

Gulf Oil Leak: Unprecedented Disaster

*“The earth is also
polluted by its
inhabitants.”*

—*Isaiah 24:5, New
American Standard
Bible*

IN OUR OPENING SCRIP-

ture the Prophet Isaiah speaks of the devastating effects of pollution that has been caused by fallen man’s careless, selfish, and irresponsible behavior. This has occurred as a consequence of disobedience to the divine law and resulting sentence of death. The Old Testament word that has been translated ‘polluted’ means to soil, but it has also been variously translated as defile, profane, or corrupt in other versions of the Bible. Within the context of this scripture, the prophet was pointing to earth’s inhabitants who continue to profane the laws of God with little attention paid to his Holy Word, and while ignoring his righteous and equitable standards of Truth.

The effects of polluting substances are corrupting our precious air, water, and soil resources. It is

a matter of deep concern among investigators and analysts who point out that the human family's earthly home is becoming increasingly contaminated with dangerous materials that have devastating consequences to man and his environment. Pollution is difficult to deal with and very expensive to clean up. Additionally, long-established wildlife habitats are being disturbed that seriously impact the human family and its food supply.

THE QUEST FOR OIL

As further oil resources are needed to satisfy the appetite of a growing population and its need to fuel a technologically oriented world, pollution problems are also becoming more critical. Offshore areas in the Gulf of Mexico in the southern United States have become an important source of oil supply, not only for this country but for others as well.

As oil-drilling operations continue to expand and oil and gas companies push the frontiers of offshore drilling into deeper and more dangerous waters in recent years, federal regulations have not kept pace with the growing trend. Government watchdogs have remained in the shadows while clinging to long-standing practices, and failed to make plans for possible new risks and hazards.

UNEXPECTED DISASTER

On April 20, 2010 a violent explosion occurred on the Deepwater Horizon drilling platform which was leased by British Petroleum (BP) several miles off the southern coast of Louisiana. Eleven people were killed and several seriously injured. Extensive efforts are underway to plug the leak, and plans are being made to clean up the oily mess.

Some company officials have indicated that there were problems on the drilling rig long before the explosion occurred. The Deepwater Horizon operation acknowledged that it was a very difficult well—not a typical one—and that it was necessary to either redrill or reroute the well. Several worrisome events and findings leading up to the disaster were described in internal corporate documents that were later made available to a House committee by BP executives. The documents provided evidence that there was a sequence of events and failures that led up to the explosion.

Congressional investigators said later that a key safety system known as the blowout preventer, used in BP's oil-drilling rig had a hydraulic leak and a failed battery that prevented it from working as designed. It was also indicated that there were conflicting pipe pressure tests that should have warned those on the rig that poor pipe integrity may have allowed explosive methane gas to leak into the well. Significant pressure discrepancies were observed in at least two of these tests which had been conducted only hours before the explosion.

Crew members spoke about the chaos that erupted on the drilling rig in the aftermath of the explosion. They spoke of workers leaping eight stories into the sea to escape the flames that engulfed the rig, and nearby ships that raced to the scene to pluck survivors from the burning waters. Witnesses also described heroic efforts by some in their struggle to assist the injured. The incident escalated into a massive rescue effort as every available helicopter began a nighttime search. Pilots were flying with night-vision goggles, and

aircraft fitted with radar equipment that detected heat to find anyone in the water.

UNPREPARED

Neither the oil companies nor their regulators in the United States Department of the Interior were ready to deal with a crisis of such major proportions. There had been no written protocol and no history of drills to simulate such a disaster anywhere close to this size. Interior analysts had calculated that the chances of any spill exceeding 1,000 barrels were from 3% to 5%. There are no records to suggest that anyone had seriously considered the possibility of such a tragedy becoming a reality. Computer analysts had projected that there was only a 7% chance that in a month's time a spill in the area where the BP leak began, could ever drift into the marshes and bayous of St. Bernard Parish, La. Yet, oil from the spill began washing up in the area 16 days after fires erupted on the Deepwater Horizon and sent it to the bottom of the Gulf of Mexico.

SEARCH FOR ANSWERS

The Minerals Management Service, the branch of the Interior Department that oversees oil and gas drilling on federal land and offshore drilling, has fallen behind in its fundamental regulatory duties, including enforcing environmental and safety rules, assessing the risks of energy exploration and calculating how much money the federal government is owed in oil and gas royalties.

Oil officials were suddenly forced to find new and untested ways to cope with the worsening oil spill. They believed the best method would be to

drill a second well close by to serve as a relief well, but it would take approximately three months to do so. In the meantime, thousands of gallons of oil continue to pollute the entire gulf area every day.

