

# Tank and Petroleum Use Mishaps

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**By learning about the misfortunes of others, it is STI's hope to educate the public by creating a greater awareness of the hazards with storage and use of petroleum and chemicals. Please refer to the many industry standards and to the fire and building codes for further guidance on the safe operating practices with hazardous liquids. Thanks and credit for content are given to Dangerous Goods-Hazmat Group Network.**

<http://groups.yahoo.com/group/DangerousGoods/>

**USA, MI, JACKSON**

**MAY 23 2014.**

**HUNDREDS OF GALLONS OF OIL SPILL INTO GRAND RIVER, CLOSE PARTS OF THE RIVER**

*Shannon Murphy*

About 800 gallons of motor oil and hydraulic fluid have been cleaned from the Grand River in Jackson since Sunday, May 18.

Federal, state and local officials expect more oil to be pulled from the river in the coming days. And the Grand River has been closed to recreational use from the Lions Park at Blackstone Street to Maple Grove.

Don Tucker, Jackson's wastewater treatment superintendent, said the city's fire and department of public works were alerted to the spill about 7 p.m. Sunday. They and the state Department of Environmental Quality put up booms to contain the spill.

On Monday, about 400 gallons of fluid were pulled from the river, and another 400 gallons was removed on Tuesday, Tucker said. The federal Environmental Protection Agency was called to the scene on Wednesday.

Tucker said it's unknown how much more oil could be in the river or where it came from.

"With that amount (of oil) it's not coming from residential," he said.

The city and DEQ are checking the local stormwater system to see where the oil may have entered the drain and the DEQ is testing the oil, Tucker said. Kalamazoo-based Terra Contracting has been hired by the city to cleanup the oil.

Tricia Edwards, a federal on-scene coordinator with the EPA, said she does not think there will be any long-term effects to the Grand River from the spill, but the organization will continue to monitor it.

"We have not seen any oiled wildlife," she said Wednesday evening.

[http://www.mlive.com/news/jackson/index.ssf/2014/05/hundreds\\_of\\_gallons\\_of\\_oil\\_spi.html#incart\\_river\\_default052314?autoplay=true](http://www.mlive.com/news/jackson/index.ssf/2014/05/hundreds_of_gallons_of_oil_spi.html#incart_river_default052314?autoplay=true)

**USA, HI, HONOLULU**

**MAY 24 2014.**

**NAVY UNCERTAIN WHETHER 27K GALLONS OF JET FUEL LEAKED FROM RED HILL UNDERGROUND TANK**

Workers found three tiny holes in a fuel tank where a possible leak of jet fuel was detected in January, the Navy said Thursday.

The holes are so small they're not visible to the naked eye, Navy Region Hawaii said in a news release. They were discovered Wednesday and Thursday during testing to determine whether air could flow

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through the tank wall. The ability of air to escape indicates liquid may be able to leak through as well.

The holes may be the reason 27,000 gallons of jet fuel was lost, said Capt. Mike Williamson, chief engineer for Navy Region Hawaii.

Gary Gill, the state Department of Health's deputy director for the environment, said there should now be no doubt in anyone's mind that some fuel was lost from the tank.

"The smoking guns have been found," Gill said.

Inspections of the tank will continue at least through the end of the month, said Navy Region Hawaii spokesman Tom Clements.

The Navy has 20 large cylindrical fuel tanks at Red Hill near Pearl Harbor that store fuel for ships and aircraft. Each tank is large enough to hold Honolulu's Aloha Tower.

Gill said nearby Board of Water Supply wells — each about a mile away from the tanks to the northwest and south — don't show any signs of petroleum contamination.

Each of the 20 tanks has leaked fuel over the past 70 years, Gill said. Petroleum-contaminated rock has been found under 19 of the tanks, while Navy records indicate the remaining one tank leaked at some point.

Further, the department knows the groundwater immediately beneath the tanks has been contaminated by petroleum.

"We don't know how far the contamination plume beneath Red Hill has traveled and we don't know in what directions it may have traveled," Gill said.

The department is working with the Navy to create additional monitoring wells to identify where the contamination may be spreading, he said. The department is also working with the Navy to clean up the fuel that spilled.

Gill said the department will work with the Navy to ensure the best technology is used to prevent additional spills, and that any future spills be immediately detected and measured.

<http://www.dailyjournal.net/view/story/97cd31d081dc4b189104caca6ed52824/Hi--Navy-Fuel-Tank/#.U4Bry8anry0>

### USA, UT, DAVIS CO

**MAY 25 2014.**

#### **VIOLATION NOTICE ISSUED TO REFINERY AFTER FOUL SMELL MAKES CHILDREN FEEL ILL**

The Davis County Health Department issued a formal nuisance violation notice to a refinery in the wake of an incident that sent a smell through the neighborhood that parents said made school children feel ill.

A lid blew last week at the Silver Eagle Refinery, which is located in Woods Cross, and more than 500 children left school early because they were feeling ill.

Officials determined the odor was non-toxic, but residents said it smelled foul and made them feel sick. The Health department filed the violation notice Friday, and the refinery will have to respond with a detailed account regarding their proposed solution to the issue.

Dennis Keith, deputy director of environmental health for the Davis County Health Department, said the refinery could face a penalty.

"There could be a financial penalty," he said. "There could be other mitigating factors that they need to put into fixing the problem, that's sort of part of our ongoing investigation right now. We haven't made the decision yet on exactly what those penalties will be."

Keith said officials with the refinery have been cooperative.

<http://fox13now.com/2014/05/23/violation-notice-issued-to-refinery-after-foul-smell-makes-children-feel-ill/>

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**USA, KY, LAWRENCE CO  
MAY 25 2014.**

## **OIL SPILL UNDER INVESTIGATION IN LAWRENCE COUNTY, KY**

Cleanup is underway after an oil spill occurred in Lawrence County, KY.

According to Michael Woods, the Lawrence County Emergency Management Director, this happened sometime late Wednesday night/Thursday morning of May 21 and 22 in the area of the intersection of KY Route 3 and KY Route 1496, in Fallsburg, which is near the Boyd County, KY line.

Woods says an unknown amount of oil spilled into the Long Branch Creek, which is a tributary stream to the East Fork of the Little Sandy River. The oil escaped from the containment of an oil rig on Long Branch Road, owned by NYTIS Exploration.

According to Woods, NYTIS Exploration responded quickly to the spill and contained it.

The cleanup was handed over to the Kentucky State Environmental Response Team.

Woods says the cause of the spill is still not yet known, but is under investigation.

The oil spill is not affecting any drinking water in the area.

<http://www.wowktv.com/story/25605359/oil-spill-under-investigation-in-lawrence-county-ky>

**USA, N.M, DONA ANA COUNTY, ANTHONY  
MAY 28 2014.**

## **BLASTS, FIRE AT NEW MEXICO BIOFUELS PLANT SPARK BRIEF EVACUATIONS**

More than 1,000 residents of a rural New Mexico county were briefly ordered to evacuate on Tuesday following a series of explosions and a major fire at a biofuels plant, county officials said. The evacuation orders were issued after the blasts were reported shortly before 10 a.m. local time, Dona Ana County officials said in a statement, and a temporary shelter was set up at a high school in the New Mexico community of Anthony.

Those orders were lifted several hours later, after firefighters contained the blaze, and residents were being escorted back to their homes as hazardous materials experts inspected the site, officials said in the statement.

The cause of the explosions and fire was under investigation, and hazardous materials specialists were trying to determine if any chemicals were released during the incident.

