

LEGAL FRAMEWORK GOVERNING USE OF DISPERSANTS

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A MISSISSIPPI-ALABAMA SEA GRANT LEGAL BULLETIN

The response efforts in the wake of the Deepwater Horizon explosion and oil spill involved the use of dispersants at an unprecedented volume and duration, and for the first time included subsea application. Although not without controversy, all use of dispersants during the response efforts was in accordance with applicable law. According to an EPA Inspector General report, the Deepwater Horizon response exposed serious weaknesses in the regulatory framework governing the use of dispersants, including outdated testing protocols and a lack of monitoring requirements (Report No. 11-P-0534). As a result, the U.S. Coast Guard and the Environmental Protection Agency (EPA) had to make key decisions regarding the use of dispersants based on limited information and develop protocols and guidelines in the midst of the crisis.

On January 22, 2015, the EPA issued a proposed rule to amend the requirements in Subpart J of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NCP governs the use of dispersants during oil spill response efforts. This publication provides an overview of the current rules about how dispersants can be used, and outlines some of the key changes the EPA has proposed to address concerns raised during the Deepwater Horizon response. More than 80,000 comments were submitted during the first comment period, which closed on April 22, 2015.

The EPA is currently reviewing the comments submitted on the proposed rule, and a final rule is expected in 2016. To track this rule and provide comments, sign up for email alerts through www.regulations.gov. From the homepage, search using the docket ID for this rulemaking: EPA-HQ-OPA-2006-0090. Once on the proposed rule page, click on "Open Docket Folder" at the top. The "Sign Up for Email Alerts" tab is in the right-hand box.

The Mississippi-Alabama Sea Grant Legal Program

The Mississippi-Alabama Sea Grant Legal Program at The University of Mississippi School of Law has conducted legal research, education, and outreach since 1972 as the legal research arm of the Mississippi-Alabama Sea Grant Consortium (MASGC).

The MASGC, established in 1972, is one of 33 Sea Grant programs. The National Sea Grant College Program, administered by the National Oceanic and Atmospheric Administration, is a federal/state partnership that matches NOAA Sea Grant expertise and resources with state academic institutions. Consortium members include Auburn University, Dauphin Island Sea Lab, Jackson State University, Mississippi State University, The University of Alabama, The University of Alabama at Birmingham, The University of Mississippi, The University of Southern Mississippi and the University of South Alabama.

Legal Program attorneys and professional staff are part of the MASGC Outreach Team and respond to research requests from the MASGC team, state and federal agencies, and local governments in Alabama and Mississippi.



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National Contingency Plan (NCP)

The NCP is the federal government's blueprint for responding to oil spills. The first NCP was published in 1970 in response to the 1967 grounding of the Torrey Canyon off the coast of Cornwall, England that released almost 120,000 tons of crude oil into the Atlantic. The EPA last revised the NCP in 1994 following the passage of the Oil Pollution Act in 1990.

The purpose of the NCP is to provide for efficient, coordinated, and effective action to minimize damage from oil and hazardous substances, including containment, dispersal, and removal of oil and hazardous substances. The NCP outlines duties and responsibilities of the various federal agencies. The U.S. Coast Guard is the lead agency when spills occur in or threaten coastal waters. The NCP also sets forth the requirements for contingency planning and the process for designating a Federal On-Scene Coordinator.

In addition, Congress directs that the NCP must include a "schedule" identifying: (1) dispersants, other chemicals, and other spill mitigating devices and substances that may be used in carrying out the NCP, (2) the waters in which the dispersants may be used, and (3) the quantities of the dispersants that may be used in those waters. The NCP, therefore, dictates dispersant use during oil spill response efforts. The EPA is responsible for developing and maintaining the NCP Product Schedule.

NCP Product Schedule

Dispersants are currently defined as "chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column." The EPA is proposing to change the definition of dispersants to clarify for manufacturers which testing requirements the product will be subject to when seeking inclusion on the list of allowable dispersants (known as NCP Product Schedule).

