INLAND WATER OIL SPILL REMOVAL ORGANIZATIONS (OSROs)
The Need for Inland Environment OSROs in the Western United States

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In 2003, the lack of Oil Spill Removal Organization (OSRO) support for Inland areas was presented at the International Oil Spill Conference. In October of that year, a meeting was held with participants from the Environmental Protection Agency (EPA), United States Coast Guard (USCG) and industry to determine what could be done to address this situation – namely, how can more OSROs be established in inland parts of the country, i.e. western US, currently out of the reach of most OSROs? How can the Responsible Party (RP) be assured that the equipment and training of any OSRO will meet their spill needs? The purpose of this paper is to review the need for Inland OSROs with the right equipment and locations, outline what has been done and what needs to be done, and to make recommendations to improve the OSRO program.

Regulations in the US state that oil companies need to be able to handle their worst case oil spill scenario by obtaining the equipment and training needed or contracting with a classified OSRO for this service. Because OSROs have up to 12 hours to respond, oil companies must still be able to handle a spill until the OSRO can arrive. Oil companies with locations in coastal or near shore areas have many options and response timeframes are often much less. This is due to the fact that most OSROs are located on the coast and have equipment and manpower to respond to marine or nearshore spills. But for oil companies located in the inland United States, there are fewer choices and response times often push or exceed the limits set by federal regulation. These response times can be critical, particularly when the product has reached fast moving waters such as rivers and streams. Mutual Aid Organizations have been disappointing in many cases and require a great deal of coordination and communication. Some companies cite liability

issues and the need for their own equipment on site at all times as reasons for not participating in Mutual Aid Agreements.

In addition to response time issues, there is nothing in place to help the RP select the right OSRO to respond to an inland environment with the type of equipment and personnel training for this type of work environment. A Coastal OSRO may have boom, boats and skimmers that are far too large for rivers and streams in inland areas. Booming techniques in fast flowing waters is significantly different from coastal booming.

To further complicate matters, an OSRO must be located within a Captain of the Port (COTP) or Alternative Classification City (ACC) area of coverage to be classified by the US Coast Guard. There are large areas where there is no coverage (See Figure 1). These areas include a large number of refineries and pipelines. In 2005, 60% of all spills in the US occurred in inland areas. Seven of the states in the West with little OSRO presence have over four refineries each. No new refineries have been built in the past 40 years; therefore the possibility of spills is rising in these facilities. In 2005, 36% of all spills in the US occurred in fixed facilities, including refineries. Inland pipelines carry 69.3% of all transported oil in the US. There are major pipeline networks in 6 Western states that have little or no OSRO presence (See Figure 2). The primary reasons for pipeline failure are structural (accounting for 40% of all pipeline spills) and third party intervention (accounting for 29% of all pipeline spills and 41% of the volume spilled). There are also a number of national treasures located in the western US, including Yellowstone National Park, the Great Salt Lake, Lake Powell, Glacier National Park and the Grand Canyon.

Creating Inland OSROs can help solve many of these issues. Some ways this may be accomplished are:

- Add ACCs in Inland Areas.