State transportation officials were bringing in heavy equipment to build an earthen damn that would contain all water on the site.

The Rio Valley Biofuels plant in Anthony, about 20 miles north of El Paso, Texas, was known to have large quantities of methanol, glycerin and sodium methylate as well as vegetable oil, hydrochloric acid and biodiesel fuel, according to the statement.

The county said some 1,200 residents and 350 homes were believed to be within the half-mile evacuation zone. It was not immediately clear how many of those people were forced to leave their homes.

According to its website, Rio Valley Biofuels produces biodiesel using recycled oil from local food processors.

<http://www.chicagotribune.com/news/sns-rt-us-usa-blast-newmexico-20140527,0,780822.story>

**USA, TX, PLEASANTON  
MAY 29 2014.**

## **OIL TANK BATTERIES ENGULFED IN EARLYMORNING FIRE**

*Chris Filoteo*

No injuries were reported after two storage batteries were engulfed in flames south of Pleasanton early Monday morning.

"A witness working for the oil tank company said lighting hit the tank, which caused the fire to start," Pleasanton Fire Chief Chuck Garris said.

Around 4 a.m., Pleasanton and Jourdanton Volunteer Fire Departments were dispatched to

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Coughran near Williams Road off Interstate 37 outside of Pleasanton.

The two batteries involved were not identical with one being a salt-water disposal tank while the other was an oil battery, according to Garris.

Crews on scene quickly evacuated the area while the blaze lit the early morning sky.

"We were done after lunch time Monday," Garris said.

"It was more hazardous to clean up the fire rather than let it burn out as we decided."

The salt-water disposal tank is owned by Belo Wiley while the oil tank is owned by Ron Rickaway.

Garris noted several hot spots lingered throughout the affected area, but later the embers died without any incident.

[http://www.pleasantonexpress.com/news/2014-05-28/News/Oil\\_tank\\_batteries\\_engulfed\\_in\\_earlymorning\\_fire.html](http://www.pleasantonexpress.com/news/2014-05-28/News/Oil_tank_batteries_engulfed_in_earlymorning_fire.html)

### USA, WYO, SHERIDAN

**MAY 29 2014.**

#### **OIL SPILLS, BURNED OFF, IN POWDER RIVER BASIN**

A significant oil spill in the Powder River Basin has been substantially cleaned up after a burning operation, but more work remains to be done, federal officials said.

An estimated 25,000 gallons of oil spilled when a 6-inch pipeline sprang a leak May 19 about 45 miles southeast of Buffalo and 35 miles southeast of Gillette. U.S. Bureau of Land Management officials say the oil flowed more than two miles, but they put in a dam to hold the spill a couple miles short of the Powder River.

Clark Bennett with the U.S. Bureau of Land Management in Buffalo said Tuesday that the burn happened Thursday and Friday. The bureau didn't notify the public about the spill because nobody was being affected, he told The Sheridan Press

The pipeline's owner, Casper-based Belle Fourche Pipeline, burned off the oil because other cleanup options weren't practical. Company officials burned off the oil in segments, Duane Spencer, the bureau's Buffalo Field Office manager, told The Associated Press on Wednesday.

Bureau officials plan to meet again Friday with Belle Fourche Pipeline to discuss further cleanup. "We've asked them to prepare next steps for remediation," Spencer said.

How the spill happened remains unknown. The pipeline was buried, and apparently nobody was working in the area when the spill occurred, Spencer said.

The oil flowed in a narrow, ephemeral drainage, he said, and it was stopped just short of reaching private property. Part of the oil crossed state land, and the bureau has been talking with the Office of State Lands and Investments about the cleanup, Spencer said.

Spilled crude oil tends to stay on the surface of the ground, and the oil doesn't present a threat to groundwater, bureau officials said.

: <http://www.washingtontimes.com/news/2014/may/28/oil-spills-burned-off-in-powder-river-basin/#ixzz36EmDR4p9>

### USA, N.D, BISMARCK

**MAY 31 2014.**

#### **COW BLAMED FOR CAUSING SPILL IN OIL PATCH**

A cow is suspected of causing a spill of natural gas liquids near a tributary of the Little Missouri River, prompting North Dakota regulators to warn energy companies to ensure their facilities are bovine-proof.

State Environmental Health Chief Dave Glatt said Thursday that a cow might have rubbed against a tank valve two days earlier, spilling about 20 barrels of natural gas condensate near Sully Creek, south of Medora in western North Dakota.

Condensate is a byproduct of natural gas production.

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The state Health Department said the site is owned by a subsidiary of Oneok Inc., based in Tulsa, Oklahoma. Glatt said cleanup is underway and absorbent booms have been placed in Sully Creek as a precaution.

The company did not immediately returned calls seeking comment Thursday.

Glatt said the cow was either curious or had an itch that needed scratching.

“They just get rubbing along those valves and they open up,” Glatt said. “Sometimes they need to scratch their backs and they open those valves.”

A similar spill that was blamed on a cow happened a few years ago, though Glatt did not immediately recall the details.

“I do know that this isn’t the first time it’s happened,” Glatt said.

Energy companies have been told about securing the valves in the past and are now being warned again, Glatt said.

“They need to make sure their valves are locked,” Glatt said. “They should kind of already know that because it can create issues for them.”

Glatt, who has relatives who ranch in North Dakota, is no stranger to cattle. He said cows have been known to have a taste for petroleum products.

“They like oil and they eat that stuff up,” said Glatt, who joked that the offending cow might have had such a craving and opened the valve intentionally.

“Sometimes they can be the dumbest animals in the world and sometimes you kind of wonder,” he said.

<http://fuelfix.com/blog/2014/05/29/cow-blamed-for-causing-spill-in-oil-patch/>

### **USA, ILL, DECATUR**

**JUNE 3 2014**

#### **LIGHTNING SPARKS OIL TANK FIRE**

A disaster was averted south of Decatur after a lightning strike caused a tank full of oil to explode around 4:00 Sunday afternoon. At least five fire departments rushed to a rural area near Elwin and Bowman Roads. Authorities say the lightning strike hit one of several oil tanks at the site, spilling its contents and causing the tank to catch fire. They say a gravel barrier around the tanks kept the oil from spreading. It took a few hours, but firefighters did put the fire out. We're told people from the company that owns the tanks are on scene for clean-up. They expect to be done by Tuesday.

[http://www.wics.com/news/top-stories/stories/vid\\_17470.shtml](http://www.wics.com/news/top-stories/stories/vid_17470.shtml)

### **FINLAND, OULU, RAAHE,**

**JUNE 4 2014.**

#### **WWF: RAAHE OIL SPILL WORSE THAN EXPECTED**

Volunteers will continue oil spill cleanup operations in the Raahe archipelago in northern Ostrobothnia for up to a week. The environmental NGO WWF says the spill was worse than first thought and is calling for more volunteers to help with the painstaking recovery task.

The environmental organisation WWF says last Friday’s oil spill in Raahe, northwest Finland is worse than originally estimated. Volunteers will continue their cleanup efforts in the islands near the mainland for as long as another week. On Tuesday volunteers focused their recovery efforts on the island of Selkämatala, an important marine nesting ground.

“This is a critical location. There’s some oil on the beach and many birds are here,” said WWF field coordinator Teemu Niinimäki.

He described the operation as taxing but rewarding.

“It’s hot and heavy work with the protective gear on. It requires a high level of motivation, but it’s rewarding to get the beach clean and to provide clean nesting conditions for the birds,” he added.

