.
 - a. PLACE in park (for automatic transmission equipped vehicles).
 - b. SHUT OFF AND REMOVE the key from the ignition.
 - c. SET the parking brake.
 - d. LOCK the vehicle.
7. While maintaining observation of the vehicle(s) at all times, CHOCK unattended motor vehicles that must be left running due to one of the following conditions:
 - Protection of materials or equipment
 - Equipment or U.S. Department of Transportation (DOT) inspections
 - Use as a heating/cooling area for workers in remote locations during cold or heat stress conditions
 - Warm-up or cool-down of vehicle prior to use
8. WHEN chocking of a motor vehicle equipped with a manual transmission is required, THEN SHUT-OFF AND APPLY the parking brake prior to departing the vehicle.
 - a. RESTART of the vehicle is permissible once the chocks have been set.

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
MV Operator	9.	<p><u>WHEN</u> chocking of a motor vehicle equipped with an automatic transmission is required, <u>THEN PLACE</u> in park, <u>SHUT-OFF</u> <u>AND</u> <u>APPLY</u> parking brake prior to departing the vehicle.</p> <p>a. RESTART of the vehicle is permissible once the chocks have been set.</p>
	10.	<p><u>FOR</u> motor vehicles that are equipped with air brakes that make brief/frequent stops and must be left running to complete DOT inspections, including checking for air leaks or are operated from an external control station, <u>THEN OBTAIN</u> management concurrence <u>AND ENSURE</u> that a hazard analysis has been performed to waive chocking requirements.</p>
	11.	<p>SHUT OFF vehicle, PERFORM a 360° inspection, <u>AND REMOVE</u> the chocks prior to driving a chocked vehicle.</p>
MV Operator/ Supervisor	12.	PARK vehicles in designated areas, except for emergencies and operational necessity.
	13.	WEAR an approved helmet as specified by law or in the absence of an applicable law as recommended by the manufacturer when operating utility vehicles.
MV Operator	14.	WEAR protective gear meeting the manufacturer's recommendations including but not limited to long pants, substantial footwear, and safety glasses with side shields or goggles when operating utility-type motor vehicles.
	15.	RESTRICT utility-type motor vehicle speeds to 10 mph or less when operating in rough terrain.

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4.1.4 Maintenance

Actionee	Step	Action
Supervisor	1.	MAINTAIN, SERVICE, AND INSPECT MVs as specified in the operator's manual or as specified by MSA.
	2.	ESTABLISH designated and signed parking areas that provide for safe vehicular/pedestrian traffic flow for MV parking. <ul style="list-style-type: none"> • Company/vendor personal vehicles at construction sites • Heavy equipment line/parking areas • Staging areas for loading/unloading of material
MV Operator/ Supervisor	3.	Periodically INSPECT exhaust systems and areas of rotating equipment in vehicles that are used in areas of vegetation by removing skid plates or covers and checking for vegetation accumulations with any noted accumulation removed once the system has cooled.
Supervisor	4.	EQUIP utility vehicles with one or more of the following at all times: <ul style="list-style-type: none"> • Seatbelts • End of seat hip restraint bar • Doors

4.2 Heavy Equipment

Heavy equipment (HE) includes a wide variety of relatively heavy machines which perform specific construction (or demolition) functions under power. The power plant is commonly an integral part of an individual machine, although in some cases it is contained in a separate prime mover, for example, a towed wagon or roller. It is customary to classify construction machines in accordance with their functions such as hoisting, excavating, hauling, grading, paving, drilling, or pile driving. Machines falling into the heavy equipment category would include but is not limited to cranes, excavators, dump trucks, graders, front-end loaders, backhoes, fork trucks, and industrial vacuum loaders (guzzlers).

NOTE: *Additional requirements exist for the operation of commercial motor vehicles in MSC-PRO-TRANS-483, Government Vehicle and Fleet Equipment Operation, Addition and Modification, which has been endorsed for use by CHPRC.*

4.2.1 Inspection

Actionee	Step	Action
Supervisor	1.	INSPECT heavy equipment newly assigned to CHPRC assignees and subcontractor heavy equipment intended for use on the Hanford Site to perform CHPRC work scope using the manufacturer's operator manual or equivalent checklist to assure all functions and controls are operating as intended by the manufacturer.

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4.2.2 Pre-Use

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
HE Operator	1.	MAINTAIN license/certifications for the vehicle to be operated if required under federal, state, or county regulations.
	2.	FOLLOW all applicable motor vehicle laws of the state of Washington.
	3.	PERFORM a 360-degree inspection of both the heavy equipment and the immediate area surrounding the heavy equipment prior to use. <ul style="list-style-type: none"> • The manufacturer's operator manual pre-use inspection requirements or equivalent checklist shall be used when performing pre-use inspections to identify heavy equipment damage/deficiencies. • Immediately REPORT previously unreported damage or deficiencies to immediate supervisor. • REMOVE from service any heavy equipment found with deficiencies compromising safe operation of the equipment, such as brakes, tires, lights (turn signals, headlights, tail lights, etc.). • IDENTIFY all obstacles including but not limited to pedestrians, bollards, T-posts, fire hydrants, poles (light, telephone, etc.), equipment, structures, terrestrial obstructions such as holes, ditches, and boulders, and other vehicles/equipment within the immediate area. • PLAN a route of travel based upon the results of the 360-degree inspections that avoids contact with all identified obstacles using appropriate driving techniques and other controls when necessary such as spotters or visual aids including but not limited to cones, flags, and sleeves that enhance the visibility of the obstacle.
<p>NOTE: <i>Off-road is defined as areas other than a paved or maintained gravel/dirt roadway. Off-road vehicle activities will be conducted in accordance with Fire Marshal Advisory Bulletin AB07-001, Off-Road Vehicle Travel and under their permit when required.</i></p>		
Supervisor/HE Operator	4.	EQUIP heavy equipment operated off-road with a two-way communication device (radio, cell phone, etc.).
	5.	<u>IF</u> required to perform assigned work, <u>THEN AUTHORIZE</u> use of heavy equipment off-road.

