
REGIONAL RESPONSE TEAM PREAPPROVAL OF IN-SITU BURNING FOR OPERATIONAL USE

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ABSTRACT: *On January 7, 1994, Regional Response Team VI that covers the Gulf coast approved a plan that allows the federal on-scene coordinator to approve the use of burning three miles or farther off the coasts of Louisiana or Texas. This landmark action is the first preapproval for in-situ burning in the continental U.S. The plan was presented to the response team by the Marine Spill Response Corporation on behalf of the response industry and its clients.*

A plan to allow the federal on-scene coordinator to approve burning as an oil spill response technique for use at least three miles off the coasts of Louisiana and Texas was approved by Regional Response Team VI on January 7, 1994. This will encourage response community members to acquire fire boom, to begin to work out the operational details, and to conduct the training necessary to conduct safe burns.

Due to the rapid emulsification of spilled oil on the open ocean, the window of opportunity for the successful use of burning is narrow, typically ranging from only a few hours to a day or two. The narrow window of opportunity makes preapproval by the regional response teams (RRTs) a necessity if the federal on-scene coordinator (FOSC) and responders are to have the use of this valuable tool.

In-situ burning is the deliberate ignition and controlled combustion of spilled oil in place, or, under special circumstances, the allowing of an accidental burn to continue to burn. Prior to the early 1980s and the development of the fire resistant boom, the effectiveness of burning depended on other structures or forces such as docks, breakwaters, shorelines, winds, or ice to keep the oil thick enough to support combustion.

With the advent of the fire-resistant boom, it became possible to collect spilled oil on the water and burn large quantities of it with great efficiency. Experimental burns including small-scale, meso-scale, and

a few large-scale burns were undertaken to learn more about this response technique. Three large-scale field burns, two experimental and one at an actual spill make up the bulk of our present day knowledge about in-situ burning in a real world environment. These were the Trondheim, Norway experimental burn of 500 gallons in 1988; the Newfoundland Offshore Burn Experiment (NOBE) experimental burn involving two burns totaling approximately 20,000 gallons in 1994; and the burning of 15-to-20,000 gallons in Prince William Sound, Alaska, in 1989.

In spite of the current interest in in-situ burning and the promising results from NOBE, much needs to be done before this technique becomes widely accepted and utilized.

The approval process involved encouraging comments from the numerous federal and state agencies involved and responses to these comments. Of most concern to the resource agencies commenting were air emissions, burn residue issues, and monitoring.

Concerns about air emissions were answered by establishing a three mile limit to burning. Previously reported research results indicate that three miles more than triples the safe distance from harmful gases or particulate matter.

Residue concerns were addressed primarily by the establishment of exclusion zones to prevent sensitive biological communities associated with hard bottom in the Gulf of Mexico from being contacted by sinking residue.

Monitoring became a big issue. It was finally decided that a concurrent proposal by the U.S. Coast Guard to provide monitoring services be included as a part of the burn plan. The special response operations monitoring program (SROMP) was developed by the Coast Guard and will be carried out by the Gulf Strike Team. The strike team will monitor burn operations and report PM10 levels directly to the FOSC; when levels of concern are reached, the FOSC will be advised to terminate operations.

Stacy, G., "Regional Response Team Preapproval of In-Situ Burning for Operational Use," Proceedings of the 1995 Oil Spill Conference, API publication No. 4620, American Petroleum Institute, Washington, D.C., 866-867 pp, 1995.

Conclusions

If preapproval can be obtained from other response teams, quick operational approval by the FOSCs will allow the use of in-situ burning in the narrow window of opportunity available. In-situ burning is a safe, effective response technique. Its use in combination with other response tools (such as dispersants and mechanical recovery) will allow responders to prevent and/or lessen environmental damage from oil spills.

Author

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