So far rescuers have found about 43 birds contaminated with oil, however they were still capable of

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flight.

On Tuesday WWF conservationists, army conscripts and other volunteers wielded brushes and shovels in an effort to clean oil off the beach, intending to work late into the evening. Meanwhile cleanup activities are also in full swing on Iso-Kraaseli Island, where they began Monday.

## **More volunteers needed**

WWF says it will continue cleaning at least until Thursday. The organisation says however that it's very likely that oil recovery will continue into the weekend. Erasing all signs of the oil spill from the rocky beaches requires painstaking hand work, as the oil has proven to be difficult to dislodge in some areas.

Niinimäki said the cleanup would require another 30 pairs of hands.

"We are using a lot of brushes. Even dishwashing scrubbers can be useful in some places," Niinimäki explained.

Last Friday about 12 tons of heavy fuel oil leaked from a power plant at a Rautaruukki steel mill, with between three to five tons making its way into the sea. Dozens of volunteers are now cleaning the islands contaminated by the spill in an operation led by the Jokilaakso rescue and emergency unit. The rescue team has also been responsible for organising, transporting and providing equipment for volunteers. [http://yle.fi/uutiset/wwf\\_raahe\\_oil\\_spill\\_worse\\_than\\_expected/7276717](http://yle.fi/uutiset/wwf_raahe_oil_spill_worse_than_expected/7276717)

## **USA, TX, HOUSTON**

**JUNE 6 2014.**

### **CSB DRAFT REPORT FINDS DEEPWATER HORIZON BLOWOUT PREVENTER FAILED DUE TO UNRECOGNIZED PIPE BUCKLING PHENOMENON DURING EMERGENCY WELL-CONTROL EFFORTS ON APRIL 20, 2010, LEADING TO ENVIRONMENTAL DISASTER IN GULF OF MEXICO**

The blowout preventer (BOP) that was intended to shut off the flow of high-pressure oil and gas from the Macondo well in the Gulf of Mexico during the disaster on the Deepwater Horizon drilling rig on April 20, 2010, failed to seal the well because drill pipe buckled for reasons the offshore drilling industry remains largely unaware of, according to a new two-volume draft investigation report released today by the U.S. Chemical Safety Board (CSB).

The blowout caused explosions and a fire on the Deepwater Horizon rig, leading to the deaths of 11 personnel onboard and serious injuries to 17 others. Nearly 100 others escaped from the burning rig, which sank two days later, leaving the Macondo well spewing oil and gas into Gulf waters for a total of 87 days. By that time the resulting oil spill was the largest in offshore history. The failure of the BOP directly led to the oil spill and contributed to the severity of the incident on the rig.

The draft report will be considered for approval by the Board at a public meeting scheduled for 4 p.m. CDT at the Hilton Americas Hotel, 1600 Lamar St., Houston, TX 77010. The meeting will include a detailed staff presentation, Board questions, and public comments, and will be webcast at: <http://www.csb.gov/investigations/webcast/>.

The CSB report concluded that the pipe buckling likely occurred during the first minutes of the blowout, as crews desperately sought to regain control of oil and gas surging up from the Macondo well. Although other investigations had previously noted that the Macondo drill pipe was found in a bent or buckled state, this was assumed to have occurred days later, after the blowout was well underway.

After testing individual components of the blowout preventer (BOP) and analyzing all the data from post-accident examinations, the CSB draft report concluded that the BOP's blind shear ram – an emergency hydraulic device with two sharp cutting blades, intended to seal an out-of-control well – likely did activate on the night of the accident, days earlier than other investigations found. However, the pipe buckling that likely occurred on the night of April 20 prevented the blind shear ram from functioning properly. Instead of cleanly cutting and sealing the well's drill pipe, the shear ram actually punctured the buckled, off-center pipe, sending huge additional volumes of oil and gas surging toward the surface and initiating the 87-day-long oil and gas release into the Gulf that defied multiple efforts to bring it under control.

The identification of the new buckling mechanism for the drill pipe – called "effective compression"

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– was a central technical finding of the draft report. The report concludes that under certain conditions, the “effective compression” phenomenon could compromise the proper functioning of other blowout preventers still deployed around the world at offshore wells. The complete BOP failure scenario is detailed in a new 11-minute computer video animation the CSB developed and released along with the draft report.

The CSB draft report also revealed for the first time that there were two instances of miswiring and two backup battery failures affecting the electronic and hydraulic controls for the BOP’s blind shear ram. One miswiring, which led to a battery failure, disabled the BOP’s “blue pod” – a control system designed to activate the blind shear ram in an emergency. The BOP’s “yellow pod” – an identical, redundant system that could also activate the blind shear ram – had a different miswiring and a different battery failure. In the case of the yellow pod, however, the two failures fortuitously cancelled each other out, and the pod was likely able to operate the blind shear ram on the night of April 20.

“Although both regulators and the industry itself have made significant progress since the 2010 calamity, more must be done to ensure the correct functioning of blowout preventers and other safety-critical elements that protect workers and the environment from major offshore accidents,” said Dr. Rafael Moure-Eraso, the CSB chairperson. “The two-volume report we are releasing today makes clear why the current offshore safety framework needs to be further strengthened.”

“Our investigation has produced several important findings that were not identified in earlier examinations of the blowout preventer failure,” said CSB Investigator Cheryl MacKenzie, who led the investigative team. “The CSB team performed a comprehensive examination of the full set of BOP testing data, which were not available to other investigative organizations when their various reports were completed. From this analysis, we were able to draw new conclusions about how the drill pipe buckled and moved off-center within the BOP, preventing the well from being sealed in an emergency.”

The April 2010 blowout in the Gulf of Mexico occurred during operations to “temporarily abandon” the Macondo oil well, located in approximately 5,000-foot-deep waters some 50 miles off the coast of Louisiana. Mineral rights to the area were leased to oil major BP, which contracted with Transocean and other companies to drill the exploratory Macondo well under BP’s oversight, using Transocean’s football-field-size Deepwater Horizon drilling rig.

The blowout followed a failure of the cementing job to temporarily seal the well, while a series of pressure tests were misinterpreted to indicate that the well was in fact properly sealed. The final set of failures on April 20 involved the Deepwater Horizon’s blowout preventer (BOP), a large and complex device on the sea floor that was connected to the rig nearly a mile above on the sea surface.

Effective compression, as described in the draft report, occurs when there is a large pressure difference between the inside and outside of a pipe. That condition likely occurred during emergency response actions by the Deepwater Horizon crew to the blowout occurring on the night of April 20, when operators closed BOP pipe rams at the wellhead, temporarily sealing the well. This unfortunately established a large pressure differential that buckled the steel drill pipe inside the BOP, bending it outside the effective reach of the BOP’s last-resort safety device, the blind shear ram.

“The CSB’s model differs from other buckling theories that have been presented over the years but for which insufficient supporting evidence has been produced,” according to CSB Investigator Dr. Mary Beth Mulcahy, who oversaw the technical analysis. “The CSB’s conclusions are based on real-time pressure data from the Deepwater Horizon and calculations about the behavior of the drill pipe under extreme conditions. The findings reveal that pipe buckling could occur even when a well is shut-in and apparently in a safe and stable condition. The pipe buckling – unlikely to be detected by the drilling crew – could render the BOP inoperable in an emergency. This hazard could impact even the best offshore companies, those who are maintaining their blowout preventers and other equipment to a high standard. However, there are straightforward methods to avoid pipe buckling if you recognize it as a hazard.”

