



Oregon State Police
Office of State Fire Marshal
Survey Findings and Recommendations on Crude Oil
March 5, 2015

Mission

The Oregon Office of State Fire Marshal is charged with protecting citizens, their property, and the environment from fire and hazardous materials.

The attached document provides an overview of the crude oil response equipment challenges of the Oregon fire service.

Tasking

In February 2014, Governor Kitzhaber began a statewide review of rail safety prompted by an increase in the transport of crude oil along major rail lines in the state. One of the initial findings of this preliminary review was the necessity to determine equipment needs of first responders, specifically the Oregon fire service.

Action

The Oregon Office of State Fire Marshal (OSFM), in collaboration with the Oregon Fire Chiefs Association (OFCA), created and distributed a needs assessment survey to the Oregon fire service, and state and federal agencies for their input.

Findings

Main findings from the statewide survey included a lack of crude oil emergency response equipment, the most effective plan for adequate equipment investment, and a best method for storage, maintenance, and management oversight for that equipment.

The OSFM presented the findings to OFCA and the groups agreed the best method to address the equipment shortfall is to invest in the Oregon State Hazardous Materials Regional Response Teams program.

The report findings address the needs as identified by the State Hazardous Material Response Teams and local fire agencies. The equipment recommendations are intended to bridge the response gap between the immediate local response and the point at which resources from railroad companies can arrive at the incident scene to assist in response. The fire service and Office of State Fire Marshal collaborate with railroad operators to ensure that response to rail incidents is a complete and coordinated response.

Recommendations

The OSFM, State Emergency Response Commission, and the State Hazardous Materials Regional Response Teams program, developed a budget to address the equipment shortfall. The proposed biennial budget is for start-up costs only. There would be additional maintenance costs in future bienniums. It should also be noted that this recommendation does not supply all local jurisdictions with the equipment they need, but leverages their response with the State Hazardous Materials Regional Response Teams, and looks at the issue from a statewide perspective.

Continued dialogue with local agencies will be necessary as the OSFM implements these recommendations.



Survey Results Regarding Oregon's Equipment Gaps in Response to a Crude Oil Rail Incident



Overview

The Office of State Fire Marshal, in collaboration with the Oregon Fire Chiefs Association, created a survey designed to provide a picture of the readiness and necessary equipment needed for effective response by Oregon fire service agencies in relation to a crude oil incident on rail lines in Oregon.

All Oregon fire chiefs were requested to respond to the online survey. There were 127 viable responses. Eighty fire agencies reported their jurisdictions had railways that carry crude oil or other hazardous materials.

This document is an overview of the survey's findings.

Summary of Data

(supporting charts and graphs are on the following pages)

A majority of fire agencies (63%) would respond to a crude oil rail incident at an Operational Level; 11% would respond at an Awareness Level; and 10% would respond at a Technician Level.

- **Awareness Level** responders are expected to recognize the presence of hazardous materials, protect themselves, call for trained personnel, and secure the area.
- **Operation Level** responders are expected to respond in a defensive fashion to control the release from a safe distance and keep it from spreading.
- **Technician Level** responders are expected to control the release and use specialized chemical protective clothing and specialized control equipment.

Although a number of agencies said they have some crude oil response equipment, a large majority of agencies (81%) said they do NOT have the necessary equipment to respond to a crude oil incident.

A clear majority of agencies (88%) indicated the most effective method to organize crude oil response equipment was through funding of the State Regional Hazardous Materials Response Teams (RHMRT) and/or to create regional caches of equipment.

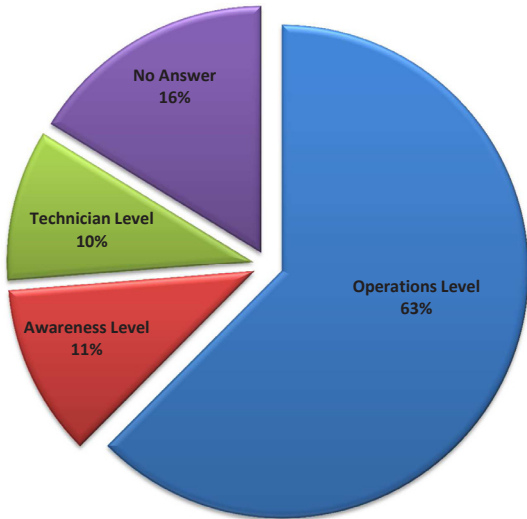
The overriding takeaway is a majority of fire agencies with crude oil trains traveling through their jurisdictions indicate they do not have enough equipment to respond to a crude oil incident; and the best method for organizing more equipment is through the RHMRTs and regional caches.



