

The Alarming Oil Spill – Gulf of Mexico

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A deep-water oil drilling rig known as the MODU Deepwater Horizon exploded and caught fire in the Gulf of Mexico on April 20th 2010 with 126 people on board. At least seven people were critically injured in the 10 p.m. blast about 50 miles southeast of Venice and were receiving medical treatment in the New Orleans area and Alabama, according to the Coast Guard. The Deepwater Horizon was a 9-year-old semi-submersible Mobile Offshore Drilling Unit (MODU), a massive floating, dynamically positioned drilling rig built by Hyundai Heavy Industries that could operate in waters up to 8,000 feet (2,400 m) deep and drill down to 30,000 feet

The incident which shook the world during April this year 2010 has been termed as Deepwater Horizon oil spill (also referred to as the BP oil spill, the Gulf of Mexico oil spill, the BP oil disaster or the Macondo blowout.

The gusher, now estimated to be flowing at 35,000 to 60,000 barrels (1,500,000 to 2,500,000 US gallons; 5,600 to 9,500 cubic metres) of crude oil per day, originates from a deepwater wellhead 5,000 feet (1,500 m) below the ocean surface. It has not been possible to ascertain the exact spill flow rate due to the difficulty of installing measurement devices at that depth and is a matter of ongoing debate. The resulting oil slick covers a surface area of at least 2,500 square miles (6,500 km²), with the exact size and location of the slick fluctuating from day to day depending on weather conditions. Scientists have also reported immense underwater plumes of oil not visible at the surface.

Homeland Security Secretary Janet Napolitano said during a White House briefing that designating the spill as one of “national significance” means that “the US can draw down assets from across the country” to assist with cleanup. She said 1,100 people are working on the cleanup effort, which as on that date had collected 685,000 gallons of oil and water from the polluted Gulf. The White House said 174,060 feet of flotation booms had been deployed to corral the floating oil.

The spill will result in an environmental disaster, with extensive impact already on marine and wildlife habitats. It has also damaged the Gulf of Mexico fishing and tourism industries. With a variety of ongoing efforts to stem the flow of oil at the wellhead, crews have been working to protect hundreds of miles of beaches, wetlands and estuaries along the northern Gulf coast, using skimmer ships, floating containment booms, anchored barriers, and sand-filled barricades along shorelines. The U.S. Government has named the British company BP as the responsible party in the incident, and officials have said the company will be held accountable for all cleanup costs resulting from the oil spill. BP is the operator and principal developer of the Macondo

Prospect with 65% of interest, while 25% is owned by Anadarko Petroleum Corporation, and 10% by MOEX Offshore 2007, a unit of Mitsui.

The Deep-water Horizon was drilling an exploratory well at a water depth of approximately 5,000 feet (1,500 m) in the Macondo Prospect located in the Mississippi Canyon Block 252, in the United States exclusive economic zone about 41 miles (66 km) off the Louisiana coast in the Gulf of Mexico. It was at this time that the explosion took place. Production casing was being run and cemented by Halliburton Energy Services. It was due to be tested for integrity and a cement plug set to temporarily abandon the well for later completion as a subsea producer.

In their permit to drill the well, BP estimated the worst case flow at 162,000 barrels per day. On April 28, 2010, based on satellite pictures, the National Oceanic and Atmospheric Administration estimated that the leak was likely 5,000 barrels (210,000 US gallons; 790 cubic metres) a day.

The spread of the oil was initially increased by strong southerly winds caused by an impending cold front. By April 25, the oil spill covered 580 square miles (1,500 km²) and was only 31 miles (50 km) from the ecologically sensitive Chandeleur Islands. An April 30 estimate placed the total spread of the oil at 3,850 square miles. The spill quickly approached the Delta National Wildlife Refuge and Breton National Wildlife Refuge, where dead animals, including a sea turtle, were found.

On May 14, the report said that a publicly available model called the Automated Data Inquiry for Oil Spills indicates about 35 percent of a hypothetical 114,000 barrels (4,800,000 US gal; 18,100 m³) spill of light Louisiana crude oil released in conditions similar to those found in the Gulf now would evaporate, that between 50 and 60 percent of the oil would remain in or on the water, and the rest would be dispersed in the ocean.