Testing Protocols

Dispersants, with one limited exception, must be listed on the NCP Product Schedule before they can be considered for use. Dispersants not listed on the NCP Product Schedule may only be used if the product is necessary to prevent or substantially reduce a hazard to human life. There are twelve data requirements that manufacturers must submit to the EPA if they seek inclusion of their dispersant on the NCP Product Schedule. Manufacturers must submit information on application and storage information, as well as information on the effectiveness and toxicity testing results from laboratories.

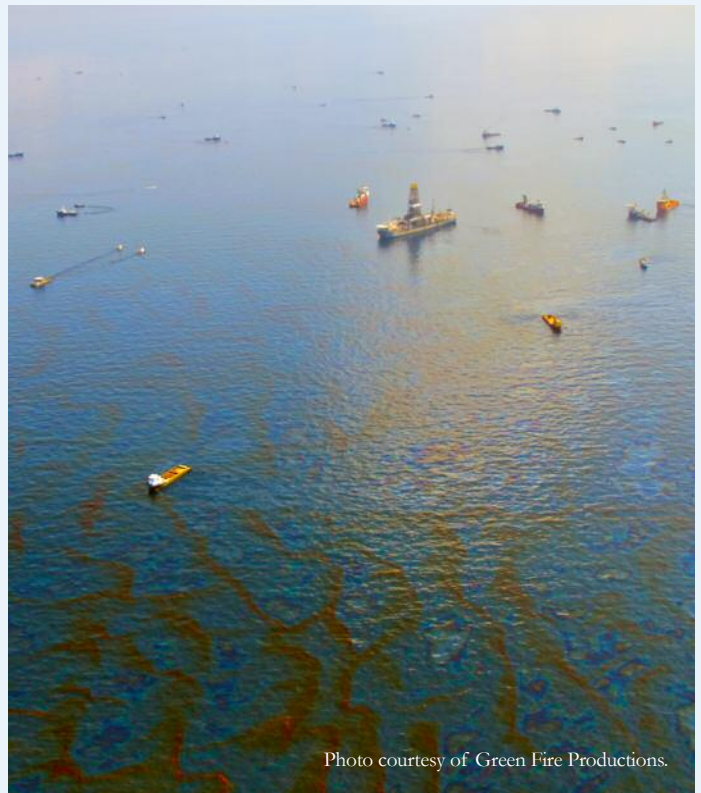


Photo courtesy of Green Fire Productions.

To be included on the NCP Product Schedule, dispersants must meet both effectiveness and toxicity thresholds. Under current rules, and those that were in effect when the Corexit products were placed on the Schedule, toxicity testing is limited to studies on the immediate impact on one fish species and one shrimp species. With respect to effectiveness, the product must disperse at least 45% of oil using a Swirling Flask Test (SFT). The EPA has been concerned for decades about the accuracy of the SFT,



after discovering the tests are susceptible to human error. In its proposed rule, the EPA seeks to replace the SFT with the Baffled Flask Test (BFT), which has undergone extensive scientific review and provides more reliable and reproducible results. The EPA is also proposing to change the efficacy thresholds. Specifically, dispersants must demonstrate effectiveness on two test oils – Intermediate Fuel Oil (IFO) and Alaska North Slope (ANS) crude oil – at two different temperatures – 5 °C and 25 °C. The efficacy thresholds vary by combination, depending on oil type and temperature, but range from 55% - 75%.

The EPA is also proposing changes to the toxicity testing protocols. The current NCP Subpart J requires dispersants to be tested for toxicity to saltwater species. Dispersants must be tested alone and in combination with No. 2 fuel oil. This information is made available to the Federal On-Scene Coordinator for consideration when approving dispersant use, but is not used to determine eligibility for listing on the NCP Schedule. The proposed rule seeks to incorporate the testing results into eligibility determinations.

The proposed rule would continue to require toxicity testing on the immediate (acute) impacts to two saltwater species – mysid shrimp (*Americamysis bahia*) and

silversides (*Menidia beryllina*). EPA is proposing to change the test oils. Acute toxicity testing would be required for the dispersant alone, the dispersant mixed with ANS crude oil, and the dispersant mixed with IFO. In addition, the EPA is proposing to add a completely new developmental toxicity test requirement. To assess the potential for a dispersant to cause adverse effects on the development of animals, the EPA is seeking to require a test of the dispersant alone on sea urchin embryo development. The proposed rule also adds a requirement to conduct studies on the longer term (chronic) impacts of the dispersant alone on the two saltwater species to gather information on possible sublethal effects.

