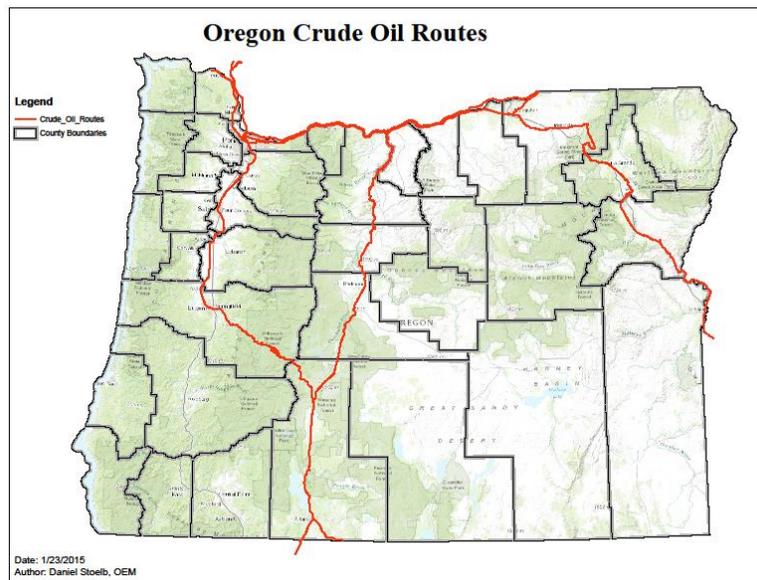




State of Oregon  
Department of  
Environmental  
Quality

# 2015 Oregon Crude Oil-Rail Response Facilitated Tabletop Exercise Final After-Action Report



**Report Release – September 2015  
Oregon Office of Emergency Management**



## Office of Emergency Management Exercise After Action Report

**Exercise Designation:** Crude Oil-Rail Response Facilitated Tabletop Exercise

**Exercise Period:** February 5, 2015

**Lead Agency:** Oregon Department of Transportation, Rail Division

**Supporting Agencies:** Oregon State Fire Marshal  
Oregon Department of Environmental Quality  
Oregon Health Authority  
Department of Public Safety Standards and Training

**Coordinating Agency:** Oregon Military Department, Office of Emergency Management

### EXECUTIVE SUMMARY

On February 5, 2015, a facilitated tabletop exercise/panel discussion was conducted with the goal of assessing Oregon's response to two simulated incidents involving train derailments and the release of crude oil product. Over 200 invitations to the exercise were sent to members of the State Legislature, the Oregon Emergency Response System (OERS) Council, Fire Defense Board Chiefs, counties and their respective emergency managers and elected officials with crude oil running through their jurisdiction, railroad partners, the nine federally recognized Tribal Nations, and assorted federal response agencies. There were 94 attendees at the exercise which was held at the Department of Public Safety Standards and Training (DPSST).

### BACKGROUND

In November 2014 the Oregon Military Department, Office of Emergency Management (OEM), was tasked by the Governor's Office to develop and conduct a facilitated tabletop exercise for the Governor and State Legislators with the specific intent of providing a briefing on the capabilities and roles and responsibilities of state agencies in response to an incident dealing with Bakken Crude Oil. The exercise was to be conducted just prior to the start of the State Legislative session.

On November 25, 2014, OEM facilitated the first of nine planning meetings with the Oregon Department of Transportation (ODOT) Rail Division, Oregon Health Authority (OHA), Department of Environmental Quality (DEQ), Office of State Fire Marshal (OSFM), and DPSST.

The planning team later expanded to include the ODOT Emergency Management Division, Burlington Northern Santa Fe (BNSF) Railroad, Union Pacific Railroad (UPRR), Portland and Western Railroad (PNWR), the US Coast Guard (USCG), and the Environmental Protection Agency (EPA).

