

BP's Deepwater Oil Spill - Capping Stack Installed - and Open Thread

Posted by Gail the Actuary on July 12, 2010 - 9:52pm

Topic: Environment/Sustainability

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BP's new cap has been installed, and the company will start pressure tests tomorrow that will test the tightness of the seal and the integrity of the well. According to BP's press release:

The three ram capping stack was installed on the Deep Water Horizon LMRP at 7 p.m. CDT. The stack completes the installation of the new sealing cap.

Following installation of the capping stack and in line with the procedure approved by the National Incident Commander and Unified Area Command, the well integrity test will begin July 13 on the MC252 well.

For the duration of the test, which will be a minimum of 6 hours and could extend up to 48 hours, the three ram capping stack will be closed and all sub-sea containment systems (namely, the Q4000 and Helix Producer) will be temporarily suspended, effectively shutting in the well. It is expected, although cannot be assured, that no oil will be released to the ocean for the duration of the test. This will not however be an indication that flow from the wellbore has been permanently stopped.

Information gathered during the test will be reviewed with the relevant government agencies including the federal science team to determine the way forward. Options include reinstatement of containment as well as extending the test duration beyond 48 hours.

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According to the same press release,

The Helix Producer containment system started operations on July 12. The Q4000 containment system continues to capture oil and gas from the MC252 well and flare the hydrocarbons safely at the surface.

Relief well operations continue throughout this period and remain the sole means to permanently seal and isolate the well.

The New York Times has <u>an article</u> about the pressure tests. It says:

If the tests on the well show the pressure rising and holding — an indication that the well is intact, with no significant damage to the casing pipe that runs the length of the well bore to 13,000 feet below the seafloor — BP, working with government scientists, could decide to leave the valves closed, effectively shutting off the well like a cap on a soda bottle.

"The best-case scenario is that pressures rise to the point we anticipate they would," Mr. Suttles said at a briefing. "We'd likely be able to keep the well shut in."

On the other hand, the tests could show pressures that are lower than expected, Mr. Suttles said, an indication that the well is damaged. That could mean that oil and gas are leaking into the surrounding rock.

In that case, keeping the cap closed could damage the well further. The valves would have to be reopened, he said, and oil would start escaping from the well again, although much of it, and perhaps eventually all, would be funneled through pipes to surface ships.

The same article said that a technician involved with the operation offered the opinion that it was unlikely that the cap would be left on beyond the test period, since there is a chance the pressure could damage the well over time, and since facilities will soon be available to capture the oil and gas that escapes.

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