The CSB investigation found that while Deepwater Horizon personnel performed regular tests and inspections of those BOP components that were necessary for day-to-day drilling operations, neither Transocean nor BP had performed regular inspections or testing to identify latent failures of the BOP’s

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emergency systems. As a result, the safety-critical BOP systems responsible for shearing drill pipe in emergency situations – and safely sealing an out-of-control well – were compromised before the BOP was even deployed to the Macondo wellhead. The CSB report pointed to the multiple miswirings and battery failures within the BOP's subsea control equipment as evidence of the need for more rigorous identification, testing, and management of critical safety devices. The report also noted that the BOP lacked the capacity to reliably cut and seal the 6-5/8 inch drill pipe that was used during most of the drilling at the Macondo well prior to April 20 – even if the pipe had been properly centered in the blind shear ram's blades.

Despite the multiple maintenance problems found in the Deepwater Horizon BOP, which could have been detected prior to the accident, CSB investigators ultimately concluded the blind shear ram likely did close on the night of April 20, and the drill pipe could have been successfully sealed but for the buckling of the pipe.

“Although there have been regulatory improvements since the accident, the effective management of safety critical elements has yet to be established,” Investigator MacKenzie said. “This results in potential safety gaps in U.S. offshore operations and leaves open the possibility of another similar catastrophic accident.”

The draft report, subject to Board approval, makes a number of recommendations to the U.S. Department of Interior's Bureau of Safety and Environmental Enforcement (BSEE), the federal organization established following the Macondo accident to oversee U.S. offshore safety. These recommendations call on BSEE to require drilling operators to effectively manage technical, operational, and organizational safety-critical elements in order to reduce major accident risk to an acceptably low level, known as “as low as reasonably practicable.”

“Although blowout preventers are just one of the important barriers for avoiding a major offshore accident, the specific findings from the investigation about this BOP's unreliability illustrate how the current system of regulations and standards can be improved to make offshore operations safer,” Investigator MacKenzie said. “Ultimately the barriers against a blowout or other offshore disaster include not only equipment like the BOP, but also operational and organizational factors. And all of these need to be rigorously defined, actively monitored, and verified through an effective management system if safety is to be assured.” Companies should be required to identify these safety-critical elements in advance, define their performance requirements, and prove to the regulator and outside auditors that these elements will perform reliably when called upon, according to the draft report.

The report also proposes recommendations to the American Petroleum Institute (API), the U.S. trade association for both upstream and downstream petroleum industry. The first recommendation is to revise API Standard 53, Blowout Prevention Equipment Systems for Drilling Wells, calling for critical testing of the redundant control systems within BOP's, and another for new guidance for the effective management of safety-critical elements in general.

CSB Chairperson Rafael Moure-Eraso said, “Drilling continues to extend to new depths, and operations in increasingly challenging environments, such as the Arctic, are being planned. The CSB report and its key findings and recommendations are intended to put the United States in a leading role for improving well-control procedures and practices. To maintain a leadership position, the U.S. should adopt rigorous management methods that go beyond current industry best practices.”

Two forthcoming volumes of the CSB's Macondo investigation report are planned to address additional regulatory matters as well as organizational and human factors safety issues raised by the accident.

The CSB is an independent federal agency charged with investigating industrial chemical accidents. The agency's board members are appointed by the president and confirmed by the Senate. CSB investigations look into all aspects of chemical accidents, including physical causes such as equipment failure as well as inadequacies in regulations, industry standards, and safety management systems.

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The Board does not issue citations or fines but does make safety recommendations to plants, industry organizations, labor groups, and regulatory agencies such as OSHA and EPA. Visit our website, [www.csb.gov](http://www.csb.gov).

## USA, OH, MOAB

JUNE 6 2014.

### OIL SPILL CLEAN-UP CONTINUES

*Lindsey Bartosh*

Crews will work the rest of the week to continue clean up efforts on an oil spill in the Salt Wash area of Grand County that happened on Wednesday, May 21, but Bureau of Land Management officials say reclamation on the area will be an on-going effort.

The 45-year-old well, operated by S.W. Energy Corp. of Salt Lake City, was reported leaking on Wednesday, May 21 at a site about 12 miles southeast of the town of Green River. At one point, BLM Moab field manager Beth Ransel said 3,000 to 4,000 gallons per hour were leaking from the well. The leak was reported as contained by Thursday, May 22. However, heavy rains moved in to the area on Friday, May 23 and caused the contained areas to overflow, with some of the material running down the wash and into the Green River. Ransel said the entire amount of the spill and the amount that entered the river are still unknown.

“The amount of fluid that flowed from the well before it was brought under control on May 22 is unknown. The fluid consisted of primarily produced water with some oil mixed in at an estimated ratio of 2:1 produced water to oil,” Ransel said. “The amount of oil residues within the wash that mobilized during the severe storm event and overcame prevention measures on the evening of May 23 and entered the river is unknown.”

The well operator was not utilizing a monitoring device known as SCADA (supervisory control and data acquisition system), which alerts operators to problems. Ransel did not indicate if the device would have minimized the leak time.

“Operators generally utilize contract staff to regularly monitor their well facilities, though some operators choose to monitor utilizing a SCADA system,” she said. “In this case, it is thought that S.W. Energy's contract staff that were monitoring the well site observed and reported the leak in a timely manner.”

When asked why a containment berm was not constructed around the well pad and head, Ransel said that because accidents at well heads are unusual, the placement of berms around well heads is a newer practice for well operators.

According to Fidelity Exploration and Production Company, placing a containment berm around the well pad could hold in precipitation and could lead to unsafe conditions.

“Typical well pads have spill containment berms around the tank facilities and oil and gas processing equipment, which is where the majority of pad spills occur,” Fidelity's Mike said. “Drilling pads, and specifically the well head area, are required to be easily accessible for the drilling rig, workover rig and ancillary equipment and personnel. This area must be flat, clean and dry for safe and efficient well operations. A submerged or bermed well head would collect fluids, precipitation, and could be a settling point for heavier than air natural gases, in the unlikely event there was an undetected gas leak. The size of a standard well pad typically provides an adequate buffer zone to contain a spill until it is identified. It is fairly standard for operators to have daily surveillance of each well pad, especially in areas of elevated environmental sensitivity.”

The BLM is working with S.W. Energy Corp, the Utah Department of Environmental Quality (DEQ), and Division of Water Quality (DWQ) to clean up and assess the area for damage, but Ransel said the immediate impact to the environment is still being evaluated.

Ransel said the DEQ and DWQ have collected water samples from the Green River to determine impact on resources from the spill.

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“Water samples were collected by a representative from the (DEQ and DWQ) the day immediately following the severe storm event,” she said. “Additionally, as part of assessing potential resource impacts within the river corridor, the BLM boated the river on (Saturday) May 31, along with representatives from the (DEQ and DWQ) and water samples were collected.”

The results taken by the DWQ were analyzed and results from those tests are available on the DWQ website, said Bethany Hyatt, communication specialist for the DEQ. The website for the DEQ is [www.deq.utah.gov/locations/G/greenriver/greenriversaltwash.htm](http://www.deq.utah.gov/locations/G/greenriver/greenriversaltwash.htm).

The DEQ report said: “Analytical test results from the sampling on May 24, 2014, did not show any hydrocarbons present in the Green River or in the confluence area of Salt Wash as it flows into the Green River.”

