



BP's Deepwater Oil Spill - Bonnie's Expected Impacts; Industry New Containment Plan - and Open Thread

Posted by [Gail the Actuary](#) on July 25, 2010 - 7:15am

Topic: [Environment/Sustainability](#)

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With Tropical Depression Bonnie dissipating, the slow process of getting all of the boats back in place and workers back to work is now beginning. Much of the discussion at [Admiral Allen's press conference](#) on Saturday, however, was about the expected impact of the Bonnie. NOAA Administrator Dr. Jane Lubchenco was present to explain the impacts. She indicated she expected a number of positive benefits of the storm:

- It will spread the surface slick out and thereby lower oil concentrations.
- It's expected to break tar patches and tar mass into smaller tar balls which means faster weathering and faster natural biodegradation.
- It will also cause more natural dispersion again lowering the concentration of oil in the water and making it more available to the natural bacteria that are in the water that do this natural biodegradation.
- Some waves generated by Bonnie may act to flush the beaches and redistribute oil and tar balls that are on the beaches. Some of those tar balls may be dispersed, some may move back out to sea. In some cases, the beaches may look cleaner as a result of this redistribution.

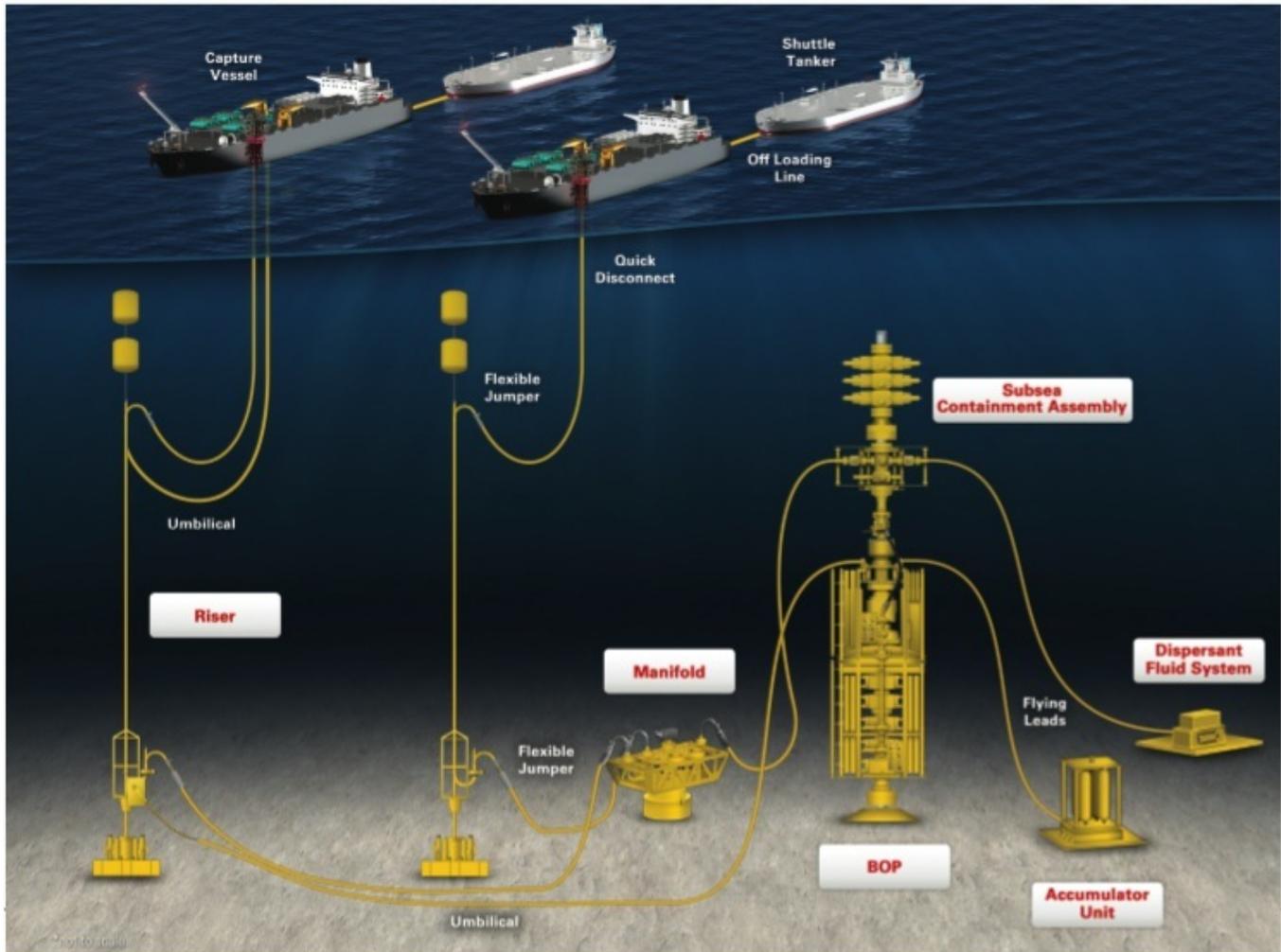
r balls may be dispersed, some may move back out to sea. In some cases, the beaches may look cleaner as a result of this redistribution.

