



U.S. Department of Energy Office of Electricity Delivery and Energy Reliability

Deepwater Horizon Situation Report #4

May 12, 2010 (2:00 PM EDT)

http://www.oe.netl.doe.gov/emergency_sit_rpt.aspx

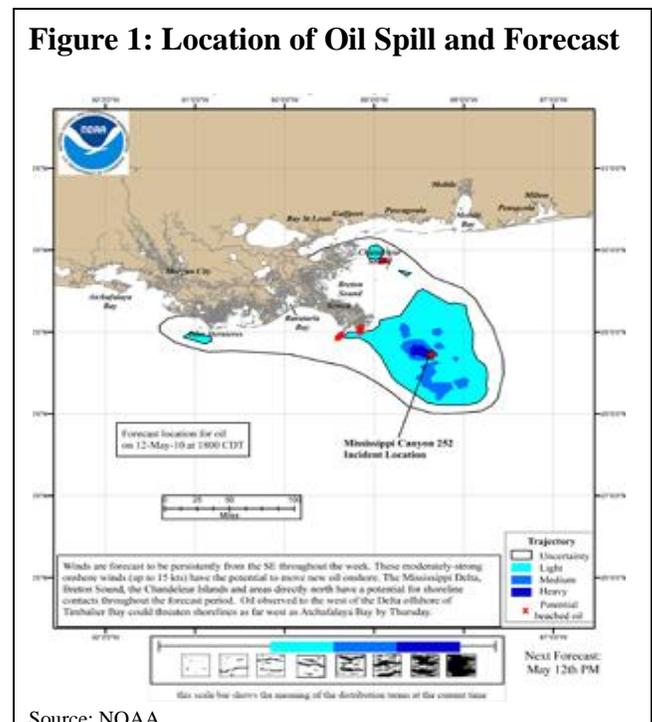
Incident Background:

At approximately 11:00 pm EDT April 20, 2010 an explosion occurred aboard the Deepwater Horizon mobile offshore drilling unit (MODU) located 52 miles Southeast of Venice, LA and 130 miles southeast of New Orleans, LA. The MODU was drilling an exploratory well and was not producing oil at the time of the incident. The Deepwater Horizon MODU sank 1,500 feet northwest of the well site. See Figure 1 for the location of the affected area and the trajectory of the oil slick. Crude oil is leaking from the well pipe, located on the Gulf of Mexico sea floor, at an estimated rate of approximately 5,000 barrels (210,000 gallons) per day. To conduct the containment and cleanup operations, **as of May 11, 2010, more than 460 vessels**, skimming boats, storage barges, support vessels, and **13,000 personnel** are responding. The U.S. Coast Guard (USCG) has protected the Louisiana shoreline with **over 1.4 million feet of boom** and is working to protect the Alabama, Mississippi, and Florida shorelines. The USCG is also restricting ships from traveling where the slicks exists.

Highlights:

- As of **May 11, 2010**, shipping channels and ports remain open in the Gulf Coast Region. Vessels are being encouraged to avoid the spill area and any vessels that have oil on their hulls will be cleaned at four separate stations: two on the MS River, one on the East Pearl River, MS and one at Port Fouchon, LA
- As of **May 11, 2010**, the oil spill has not affected petroleum refinery operations in the region.
- As of **May 11, 2010**, two platforms have shut in production and one remains evacuated. As a result, approximately 6.2 million cubic feet of natural gas is shut-in. This is less than one-tenth of a percent of daily gas production in the Gulf of Mexico.
- **EIA reported that U.S. crude oil and distillate stocks rose during the week ending May 7, while gasoline stocks fell by 1.2 percent. U.S. as well as PADD 3 regional stocks of crude oil and the major refined products all remain above 5-year average levels. Crude oil stocks in PADD 3 fell by 2.6 million barrels to 185.0 million barrels. PADD 3 total motor gasoline stocks and total distillate stocks respectively fell by 0.9 million barrels and 0.6 million barrels. However, low sulfur distillate fuel (under 500 ppm) stocks in PADD 3 fell by a combined 1.0 million barrels, while high sulfur distillate fuel showed a 0.3 million barrel increase.**