Representatives from the Utah Rivers Council, Sierra Club, and Living Rivers said they are not pleased with the BLM's response to the spill. In a press release Friday, May 30, Living Rivers executive director John Weisheit questioned why water samples had not been collected downstream from the site of the spill.

“Even a child would look at the swollen Green River and know the oil had moved quickly downstream,” he said. “It’s absolutely ridiculous no one traveled downstream to look for oil.”

The groups said an amateur photographer in the Salt Wash area during the time of the spill captured images of what appears to be a “giant plume” of oil floating down the Green River.

“It’s offensive to hear the BLM say they’re ‘pleased’ after a large quantity of oil entered the water supply for millions of people,” Utah Rivers Council executive director Zach Frankel said. “The BLM failed the public and it’s high time to acknowledge their mistakes instead of green-washing this pollution. They should be warning the public about exposure to this oil, instead of pretending it’s not there.”

University of Utah professor of geology and geophysics William P. Johnson said the potential for long-term effects from the spill in the area’s soil and ground water depend on the amount of hydrocarbons that were contained within the spill. Hydrocarbons are a compound of hydrogen and carbon that make up fossil fuels, such as petroleum and natural gas.

“A big consideration is that it wasn’t just fuel, it was water with hydrocarbons in it, and effects depend to a large extent on how much fuel was actually in the water,” he said. “There can be a huge range. You can have water with dissolved hydrocarbons in it or water that has globs of fuel in it. Those are two very different things. The effects are going to be very different depending on if it is stuff that dissolves in water or is carried in the water.”

Johnson said fuel spills usually contain a mixture of smaller hydrocarbon molecules that dissolve in water and larger molecules that tend not to dissolve and will not degrade away on their own.

“The primary concern is how much of the hydrocarbon was entrained in the water or dissolved in the water,” he said.

Soil contains a bacteria, often termed as a “bug,” that is capable of consuming oil. The bugs survive on hydrocarbons and do not leave behind any type of toxic residue. The bugs have helped clean up oil spills as big as the 800-million-liter oil spill in the Gulf of Mexico in 2010. Johnson said the bugs’ ability to clean up oil spills depends on how dense the hydrocarbons are in the water and fuel mixture.

“If it was the vapor stuff, bugs know how to eat hydrocarbon,” he said. “That stuff shouldn’t take a lot to self-remediate. If it was the globbier stuff that was entrained in water, it will be a bit more difficult.”

Johnson said that any hydrocarbons that do not make it down to groundwater will readily degrade from the bacteria. He said the bugs would also be capable of consuming hydrocarbons that reach ground water.

“Bugs are much more versatile than we are,” he said. “If it did go into the groundwater, the bugs can breathe other things, such as nitrate and sulfate, or the iron coatings on the sediments. They will use those things to degrade the hydrocarbon.”

While he has not visited this particular spill, Johnson said the chances for long-term effects from an oil spill like this are not high.

## Tank and Petroleum Use Mishaps

“Nobody likes to have these spills, but in the long-term, there are most likely low consequences,” he said. “I don’t know the site, but the chances of things degrading are pretty high. The (chances of this) stuff cleaning itself up pretty good should be quite high. Bugs are so good at degrading the compounds.”

Liz Thomas, an attorney for the Southern Utah Wilderness Alliance (SUWA), said the spill shows that the BLM needs to take accidents like this into consideration as it prepare its Master Leasing Plan (MLP).

“The Green River's Labyrinth Canyon is world renowned for its scenic beauty and its outstanding river recreation opportunities for visitors and local families and businesses alike,” she said. “And, there's no question that oil and gas wells and facilities do leak and have accidents. The spill along the Green River emphasizes the need for BLM to make smarter decisions about where to issue oil and gas leases – which is one of the purposes of the BLM's current review of leasing areas, via the Moab Master Leasing Plan.”

SUWA also expects the BLM to follow through with pursuing penalties against S.W. Energy Corp for the accident, Thomas said.

“This spill highlights the need for more vigorous enforcement by the BLM, particularly for older wells like this one, and those with a history of problems,” she said. “SUWA expects the BLM to ensure that appropriate penalties are applied and that clean-up costs are recouped.”

When asked about potential penalties against S.W. Energy Corp for the accident, Ransel said the BLM is pleased with the clean-up efforts put forth by the company and made no mention of repercussion against the company.

“The BLM is pleased with the responsiveness of S.W. Energy to the incident and the BLM will continue to work with them through the clean-up, remediation, and reclamation phases of this incident,” she said.

Hyatt said the DWQ will be issuing a citation to the company soon.

“DWQ expects to issue a Notice of Violation to S.W. Energy in the near future,” she said. “Penalties could result, depending on their response.”

[http://www.moabsunnews.com/news/article\\_a4e2b8a0-eb53-11e3-9caf-001a4bcf6878.html](http://www.moabsunnews.com/news/article_a4e2b8a0-eb53-11e3-9caf-001a4bcf6878.html)

### **USA, VA, RICHMOND**

**JUNE 6 2014.**

#### **POSTAL SERVICE, EPA SETTLE ALLEGED UNDERGROUND STORAGE TANK VIOLATIONS AT 5 FACILITIES IN VA.**

The U.S. Postal Service has settled alleged underground storage tank violations at five facilities in Virginia. The U.S. Environmental Protection Agency says the Postal Service agreed to pay civil penalties totaling \$55,258. The Postal Service also took corrective measures and certified that the facilities are now in compliance with federal and state underground storage tank regulations. The EPA had alleged that the Postal Service failed to conduct tests to detect leaks, failed to test line tightness, and failed to investigate or report a suspected leak. Violations were alleged at the Prince William Branch in Woodbridge, the Woodbridge Main Branch, the Dulles Vehicle Maintenance Facility in Sterling, the Cave Springs Facility in Roanoke and the Hampton Vehicle Maintenance Facility in Hampton. The Postal Service didn't admit liability in the settlements.

<http://www.therepublic.com/view/story/15331301b0a74d3eb3fe1965ac024308/VA--Postal-Service-Tanks>

# Tank and Petroleum Use Mishaps

**USA, ARK, HOT SPRINGS**

**JUNE 7 2014.**

## **A HOT SPRINGS MAN CUTTING OPEN A LARGE PROPANE TANK DIED WHEN THE WORK CAUSED AN EXPLOSION**

A Hot Springs man cutting open a large propane tank died when the work caused an explosion. Hot Springs police say 65- year-old Phillip Landry was cutting the tank on a sidewalk when the explosion occurred Thursday. Landry worked for a business that makes barbecue grills and smokers. Police say Landry was almost finished cutting what was supposed to be an empty tank when it exploded. Landry was outside a building where four other tanks were stored. No citations were issued — but the city's planning department tagged the building as unusable due to code violations. Officials say the tanks could not be stored at the building and they were removed. Code administrator Bart Jones says the building wasn't approved for the work being done there.

