



Comments on Some Recent Oil Spill News Items, Including the Dome

Posted by [Heading Out](#) on May 4, 2010 - 9:25am

Topic: [Environment/Sustainability](#)

Tags: [bp](#), [oil spill](#) [[list all tags](#)]

Today, I have just a few comments on recent oil spill news items.

The steel and concrete containment dome that is the first of the three systems that BP hope will be able to cap the leaking riser has been built and will be [shipped out today](#). There are three points at which the riser is leaking oil. The main leak is some 600 ft from the well head apparently. Part of the concern as to how well it will work, even if it does get put in place by the end of the week, lies with the [relatively soft seabed](#) at the point where the cap will be placed.

Nate Hagens has a [good description](#) of what is intended, showing the plan for capping each leak:

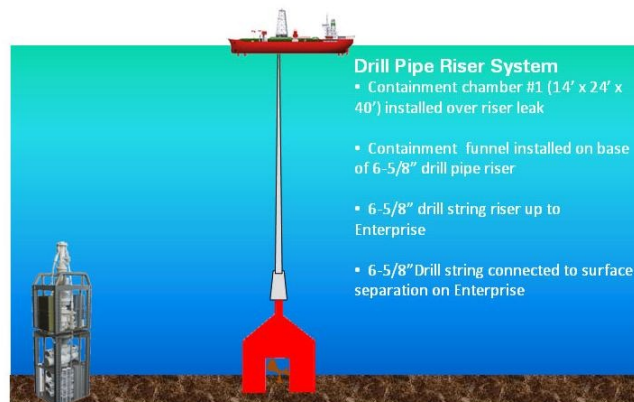


Image from Superior Energy - (Noted by Nate Hagens) [Click for larger image](#)

Today, I have just a few comments on recent oil spill news items.

The steel and concrete containment dome that is the first of the three systems that BP hope will be able to cap the leaking riser has been built and will be [shipped out today](#). There are three points at which the riser is leaking oil. The main leak is some 600 ft from the well head apparently. Part of the concern as to how well it will work, even if it does get put in place by the end of the week, lies with the [relatively soft seabed](#) at the point where the cap will be placed.

Nate Hagens has a [good description](#) of what is intended, showing the plan for capping each leak:

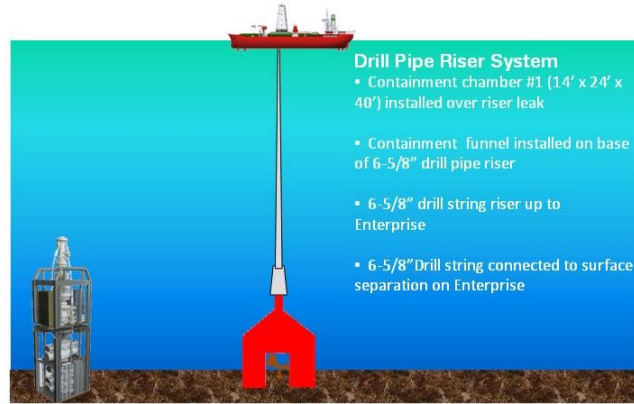
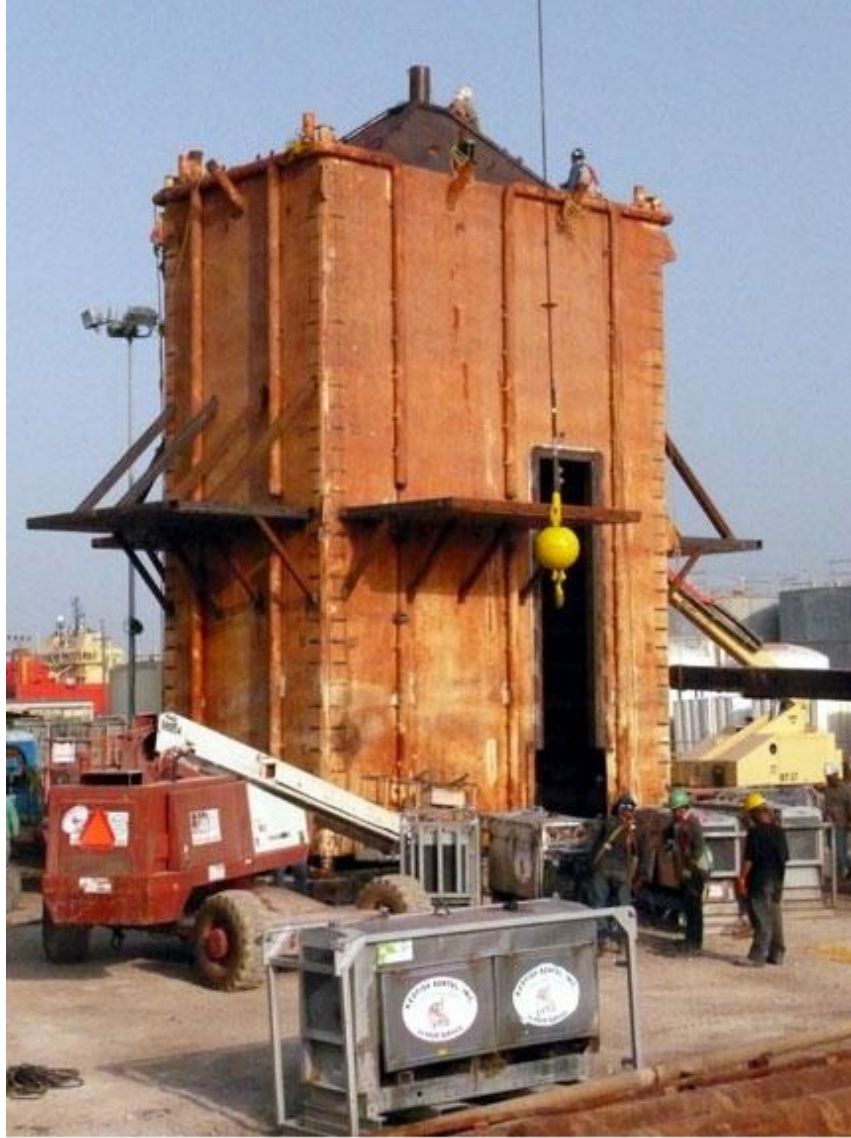