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Actionee	Step	Action
Supervisor	6.	OBTAIN A-6003-609 from MSA when moving oversized loads on Hanford roadways.
Supervisor/ Flaggers	7.	MEET the requirements specified in Section 296-155-305 of the Washington State Administrative Code.
Supervisor/ Pilot Car Drivers	8.	MEET the requirements specified in Section 468-38-100 of the Washington State Administrative Code.
Supervisor/ Spotters	9.	<p>COMPLETE the following:</p> <ul style="list-style-type: none"> • <i>Spotter Training for Electrical Hazards</i> (Course #044605) for spotting activities involving electrical hazards in accordance with DOE-0346, <i>Hanford Site Electrical Safety Program</i>. • <i>CHPRC Vehicle Spotter Safety Awareness Training</i> (Course #600023 or 600078) or equivalent training courses for general spotting activities.

4.2.3 Use

Actionee	Step	Action
HE Operator	1.	UTILIZE seatbelts and other safety devices when present.
<p>NOTE: <i>Exempted are heavy equipment operations that require wireless device communications to ensure the safe movement of heavy equipment or materials as approved by management to protect workers, public or the environment, and in cases of emergency.</i></p>		
	2.	STOP heavy equipment operation before using a wireless communications device or using an electronic wireless communications device to send, read, or write a text message.
Supervisor/HE Operator	3.	LOCATE <u>OR</u> RELOCATE heavy equipment exhaust systems so as to minimize the potential for inadvertent ignition of the vegetation when operating or parking over vegetation.
	4.	Immediately NOTIFY the Hanford Fire Department of any grass/brush fire whether extinguished or not arising from off-road operations.
	5.	<p>CHOCK unattended rubber-tired heavy equipment that must be left running due to one of the following conditions:</p> <ul style="list-style-type: none"> • Protection of materials or equipment • Equipment or DOT inspections

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
HE Operator/ Supervisor	6.	<p>CHOCK unattended heavy equipment that is equipped with air brakes unless:</p> <ul style="list-style-type: none"> • The heavy equipment makes brief or frequent stops • The heavy equipment must be left running to complete DOT inspections • Or are operated from an external control station (remote control) <p>In addition, there must be both management concurrence and a hazard analysis performed not to use chocks on heavy equipment.</p>
	7.	PARK heavy equipment in designated areas, except for emergencies and operational necessity.
	8.	WEAR protective gear meeting the manufacturer's recommendations and work control documents including but not limited to long pants, substantial footwear, and safety glasses with side shields or goggles when operating heavy equipment.

4.2.4 Maintenance

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Supervisor	1.	MAINTAIN, SERVICE, <u>AND</u> INSPECT heavy equipment as specified in the operator's manual or as specified by MSA.
	2.	ESTABLISH designated and signed parking areas that provide for safe vehicular/pedestrian traffic flow for heavy equipment parking.
HE Operator/ Supervisor	3.	Periodically INSPECT heavy equipment that is used in areas of vegetation and areas of rotating equipment by removing skid plates or covers and checking for vegetation accumulations with any noted accumulation removed once the system has cooled.

5.0 ACCIDENT/INCIDENT REPORTING

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Vehicle/HE Operator/	1.	Immediately REPORT accident/incident involving vehicle or equipment to supervisor in accordance with PRC-PRO-SH-077, <i>Reporting, Investigating and Managing Health, Safety and Property/Vehicle Events</i> .
Supervisor	2.	COMPLETE Event Report accordance with PRC-PRO-SH-077.

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6.0 FORMS

Oversized/Overweight load permit (A-6003-609)

7.0 RECORD IDENTIFICATION

All records are required to be managed in accordance with PRC-PRO-IRM-10588, *Records Management Processes*.

Records Capture Table

Name of Record	Submittal Responsibility	Retention Responsibility
Oversized/ Overweight Load Permit	MV Operator	MV Operator

8.0 SOURCES

8.1 Requirements

DOE-0359, *Hanford Site Electrical Safety Program*

PRC-POL-IRM-52708, *Appropriate Use of Personally Owned Mobile Devices*

PRC-PRO-IRM-10588, *Records Management Processes*

PRC-PRO-QA-19579, *OCRWM Records Management*

Washington State Administrative Code 296-155-305

8.2 References

Fire Marshal Advisory Bulletin AB07-001, *Off-Road Vehicle Travel*

MSC-PRO-TRANS-483, *Government Vehicle and Fleet Equipment Operation, Addition and Modification*

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