Figure 1

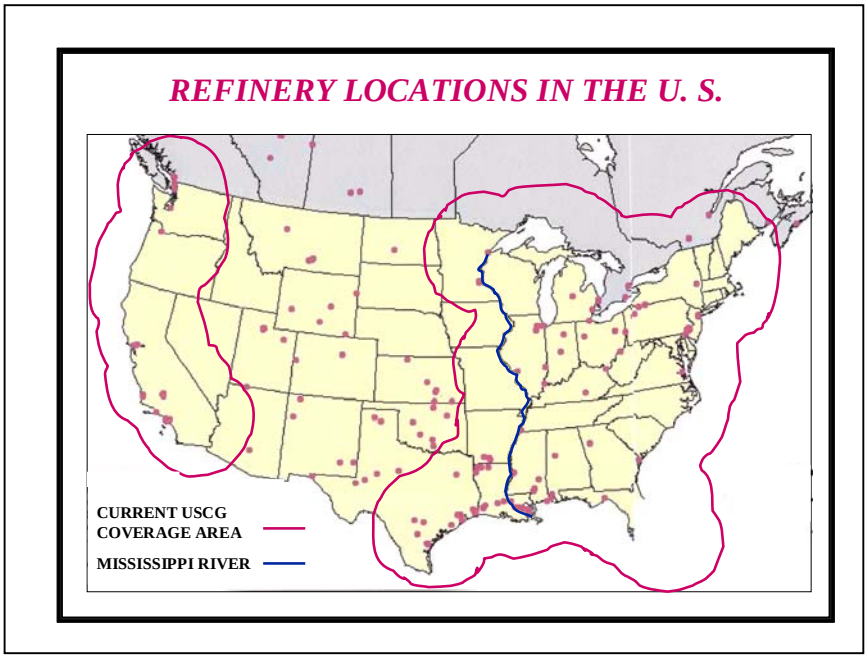
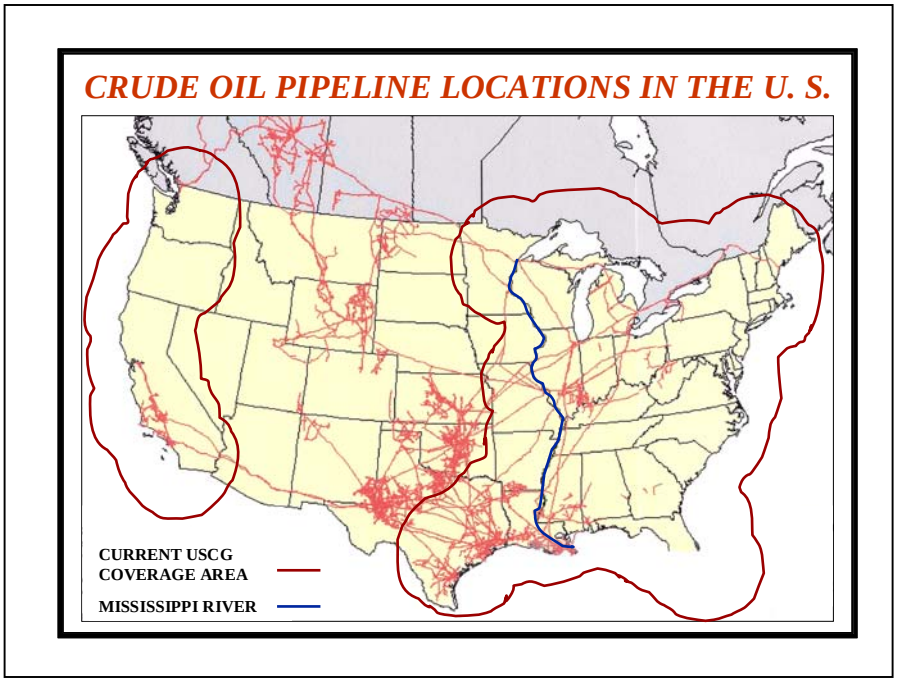


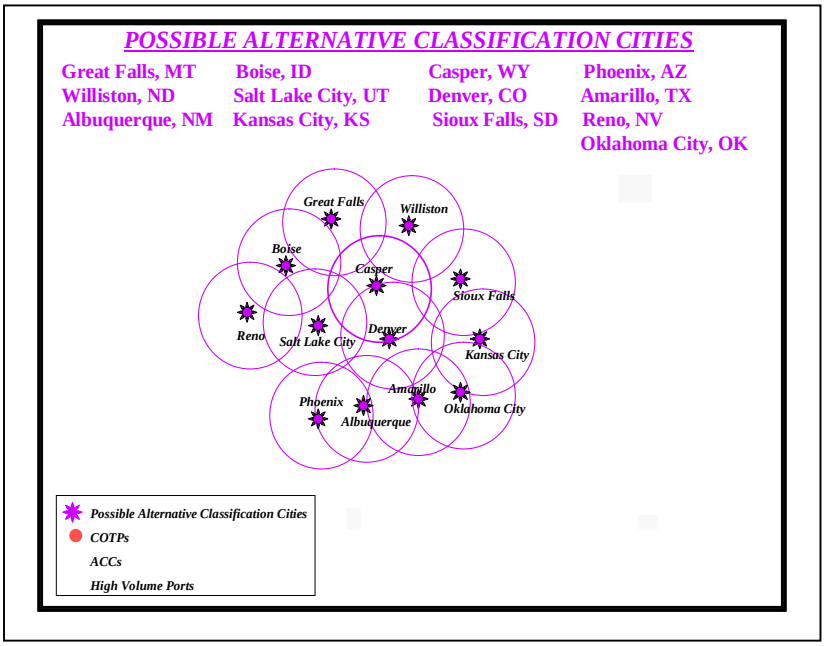
Figure 2



- Encourage existing Contractors to invest in inland spill response equipment and training and apply for OSRO status.
- Educate RPs and OSROs in the selection of appropriate inland spill response equipment and training.