Image from Superior Energy - (via Johnson Rice) Click for larger image

How it works

- The system is made up of a 125-ton, 14' x 24' x 40' structure that will be set on top of the largest leak source. This leak is located at the end of the riser, about 600 feet from the wellhead.
- Equipment at the top of the system is connected to a 5,000 foot riser that will convey the hydrocarbons to the surface ship, the Deepwater Enterprise.
- Once in place, oil will flow up into the containment system's dome to the surface ship.
- Once on the surface ship, the hydrocarbons will be processed and oil will be separated from water and gas. The oil will then be temporarily stored before being offloaded and shipped to a designated oil terminal onshore.
- The Deepwater Enterprise is capable of processing 15,000 barrels of oil per day and storing 139,000 barrels.
- A support barge will also be deployed with a capacity to store 137,000 barrels of oil.
- This system could collect as much as 85% of oil rising from the seafloor.

There is also a picture of the cap itself, from the same source.



While the impact of the spill has not stopped other companies who are drilling in the Gulf. It has caused the Governor of California to shelve plans for off-shore drilling in California, for the present.

The report from a fisherman who was [fishing near the rig](#) at the time of the explosion states that the rig first vented water, and then natural gas, and that after the lights on the rig went out. The explosion came possibly as the emergency power generator kicked in.

There has been some significant attention paid as to whether the rig should have been fitted with an [acoustic remote control system](#) for the BOPs – though in one discussion I heard there was some confusion as to what this would have changed on the rig, since there were BOPs in place. The acoustic system has [the following benefit](#):

The ACS system is a redundant receiver/transmitter for communication with the rig through acoustics. It is interfaced to the BOP control pod so that different sets of emergency functions can be executed to shut down the well and avoid a pollution. If the regular umbilical is broken and normal communication with the BOP is not possible, the ACS is the last and only means to shut down the well. If a function is executed from the ACS, signal goes to a solenoid that activates a big valve on the BOP; the valve is then

In this case that doesn't seem to be likely to have helped, since there was, apparently, a signal on the rig floor that the BOP had activated, though obviously it had not worked the way it was intended. The reason(s) for the BOP failing to work as anticipated is still a matter of conjecture.



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](http://creativecommons.org/licenses/by-sa/3.0/).