The planning team made the determination to focus on “generic” crude oil, which travels throughout the state on a weekly basis, rather than focus solely on Bakken crude oil shipments. The team also established the parameters and guidelines under which the exercise would be conducted, including the development of the two incident scenarios, and associated points of discussion for selected agency panelists. On January 21, a rehearsal was conducted at OEM involving all members of the planning team and specific individuals who would be participating in the actual exercise panel discussions.

## **EXERCISE PLANNING**

### **Exercise Purpose**

At the request of the Governor’s Office, to develop and conduct a facilitated panel discussion/question-answer session through an interactive based exercise between subject matter expert panelists and audience members, on roles and responsibilities based on a train derailment of a crude oil shipment through Oregon. OEM was tasked with coordinating and facilitating the development and presentation of the exercise.

### **Overarching Objectives**

The following objectives were identified in support of the exercise:

- Preparedness: Identify existing protocols, plans, communications, and response capabilities.
- Notification: Identification of rail incident notification, activations and authorities.
- Response: Provide overview of the roles and responsibilities of rail, local, state, and federal agencies in the response to a crude oil event.
- Response: Identify gaps and resource shortfalls – needs for future response.
- Recovery: Identification of clean-up and recovery action responsibility between involved rail company, state and federal agencies.

### **Plans Tested**

The following emergency contingency plans were tested as part of the exercise:

- Department of Transportation - Emergency Response Plan – Volumes 1 & 2
- Northwest Area Contingency Plan
- Oregon Emergency Management Plan – Volume II
- Portland & Western Railroad - Rail Emergency Response Plan
- Department of Environmental Quality - Geographic Response Plans
- State Fire Marshal - Standard Operating Guide
- State Fire Marshal – Hazardous Materials Plan

## **Exercise Organization and Flow**

The exercise utilized a facilitated panel discussion format, which involved a moderator submitting questions to a panel of subject matter experts representing state agencies, local hazardous materials technical specialists, federal agency officials, and senior representatives from the affected railroads. The panel membership had minor changes from one scenario to the other, with the lines of inquiry designed to focus on critical aspects of the specific incident. The panel members responded to the question, and were often backed up by other subject matter experts who were available to support the panel by providing supplemental answers from the audience.

At the conclusion of the two scenario panel discussions, the audience was invited to ask follow-on questions of the panel members and other subject matter experts in attendance. The audience was also encouraged to submit additional questions to OEM, via email, relative to questions that were not asked, to be forwarded to the appropriate agency.

## **PARTICIPANTS**

The following governmental agencies and private sector organizations were directly involved in exercise planning and presentation:

### **Participating State Agencies**

- Department of Public Safety Standards and Training (DPSST)
- Department of Environmental Quality (DEQ)
- Oregon State Police
  - Office of State Fire Marshal
- Department of Transportation (ODOT)
  - Emergency Management
  - Rail Division
- Oregon Health Authority (OHA)
- Department of Energy (DOE)
- Military Department (OMD)
  - Joint Operations Center (JOC)
  - Selected Army & Air Oregon National Guard command and unit personnel
  - Office of Emergency Management (OEM)

### **Participating Federal Agencies**

- Environmental Protection Agency (EPA)
- US Coast Guard (USCG)

### **Local/Tribal Government Jurisdictions & Organizations**

- Columbia County
- Klamath County
- OSFM HazMat Team #4
- OSFM HazMat Team #7

## **Participating Private Sector Organizations**

- Burlington Northern Santa FE (BNSF) Railroad
- Union Pacific Railroad (UPRR)
- Portland and Western Railroad (PNWR)

## **Other Participants**

In addition to the panels and supporting subject matter experts who participated in direct exercise play, the event was attended by the following general organizational groups:

- Office of the Governor staff
- Members of the Oregon State Legislature staff
- Members of the Oregon Emergency Response System (OERS)
- Members of the state Fire Defense Boards
- Selected local government senior elected officials
- Selected local and tribal emergency management agencies
- Columbia River Inter-Tribal Fish Commission
- US Navy

## **POST EXERCISE ASSESSMENT**

### **Participant Feedback**

Participants were provided an exercise feedback form and requested to return it at the end of the exercise, or via email the following week. Only 19 feedback forms, representing 20% of attendees, were returned. Many of the comments were utilized in the development of this After Action Report.