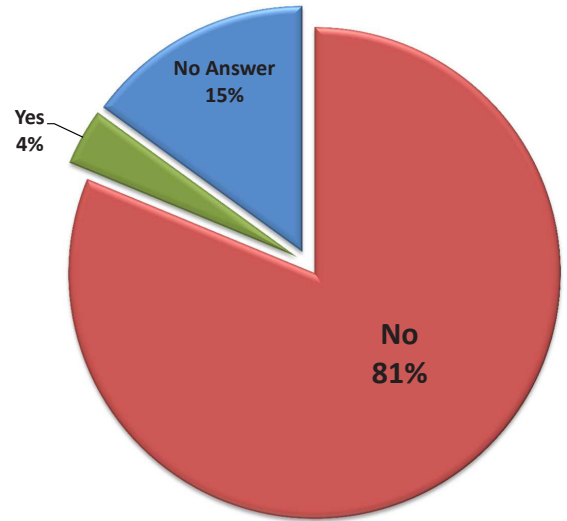
Oregon's Response Equipment Gaps Pertaining to a Possible Crude Oil Incident



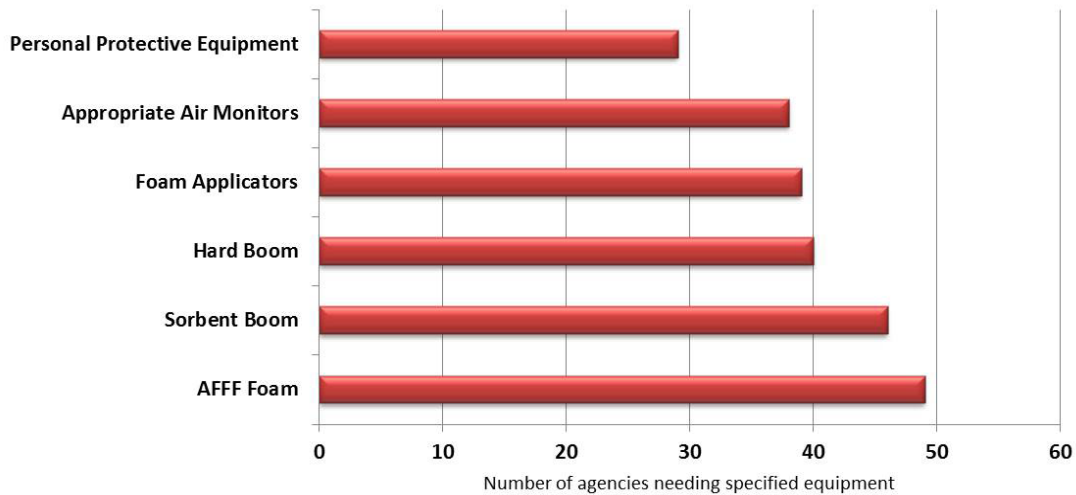
Level of response to crude oil incidents



Does your agency have necessary equipment?



Crude oil response equipment needed by local fire agencies

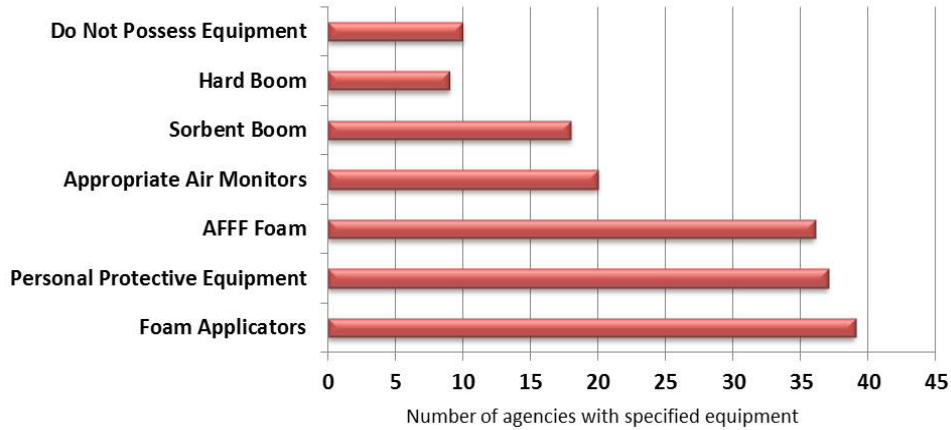




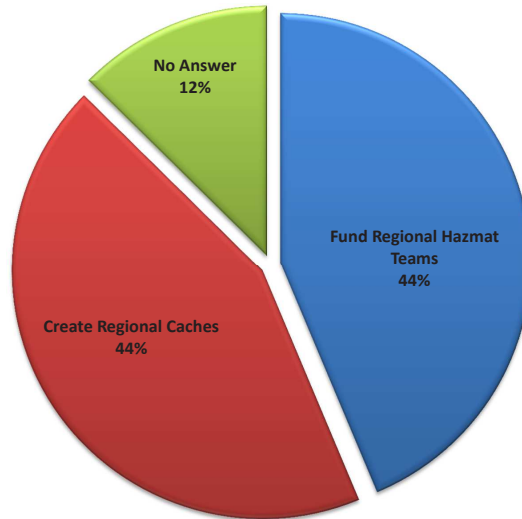
Oregon's Response Equipment Gaps Pertaining to a Possible Crude Oil Incident



Crude oil response equipment currently possessed by local fire agencies



What is the most effective way to organize crude oil response equipment?





