

Response to Reported Odors or Unexpected Changes to Vapor Conditions

Tank Farm Abnormal Operating Procedure

200E/200W

Changes “Other Than Inconsequential” Require These Additional Reviews:

Industrial Hygiene (Program)
Ken Way

Radiological Controls
Jerry Kurtz’s Organization

USQ # TF-14-1632-S Rev 7

CHANGE HISTORY (≤ LAST 5 REV-MODS)			
Rev-Mod	Release Date	Justification	Summary of Changes
G-3	03/16/2017	Operations request to address additional criteria performed during AOP-015 response	Added Steps and wording to provide a new Attachment 2 and 3 to be filled in electronically and sent to DL - WRPS AOP-015.
G-2	01/26/2017	Operation request	Added in requirements for odors detected outside Tank Farm boundaries. Moved Step 3.1.7 to Step 3.1.5.
G-1	04/21/2016	Operations request to address WRPS-PER-15-2316	Added step Added step 3.1.10 to complete odor response card and submit to Central Shift Manager.
G-0	09/24/2015	Periodic review comments to address WRPS-PER-2015-1945.	Added additional Note "This AOP is for odors reported at the time the event occurred, so that timely data collection is achievable.
F-8	06/02/2015	Operations request to address WRPS-PER-15-0809	Added Sending SOEN message to two steps in “Exit Criteria” . Added to Note in “Entry Conditions” . Step 3.1.10.2 changed AOP-15 to TF-AOP-015. Step 3.1.3 changed AOP-15 to TF-AOP-015. Step 4.1.3.1 changed AOP-015 to TF-AOP-015. Step 4.1.4.1 changed AOP-015 to TF-AOP-015

[Click for copy of Word \(native\) file](#)

Type REFERENCE	Document No. TF-AOP-015	Rev/Mod G-3	Release Date 03/16/2017	Page 1 of 10
--------------------------	-----------------------------------	-----------------------	-----------------------------------	------------------------

Response to Reported Odors or Unexpected Changes to Vapor Conditions

1.0 AFFECTED PERSONNEL, FACILITIES, EQUIPMENT, OR AREAS

This procedure applies to WRPS personnel and subcontractors doing work in 200 East Area, 200 West Area, and 600 Area controlled by WRPS and equipment in these areas. This procedure does not apply to WRPS personnel and subcontractors doing work at the 222-S Laboratory Complex.

2.0 ENTRY CONDITIONS

NOTE - If the odor source is readily apparent, such as vehicle exhaust, septic systems, herbicides, pesticides, animal odors, or at a general purpose facility, this AOP does not need to be entered, refer to TFC-OPS-OPER-C-67 for required actions.

- This AOP is for odors reported at the time the event occurred, so that timely data collection is achievable.

2.1.1 **NOTIFICATION** from personnel that odors are present and meet any of the following conditions:

- Odors have caused symptoms of exposure (e.g., headaches, irritation of the skin, eyes, nose, or lungs, nausea, difficulty breathing, metallic taste in mouth)
- A stronger than normal odor is detected by multiple personnel outside of areas where potential or actual vapor concerns are expected such as waste transfers, 242-A operations, or cover block removal.

2.1.2 **IF** at any time event meets an Emergency Action Level (EAL), Emergency Response Procedure (ERP) Initiating Condition, or TFC-OPS-OPER-C-24, Attachment A criteria, **EXIT** this AOP **AND**

IMPLEMENT DOE-0223, RLEP 1.1, BED Checklisted Duties.

2.1.3 **IF** at any time the odor source is determined to be related to a spill or release, **EXIT** this AOP **AND**

ENTER TF-AOP-011.

Response to Reported Odors or Unexpected Changes to Vapor Conditions

3.0 ACTIONS

3.1 Immediate Actions

Implement SWIM Response Actions at Event Scene

3.1.1 **ASSIGN** field lead to implement SWIM response actions.

NOTE- Evacuation does not include the Tank Farm change trailers or facilities such as the 242-A Evaporator building, unless odor issues are impacting the interior of the facility.

3.1.2 **ANNOUNCE** entering TF-AOP-015 over Tank Farms radio channel(s) **AND**

SEND SOEN message that includes the following:

- Entry into TF-AOP-015
- Event and location
- Required actions for affected personnel/protective actions as applicable
- Access approval and authority as applicable.

3.1.3 **STOP** access to affected area except for activities required for safe operations or the TF-AOP-015 response.

