The Oil Drum
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Gulf Deepwater Oil Spill Open Thread - Dispersants, Flow Rate Technical Team, and other topics

Posted by Gail the Actuary on May 23, 2010 - 10:51am
Topic: Environment/Sustainability
Tags: deepwater horizon, oil spill [list all tags]

The purpose of this thread is to discuss current issues with respect to the oil spill. Two Issues I have noted are

1. BP has released a letter, saying that COREXIT, the dispersant it currently is using (that has been on the market for 20 years), seems to be the best choice for now. Dispersant monitoring data is also being posted now.

2. A **Flow Rate Technical Group** is analyzing the size of the spill, and expects to have a report by "early next week". (Since the letter is undated, it may really mean "early this week".)

Other updates can be found on the Deepwater Horizon Response site.

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Dispersant Choice and Monitoring

One of the issues recently with the Gulf of Mexico oil spill has been a question of which dispersants to use. On May 10, with addendums May 14 and May 19, the EPA issued a directive to BP to use a less-toxic and more effective dispersant than it had used previously.

BP has now responded to that directive, and basically said what the EPA is asking is not possible. In its view, Corexit EC9500A (which it is currently using) is the best alternative.

According to BP's letter, only five products meet the criteria requirements (less toxic according to standard tests, and at least as effective as Corexit EC99500A). These are Sea Brat #4, Nokomis 3-F4 and Nokomis 3-AA, Mare Clean 200, and Neos AB3000.

Of these only Sea Brat #4 is available in the near future. The letter notes:

> One relevant criterion, given the amoutn of dispersant that is required at this site and the proposed application near the ocean floor, is the potential for long term effect and persistence of the chemicals in each dispersant.
>
> In this gregard, Sea Brat #4 contains a small amount of a chemical that may degrade to a nonylphenol (NP). The class of NP chemicals have been identified by various government agencies as potential endocrine disruptors, and as chemicals that may persist in the environment for a period of years. The manufacturer has not had the opportunity to evaluate this product for those potential effects, and BP has not had the opportunity to conduct independent test to evaluate this issue either. BP learned of this issue after it applied for permission to use Sea Brat #4 at the incident site.

The letter goes on to say that it would be prudent to do more evaluation, before using Sea Brat #4. It also notes that further study is needed to determine the status of the other products on the list (the ones not currently available in large quantities, quickly) with respect to the potential NP issue. COREXIT does not contain chemicals that degrade to NP. In addition, COREXIT biodegrades within 28 days, so appears to be a better choice, even though other dispersants appear to better on some tests.

The letter (which has certain parts withheld, for confidentiality reasons) provides additional information.

The EPA web site also gives sampling results with respect to dispersant monitoring, for those interested in reviewing these results.

The EPA web site also gives answers to a number of Frequently Asked Questions.

Flow Rate Technical Group

A Flow Rate Technical Group Fact Sheet has been posted. (The new group was announce at a press conference on Friday.) According to the sheet:

> The FRTG is leading a coordinated effort across the federal government to determine oil flow rates from the spill at multiple time periods following the explosion, fire and sinking of the oil rig in order to compute total outflow.
>
> This will be achieved by:
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> • Obtaining a wide variety of data available on the reservoir, wellbore, blowout preventer, subsea flowing pressures, leak points, discharge plums and surface discharge observations, and others, as well as video review; and
> • Using that data to identify and run state-of-the-art models to calculate flow rates and compare results.
>
> Within the Group are two teams:
>
> • A Modeling Team, which will collect and analyze data, and run state-of-the-art models.
> • A Peer Review Team, which will conduct an independent review of all reports and

findings of the modeling team under a contract with an independent organization.

The FRTG, chaired by MMS National Outer Continental Shelf Oil Spill Program Coordinator David Moore, draws on the experience of the best experts from the federal government, including the U.S. Coast Guard, Minerals Management Service, Department of Energy, NOAA and the U.S. Geologic Survey, as well as members from academia.

The group expects to have an initial flow assessment completed by early next week. Reports will be posted at www.deepwaterhorizonresponse.com. Flow rate estimates produced by the group will include the sources of data used, a description of data quality, any assumptions made, and the names of models used.

It would seem to me that the report is expected by early this week, rather than early next week, but since the sheet is undated, it is unclear which week is intended.