Oregon's Response Equipment Gaps Pertaining to a Possible Crude Oil Incident



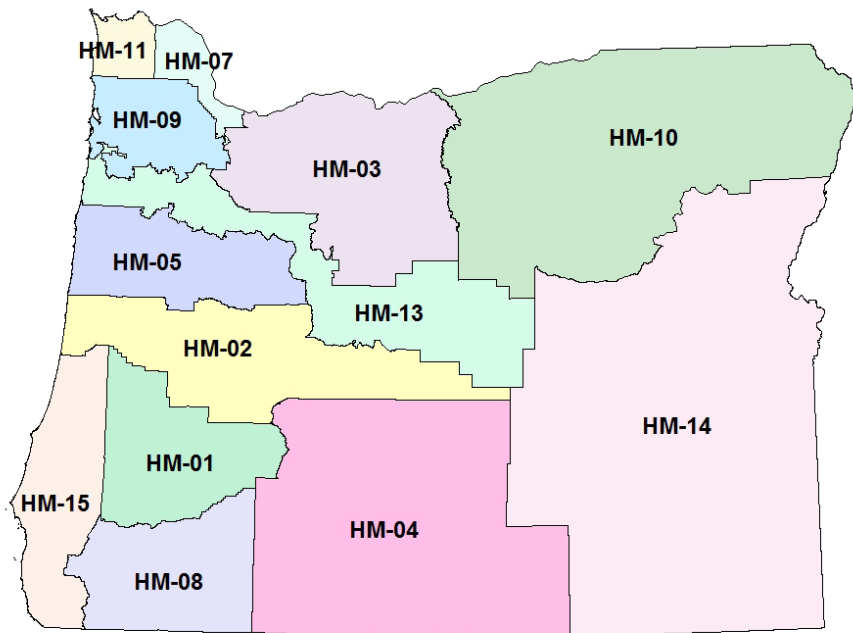
Recommendation

The Office of State Fire Marshal tasked members of the Hazardous Materials Response Teams to create a plan for crude oil response. The committee determined the best way to equip and train emergency responders for a crude oil incident in Oregon would be to incorporate equipment and training into the OSFM State Hazardous Materials Response Program. Individuals in this program are trained to the Technician Level. This is the highest level of hazardous materials response training.

The committee recommends locating six foam trailers equipped with personal protective equipment and necessary hardware throughout the state. The committee has not determine where the caches would be located; however, consideration would be where population and crude oil shipments converge. The aim will be to place caches in areas that provide best response time and coverage for the state. The program strives to have a 2.5 hour response time to most areas of the state.

The 13 State Hazmat Team programs are located in the following areas:

- | | |
|----------------------------------|----------------------------|
| HM01 - Roseburg | HM09 - Tualatin Valley F&R |
| HM02 - Eugene | HM10 - Hermiston |
| HM03 - Gresham/ Multnomah County | HM11 - Astoria |
| HM04 - Klamath/Lake County | HM13 - Salem |
| HM05 - Linn/Benton County | HM14 - Ontario |
| HM07 - Portland | HM15 - Coos Bay |
| HM08 - Southern Oregon | |



Although central Oregon does have hazmat team coverage, there is no state hazmat team based in central Oregon. The OSFM continues to have an interest in basing a State Hazardous Materials Response Team within a willing fire department in the central Oregon area.



Oregon’s Response Equipment Gaps Pertaining to a Possible Crude Oil Incident



Recommendation continued

The Office of State Fire Marshal recommends the following budget to implement equipment, train personnel and administer crude oil response preparedness.

Office of State Fire Marshal Recommended Budget

Equipment	\$ 1,391,466
Personnel	\$ 192,155
Training for Hazmat Teams	\$ 854,074
Outreach to Fire Departments	\$ 58,350
Personal Protective Equipment	\$ 189,600
<u>Local Emergency Planning Committee Support</u>	<u>\$ 22,500</u>
Total	\$ 2,708,145

The above budget is an estimate of start-up costs only, however, a funding source has yet to be determined.

In addition to these start-up costs, there will likely be an impact to future biennial budgets as the OSFM and its fire service partners conduct continual evaluation of local and state needs necessary to maintain effective incident response to protect the state’s citizens, infrastructure, and waterways.

The Office of State Fire Marshal and the Oregon Fire Chiefs Association believe this recommendation is the best way to meet our mission of protecting Oregon citizens, their property, and the environment from fire and hazardous materials.

The OSFM also fully supports the Oregon Department of Environmental Quality (DEQ) and their contingency planning and preparedness efforts regarding crude oil and other hazardous material spills, including the necessity to develop a stable funding mechanism for ongoing response needs of both the DEQ and the OSFM.