Members of a Congressional and Federal panel of inquiry planned to meet in the state of Louisiana to determine the cause of the explosion. They determine that a decision to remove heavy drilling lubricants from a pipeline may have been a contributing factor. The Obama administration announced a major reorganization of the Minerals Management Service, the Interior Department Agency that oversees offshore drilling.

They point to tougher limitations that should be imposed on what oil companies can and cannot do when drilling in very deep water, in this case a mile below the water's surface. President Obama has said that efforts are underway to contain the environmental damage from the oil spill, which poses a significant challenge to the nation, and pledged to explore all options to address the crisis.

DEEP WATER HAZARDS

As officials scramble to find solutions to contain the oil leak, British Petroleum's (BP) David Clarkson, who is managing the project, acknowledged that there was no quick fix or solution to cap the well. There are many possible solutions, but they have never been attempted before in such deep water. Previous assessments don't accurately reflect new challenges of drilling for oil far from equipment and support, and depths that are not possible for divers to reach. The technology has been used a few times before in shallow waters, but

never at such extreme depths as five thousand feet under the surface. At that depth extremes of pressure and temperatures can tax materials such as cements used to repair casings, or synthetic materials used for seals and valves. That far below the surface water pressure is great enough to crush a submarine.

Additionally, unfamiliar formations in deep sea areas may contain surprises such as contaminants or layers of unforeseen high pressure. A gas leak at the seafloor may result in gas expanding very rapidly as it travels up to the water's surface. Clarkson said that the slurry of gas, water, and oil that is expected to surge up the collection system will encounter a whole range of shifting pressures and temperatures. These must be carefully managed at every step, and mishaps may leave pipes fatally blocked.

The oil is mixed with natural gas, and at depths of more than 1,600 feet, where the pressure is 2,300 pounds per square inch and the temperature is 42 degrees Fahrenheit, gas can mix with water and quickly produce what is known as 'gas hydrates,' which are formations that are similar to frozen water. These clear or white chunks are stable only under pressure, and inside a narrow pipe they could quickly gum up.

Engineers have hundreds of feet of pipe to worry about as this mixture of gas, oil and water moves rapidly upward from the seafloor. To control the temperature, warm water will be pumped down the space between the outer and inner pipes. BP also plans to inject methanol into the system to keep the water from binding with methane and other gases.

ECONOMIC TOLL

Although BP executives have agreed to pay all costs involved to clean up the mess, legal experts point out that it took nearly twenty years for more than 30,000 Alaskan fishing boat operators, property owners and others to be paid damages after the Exxon Valdez tanker accident that took place in 1989.

At the center of these kinds of disasters there are countless people who are simply put out of business. They need help now, but are often left to fend for themselves with little or no income. Also, there may not be enough money to cover all costs for losses suffered, including lost profits of local businesses, property damage, and other factors. Oil companies could never have anticipated the scale of such a disaster that extends way beyond the horizon in many cases. Exxon Corporation ultimately paid \$3.8 billion dollars in cleanup costs, fines, and compensation related to the oil spill off the Alaska coast. That was an 11 million gallon spill and was the worst in United States history, but it is now feared that the Gulf of Mexico accident could be potentially greater in volume if not soon brought under control.

ENVIRONMENTAL TOLL

At the time of this writing, the gulf oil spill is releasing an estimated 210,000 gallons of crude oil a day into the waters of the gulf. However, BP representatives acknowledge that the leak could increase to 2.5 million gallons a day if containment efforts are not successful. These waters provide a major portion of America's shrimp, oysters, and

other seafood commodities. In addition, the tourist industry in Louisiana, Mississippi, Alabama, Texas, and Florida is adversely affected. There is little consolation to the numerous small businesses, fisheries, and local governments that are faced with the economic problems that have been caused by giant oil companies.

In light of this tragedy, some members of the United States Congress are suggesting legislative changes to ensure victims of the oil spill will be compensated. The present limit set by Senate and House bills is \$75 million for damages suffered, but it is hoped that the limit can be increased to \$10 billion and retroactive to April 15, 2010. Senators Robert Mendez and Frank Lautenberg have introduced the “Big Oil Bailout Prevention Act” to help address the enormity of the situation and to provide funds that are more realistic with the present world economic conditions. Mendez is reported to have said, “We can’t let the burden fall on the taxpayers. We should ensure that those who cause the damage are fully responsible.”

Another possible source of reimbursement to victims of disasters is The Oil Spill Liability Trust Fund that is part of the Oil Pollution Act which was passed by the federal government in 1990. One of the main sources of revenue for the project was an eight-cent-per-barrel tax assessed on the oil industry. Consumer rights groups pointed out that this cost to the industry was simply passed on to the consumer, which means that part of the cost of a disaster would then be borne by American motorists and other consumers. The law expired in 1994 but there is believed to be approximately \$1.6 billion remaining in the fund.