### **After Action Review**

On February 25, 2015, a formal After Action Review (AAR) was facilitated by and conducted at OEM, to review the presentation, and to review gaps and capabilities that were identified within the exercise. The AAR was attended by representatives of the exercise planning team, participating panelists and support staff.

The purpose of the AAR was to identify what went right in the exercise, and to identify areas needing improvement. The AAR process focused on two primary issues: 1) the development and presentation of the exercise itself, and 2) lessons learned from the scenario-based exercise play and associated facilitated discussion. Collectively, the AAR process is designed to contribute to the overall assessment of how well the exercise goals were achieved.

### **Exercise Process Assessment**

The following represents general comments involving the development and presentation of the exercise itself. The comments are divided into two categories: Areas to sustain and areas for improvement, as they relate to the exercise process, noted below.

Major Strengths – Areas to Sustain	Areas for Improvement
<ul style="list-style-type: none"> <li>• Exercise was well facilitated</li> <li>• Exercise was well organized</li> <li>• Exercise facility was well suited for event</li> <li>• Exercise was well planned</li> <li>• Appropriate participants involved in panel organization</li> <li>• Collaboration and sharing activities during break was very constructive</li> <li>• Exercise rehearsal was very valuable in preparing participants</li> <li>• Excellent networking opportunity for players as well as audience members</li> </ul>	<ul style="list-style-type: none"> <li>• A plan for public participation was not developed to manage the potential for public attendance.</li> <li>• The exercise planning structure was in significant flux until late in the development. Primary agencies were unclear regarding the media plan, which limited effectiveness until late in the planning phase</li> <li>• More background information was needed for audience</li> <li>• More detail was needed on local response capabilities</li> <li>• Additional visual displays needed to guide audience</li> <li>• More time needed to field audience questions</li> <li>• Need for panelist to panelist dialogue</li> <li>• First scenario appeared scripted</li> <li>• More diversity on panel membership</li> <li>• Greater identification of key officials and agency representatives in attending audience</li> <li>• More time should be allotted to the development and presentation of an effective tabletop exercise</li> </ul>

### Crude Oil-Rail Response Operational Assessment

The following information represents the lessons learned from the exercise play, as based upon the two scenarios and facilitated discussion.

Major Strengths – Areas to Sustain	Areas for Improvement
<ul style="list-style-type: none"> <li>• Knowledge base of exercise players was well demonstrated and commensurate with the risk</li> <li>• Local and state response plans are well established, communicated and coordinated among partners, and exercised regularly</li> <li>• Regional response planning efforts are well established and ongoing within</li> </ul>	<ul style="list-style-type: none"> <li>• Some state agencies identified need for greater working relationship between local emergency management and public safety</li> <li>• Response resource capability enhancements required at selected levels</li> <li>• Funding levels to support enhanced response training need to be increased</li> </ul>

<p>Oregon</p> <ul style="list-style-type: none"> <li>• Response agencies regularly coordinate operations on real crude oil/rail incidents</li> <li>• Response agencies understand and operate well within an Incident Command System (ICS) framework</li> <li>• Incident notification protocols are well established and effective among all levels</li> </ul>	<ul style="list-style-type: none"> <li>• Development of specific tactical plans for crude oil-rail transportation incidents need to be expanded</li> <li>• Existing railroad organization response training not universally accessed by public safety agencies</li> <li>• Cross-boundary, interstate response coordination needs to be examined and enhanced in some cases</li> <li>• Initial incident response times are adversely affected by location and local resource availability</li> </ul>
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## FINAL IMPROVEMENT RECOMMENDATIONS

The following improvement recommendations were developed as a result of both post-exercise comments and the formal after action review meeting. Although not all-inclusive, the recommendations serve to highlight general focused areas of improvement to guide agencies and organizations in enhancing statewide crude oil-rail response preparedness and response capabilities.

