

# WP 12-FP0060

Revision 0

## Semi-Annual Inspection of Automatic Fire Suppression for Diesel Powered Waste Handling Equipment

Technical Procedure

EFFECTIVE DATE: 06/24/09

Robert Paslay  
APPROVED FOR USE

**CONTINUOUS USE**

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## INTRODUCTION

This procedure provides the work instructions for the semi-annual inspection of the fire suppression system and fire detection system components of the underground diesel equipment.

This procedure provides instruction for the performance of the semi-annual surveillance for **Surveillance Requirement (SR) 4.1.2.2 of Limiting Conditions of Operations (LCO) 3.1.2.**

Performance of this procedure generates the following record(s):

- Attachment 1, LCO Surveillance Data Sheet

## REFERENCES

### BASELINE DOCUMENTS

- DOE/WIPP-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis*
- DOE/WIPP-07-3373, *Waste Isolation Pilot Plant Technical Safety Requirements*
- WP 04-AD3011, Equipment Lockout/Tagout
- WP 10-2, Maintenance Operation Instruction Manual
- WP 10-AD3005, Control and Use of Maintenance Locks
- WP 10-WC3010, Maintenance PM/MWI controlled Document Processing
- WP 10-WC3011, Maintenance Process
- WP 12-HP3600, Radiological Work Permits
- WP 12-IS.01, Industrial Safety Program
- Various Manufacturer's Operation and Maintenance Manuals

### REFERENCED DOCUMENTS

- NFPA 17, *Standard for Dry Chemical Extinguishing System*
- WP 04-AD3001, Facility Mode Compliance
- WP 13-1, Washington TRU Solutions LLC Quality Assurance Program

## PRECAUTIONS AND LIMITATIONS

- The Technical Safety Requirements (TSRs) contains LCOs, and Specific Administrative Controls (SACs) provide specific preventative or mitigative limits and required actions for identified accident scenarios. Failure to comply with TSRs, LCOs, or SACs may constitute a violation and must be immediately reported to the Facility Shift Manager (FSM). Listed within the procedure in bold brackets are the specific safety requirements that apply during performance of a procedure, e.g., **[LCO x.x.x]**.
- The fire suppression system on the waste handling equipment selected for use SHALL be operable and consists of the following elements:
  - A charged fire suppressant system
  - Detection circuit that is in-service **[LCO 3.1.2]**
- Applicable LCO/SAC Surveillance Data Sheets SHALL be completed as required, per WP 04-AD3001, Facility Mode Compliance, prior to utilizing equipment selected for use or changing operational modes.
- Any employee who has a concern for employee safety, the safety of the environment, or the quality of the activity has the responsibility and authority to suspend the performance of that activity.
- Work shall be stopped when instructions can not be performed, field conditions change, or additional job hazards are identified.
- All personnel affixing initials on Attachment 1, shall provide information listed in the Personnel Data Table of Attachment 1.
- Troubleshooting or other activities outside the scope of the procedure may require the initialization of a work order as directed by the Responsible Engineer or Zone Team Leader.

## PREREQUISITE ACTIONS

- 1.0 FSM or designee or Emergency Services Technician (EST) Coordinator, conduct a pre-job safety meeting.

### SIGN-OFF FSM

- 2.0 Personnel performing work, review these work instructions prior to beginning action.
- 3.0 Record the work order number on the Attachment 1, if applicable.

## PERFORMANCE

### 1.0 INSPECTION OF FIRE SUPPRESSION SYSTEM COMPONENTS

1.1 Perform the semi-annual inspection for the contact-handled (CH) Waste Handling Equipment or the remote-handled (RH) Waste Handling Equipment, as identified on the work order cover sheet, per technical manual and NFPA 17, to include the following items and document on Attachment 1. **[LCO 3.1.2] [SR 4.1.2.2]**

- Squib
- Bursting disc on the pressure gas cylinder
- Pressurized nitrogen cylinder is charged
- No obstruction in the lines from the pressure cylinder to the fire suppressant container
- No obstruction from the container to the distribution tubing/piping

#### SIGN-OFF EST

### 2.0 INSPECTION OF FIRE DETECTION SYSTEM COMPONENTS

2.1 Perform the semi-annual inspection for the CH Waste Handling Equipment or the RH Waste Handling Equipment, as identified on the work order cover sheet, per technical manual and NFPA 17 to include the following items and document on Attachment 1. **[LCO3.1.2] [SR 4.1.2.2]**

- Verify the system control module receives a signal from the detection portion of the system.
- Verify the control module sends a signal to the squib to puncture the cap/seal on the compressed nitrogen gas cartridge.

#### SIGN-OFF EST

### 3.0 VERIFICATION AND VALIDATION

3.1 EST, complete the Surveillance Data Sheet(s) and associated documentation for **LCO 3.1.2**, as found in WP 04-AD3001 and forward to FSM.

3.2 FSM, review the completed Surveillance Data Sheet(s) for compliance with **LCO 3.1.2**.

## Attachment 1 – LCO Surveillance Data Sheet

<b>Work Order No.:</b>		
<b>PREREQUISITE ACTIONS</b>		
<b>SECTION</b>	<b>ACTION</b>	<b>INITIALS</b>
1.0	FSM or designee or EST Team Leader, conduct a pre-job safety meeting.	FSM/EST _____
<b>PERFORMANCE</b>		
1.1 [LCO 3.1.2] [SR 4.1.2.2]	Perform the semi-annual inspection for the contact-handled (CH) Waste Handling Equipment or the remote-handled (RH) Waste Handling Equipment, as identified on the work order cover sheet, per technical manual and NFPA 17, to include the following items and document on Attachment 1. <ul style="list-style-type: none"> <li>• Squib</li> <li>• Bursting disc on the pressure gas cylinder</li> <li>• Pressurized nitrogen cylinder is charged</li> <li>• No obstruction in the lines from the pressure cylinder to the fire suppressant container</li> <li>• No obstruction from the container to the distribution tubing/piping</li> </ul>	EST _____
2.1 [LCO3.1.2] [SR 4.1.2.2]	Perform the semi-annual inspection for the CH Waste Handling Equipment or the RH Waste Handling Equipment, as identified on the work order cover sheet, per technical manual and NFPA 17 to include the following items and document on Attachment 1. <ul style="list-style-type: none"> <li>• Verify the system control module receives a signal from the detection portion of the system.</li> <li>• Verify the control module sends a signal to the squib to puncture the cap/seal on the compressed nitrogen gas cartridge.</li> </ul>	EST _____
<b>LCO/SR</b>		
<b>LCO 3.1.2 Waste Handling Equipment Fire Suppression System</b>		
<b>SR 4.1.2.2</b>		
<b>Frequency:</b> Semiannually		
<b>Mode Applicability:</b> Waste Handling – when in the Vehicle Exclusion Zone or Disposal Room. Disposal – when in the Disposal Room		
<b>Process Area Applicability:</b> Underground		
<b>Procedure Reference:</b>		
<b>Performance:</b> The fire suppression system on the CH or RH Waste Handling Equipment selected for underground use SHALL be OPERABLE. An OPERABLE fire suppression system consists of the following elements: <ul style="list-style-type: none"> <li>• A charged fire suppressant system</li> <li>• Detection circuit is IN-SERVICE</li> </ul>		