Dr. Lubchenco wouldn't quite go as far as say that she expected the storm to be a net benefit, though. She said it would depend on where you are. Some places might be better, but others might be worse. In some places, oil might be pushed farther inland, although with little storm surge, this would be a relatively smaller problem. The storm wouldn't have any impact on the deep oil mixed with the water.

Admiral Allen mentioned that it had been possible to keep two vessels on the scene, so they were able to be with the ROVs overnight. Thus, they were able to continue monitoring pressure readings. Pressure readings continue to slowly rise (6,891 psi at midnight last night), showing evidence of integrity at the well head.

New Oil Spill Containment System Planned by Chevron, Conoco Phillips, ExxonMobil, and Shell

I thought I would shift gears and show some information about the new oil spill containment system that the four other major oil companies are working on, which you have probably read about in the news.



The information I am quoting and the image are from the [Containment System Fact Sheet](#). Further information is available on a [Press Release](#).

According to the Overview:

This system offers key advantages to the current response equipment in that it will be pre-engineered, constructed, tested and ready for rapid deployment in the deepwater Gulf of Mexico. Its primary objective is to fully contain the oil with no flow to the sea. The system will be flexible and adaptable. It will be responsive to a wide range of potential scenarios, deepwater depths up to 10,000 feet, weather conditions and flow rates exceeding the size and scope of the current spill. Once constructed, the system components will be fully tested to ensure functionality and will be maintained in a state of continuous operational readiness. In the event of a future incident, mobilization to the field will start within days and the system will be fully operational within weeks.

Subsea components:

- A newly designed and fabricated subsea containment assembly will create a permanent connection and seal to prevent oil from escaping into the water.

- The assembly will be equipped with a suite of adapters and connectors to interact with various interface points such as the wellhead, blowout preventer stack, lower marine riser package and casing strings, including any well design and equipment used by the various operators in the Gulf of Mexico.
- The assembly will be designed to prevent hydrate formation and blockage.
- Capture caisson assemblies will also be built for use if required to enclose a damaged connector or leak outside the well casing. Once installed, these assemblies will create a seal with the seabed to prevent seawater from entering the system.
- The oil would be captured by the subsea containment assembly and flow through flexible pipe to a riser assembly. Riser assemblies are made of a seabed foundation, vertical pipe, buoyancy tanks and a flexible pipe specifically configured to connect to the capture vessels.
- The subsea system will be supplied with the necessary hydraulic / electric controls and chemical injection (such as hydrate inhibitors) through an umbilical.
- A manifold will distribute the oil from the subsea containment assembly to multiple riser assemblies if more than one capture vessel is necessary.
- Riser assemblies and umbilical will be designed to quickly disconnect from capture vessels so that all subsea equipment stays in place in the event of a hurricane. An additional system component will be available to inject dispersant into the subsea containment assembly if required.

There are also surface vessels, which I won't describe. The fact sheet indicates that the initial investment is expected to be approximately \$1 billion. The new system is targeted for completion within 18 months. ExxonMobil has been designated to lead the engineering, procurement and construction of the system components. The companies behind this endeavor will form a new non-profit organization, the Marine Well Containment Company (MWC), to operate and maintain the system.



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