3.1.4 **NOTIFY** other personnel as needed in adjacent work areas and/or other facilities that may not receive radio communication.

3.1.5 IF emergency assistance is required, **CALL** Hanford Fire Department (HFD) at 911 (373-0911 for cell phones).

3.1.6 **IF** the odor could impact a large area, **CONSIDER** activating a take cover per TF-ERP-001 and RLEP 1.1.

3.1.7 **ISOLATE** area **AND**

MINIMIZE personnel exposure by preventing inadvertent entry into hazardous area.

3.1.8 **ENSURE** employees exhibiting symptoms report to Occupational Medicine for medical surveillance. (See TFC-ESHQ-S_CMLI-C-02).

3.1.9 **OFFER** medical surveillance to employees who detected odors.

3.1.10 **REQUEST** odor response card be completed and submitted to the Central Shift Manager.

Response to Reported Odors or Unexpected Changes to Vapor Conditions

3.1 Immediate Actions (Cont.)

- 3.1.11 **IF** odor source is suspected to be from tank waste and is within a Tank Farm boundary, **PERFORM** the following:
- 3.1.11.1 **DIRECT** Industrial Hygiene Technician (IHT) to implement Tank Waste Odor Sample Plan IHP-09001.
 - 3.1.11.2 **ENSURE** Form A-6005-744, TF-AOP-015 Industrial Hygiene Investigation Report is initiated.
 - 3.1.11.3 **IDENTIFY** the proper respiratory protection prescribed on TF-AOP-015 response Respiratory Protection Form Task 1.
- 3.1.12 **IF** odor source is suspected to be from tank waste and is outside a Tank Farm boundary, **PERFORM** the following:
- 3.1.12.1 **DIRECT** Industrial Hygiene Technician (IHT) to implement Tank Waste Odor Sample Plan IHP-09001.
 - 3.1.12.2 **ENSURE** Form A-6005-744, TF-AOP-015 Industrial Hygiene Investigation Report is initiated.
 - 3.1.12.3 **IDENTIFY** the proper respiratory protection prescribed on TF-AOP-015 response Respiratory Protection Form Task 2.
- 3.1.13 **IF** odor source is not suspected to be from tank waste and is outside a Tank Farm boundary and respiratory protection is required by management, **PERFORM** the following:
- 3.1.13.1 **NOTIFY** the On-Call Safety and Health professional.
 - 3.1.13.2 **IMPLEMENT** Odor Response Plan (Attachment 1) utilizing necessary resources.
 - 3.1.13.3 **IDENTIFY** the proper respiratory protection prescribed on TF-AOP-015 response Respiratory Protection Form Task 3.

Response to Reported Odors or Unexpected Changes to Vapor Conditions

3.1 Immediate Actions (Cont.)

- 3.1.14 **IF** odor source is not suspected to be from tank waste and is outside a Tank Farm boundary, **PERFORM** the following:
- 3.1.14.1 **NOTIFY** the On-Call Safety and Health professional.
 - 3.1.14.2 **IMPLEMENT** Odor Response Plan (Attachment 1) utilizing necessary resources.
 - 3.1.14.3 **OFFER** voluntary respiratory protection prescribed on TF-AOP-015 response Respiratory Protection Form Task 4.
- 3.1.15 **EVALUATE** event against TFC-OPS-OPER-C-24 to ensure occurrence categorization and notification are completed as required.
- 3.1.16 **NOTIFY** management per TFC-OPS-OPER-C-57.
- 3.1.17 **COMPLETE** electronic version (e.g., Word file) of Attachment 2 - Communication Template **AND**
- SEND** to DL – WRPS AOP-015 Event Notification as soon as enough information is available.
- 3.1.17.1 **PRINT** a copy of the electronic file of Attachment 2 for Record Retention.
- NOTE - Step 3.1.18 is not required to be completed prior to exiting TF-AOP-015.
- 3.1.18 **COMPLETE** electronic version (e.g., Word file) of Attachment 3 - Follow-Up Event Summary **AND**
- SEND** to DL – WRPS AOP-015 Event Notification once event is stabilized and all details are known.
- 3.1.18.1 **PRINT** a copy of the electronic file of Attachment 3 for Record Retention.

Response to Reported Odors or Unexpected Changes to Vapor Conditions

4.0 EXIT CRITERIA

- 4.1.1 **CONFIRM** all actions described in Section 3.1 have been completed.
- 4.1.2 **CONFIRM** from Safety and Health professional that IHP-09001 sampling is complete and no hazards were detected, or identified hazards are controlled;

OR

CONFIRM from Safety and Health professional that Odor Response Plan (Attachment 1) has been completed and no hazards were detected or identified hazards are controlled.