By June 4, the oil spill had landed on 125 miles (201 km) of Louisiana's coast, had washed up along Mississippi and Alabama barrier islands, and was found for the first time on a Florida barrier island at Pensacola Beach. On June 9, oil sludge began entering the Intracoastal Waterway through Perdido Pass after floating booms across the opening of the pass failed to stop the oil.

The rig's blowout preventer, a fail-safe device fitted at source of the well, did not automatically cut off the oil flow as intended when the explosion occurred. BP attempted to use remotely operated underwater vehicles to close the blowout preventer valves on the well head 5,000 feet (1,500 m) below sea level, a valve-closing procedure taking 24–36 hours. BP engineers have attempted a number of techniques to control or stop the oil spill. The first and fastest was to place a 125-tonne (280,000 lb) container dome over the largest of the well leaks and pipe the oil to a storage vessel on the surface. But the effort did not succeed.

BP next tried to shut down the well completely using a technique called "top kill". The

process involves pumping heavy drilling fluids through two 3-inch (7.6 cm) lines into the blowout preventer that sits on top of the wellhead. This would first restrict the flow of oil from the well, which then could be sealed permanently with cement. On May 27, the U.S. Coast Guard, who is coordinating the government response, expressed that engineers had succeeded in stopping the flow of oil and gas into the Gulf of Mexico.

The next contingency option was the Lower Marine Riser Package (LMRP) Cap Containment System. The operational plan first involves cutting and then removing the damaged riser from the top of the failed blowout preventer to leave a cleanly-cut pipe at the top of the BOP's LMRP. The cap is designed to be connected to a riser from the Discoverer Enterprise drillship and placed over the LMRP with the intention of capturing most of the oil and gas flowing from the well. BP is also working on a system that will allow it to flow oil from the choke and kill valves on the BOP through a subsea manifold to the Q4000 service platform operated by Helix Energy Solutions Group, with processing capacity for about 5,000 barrels (210,000 US gallons; 790 cubic metres) of oil per day. Q4000 will be paired with Sealion Shipping owned well testing vessel Toisa Pisces

Wildlife and environmental groups accused BP of holding back information about the extent and impact of the growing slick, and urged the White House to order a more direct federal government role in the spill response. The spill threatens environmental disaster due to factors such as petroleum toxicity and oxygen depletion. More than 400 species live in the islands and marshlands at risk, including the endangered Kemp's Ridley turtle. In the national refuges most at risk, about 34,000 birds have been counted, including gulls, pelicans, roseate spoonbills, egrets, terns, and blue herons. As of June 10, dead animals found in the spill zone included 1131 dead birds, 331 sea turtles, 38 dolphins and other mammals, and 1 reptile. There may be other dead animals that go unfound. It is possible the Gulf Stream sea currents may spread the oil into the Atlantic Ocean.

ALABAMA BEACHES

Beaches in Orange Beach, Ala., where large amounts of crude and tar balls washed ashore on Saturday, were mostly clean after crews worked through the night and in the early morning clearing the oil. Clear plastic bags sat in piles, full of sand and tar balls, and some empty stretches of beach were still littered with grapefruit sized tar patties.

FLORIDA'S SHORES

Winds continued to blow two patchy, orange oil plumes from the spill toward the white sands of the western Florida Panhandle in the first week of June 2010, as skimmers worked to collect the crude before it came ashore. The Florida Department of Environmental Protection said one of the slicks is as close as 3 miles south of Pensacola Pass, an inlet next to a stretch of the Gulf Islands National Seashore and the tourist hotels of Pensacola Beach.

Sunday, June 13, 2010

Oil collected on the water's surface near the site of the Deepwater Horizon oil spill in the Gulf of Mexico. Oil continued to flow from the wellhead some 5,000 feet below the surface. The Coast Guard demanded that BP step up its efforts to contain the oil gushing into the Gulf of Mexico by the end of the weekend, telling the British oil giant that its slow pace in stopping the spill is becoming increasingly alarming as the disaster fouled the coastline in ugly new ways. Workers loaded bags of contaminated sand as they clean up oil from the Deepwater Horizon spill along the beach.