Possible ACCs for inland areas might be chosen from locations where the EPA and Pipeline and Hazardous Materials Safety Administration (PHMSA) already have a presence. Discussions and proposals for inland ACCs are already under way. Figure 3 shows the list of cities proposed by the authors of this paper 3 years ago. Most of these are being considered for ACC status by the USCG who oversees the OSRO program. Little progress has been in this area due to reorganizations in our government. However, as recently as January of this year, discussions and meetings continue to finalize the list of inland ACCs.

Figure 3



The second possible way to create more inland OSROS is to encourage existing contractors in inland areas to consider applying for OSRO classification. One of the primary objections of

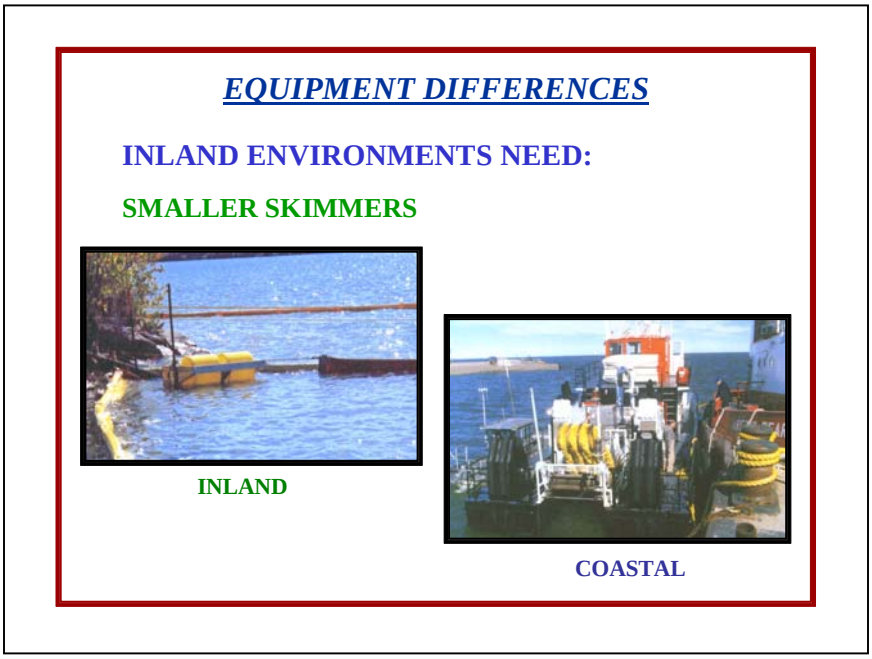
contractors is the need to obtain the specialized equipment and training for inland waterways spill response. Most offer other services that may of use to RPs such as hazardous waste transportation and treatment of petroleum contaminated soils and wastewater. If RPs and contractors share ideas to perhaps utilize the contractor's services more or help with equipment and training costs, contractors might be open to becoming OSROs. Suppliers of equipment and training offering attractive pricing, payment terms and packaging solutions might also encourage the creation of OSROs. Because the initial investment is so great, obtaining the right equipment is very important. Often, manufacturers have little knowledge about boom applications. Few have been to inland spill sites or inland training. Even the names of their boom products (i.e. Swamp boom) may suggest that small boom is for calm waters, not fast water applications. In order to be a successful OSRO, equipment knowledge is important. Development of a program that educates both RPs and OSROs would save money and the environment.