There are a variety of obscure laws and regulations regarding liability in connection with a major disaster occurring within the oil industry. It is difficult and time consuming to determine a remedy for a particular situation. First of all, important and vital information concerning a certain case must be obtained. Time is also required to cap the well, retrieve the equipment, conduct a proper inspection and then test the site. Additionally, interviews must be conducted for those who are involved, and a detailed study of the meticulously kept logs to determine fault.

FAILED ATTEMPTS

A news report submitted by Harry R. Weber and Ray Henry under the heading “Long-Shot Plans Lined up to Plug Flow of Crude” was published by *The Daily News* (May 10, 2010) that reveals the sobering reality that this is no ordinary oil spill. Quoting in part from the article we read, “A growing collection of crippled equipment litters the ocean floor near a ruptured oil well gushing crude into the Gulf of Mexico, the remnants of a massive rig that exploded weeks ago and failed efforts to cap the leak.

“On the surface, nearly a mile up, a fleet of ships maneuvered to deploy the latest stopgap plans hatched by BP engineers to keep the Deepwater Horizon disaster from becoming the nation’s worst spill. Millions of gallons has risen from the depths since the April 20 explosion that killed 11, a pace that would surpass the total spilled in the Exxon Valdez disaster by Father’s Day.

“A day after ice-like crystals clogged a four-story box that workers had lowered atop the main leak,

crews using remote-controlled submarines hauled the specially built structure more than a quarter-mile away and prepared other long-shot methods of stopping the flow. Chief operating officer Doug Suttles said BP was thinking about putting a smaller containment dome over the massive leak, believing that it would be less vulnerable. The smaller dome could be ready in a day or two.

“The company was also now debating whether it should cut the riser pipe undersea and use larger piping to bring the gushing oil to a drill ship on the surface. The third option would use a tube to shoot ground-up material into the well’s blowout preventer, a process that could take two to three weeks.

“As BP weighed its options on the mainland, waves of dark brown and black sludge crashed into a boat in the area above the leak. The fumes there were so intense that a crew member of the support ship Joe Griffin and an AP photographer on board had to wear respirators while on deck. A white cattle egret bird landed on the ship, brownish-colored stains of oil on its face and along its chest, wings, and tail. Meanwhile, thick blobs of tar had washed up on Alabama’s white sand beaches, yet another sign that the spill was spreading.

“It had taken about two weeks to build the box and three days to cart the containment box 50 miles out and slowly lower it to the well a mile below the surface, but the frozen depths were just too much. Company and Coast Guard officials had cautioned that ice-like hydrates, a slushy mixture of gas and water, would be one of the biggest challenges to the containment box plan. The crystals

clogged the opening in the top of the peaked box, like sand in a funnel, only upside-down. It was never believed that the hydrates could actually plug up a 12-inch opening but they did, which means they're forming very rapidly and in large quantities. The containment box plan, never before tried at such depths, had been designed to siphon up to 85 percent of the leaking oil.

"The original blowout was triggered by a bubble of methane gas that escaped from the well and shot up the drill column, expanding quickly as it burst through several seals and barriers before exploding, according to interviews with rig workers conducted during BP's internal investigation. Deep sea oil drillers often encounter pockets of methane crystals as they dig into the earth. As the bubble rose, it intensified and grew, breaking through various safety barriers."

A WAKE UP CALL

The term 'oil spill' does not capture the magnitude of the unfolding tragedy that is taking place in the Gulf of Mexico. In reality, it is an endless explosion of toxic muck, a sickening mess of poisonous sludge that slowly winds its way toward more than a dozen wildlife refuges and hundreds of miles of coastline. Some think that it might even reach the ecologically fragile areas of the Florida Keys and beyond. Even before the spill, the gulf's wetlands and habitat were under siege from oil operations. Offshore pipelines that cross the coastal wetlands are estimated to have destroyed more salt marsh in the gulf region than can be found in the entire coastline from New Jersey to Maine. The

use of oil and other dirty fuels continues to pollute the atmosphere with carbon dioxide which accelerates climate disruption.

The immensity of the tragedy will undoubtedly draw attention and bolster support for change. Environmental groups will call for stopping any further expansion in offshore gas and oil drilling, saying we can no longer accept the outdated practices in a transition to a clean-energy future. In the United States, there are approximately 90 million people who live near the nation's more than 150 oil refineries. These refineries release millions of pounds of cancer-causing chemicals such as benzene, butadiene, and formaldehyde, along with nickel, lead, and other pollutants into the air and water resources. These pollutants are linked to heart disease, asthma and other health risks.

