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The API Teleconference on the Oil Spill plus Some More Recent News Items

Posted by Heading Out on May 10, 2010 - 10:23am
Topic: Environment/Sustainability
Tags: american petroleum institute, deepwater horizon, dispersant, oil spill [list all tags]

This post is really a combination of two things: (1) A report on an American Petroleum Institute (API) teleconference from a few days ago relating to the oil spill by Dave Summers (Heading Out) and (2) Some more recent news updates, (not supplied by API) by Gail Tverberg.

Since news keeps changing so rapidly, it seemed like including recent news items in the discussion as well might be helpful. As usual, there are also oil spill news items in Drumbeat.

A Few Recent News Items and other Updates (by Gail the Actuary)

In the Gulf of Mexico, what went wrong with the Deepwater Horizon oil drilling rig?

> No one is sure what exactly happened on the night of April 20 to trigger this crisis. Critical pieces of evidence, including the immolated rig itself, sit under nearly a mile of water on the mud floor of the gulf.
>
> What's certain is that more than one thing had to go wrong. Some failure of well control permitted a bubble of gas to surge to the surface, where it ignited and turned Deepwater Horizon into a Roman candle in the night. Moreover, the fail-safe mechanism known as the blowout preventer, a massive stack of valves and pistons that is the most critical hardware in the system, failed to choke the well.

(Good lay analysis article by Jeff Achenbach of the Washington Post talking about possible causes, based in part on blog discussions.)

Rig Owner Had Rising Tally of Accidents

> The very day of the blast on the rig, executives were aboard celebrating its seven straight years free of serious accidents.
>
> But a Wall Street Journal examination of Transocean's record paints a more equivocal picture.

> Nearly three of every four incidents that triggered federal investigations into safety and other problems on deepwater drilling rigs in the Gulf of Mexico since 2008 have been on rigs operated by Transocean, according to an analysis of federal data. Transocean defended its safety record but didn't dispute the Journal's analysis.

> There are indications Transocean's reputation suffered after it acquired GlobalSantaFe in 2007. Before the merger, Transocean routinely ranked near the top in surveys by Energy Point Research, which rates oil-service firms on customer satisfaction. Since the merger, Transocean's rankings have fallen to close to the bottom in many categories.

Gulf Coast States Seek Bolder Steps to Guard Shoreline

> Gov. Bobby Jindal on Saturday said Louisiana had begun to pursue additional lines of defense, including asking the National Guard to drop four "tiger dams"—plastic tubes filled with a heavy mix of water and sand— to guard seven miles of coastline near Southwest Pass, the main commercial shipping entry to the Mississippi River.
>
> Mr. Jindal said the state will ask the Coast Guard to approve a plan to dredge 43 miles of new islands connected to the Chandeleur Island chain to form a barrier against oil hitting the state's eastern coast. Other islands could be built to create a solid line of natural defense for Barataria Bay, near Grand Isle, La.
>
> The first phase of the project will cost an estimated $200 million, which regional authorities will ask BP to pay, said Plaquemines Parish President Billy Nungesser. He said the operation would take as many as six months to complete, but would provide some protection "immediately." Mr. Suttles said he had only seen a "basic outline" of the plan, and it was too early to say how BP will respond.

EPA has a web section related to the oil spill

www.epa.gov/bpspill/

Includes Frequently asked questions and answers

Statement on Dispersant Use in BP Oil Spill

API Teleconference Write-Up (by Heading Out)

On Thursday, May 6, API hosted a conference call to review the status of the Deepwater Horizon fire and oil spill. There were some 14 bloggers taking part in the call, which I could not attend since I was flying at the time. The transcript is now available, but I thought I would briefly review some of the points that came up, and give some links to some of the points that were brought up.

The experts that API provided included:

Richard Ranger, Upstream/Industry Operations, API
Holly Hopkins, Upstream/Industry Operations, API
Robin Rorick, Group Director, Marine & Security, API
Allison Nyholm, Oil Spill Response Veteran, API
John Felmy, Chief Economist, API
John Wagner, Upstream Consultant, API

Holly Hopkins began by noting the scale of the effort (that data can be updated by going to the Deepwater Horizon Unified Command site) which lists:

Total Vessels (including tugs and skimmers): 188
Boom deployed: 855,855 feet
Boom available: 831,553 feet
Oil and Water Mix - Recovered: Approximately 2.1 million gallons
Dispersant Used : 274,465 gallons
Dispersant available: 185,892 gallons
Remotely Operated Vehicles (ROV): 4
Overall Personnel Responding: 4,520

One of the first questions asked related to the toxicity of the dispersant that BP is injecting over the spill from aircraft and underwater into the plume as a way of breaking the oil into smaller droplets to increase the rate of disintegration and dispersal. ABC News had reported that BP had stopped using the chemical, while awaiting toxicity tests. However Allison Nyholm noted that while the dispersant had been approved for aerial use, where it would not be concentrated but spread out and thus diluted, the use subsea was in a more concentrated form as it went into the plume. Since this was a new use, there were two trials of the technology, and that having completed these, the agencies and those involved had stopped the injections, while the data is reviewed.