NEW ORLEANS

BP mounted a more aggressive response to the oil spill in the Gulf of Mexico as it started deploying undersea sensors to better measure the ferocious flow of crude while drawing up new plans to meet a government demand that it speed up the containment effort ahead of President Barack Obama's visit to the coast. The financial ramifications of the disaster are growing by the day as the White House and states put pressure on BP to set aside billions of dollars to pay spill-related claims in a move that could quickly drain the company's cash reserves and hasten its path toward possible bankruptcy.

One of the actions BP took Sunday was to use robotic submarines to position sensors inside the well to gauge how much oil is spilling. The robots were expected to insert the pressure sensors through a line used to inject methanol – an anti-freeze meant to prevent the buildup of ice-like slush – into a containment cap seated over the ruptured pipe. BP was installing the sensors at the request of a federal team of scientists tasked with estimating the flow. The necessary equipment was first identified last week, and the installation procedures were approved over the weekend.

BP is currently capturing about 630,000 gallons of oil a day, but hundreds thousands more are still escaping into the Gulf. The company has said that it could begin siphoning an additional 400,000 gallons a day by burning it using a specialized boom being installed on a rig – and any new success would be welcome news for Obama.

Obama wanted an independent, third party to administer an escrow account paid for by BP to compensate those with "legitimate" claims for damages. The amount of money set aside will be discussed during talks this week between the White House and BP, but the request will most definitely be in the billions.

Waste Management received a contract from BP to transport waste produced by cleanup crews assigned to work the stretch of the coastline. Ken Haldin, a Waste Management spokesman, said Sunday that the company has designated 65 trucks and 535 containers that are being filled with solid oil waste.

Waste Management has designated three landfills in three different states that are operated by the company to handle the oily refuse. Before the refuse is dumped, it has to be analyzed by both the waste removal company and by local government environmental authorities to make sure it is nonhazardous.

Waste Management also is handling some of the liquid waste skimmed from the ocean by cleanup crews, and has set up special equipment, including vacuum trucks, along the docks that separates oil from the water. Once separated, the oil will be resold to oil services companies.

The oil spill is gaining international ramifications with furore growing between the US and the UK. Already during the first week of June 2010, the normally smooth waters of US-British relations were rocked by growing signs of strain over objections to US treatment of the officers and stockholders of BP, a big-oil company listed on the London stock exchange. Some British officials and the London press are of the view that US officials – President Obama topping the list – were increasingly mixing anti-British vitriol into their growing frustration with the formerly “British Petroleum” named, formerly British-owned BP.

On Friday, the European Union announced it was responding to a request by US authorities for various types of booms to help contain the spilled oil.

Sweden, Germany, Norway, the UK, and the European Maritime Safety Agency all responded with offers and are working “flat out” to deliver the equipment as soon as possible. The Netherlands responded to an earlier request by providing three sweeping arms which are already operating in the Gulf.

But the oil leak is also having unanticipated international repercussions, with the US already quietly discussing the Gulf disaster and its potential extended impact with Cuba, the country most likely to be the first non-US victim if the oil slick advances beyond Florida into the Caribbean.

The US, which has modestly expanded contacts with the Cuban government under the Obama administration, has had some low-level discussions with the Cubans about the Gulf oil leak and is keeping channels of communication open in light of the oil’s potential trajectory according to State Department officials.

But some oil experts say the US needs to look beyond the current catastrophe to consider a potential future oil disaster. With Cuba set to commence oil exploration in its northern territorial waters sometime in the next six to nine months, they see a stark scenario under which the US embargo on Cuba would prevent American oilfield and petroleum-technology companies from taking part in any disaster response.

Mr. Piñón, a former Conoco and BP oil executive, says the Obama administration should do for petroleum equipment and services trade with Cuba what the Clinton administration did for agricultural trade – exempt it from the embargo.

An executive order paving the way for US companies to intervene in a Cuban oil disaster was one of the recommendations of a Cuba Task Force organized by the Brookings Institution in Washington. Piñón serves on the task force and co-authored a recent

paper analyzing Cuban oil issues in light of the Gulf disaster. Before the Gulf spill, much of the focus of analysis of Cuba's move into oil exploration and production was on the impact it will have on the current regime, Cuba's relations with current oil-supplier Venezuela, and an eventual transition government in Havana.

In the meanwhile, more than 130 lawsuits relating to the spill have been filed.