REVISED ESTIMATES

At the time of this writing, BP Company executives acknowledge that their previously estimated leak of 5,000 barrels of crude oil and 15 million cubic feet of gas per day into the gulf may need to be revised. The company released a video of the gushing oil recently, and independent scientists point out that the leak appears to be much larger than previously stated. Some observers said it could be several times as much, but there is no way of accurately measuring the flow.

Officials with the National Oceanic and Atmospheric Administration (NOAA) and the United States Coast Guard said the 5,000 barrel figure was always understood to be a very rough estimate, and that the federal government has established

an interagency task force to study the flow rate in a scientific fashion. BP has come under sharp criticism for not being more forthcoming about the results of testing and monitoring of the spill. Homeland Security Secretary (HSS) Janet Napolitano and Environmental Protection Agency's (EPA) Administrator Lisa Jackson contacted BP demanding that the company make available all data and information it has collected on the disaster, including reports of internal investigations.

Further to this, EPA has informed BP to use less toxic oil dispersants to break up the growing oil slick. Approximately 700,000 gallons of chemical dispersant have been applied so far, the most ever used in a spill in the United States. Most of it has been released over the water's surface. This procedure breaks the oil up into droplets that will more quickly decompose with the help of oil-eating bacteria. This unprecedented use of dispersants exposes marine life to even more oil, imperiling deep sea organisms. BP says that they were complying with the order and had been retesting alternative products.

THE DESOLATE HERITAGES

Throughout the past two thousand years our Heavenly Father has been calling a little flock of faithful believers to share with our Lord Jesus in his future kingdom. (Luke 12:32) They will share in bringing peace, harmony, and life to the poor sin-sick world that has also inherited a polluted earth. (Isa. 24:5) In prophetic words, Isaiah again wrote, "Thus saith the LORD, In an acceptable time have I heard thee, and in a day of salvation have I

helped thee: and I will preserve thee, and give thee for a covenant of the people, to establish the earth, to cause to inherit the desolate heritages.”—Isa. 49:8

The Apostle Paul clarified that the present Gospel Age is the ‘acceptable time.’ He said, “We then, as workers together with him, beseech you also that ye receive not the grace of God in vain. (For he saith, I have heard thee in a time accepted, and in the day of salvation have I succoured thee: behold, now is the accepted time; behold, now is the day of salvation.)”II Cor. 6:1,2

The Prophet Joel also spoke concerning the desolate heritages, when he wrote, “Blow ye the trumpet in Zion, and sound an alarm in my holy mountain: let all the inhabitants of the land tremble: for the day of the LORD cometh, for it is nigh at hand; A day of darkness and of gloominess, a day of clouds and of thick darkness, as the morning spread upon the mountains: a great people and a strong; there hath not been ever the like, neither shall be any more after it, even to the years of many generations. A fire devoureth before them; and behind them a flame burneth: the land is as the garden of Eden before them, and behind them a desolate wilderness; yea, and nothing shall escape them.”—Joel 2:1-3

Ever since sin was introduced to the human family by Adam and Eve, our Heavenly Father has generally let the world take its own course. However, during the closing years of this present Gospel Age he is overruling in the world’s affairs and allowing the human family to realize the exceeding sinfulness of sin. Joel speaks of the inhabitants of

the land as trembling, and the present order as a 'desolate wilderness' that will be destroyed by fire.

We can have complete confidence in God's ultimate purpose as revealed by the Prophet Joel, who likens the future kingdom as a Garden of Eden wherein all unrighteousness, sin, and selfishness have been brought to an end.

We can have complete confidence that "The LORD shall utter his voice before his army: for his camp is very great: for he is strong that executeth his word: for the day of the LORD is great and very terrible; and who can abide it? Therefore also now, saith the LORD, turn ye even to me with all your heart, and with fasting, and with weeping, and with mourning: And rend your heart, and not your garments, and turn unto the LORD your God: for he is gracious and merciful, slow to anger, and of great kindness, and repenteth him of the evil."—Joel 2:11-13 ■

"Fear thou not; for I am with thee: be not dismayed; for I am thy God: I will strengthen thee; yea, I will help thee; yea, I will uphold thee with the right hand of my righteousness. . . . I will open rivers in high places, and fountains in the midst of the valleys: I will make the wilderness a pool of water, and the dry land springs of water. I will plant in the wilderness the cedar, the shittah tree, and the myrtle, and the oil tree; I will set in the desert the fir tree, and the pine, and the box tree together: That they may see, and know, and consider, and understand together, that the hand of the LORD hath done this, and the Holy One of Israel hath created it."—Isa. 41:10,18-20