<http://www.baxterbulletin.com/story/news/2014/06/06/hot-springs-man-dies-in-propane-tank-explosion/10078655/>

**USA, N.D, NEW TOWN**

**JUNE 8 2014.**

## **NEARLY 700 BARRELS OF CRUDE SPILL AT OIL WELL SITE**

The North Dakota Department of Health said Saturday that about 690 barrels of crude oil spilled from an underground pipeline at an oil gathering site near New Town. The spill, discovered Friday afternoon at a well site about 14 miles northeast of New Town, came from a pipeline owned by Wyoming-based Bridger Pipeline. Department of Health environmental geologist Kris Roberts said the well site, owned by EOG Resources Inc., has a perimeter dike that prevented most of the oil from escaping the site. "The good thing is, it leaked on the well site," he said. "Companies are starting to learn. They have perimeter berm all the way around, so if they have a spill on location, it doesn't get off location, if they can help it." Roberts said it wasn't clear yet what caused the leak, but said it came from an underground discharge line that connects the main pipeline and a pump at the well site. He said the companies would be working Saturday to determine the cause. Roberts said workers at the site discovered the spill around 2:30 p.m. Friday and called the Department of Health shortly before 3 p.m. Most of the spill was cleaned up Friday night, Roberts said. The Department of Health said Saturday morning in a news release that 640 barrels had been recovered so far. A barrel equals 42 gallons.

<http://www.seattlepi.com/news/science/article/Nearly-700-barrels-of-crude-spill-at-oil-well-site-5535928.php>

**USA, AZ, NOGALES**

**JUNE 12 2014.**

## **'SUSPICIOUS DEVICE' EXPLODES AT ARIZ. POWER PLANT, RUPTURES LARGE FUEL TANK**

*Sean Holstege*

A makeshift bomb exploded at a Nogales, Ariz., power plant Wednesday, rupturing a large fuel tank and prompting the FBI and federal bomb experts to respond.

Local officials were alerted at 9:30 a.m. to a call of "suspicious activity" at the UniSource Energy Services Valencia Plant. An explosion had ruptured a diesel storage tank and caused what Nogales police Lt.

Carlos Jimenez described as a relatively small spill that was confined to the immediate area.

Officials closed off the power plant and an adjacent car dealership. The the FBI, the federal Bureau of Alcohol, Tobacco, Firearms and Explosives and the Arizona Department of Public Services were called.

At 5 p.m. Wednesday agents were still processing the scene.

"The reason for the high-scale response is the plant is an electrical substation and critical to the area," Jimenez said, explaining that as many as 30,000 customers in the area -- the entire town of Nogales and its environs -- depends on the plant for power.

## Tank and Petroleum Use Mishaps

"The whole city of Nogales could have been compromised," he added.

There were no reports of injuries and authorities said they knew of no suspects or witnesses.

They described the explosive as "a suspicious device," but would not elaborate. The fuel did not ignite, Jimenez said.

<http://www.usatoday.com/story/news/nation/2014/06/11/suspicious-device-explodes-at-ariz-power-plant-/10354643/>

### **DOMINICAN REPUBLIC, LOMA DE CASTAÑUELAS**

**JUNE 12 2014.**

#### **FUEL TANK EXPLOSION LEAVES THREE DEAD IN LOMA DE CASTAÑUELAS, DOMINICAN REPUBLIC**

Three persons were killed by fuel tank explosion in the town of Loma de Castañuelas, province of Monte Cristi, Dominican Republic. The incident occurred on Saturday June 7, 2014. A person identified as 22 year old Rafael Evangelista Cabrera died on the spot. 35 year old Wicho Valerio and 14 year old Anderson García succumbed to severe burns in the regional hospital José María Cabral y Báez in Santiago. Additional two persons – 50 year old Rafael Estévez and 25 year old Rubén Darío Toribio remain hospitalized with severe burns and are listed in critical condition. The explosion was sparked by an attempt to weld a tank containing diesel oil. Rafael Evangelista Cabrera – the person who died on the spot was the smart welder.

<http://www.bestgore.com/burn-victim/fuel-tank-explosion-three-dead-loma-de-castanuelas-dominican-republic/>

### **RUSSIA, SIBERIA, MALOUGRENYEVO**

**JUNE 12 2014.**

#### **MASSIVE 'BALLISTIC MISSILE' FLOATS THROUGH FLOODED RUSSIAN VILLAGE, SCARES NEIGHBORS**

*Meg Wagner*

A flood in Russia is apparently powerful enough to push a giant rocket through a small village.

A mysterious metal tube washed up in Malougrenyevo after serious floods swept through Russia's Serbia.

The floods have evacuated thousands and allowed the giant pipe to float down Russian streets and into the front lawn of a local policeman, RT reported.

Inside the hollow tube, the villagers found two dogs.

Neighbors began speculating what it might be: a buried ballistic missile unearthed by the flood, a rocket that fell from the sky or a highly toxic fuel tank from a botched launch.

But while experts identified the mysterious tube as an intercontinental ballistic missile fuel tank, it's not exactly dangerous.

A chemical plant near the village used to fill the tanks with fuel for the defense ministry, but when the department stopped ordering them in the 1990s, the plant began selling the fuel-less tanks to residents for various uses.

The empty fuel tanks can be used as storage containers, water collecting vessels and septic tanks, Aleksey Yaskin, a rocket engines professor told RT.

Tatyana Zhdanova's family kept theirs in their backyard until the floods carried it away.

"Ours got away during the flood. Broke the fence and floated away along with the dogs, who were hiding inside," she told RT.

The floods have forced the evacuation of nearly all of the 2,500 people in Malougrenyevo.

Overall, the floods have pushed 12,000 people across Russia out of their homes.

<http://www.nydailynews.com/news/world/giant-missile-floats-flooded-russian-town-article-1.1823711>

# Tank and Petroleum Use Mishaps

**USA, HI, HAWAII**

**JUNE 13 2014.**

## **SMALL HOLES FOUND FUEL TANK AT NAVY'S RED HILL STORAGE FACILITY**

Navy contract workers have found three small holes on a tank at the Red Hill Bulk Fuel Storage Facility.

The holes in Tank 5 were discovered on June 11 and 12 during an extensive examination of the empty fuel tank and not visible to the naked eye.

The inspection is being conducted after the Navy announced a possible leak of up to 27,000 gallons of jet fuel in January.

"The small holes were located in prior welding repairs and may explain the reason for the fuel loss," said Capt. Mike Williamson, Chief Engineer for Navy Region Hawaii. "We've got the right experts working meticulously to determine the full extent of the leak as the inspection continues."

Each of Red Hill's 20 cylindrical tanks is 250 feet tall, 100 feet in diameter, and can hold up to 12.5 million gallons of fuel.

The Navy says Hawaii Dept. of Health officials have been updated on the latest findings.

Meanwhile, laboratory tests continue to indicate that drinking water sources in the vicinity continue to meet federal regulatory Safe Drinking Water and State of Hawaii standards.

"The water continues to be safe to drink," said Williamson. "We continue to work closely with all of our government partners from local, state and federal agencies. As a follow up to our January announcement, we are continuing to update the public on everything the Navy is doing to avoid future leaks."

The Red Hill facility provides secure fuel storage for ships and aircraft of U.S. Pacific Fleet and other military branches.

<http://khon2.com/2014/06/12/small-holes-found-fuel-tank-at-navys-red-hill-storage-facility/>

**USA, TX, CANUTILLO**

**JUNE 15 2014.**

## **MAN DIES, TWO INJURED WHILE CLEANING ASPHALT TANK**

A worker was overcome by fumes while cleaning an asphalt tank at the Jobe Avispa Canyon Quarry early Saturday morning.

El Paso Fire Department officials responded to the quarry in Canutillo at 7410 N. Desert Blvd. Upon arrival, firefighters saw workers on top of a tanker attempting to rescue two victims inside. Fire officials said the victims were cleaning the inside of tanker when they grew ill.

A third worker was able to self-rescue prior to FD arrival. He was treated and transported to area hospital. The remaining two victims were rescued from the tanker by firefighters and were also transported to area hospitals. One of the victims, a 58 year old male, succumbed to his injuries and later died.