Because fast water spill response is different from coastal response, equipment and training needs are also different. This is a positive for potential inland OSROs. Less equipment is needed to be classified and it is smaller and less expensive than large coastal equipment. This smaller equipment can also be deployed with less support equipment and fewer personnel. The techniques used for fast water deployment are the really big differentiating factor between inland and coastal response. It is one thing for an existing OSRO to buy smaller equipment; it is another to be able to successfully boom in fast water environments. RPs in inland areas need to be aware that the classification of an OSRO in rivers/canals includes boom sizes up to 18" (6" x 10"). This is far too large for many of the fast moving (over 2 miles an hour) rivers found in the West. Western rivers are often shallow, resulting in this large boom dragging on the bottom or creating difficulty in placement near to the river bank and possibly impeding fish passage. Boom

that is large requires more people to deploy, the skirt may fill and sink, and smaller angles must be used which requires more boom. Boom that is 10" (4" x 6") or 12" (6" x 6") works better in

Figure 4

Figure 5



Fast waters, especially when combined with the use of techniques such as cascade system (Figure 4). This is an area that needs to be re-evaluated by possibly creating a new classification for fast rivers or lowering the size of boom currently designated for the Inland Water and Canal classification for OSROs. This concept works for other response equipment as well. Using small skimmers with little draft can result in higher recovery rates (Figure 5).

So what is currently being done about the inland OSRO situation?

Both the EPA and PHMSA are using the OSRO guidelines developed by the USCG to classify OSROs by the response environment they are best suited for based on the equipment and trained personnel they have. This helps RPs and OSROs alike to make better choices for spill response in all marine environments.

The US Coast Guard, EPA and PHMSA are also working to establish Alternative Classification Cities (ACCs) to cover the inland areas of the United States that currently have no coverage. Meetings have occurred as late as January of this year and correspondence continues as the remaining issues are worked out.

Are there recommendations for improving the outlook for inland OSROs?

Education is a recurring theme in regard to inland spill response and OSROs that can respond successfully. The US Coast Guard, EPA and PHMSA providing education and recommendations to Facility Response Plan holders on the selection of OSROs for rivers and canals and inland environments. In addition, agencies should provide information to RPs about ways to be sure that a company claiming to be an OSRO really is one. Some companies are still trying to use the old Letter of Intent mechanism to give themselves OSRO status. They may or may not have equipment or trained personnel, especially for inland spill response. RPs need to

know to ask for the Classification Letter and check the location, the company name and the type of classification. There is a list of classified OSROs on internet, but it is not easy to find.

Because response times are up to 12 hours for inland OSROs, anything that can be done to speed up arrival and response times is helpful. The development of Geographical Response Plans or similar tactical oil spill response plans by RPs as part of the Facility Response Plan or by agencies as part of the area contingency planning process could save time and planning. Geographical Response Plans may include the following:

- Map and directions to all predesignated spill recovery sites.
- Map of the area showing shorelines, roads, containment area, boom deployment locations and boom placement,
- Photos of the area (optional), and
- Photos of the area with boom deployed (optional).

To further improve inland spill response capabilities, the US Coast Guard is considering the addition of "Consideration Pages" to the existing OSRO Guidelines that would aid RPs and OSROs in obtaining the equipment and training to adequately respond to inland oil spills. "Considerations Pages" would outline things to be considered for certain specific environments in inland areas. "Considerations Pages" may include:

- A characterization of a specific spill response environment (i.e. extreme cold weather),
- Types of equipment recommended for the specified environment,
- Standard Operating Procedures with tie-ins to Facility Response Plans, and
- Other items as appropriate.

Possible topics for "Considerations Pages" are:

- Fast Current/Shallow Water Environments,

- Extreme Cold Weather,
- Spills on Land,
- Pre-Staging of Equipment, and
- Sinking Oil Situations.

In summary, the past few years have not seen a significant increase in the number of OSROs in the Western US inland area and there are no COTPs or ACCs within range and current OSRO oil spill response, containment and ancillary equipment is often too large to be effective in inland water environments. In addition, the challenge of booming fast rivers involves planning, practice and the willingness to view spill response differently than coastal applications. The problems in creating more OSROs have only increased and become more complex, The US Coast Guard has put forth a number of proposals and ideas that may help the situation, but there are still problems and complexities to be solved in order to create more OSROs that can address inland environments adequately. Current proposals include the education of inland RPs and OSROs in the proper selection of equipment and training for their environment, the creation of inland ACCs, the development Geographical Response Plans (or similar spill response tactical plans) and "Considerations Pages" to improve response time and success rates in various inland environments. Most of these require cooperation among all those involved including government agencies, oil companies and oil spill response organizations. Even then, it will be an uphill battle. But the stakes, if nothing is done, could be very costly.