The discussion noted that the end of the leaking pipe was sawn off, prior to a valve being attached to close the end leak of the three. (There is a Youtube video of this) .

Richard Ranger noted that the speed of the response to the disaster showed that there was a contingency plan in place, and the fact that there was such a relatively rapid response to what turned into a major disaster, showed that the plan existed and involved both industry and the federal government. Obviously, given the particular geometry that the box to plug the second leak had to fit, this had to be built after the leak became evident, but the fact that it could be built and fielded as fast as it was, speaks to the commitment to solve the problem.

Discussion switched to a letter from BP to its contractors and that had been reported in the Houston Chronicle. The letter said:

> In light of the recent tragedy involving the Transocean Horizon Rig in the Gulf of Mexico, and as part of BP's overall commitment to safe and reliable operations, we are asking all our drilling contractors to review personal and process safety practices on their rigs.
>
> Our mutual goal is to provide an environment that is safe for all personnel involved in offshore drilling and one that protects the environment. Since Blowout Preventers (BOPs) are an integral part of a safe and successful drilling and completion operation, we request that you specifically confirm that the subsea BOP and associated equipment

> used on your deepwater drilling rigs current intended to drill fro BP have been inspected and are routinely inspected, tested and maintained to industry standards and in compliance with applicable regulations.
>
> Additionally, if the BOP or associated equipment has been modified from the original design in any way, please confirm: (1) that such modification were made in consultation with the original manufacturer; (2) used OEM parts; (3) pursuant to a formal management of change process; (4) and in compliance with applicable regulatory requirements.

The article notes that the BOP in question was over 10 years old. (I have heard that it was uprated from operating at 15,000 psi to 20,000 psi but have no confirmation of that).

Richard Ranger noted that the move to drilling in deeper water came about as the state of knowledge and equipment improved, based on experience in shallower waters, and that it is through this gain in knowledge that deeper drilling becomes practical.

And while the topic cannot be completely ruled out, the participants did point out the great difficulty that would be faced if anyone had tried to sabotage the rig in this way.

Recently there have been tests of a fire boom to burn some of the oil in place. There was a question on why it took so long to get this process started. Alysson Nyholm noted that it took a couple of days to get the permit, and then the proper equipment had to be mobilized. (Note that a fire boom is a relatively specialized boom, and there was only one available at the time.)

> The "In-Situ Burn" plan produced by federal agencies in 1994 calls for responding to a major oil spill in the Gulf with the immediate use of fire booms.
>
> But in order to conduct a successful test burn eight days after the Deepwater Horizon well began releasing massive amounts of oil into the Gulf, officials had to purchase one from a company in Illinois.
>
> When federal officials called, Elastec/American Marine, shipped the only boom it had in stock, Jeff Bohleber, chief financial officer for Elastec, said today.

The extended use of this new tool can be effective in relatively calm water, but the waves at the site were over 4 ft high for a period, and this would wash the oil over the boom. But when the sea is calmer, then the tool can be more effective.

> A single fire boom being towed by two boats can burn up to 1,800 barrels of oil an hour, Bohleber said. That translates to 75,000 gallons an hour, raising the possibility that the spill could have been contained at the accident scene 100 miles from shore.

The discussion moved on to the assessment of risk. The question was raised as to how many deep water wells have been drilled, and how many incidents there had been in contrast to how many oil tankers would be needed to replace that oil, and the risk of spills from their hulls. John Felmy responded that there are 500 discoveries in more than 1,000 ft of water (the current limit is 10,000 ft) and that at present some 30% of the offshore oil comes from the Gulf. And this is the

worst incident in the past 40-years, so that it is somewhat uncommon.

However they did discuss the incident in the Timor Sea last year where in August there was a leak on a well under a mile and a half of water, leading to a rig fire. It took months to drill the relief well and stop the leak. While that investigation continues, Roger Ranger said that there is acceptance that the cause was, in part, a problem with the cement completion of the well.

There were additional discussions on the timing of future inquiries, and on the development of new technologies, recognizing that the industry itself is looking for ways to improve the safety and productivity of the offshore drilling rigs.

Hopefully I have captured the sense of the discussion, but the entire transcript is available for those interested.