OSHA officials were notified of the workplace fatality.

EPPD rescue units backed by West Valley firefighters, responded to the scene along with El Paso EMS and Life ambulance.

<http://www.kvia.com/news/man-dies-two-injured-while-cleaning-asphalt-tank/26493930>

**USA, UT, BOX ELDER CO. TREMONTON,**

**JUNE 17 2014.**

## **TANK EXPLOSION - ROADBLOCKS THERE FOR A REASON — SAFETY**

Roadblocks may be inconvenient when a fire seems so far away, but law enforcement and firefighters know there are potential dangers that can arise.

The Utah Highway Patrol shared a cell phone video showing a 500-pound propane tank that exploded near Bear River in Box Elder County.

## Tank and Petroleum Use Mishaps

A quarter of a mile away, dashcam video from a trooper's car shows a piece of metal from that same propane tank landing next to the patrol car.

The piece of metal that flew into the air for a quarter of a mile weighed 50- pounds.

"If my trooper had not moved into his car, it's likely he would have been seriously injured," UHP Lt. Lee Perry said. "He may have even been killed with a size of a piece like that hitting. It literally took out a chunk of asphalt.

"I'm just grateful that nothing happened to my trooper that night, or (anyone) else."

Troopers and firecrews say this incident is a great example of why roads are sometimes closed so far away from a fire. With all the shrapnel flying into the air, the trooper may have saved somebody from getting hurt.

"When you have metal projectiles going over a quarter of a mile, that's really scary for not only the responders' safety, but the public's safety that's driving by because they see something going on," Box Elder County Fire Marshal Corey Barton said.

While it may seem an extreme example of what could happen, it's best to proceed with caution.

<http://www.ksl.com/?nid=148&sid=30304889>

### **CANADA, ONT, HEIDELBERG**

**JUNE 20 2014.**

#### **'FREAK' EXPLOSION SPARKS BLAZE, DESTROYS BARN**

*Gordon Paul*

A man was not breaking any rules when a batch of biodiesel he was concocting sparked an explosion and fire that destroyed a big barn near Heidelberg.

"This was a freak thing," Luke Martin said Wednesday.

The 23-year-old was using old vegetable oil, methanol and potassium hydroxide to create cheap fuel Tuesday night in a barn on Benjamin Road. Martin figures he mixed it too soon, which built up pressure, leading to an explosion and fire.

Making biodiesel for your own use is legal.

"There's no law against it," said Dale Martin, Woolwich Township deputy fire chief. "It's not that he was using anything illegal or anything like that."

The mixture creates a chemical reaction that eliminates solids in the vegetable oil. The reaction can create dangerous vapours.

"The one article I read said if you don't burn your house down, you'll kill your family with the fumes," Dale Martin said.

Biodiesel is a cheap alternative fuel used to power older diesel engines.

Martin said the Woolwich department hasn't had an incident like this before but "it sure has happened a lot in the past in other places."

No one was injured in Tuesday night's fire, south of Heidelberg and northwest of Waterloo. Luke Martin escaped with singed eyebrows.

The deputy fire chief said zoning rules would outlaw biodiesel production in the city, but not on a farm. There may be a need for regulations, he said, but you can't regulate everything.

"It's no different than ... say you mix toilet bowl cleaner with bleach. That creates phosgene gas (a First World War chemical weapon). You can't regulate that. People die accidentally where you know you're cleaning a washroom and you run out of the toilet bowl cleaner, so you use bleach, dump it on top and ...

"So there's things that you just can't stop people from mixing together."

He said the three ingredients aren't difficult to find. Methanol (a volatile form of alcohol) is available in Kitchener, he said, as is potassium hydroxide.

"It's not that it's any exotic stuff or anything."

## Tank and Petroleum Use Mishaps

Martin, the man who made the concoction, lives in Elmira and rented a small space in the 65-year-old barn from owner Marvin Weber.

Martin, 23, said he had 380 litres of used vegetable oil — which he gets from local restaurants — in a stainless steel vat.

"I think I mixed the methanol with the potassium hydroxide too soon and it reacted and caused too much pressure," he said.

A "mini-explosion" sparked the fire.

"I tried to put it out with a fire extinguisher, which slowed it down, but I couldn't find any more fire extinguishers."

Later, methanol barrels in the 30,000-square-foot, wood-framed barn exploded.

He called 911. He said fire trucks arrived within 15 minutes.

Martin figures he has made biodiesel 15 to 20 times, creating about 6,000 litres.

He said he never had any problems before Tuesday.

"It was working good."

Asked if he will make more in the future, Martin said: "I'll have to make some decisions, see what road I want to take. I don't know yet."

He said he uses biodiesel in his Ford F-350 truck. It doesn't work in newer diesel engines.

"The new emissions stuff doesn't always like a 100 per cent biodiesel mix."

More people might consider making biodiesel as the price of fuel at the pump jumps.

Advice from the deputy fire chief?

"Don't do it."

The fire department estimates damage at \$250,000. Weber, the barn owner, pegs it at \$300,000. Fifty firefighters from St. Jacobs, Conestogo, Floradale, Elmira and Waterloo battled the blaze.

Weber was at a meeting in Woodstock when the fire started. His wife and four young children were in the house, a stone's throw from the barn.

He said firefighters were there from 6:30 p.m. to 4:30 a.m. It was still smouldering Wednesday afternoon.

Two water mains broke in Waterloo Tuesday night. Combined with the boatloads of water used to put out the fire, water pressure in the area was low, Weber said.

"I hope the folks in Waterloo are going to forgive me," he said.

Weber said the fire could have been much worse. There were snowplows and farm machinery inside but if it was in the fall, it would have been loaded with straw.

Weber, a cash crop farmer, said it was fortunate the wind was blowing away from the big cellphone tower just to the north, his house to the south and his 11,000-square-foot implement shed and workshop loaded with farm equipment to the west.

Earlier in the day, the wind was blowing toward the house.

"Just before the fire broke out, the wind changed direction fairly drastically. God was helping us all the way."

Insurance covers the loss.

"We can rebuild. And nobody's hurt. You know, I can tuck my family into bed."

He holds no grudge against Martin.

"He feels terrible but I sat down with him last night and I said I'm glad that you and I can talk about this," Weber said.

He said neighbours brought over food Tuesday night and Wednesday morning.

"There's going to be more coming. That's just the way it is in the community. We live in a good part of the world."

<http://www.therecord.com/news-story/4584481-biodiesel-explosion-destroys-barn-north-of-waterloo/>

# Tank and Petroleum Use Mishaps

USA, HI, HONOLULU

JUNE 21 2014.

**INSPECTION FINDS MORE DEFECTS IN RED HILL FUEL TANK**

**12 ADDITIONAL HOLES FOUND IN LEAKY UNDERGROUND TANK**

*Catherine Cruz*

Crews have been poring over tank number 5 to find out why 5 and 1/2 inches of fuel disappeared the last time the tank was topped off.

A vacuum test discovered the first clue: three pinholes.

"Indications are that through these pinholes we have identified a possible source which could have led to a reported 27,000 gallons that may have leaked out of the tanks. So it's not holding air, it is probably not holding fuel," said Capt. Mike Williamson, Chief Engineer of Navy Region Hawaii last week.

But the latest report is providing more clues.

The highlights in the latest Navy report show that 12 more defects were detected, bringing the total to 15. It noted that the tiny holes were found in welding repairs made during the tank's maintenance.