Listing Determinations

Once the manufacturer submits a dispersant for consideration, the EPA reviews the information and makes a decision about whether to list it on the NCP Product Schedule. EPA does not perform independent product testing. Manufacturers with dispersants on the NCP Product Schedule must notify the EPA of any changes in the composition, formulation, or application of the dispersant. EPA may require retesting of the product if the changes are likely to affect the effectiveness or toxicity of the product.

Removal from NCP Schedule

Under current law, there is no process for the removal of a product from the NCP Product Schedule, except when a manufacturer fails to comply with EPA labeling or advertising requirements. The EPA is seeking to change this. The new regulations would allow the EPA to remove a product from the NCP Product Schedule for reasons including, but not limited to:

- Misleading, inaccurate, or incorrect statements within the product submission or on labels, advertisements, or technical literature;
- Alterations to the product without proper notification;
- Failure to include the required disclaimers on labels and advertisements; or
- New, or previously unknown relevant information concerning the impacts or potential impacts of the product to human health or the environment.

Decisions to remove a product from the NCP Product Schedule could be appealed by the manufacturer.

Authorization of Use

Inclusion of the dispersant on the NCP Product Schedule does not authorize the actual use of the product in a given response situation. The use of dispersants listed on the NCP Product Schedule must be authorized by Regional Response Teams (RRT) and Area Committees and the designated Federal OSC.

- Pre-Authorization: As part of their planning activities, EPA requires RRTs and Area Committees to address their interest in using dispersants and, as appropriate, include preauthorization in their

Regional or Area Contingency Plans. When developing preauthorization plans, RRTs may require additional toxicity and effectiveness testing of dispersants if there are site-specific or area-specific concerns. For example, the Region 6 RRT, which includes Louisiana and Texas granted pre-authorization to the OSC for dispersant use. The plan, which was applicable to the Deepwater Horizon response, stated "The only requirement for dispersant product selection is that the dispersant must be included on the NCP Product Schedule and considered appropriate by the [Federal OSC] for existing environmental and physical conditions." (EPA OIG Report).

- Use of Products on the Schedule: For spills that are not addressed by a preauthorization plan, the OSC, with the concurrence of the EPA representative on the Regional Response Team, may authorize the use of dispersants and other products if they are listed on the NCP Product Schedule.
- Use of Products not on Schedule: Additionally, the OSC may authorize the use of products not listed on the NCP Product Schedule without obtaining the concurrence of the EPA representative on the Regional Response team if the use of the product is necessary to prevent or substantially reduce a hazard to human life.

The EPA is not proposing any changes to the authorization process but would add a new reporting requirement. The EPA would require the OSC to provide the RRT with a report after the use of a chemical or biological agent, including dispersants, within 30 days of completion of use. The report must include the name of the product(s) used, the quantity and concentration, the duration of use, the locations it

was used, and any data collected and analysis of the effectiveness or environmental effects.

Monitoring Dispersant Use

The biggest policy change in the proposed rule may be the EPA's proposal to establish monitoring requirement for dispersant use. The EPA states, "The Agency believes that comprehensive monitoring in certain discharge situations is necessary to determine the overall effectiveness of dispersants and should transcend from the initial dispersant application to include the transport and environmental effects of the dispersant and dispersed oil in the water column." (80 Fed. Reg. 3394). Responsible parties would be required to monitor the use of dispersants in three situations:

- Subsurface use of dispersant in response to an oil discharge;
- Surface use of dispersants in response to oil discharges of more than 100,000 gallons occurring within 24 hours; and
- Surface use of dispersants for more than 96 hours in response to an oil discharge.

The responsible party would be required to document information on the characteristics of the oil and flow rate; dispersant product information, including rationale for product choice; and application method, procedures, and rates. The proposed rule would require the collection of daily water column samples from the dispersed oil plume. To establish background information and reference data, water column sampling of areas not affected by the discharge would also be required. Responsible parties must report the water samples collected and data analyses daily to the OSC, except for analyses that take more than 24 hours.



Photo courtesy of the Deepwater Horizon Response.