OR

CONFIRM an EAL, ERP, or TFC-OPS-OPER-C-24, Attachment A (Base Program Operational Emergency) criteria is met and RLEP 1.1 has been entered.

- 4.1.3 **IF** sample analysis results are at or below background levels, **PERFORM** the following:
- 4.1.3.1 **SEND** SOEN stating “Sample analysis for the TF-AOP-015 event has been completed and the results are at or below background levels. Exiting TF-AOP-015”.
- 4.1.3.2 **ANNOUNCE** exiting TF-AOP-015 over tank farm radio(s).
- 4.1.4 **IF** sample analysis results are above background but below action limits, **PERFORM** the following:
- 4.1.4.1 **SEND** SOEN stating “Sample analysis for the TF-AOP-015 event has been completed and the results are below action limits. Exiting TF-AOP-015”.
- 4.1.4.2 **ANNOUNCE** exiting TF-AOP-015 over tank farm radio(s).

Response to Reported Odors or Unexpected Changes to Vapor Conditions

Attachment 1 – Odor Response Plan

DESCRIPTION OF EVENT (date/time & description of odors detected, location, symptoms, etc):	
RESPONSE STEPS: <i>Attach additional pages as needed</i>	
IH Sampling Plan # _____	RWP # _____
JHA: _____	Other _____
REQUIRED APPROVAL SIGNATURES	
Industrial Hygiene: _____	Date: _____
Central Shift Manager _____	Date: _____
ADDITIONAL SIGNATURES (as determined by Shift Manager or Safety & Health Rep; N/A if not applicable)	
RadCon Hazards Assessor: _____	Date: _____
Industrial Safety: _____	Date: _____
Environmental: _____	Date: _____
Engineer: _____	Date: _____
Odor Response Plan Notes (monitoring data, results of actions taken, etc. Use more sheets as necessary)	
RESPONSE PLAN COMPLETED:	
_____	_____
Safety & Health Rep	Date

Response to Reported Odors or Unexpected Changes to Vapor Conditions

Attachment 2 - Communication Template

The following is example of detail to provide in the electronic form of Communication Template.

#X Hanford workers **were taken to HPMC/Kadlec or have declined** precautionary medical evaluation after reporting odors at **location**. **#X** of workers that reported symptoms.

The employees were **description of what work they were performing at the time of reported odors** and **were or were not** in an area that requires use of a supplied air respirator.

Workers were instructed to leave the area, and access to the area has been restricted.

NOTE - This communication template is to be completed as soon as enough information is available.

Central Shift Manager: _____ / _____ / _____
Signature Print (Fist and Last) Date

Response to Reported Odors or Unexpected Changes to Vapor Conditions

Attachment 3 - Follow-Up Event Summary

The following is example of detail to provide in the electronic form of Follow-Up Event Summary.

TF-AOP-015 Initial Report		
Date: Month/day/year	Time: XXXX hours	Location: XX Farm
Number of Workers Involved: XX	Sampling Results #: Add DRI Survey #	
Event Summary		
<p>At approximately XXXX hours X# workers description of event. Initially no workers reported symptoms and declined medical evaluations or were transported to HPMC or Kadlec via ambulance.</p> <p>At approximately XXXX hours provide updated information to included additional workers reporting symptoms, description of symptoms and status on medical evaluation.</p> <p>At the time odors were reported, the individuals were or were not working in an area requiring use of supplied-air respiratory protection. All workers were instructed to leave the area. Access to the area was restricted.</p> <p>IHTs responded to the area and took DRI readings and a bag sample. DRI instrument readings were above or below action levels. Analytical results for bag samples are being analyzed and will be posted upon receipt or Bag samples have been analyzed the results allowed the restricted area to be down posted.</p> <p>Provide any subsequent information</p> <p>An event investigation has been initiated.</p>		
Return to Work Status		
Number of workers returned to work without restriction	X#	
Number of workers returned to work with restriction	X#	
Number of workers referred for further evaluation	X#	
NOTE - Complete once event is stabilized and all details are known. - To learn more about chemical exposure evaluations see http://hanfordvapors.com/wp-content/uploads/2016/09/2a-HPMC-procedure.pdf		
Central Shift Manager: _____ / _____ / _____ <div style="display: flex; justify-content: space-around; margin-top: 5px;"> Signature Print (Fist and Last) Date </div>		