Figure 1: Location of Oil Spill and Forecast





U.S. Department of Energy Office of Electricity Delivery and Energy Reliability

- According to EIA, PADD 3 retail regular gasoline prices rose 0.9 cent to \$2.79 per gallon in EIA's weekly survey published on May 10. This remains about 12 cents below the national average of \$2.91 per gallon, and no region-specific price effects were observed. Diesel prices showed a similar pattern, with PADD 3 on-highway diesel increasing 0.4 cent to \$3.09 per gallon while the U.S. average for on-highway diesel fuel increased by 0.5 cent to \$3.13 per gallon.

Energy Infrastructure Impacts

Electric Power Facilities

- The oil spill has the potential to impact several electric power generation facilities in the region. A number of power plants have been identified as drawing cooling water directly from the Gulf of Mexico or adjacent salt water sources. If the water supply for these facilities becomes contaminated with oil, cooling water systems could be damaged.
- OE continues to monitor the location of the oil slick relative to power plant cooling water intakes. Currently, no impact to regional electric power reliability is anticipated.
- The operators of the affected facilities are working with the USCG and other State and local officials to implement plans to protect these waterways.

Petroleum Facilities

- Almost two thirds of the Gulf Coast crude oil is imported and arrives by tanker; however, initial concerns are focused on ports serving the Mississippi River, where ships and barges may need to be cleaned before entering the river.

Coal Facilities

- Imports of coal to U.S. power plants could be affected by the Gulf oil spill if waterways are closed.
- Stock piles at affected power plants offer a backup source of coal. If supplies were disrupted for more than several weeks, it may be possible to obtain domestic coal from nearby Alabama mines. Other possibilities include coal from Kentucky, West Virginia, and Wyoming.

Energy Infrastructure Background

- The Gulf Coast is a major refining center, representing about half of the refining capacity and crude oil processed in the United States. Eleven operating refineries get most of their imported crude oil through the Mississippi River. The crude oil imports delivered via the Mississippi River to this group of refiners accounted for roughly 20 percent of their crude oil runs in 2009.
- Petroleum is delivered to refineries located in the Port of South Louisiana, which stretches 54 miles along the Mississippi River. According to the Port of South Louisiana (on average), two to three ships move a total of 1.0-1.5 million barrels of crude oil per day through the river based on fourth quarter 2009 estimates.
- According to EIA (2009), offshore crude oil production in the Gulf represented about 30 percent of U.S. crude oil production, which includes both Federal and State offshore production. About



U.S. Department of Energy Office of Electricity Delivery and Energy Reliability

12 percent of U.S. natural gas production comes from the U.S. offshore Gulf Coast, including Federal and State waters offshore.

- About 3 percent of the coal consumed in the United States is imported coal. A large amount of imported coal, about one third, enters the U.S. on coal freighters delivering coal to the ports of Mobile, AL and New Orleans, LA. This is equivalent to a daily average of 25,000 and 5,000 tons per day through Mobile and New Orleans, respectively.
- Colombian coal dominates regional coal imports, accounting for about 80 percent of all imports.
- Liquefied natural gas (LNG) that flows into the Gulf Coast is not expected to be an issue because LNG imports to this area are minimal. At the U.S. level, LNG imports account for only about 2.0 percent of total U.S. gas supply. Most LNG to the United States is imported at terminals along the East Coast. In 2008, total LNG imports into Gulf Coast terminals were 24 Billion cubic feet (Bcf), about 7.0 percent of total LNG imports.

DOE Actions:

- Staff from the National Nuclear Security Agency (NNSA) are participating in the U.S. National Response Team (NRT) activities in the response of Deepwater Horizon incident. The NRT responds to emergencies involving hazardous substances, pollutants and contaminants, hazmat, oil, and other environmental incidents of national significance.
- DOE staff represented by the Office of Electricity Delivery and Energy Reliability, Office of Fossil Energy, and the Energy Information Administration (EIA) are currently tracking and monitoring the oil spill and assessing the impact to electric utility power plants and oil facilities.