THE NATIONAL RESPONSE TEAM

Working together to protect Americans from threats to our land, air, and water.

MEMORANDUM **December 16, 2010**

SUBJECT: Use of Dispersants on Oil Spills – Interim Actions

FROM: Dana S. Tulis, Chair, National Response Team
Captain John Caplis, Vice-Chair National Response Team

TO: NRT Members
RRT Co-Chairs

Background

As many of you are aware, EPA and the USCG are committed to revising the existing Area Contingency Plans and Regional Contingency Plans (ACPs/RCPs) to reflect lessons learned with dispersants during the Deepwater Horizon Response. The November 2nd letter from EPA's Assistant Administrator for the Office of Solid Waste and Emergency Response to EPA's Regional Administrators supported this effort and requested initial feedback by December 30, 2010 to the NRT chair. (Attachment 1). The memo also requested that ACP/RCP modifications be coordinated through the NRT and RRTs. To ensure a consistent national effort, the NRT will be leading the coordination effort and hosting a working meeting tentatively planned for February 9, 2011, with NRT members and experts on dispersant use from each of the RRTs. In addition, EPA anticipates revising Subpart J of the NCP to address the use of chemical countermeasures with a focus on dispersant use.

Current pre-authorization agreements are an important tool to allow Federal On-Scene Coordinators (FOSCs) to readily authorize the use of dispersants during the initial response. These agreements were designed to ensure that the necessary contingency planning was completed in advance of an event and that an FOSC was empowered to authorize the use of dispersants as a response option within the narrow window of opportunity that exists for effective use. The pre-authorization agreement in the Gulf, however, did not envision the challenges that emerged during the massive and sustained subsea discharge of oil resulting from Deepwater Horizon. Throughout this effort of review, the current ACPs and RCPs will remain effective; however, we are expecting the review to be expeditious and changes to be incorporated as soon as feasible. One option that was mentioned was modifying the Selection Guide, which provides technical information on response options, first, and then the ACPs/RCPs could adopt and modify that guidance. However, it may be more expedient for the NRT to develop a separate national guidance focusing only on dispersant use. Another interim measure that Region 6 RRT is recommending is that a letter be written to amend the current ACPs. These options will be further discussed during the February 9th meeting.

Lessons Learned

The challenges faced during the Deepwater Horizon Response that were not envisioned during the pre-authorization process established in Area and Regional Contingency Plans

include: the continuous and uncontrolled release of oil, and the unprecedented use in the U.S. of almost 2 million gallons of dispersants on a single incident, including the use of subsea dispersants nearly a mile below the ocean surface. In order to address these concerns, EPA and the USCG worked closely together via the R6 RRT under tight time constraints to establish a directive and a number of addenda to reduce the overall use of dispersants and to establish effective monitoring plans and procedures.

Subsea dispersants were used since the contact of the dispersant to the oil being released would be immediate, and therefore the overall volume of dispersant use was reduced. However, several tests were pursued to ensure effectiveness and a daily monitoring plan was established with specific cut-off criteria based on dissolved oxygen levels and the survival rate of rotifers, a biological indicator test that could be performed within 24 hours (See Deepwater Horizon May 10 Directive and its May 14 Addendum 1 for details). Decisions to continue subsea dispersant use were made each evening. Data was reviewed daily by the Unified Area Command, EPA Regional and Headquarters Emergency Operations Centers, and NOAA Headquarters. Although cut-off criteria were not exceeded, daily monitoring continued to ensure subsea conditions were not affected by dispersant use.

The prolonged, continuous release of oil and the unprecedented use of dispersants also led to the establishment of a priority scheme for employing cleanup countermeasures during the response: first, mechanical recovery via skimming/booming or in-situ burning followed by subsea dispersant and lastly surface dispersant use. Adverse weather conditions often made the use of mechanical recovery a challenge and therefore the aerial application of dispersants on the surface was often a necessary response option. The amounts of dispersants used on the surface were reviewed daily by EPA and USCG to ensure the best balance of countermeasures were being employed, the amounts of dispersants used were reduced whenever possible, and the net environmental benefits for the overall response were maximized. Flyovers would occur the night before, followed by final decisions the next morning based on the size of the plume. During this review process, it quickly became evident that there needs to be a better link between SMART data and daily decision-making, and that the current SMART protocols need to be improved to reflect this need.