### 1. Exercise Process and Presentation

#### Issue

The exercise approach, topic, involved partners, and potential interested participants represented a significantly complex environment which caused late and or incomplete notification and involvement for important partners.

#### Recommendation

*The organization responsible for coordinating the exercise should develop a clear set of goals and participants to ensure the foundation of the exercise is clear and can be built upon. A core planning team should meet to develop a strategic planning approach to ensure purpose and scope is sustainable.*

#### Suggested Gap Improvement Ownership

- Identified responsible organizations must complete a planning, organization, equipment, training and exercise assessment of gaps to inform future exercise efforts..

### 2. Response Training Funding

#### Issue

Training for public safety responders needs to be increased to maintain an effective level of technical expertise for public safety response personnel. This issue affects both responder safety as well as incident management effectiveness, and requires concerted focus.

In addition, there exists opportunities for the presentation of specialized hazardous materials response training outside of the normal governmental public safety environment. This is especially true as it applies to the railroads, and their experience in transporting and managing crude oil incidents. Such specialized training would enhance public safety response capabilities and provide for greater coordination and a shared knowledge base between governmental agencies and the railroads.

#### Recommendation

*Coordinate with rail companies to maximize training resources and deliveries throughout the affected areas around the state for State, county, tribal, and local responder organizations. In addition, work with state and federal legislative representatives to increase funding levels to local, tribal and state agencies to support enhanced public safety response training for response organizations statewide. Training topics may include hazardous materials awareness, situational monitoring, incident safety, response techniques, interagency coordination, interoperable communications, evacuation operations, decontamination, and specific response planning.*

*Local, tribal and state public safety agencies should consider external opportunities for specialized response training related to hazardous materials and rail transportation safety, and collaborate with railroads and other external entities that provide such services.*

#### Suggested Gap Improvement Ownership

- DEQ, OSFM, and ODOT should identify available preparedness and response training opportunities relative to crude oil-rail transportation hazards and response.
- Established rail operators transporting crude oil shipments within, or through Oregon, should make available technical training assistance to local, tribal and state agency response forces.

### **3. Response Resource Funding**

#### Issue

Crude oil spills and other hazardous materials releases require specialized response equipment that are not always readily available, or are not cached in large quantities to affect a rapid and effective response. Adequate funding is needed to procure and stockpile these resources in strategic locations across the state to support rapid deployment.

#### Recommendation

*State, tribal, county, and local organizations should develop assessments of current capabilities and resources to respond to this environment to identify gaps and needs. These assessments should then be used to develop strategic plans for increasing funding to procure and station specialized resources and equipment*

*throughout the state to support interagency hazardous materials incident response operations.*

#### Suggested Gap Improvement Ownership

- Each organization involved in the planning, preparedness, and response to crude oil-rail response incidents should assess capabilities, identify operational needs, and develop appropriate funding strategies for reaching established capability goals.

#### **4. Interagency Coordination**

##### Issue

Interagency coordination between state, local and tribal jurisdictions lack cohesion and effective lines of incident response communication. This is an organizational rather than technical issue, and requires enhanced relationship building among all levels of the response community.

##### Recommendation

*Jurisdictions where crude oil is transported through should establish better working relationships between state departments and local emergency management and public safety agencies in association with crude oil-rail transportation incidents.*

#### **5. Response Planning**

##### Issue

Although numerous hazardous materials plans currently exist, at various governmental levels within and affecting Oregon, there remains an opportunity to enhance coordination to ensure that response planning and interagency collaboration remain effective and integrated at all levels. Response planning should be integrated and coordinated among all participating governmental and private sector entities.

##### Recommendation

*Continue the development and enhancement of existing hazardous materials response planning efforts, and investigate the opportunity for expansion of tactical response plans, and the inclusion of greater participation of such efforts within a wider community statewide.*

#### Suggested Gap Improvement Ownership

- Oregon Department of Environmental Quality
- Oregon Department of Transportation – Rail Division
- Oregon Office of the State Fire Marshal
- Oregon Office of Emergency Management