It also added that inspectors found 45 locations on the interior of the empty tank that appear suspect.

Next week crews will begin pressure testing the pipe system in order to learn more.

Meanwhile, the EPA wants to hear from companies who can help with the situation at Red Hill. It has issued a formal Request for Information.

Region 9 administrator Jered Blumenfeld, who toured the facility this spring, gave a straightforward reason as to why.

"The impacts are very bad when you mix fuel and drinking water and we want to make sure those two stay very far apart," said Blumenfeld.

One local company is offering up its technology to help in the cleanup.

Global Biosciences LLC said with a patented process of injecting butane gas, it can feed and then starve microbes in the soil and water to do the dirty work and clean up the spill.

"We create a very ideal environment for them [the microbes], an ideal nutrition source so they can grow exponentially and we have a system to cut it off and they go after these contaminants and they neutralize the contaminants and render it inert," said Gilmore Ching of Global Biosciences.

Ching said the company's process has been successful in small -scale projects in five states and is offering to do a pilot project for the Navy.

The state health department is planning a public meeting next month to provide an update on its talks with the military about a regulatory order to add more monitoring wells as well as a timeline for cleanup.

"It is very, very expensive to clean up contaminated groundwater to the level that the public would feel safe. We want to make sure the water never gets contaminated," stressed Blumenfeld following his tour of the Red Hill facility in April.

It has been nearly six months since the spill was first reported. It is not clear exactly how much fuel actually spilled and where it went.

Officials are continuing to test the groundwater to make sure the spill hasn't made its way into the aquifer.

<http://www.kitv.com/news/inspection-finds-more-defects-in-red-hill-fuel-tank/26599130#ixzz36F35zOKB>

# Tank and Petroleum Use Mishaps

**USA, CO, DENVER**

**JUNE 21 2014.**

## **OIL SPILL FROM TANK DUMPS 7,500 GALLONS INTO POUDBRE RIVER NEAR WINDSOR**

Approximately 178 barrels of crude oil — about 7,500 gallons — were spilled Friday afternoon from a storage tank into the Poudre River. According to the Colorado Department of Natural Resources, the cause of the spill, east-southeast of Windsor, was spring flood waters undercutting a bank, causing the tank to drop downward and damaging a valve. This allowed oil to escape from that broken valve. The tank is operated by Noble Energy. The company discovered the leak and reported it to authorities. The department said water quality staff from the Colorado Department of Public Health and Environment were at the scene and no drinking water intakes had been affected by the spill. Standing water with some hydrocarbons were found in one low-lying area near the tank; also, vegetation was stained for about one-quarter mile downstream of the site.

[http://www.denverpost.com/news/ci\\_26004943/oil-spill-from-tank-dumps-7-500-gallons](http://www.denverpost.com/news/ci_26004943/oil-spill-from-tank-dumps-7-500-gallons)

**USA, HI, HONOLULU**

**JUNE 25, 2014**

## **FIRE AT WASTEWATER TREATMENT PLANT IN HAWAII STEMS FROM METHANE GAS LEAK**

The Honolulu Fire Department attended to a fire at the Sand Island Wastewater Treatment plant near Honolulu, Hawaii on June 24, 2014, according to Hawaii News Now.

Fire department officials reported that a tank at the plant was undergoing routine maintenance that morning when it caught fire.

A spokesperson for the Honolulu Fire Department said the fire occurred after a piece of equipment designed to capture methane gas leaked.

Large flames were visible coming from the facility, but fortunately there were no injuries reported and no evacuations were ordered.

<http://www.watertechonline.com/articles/168362-fire-at-wastewater-treatment-plant-in-hawaii-stems-from-methane-gas-leak>

**USA, CA, SAN DIEGO**

**MAY 28, 2014**

## **TANK CLEANING FIRM FINED \$50,000 FOR SPILLING TOXIC ACID NEAR ELEMENTARY SCHOOL**

A San Diego tank cleaning firm was sentenced yesterday by U.S. District Judge Marilyn L. Huff to pay a \$50,000 fine for failing to report an acid spill that occurred at its facility.

Pacific Tank Cleaning (PTC), a family-owned business that employs 85 people on three shifts, is engaged in the business of cleaning industrial tanks and piping, primarily aboard ships. On Monday, March 28, 2011, in the former PTC yard on National Avenue in San Diego, the valve on a 275-gallon plastic container (tote) failed, spilling the contents of the tote onto the ground at the facility. The liquid pooled on the concrete at the facility, and flowed out a hole at the base of the wall. The fluid ran down an alley at the rear of the facility (etching the concrete) and pooled along the curb in front of a nearby elementary school.

Two days later a nearby business reported the spill. The San Diego Fire Department Hazardous Incident Response Team (HIRT) and the San Diego County Department of Environmental Health Service, Hazardous Materials Management Division (DEH) responded to the scene, and closed the affected streets and alley. The responders traced the spill from the school, down the alley to the PTC facility. Samples of the liquid pooled in the street and samples of the soil just outside the PTC facility were found to be extremely acidic, with a pH of less than 1. Measured pH values are typically between 14 (most basic) to 0 (most acidic). Pure water has a pH of about 7.

## Tank and Petroleum Use Mishaps

One of the HIRT responders contacted a PTC vice president at the site. The vice president falsely advised that there were no acids at PTC, only contaminated water. The HIRT responder asked to inspect the facility and observed multiple large totes containing a product called Dynamic Descaler which contains hydrochloric acid. There was no evidence of any spill on the grounds of the PTC facility. Although PTC denied that they were the source of the spill, PTC contacted a clean-up company that afternoon. The clean up company washed and vacuumed the remaining liquid from the street and alley and properly disposed of the vacuumed material, at a cost of \$17,000 (which was reimbursed to PTC by their insurance carrier).

Subsequently, the criminal investigation revealed that an employee on the first shift at PTC had been directed by Production Manager Jorge Luquin to use the contents of a 275 gallon tote to clean piping that was in the PTC yard that had come from a Navy ship. On March 28, 2011, the first shift employee discovered that the valve on the tote of used acid had failed, spilling the contents. The first shift employee reported the spill to Luquin, and advised Luquin that he had seen liquid in the alley.

Luquin ordered the PTC employees to clean up the spill on the site. PTC employees rinsed the area and vacuumed the liquid from the yard, placing it in another tote at the facility labeled "oily water" that was later sampled by DEH (and relabeled by health officials as "corrosive"). Although PTC had a Health and Safety Manager, that individual was not aware of the spill until the HIRT response two days later. The acid spill involved well over the reportable quantity of a hazardous substance (100 pounds of a corrosive liquid), but upon discovery of the release, PTC did not report it to the National Response Center, or any other governmental agency, as required by law.

PTC pled guilty in February. In addition to the criminal fine, PTC was placed on probation for three years, assessed a \$400 penalty, and also ordered to reimburse DEH \$11,238.60 for the costs of responding to the spill.

Pacific Tank Cleaning Production Manager Jorge Luquin pled guilty to the Unlawful Discharge of Pollutants in February of 2014. In pleading guilty, Luquin admitted that although he was aware the tank had leaked, he made no effort to contain the spill outside the facility, which allowed the acid to enter the storm drain system and ultimately the waters of the United States. Luquin is scheduled to be sentenced on June 24, 2014, at 1:30 p.m. before the Honorable Mitchell D. Dembin.

<http://www.justice.gov/usao/cas/press/2014/cas14-0528-pacificTank.html>