RRT Input Needed

Attachment 1 lays out a number of revisions that are needed to modify the ACPs/RCPs. As mentioned above, Region 6 RRT is proposing interim guidance while the ACP/RCPs are being modified. For example, the letter they are proposing would provide an exception to FOSC Pre-authorization for dispersant use for major spills that are continuous in nature and uncontrollable for a period of greater than 7 days and specifies daily documentation requirements. The interim guidance also requires the use of the Deepwater Horizon Directive 1 and Addendum 1 for any subsea application of dispersants. Another option would be for the RRT to be immediately convened to monitor operations and to determine a long term plan for dispersant use. In order to assist the RRTs in providing additional recommendations by December 30, we are asking that each of you consider responses to the following questions or just provide your overall recommendations.

<u>Hierarchies</u>

Do we need pre-authorization limitations for smaller spills, e.g., based on spill volume or expected duration of discharge? What would be the rationale for a cutoff? Do we only impose

hierarchies for continuous and uncontrolled releases sustained for greater than a certain number of days?

What are the favorable conditions for dispersants use, such as mixing energy, water depth, wind speed, distance from shorelines and/or populations? When should morning and evening flyovers become mandatory?

Site-Specific Rationale

What specific factors should be considered: proximity to shorelines (i.e., 3 miles), environmental tradeoffs (and how to evaluate this), length of the response (i.e., week, month), size of spill, others?

Limitations on Pre-authorization of Dispersant Use

Do we need to develop trigger points which when exceeded, would result in dispersant use no longer being pre-authorized? Do we want to specify according to gallons (e.g., greater than 10,000 gallons per day) of dispersants used per day? Do we specify when the spill is greater than a certain number of gallons (e.g., 100,000, 300,000 gallons)? Do we specify only when the spill is continuous and uncontrolled for greater than a certain number of days (e.g., R6 RRT is recommending 7 days). When is the RRT convened? When does it get elevated to the NRT? Or should we specify that the pre-authorization of the use of dispersants, regardless of circumstance is only intended to apply during the first several days of the response, pending the convening of appropriate members of the RRT to monitor operations and determine a long term dispersant use plan for the spill?

Subsea Dispersants

Current recommendation is that the May 14 Directive Addendum 1 be applied anytime subsea dispersants are used with daily monitoring and daily decision-making based on the cut-off criteria. As improvements are made to monitoring technology, updated procedures should be put in place.

Should other considerations be looked into? Should a technical committee be established? Should different protocols be in put in place? How do we ensure daily monitoring occurs and is directly tied to dispersant use the following day? When are the RRT(s) and NRT convened?

SMART Protocols

How do we ensure that during surface dispersant application, SMART protocols are followed and used daily? How do we ensure decision-making is directly tied to SMART data on a daily basis? What improvements are needed for the SMART protocol? Does the Directive used for subsea monitoring need to be improved?

Transparency

What specific recommendations do you have to ensure transparency of data and an understanding of who makes the decisions? Public web sites? Public Meetings? How do we involve the public? How do we share decisions with the public?

Endangered Species Protection

Given interim and anticipated future policy changes, what recommendations do you have for when and how the processes for protection of endangered species should be factored into the ACP/RCP revisions? When should ESA consultation or re-initiation of consultation occur, including completion of any ongoing consultation?

Next Steps

Please provide your input to Dana Tulis by December 30, 2010. This information will be used for further discussion during the February 9, 2011 meeting in the D.C. area. We look forward to a productive meeting. Thank you and enjoy your holidays.

Cc EPA- Regional Superfund Division Directors
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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NOV 2 2010

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Revision of Area Contingency Plans/Regional Contingency Plans Regarding Use of Dispersants on Oil Spills – Interim Actions

FROM: Mathy Stanislaus
Assistant Administrator

TO: Regional Administrators

Experiences and knowledge gained in the Gulf should and must inform our future response activities. Accordingly, the agency is using this information to engage federal partners via the National Response Team (NRT) to reassess dispersant use guidelines under the National Contingency Plan (NCP) for future oil spills. In addition, we are initiating review of the criteria and testing requirements under Subpart J of the NCP for listing and delisting dispersants and other chemical countermeasures. This review will also examine the different conditions, circumstances, and durations of oil spills and how that affects the use of certain chemical countermeasures.

Until the NCP and Subpart J Product Schedule are revised, and to help guide those decisions, I request that Regional Administrators ensure Regional Response Team (RRT) representatives work with RRT partners to implement the following changes via revisions to Area Contingency Plans (ACP) and Regional Contingency Plans (RCP) with respect to dispersants and other chemical countermeasures:

- Develop a hierarchy of preferred oil spill response measures. During the BP Oil response, the following hierarchy was established and supported by the public: mechanical recovery (such as skimming/booming, controlled burning) followed by subsea dispersants, and surface dispersants.

- Site-specific and oil-specific rationale for, and conditions/limitations to, the use of dispersants and other chemical countermeasures should be well documented as part of the plan:
    - Rationale includes identification of environmental tradeoffs (e.g., proximity to shorelines including wetlands) and net environmental benefits, and documenting these, as appropriate to the length of the response and size of the spill;

- Conditions/limitations include:
  - Identification of favorable operational conditions for dispersant application (e.g., mixing energy, water depth, wind speed, distance from shorelines and/or populations), as well as methods to ensure that only the amount necessary is used (e.g., flying patterns and dispersant application locations, effectiveness);

  - Upfront monitoring protocols (e.g., SMART Level 3 with additional data collection), recordkeeping, and data parameters that govern rates and amounts of dispersants, coordinated with a regular re-evaluation of the operational conditions noted above.

- In longer-term responses, the ACP/RCP should include a process for regularly re-evaluating whether there is a continued need for dispersants. For example, this may include ongoing testing regarding effectiveness and impacts, addressing the local environment and/or the anticipated possible nature of locally spilled oil. Re-evaluation also includes identification of initial approval and shut-down criteria, and steps to modify these criteria if needed for individual responses;

- ACPs/RCPs should specify steps that will be taken to ensure that data and decisions are publicly transparent, and that decisions are reached with public outreach and involvement to the maximum extent possible given the nature of the spill;

- Specific roles and responsibilities for dispersant and chemical use (e.g. re-evaluation, making data and decisions public, decisions to stop application) should be clearly identified in the ACP/RCP; and,

- Each ACP's/RCP's Endangered Species Act (ESA) Emergency Consultation protocol should be reviewed, with consideration given to updating the procedures and incorporating lessons learned in more recent experiences. ESA section 7 consultations conducted on the ACPs/RCPs themselves should also be reviewed in light of current information. As appropriate, section 7 consultations on the ACPs/RCPs should be reinitiated with the ESA Wildlife Services to address new information and to ensure that consultation on the use of dispersants is included.

To ensure national consistency as appropriate, I am asking Dana Tulis and her Office of Emergency Management to be consulted on major issues associated with this interim effort, to collect best practices as ACPs/RCPs are revised, and to serve as a clearinghouse and source of advice and expertise as issues are addressed. As the Chair of the NRT, Dana will coordinate the issues with other NRT member agencies and with the RRT co-chairs. Please respond via email to Dana Tulis with recommended changes by December 30, 2010.

Thank you in advance for your efforts to make use of the new information the agency has to assist responders and to make decisions that protect both human health and the environment.

cc: Deputy Regional Administrators

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