

Tank and Petroleum Use Mishaps

The Steel Tank Institute is unable to guarantee the accuracy of any information. Every effort has been undertaken to ensure the accuracy of information contained in this publication but it is not intended to be comprehensive or to render advice. Websites may be current at the time of release, however may become inaccessible.

The newsletter may be copied and distributed subject to:

- *All text being copied without modification*
- *Containing the copyright notice or any other notice provided therein*
- *Not distributed for profit*

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, N.D, BISMARCK

MAY 25 2015.

CLEANUP OF OIL SPILL AT ND FARM TO TAKE 2 MORE YEARS

At Steve and Patty Jensen's northwestern North Dakota farm, crews have been working around-the-clock after a pipeline break spilled more than 20,000 barrels of oil into their wheat field almost two years ago.

State regulators believe workers will be at the site another 2 ½ years.

"It's now just become part of our lives," Patty Jensen said of the massive spill from a Tesoro Corp. pipeline that was discovered in September 2013 by her husband.

"They are working 24 hours a day, seven days a week. But it's so big and it's not as easy to clean up as they thought it would be," she said.

Tesoro and federal regulators have said a lightning strike may have caused the rupture in the 6-inch-diameter steel pipeline, which runs from Tioga to a rail facility outside of Columbus, near the Canadian border. The spill has been called one of the largest onshore spills in U.S. history, covering 7.3 acres of land, about the size of seven football fields. The company had estimated cleanup would take two years.

Bill Suess, an environmental scientist with the state Health Department, said Friday that inspectors now believe it will take a total of four years to clean up. Regulators have said the spill caused no damage to water or wildlife.

Tesoro, in a statement, said more than 6,000 barrels of oil have been recovered from the spill site.

"Our primary goal of remediation continues to be to restore the property to agricultural use, and protect groundwater," the company's statement said. "We do not have any new information to share beyond previous timeline guidance."

Suess, who has been inspecting the site weekly, said much of the rest of the crude is being baked from the soil using a process called thermal desorption. Suess said cleanup crews intend to increase thermal desorption equipment at the site to speed the process.

Tesoro earlier had estimated it would take about \$4 million to clean up the site but revised it months later to \$20 million. The company declined to give any new cost estimates.

Suess said the state is only concerned with ensuring the land gets back to normal and able to grow crops.

"Our position is that they are going to clean it up and it's not our concern how much it costs them," Suess said.

<http://www.washingtontimes.com/news/2015/may/24/cleanup-of-oil-spill-at-nd-farm-to-take-2-more-yea/#ixzz3fVzhuCRw>

Tank and Petroleum Use Mishaps

USA, MA, MARSHFIELD

MAY 28 2015.

PROPANE TANK FLIES THROUGH AIR 'LIKE A MISSILE,' INJURES 2

Police say a Massachusetts man has been hospitalized after a propane tank ruptured and shot through the air "like a missile" as an employee was filling it. Marshfield Police Chief Philip Tavares says propane tank "propelled through the air like a missile" Tuesday afternoon. A 51-year-old Duxbury resident was airlifted from Marshfield Airport to a Beth Israel Deaconess Hospital in Boston to be treated for leg injuries.

A 66-year-old at Williams Coal and Oil employee was taken to South Shore Hospital in Weymouth.

Jim Pircio, the wine manager at a nearby store, says he saw the tank come over the parking lot and nearly hit a car. He says it flew 30 to 40 feet in the air. Officials are investigating the rupture and if the business violated fire codes.

http://www.bostonherald.com/news_opinion/local_coverage/2015/05/propane_tank_flies_through_air_like_a_missile_injures_2

USA, NE, SCOTTSBLUFF

MAY 28 2015.

GASOLINE SPILL AT LOCAL GAS STATION 8" HOLE DRILLED THROUGH SUPPLY LINE

Bart Schaneman

Scottsbluff Fire Department responded to a gasoline spill at the FTC gas station on West 27th St. in Scottsbluff at 10:19 a.m. on Wednesday.

According to Scottsbluff Fire Chief Dana Miller, a local company was drilling on the concrete pad to do some earth monitoring to check for leaks.

They accidentally drilled down into a supply line and punctured it with an 8-inch bit. The gasoline came bubbling up into the street.

Miller said gasoline spilled into two storm drains but the fire department mitigated the spill.

The next step for them is to notify the appropriate agencies, including the Environmental Protection Agency.

The gas pumps at FTC will be shut down until the damage is corrected and all the leaks are fixed.

"It's a fairly substantial hole," Miller said.

http://www.starherald.com/news/local_news/gasoline-spill-at-local-pump-station/article_bd46e347-63ab-5cac-8010-18b59e72aba3.html

USA, TX, HOUSTON

MAY 28 2015.

STORMS DAMAGE GASOLINE TANK AT PHILLIPS 66 TEXAS TERMINAL

Dan Molinski

Oil refiner and storage operator Phillips 66 said the roof of a tank at one of its product terminals south of Houston was damaged Wednesday by heavy storms that have been lashing Texas in recent days. "The gasoline is being drawn down to minimum level and all liquids pumped-off the tank roof," Phillips 66 said in a filing to the Texas Commission on Environmental Quality. The tank had an external floating roof, which floated on the surface of the gasoline.

<http://www.nasdaq.com/article/storms-damage-gasoline-tank-at-phillips-66-texas-terminal-20150527-01042>

Tank and Petroleum Use Mishaps

USA, N.Y, CANTON

MAY 30 2015.

THREE MEN INJURED AFTER KEROSENE FUEL TANK EXPLODES IN CANTON

Three North Country men were injured after a kerosene fuel tank exploded Friday.

Investigators said the men were cleaning an old fuel tank at the Church Creek Mobile Home Community in Canton. State police said they were trying to clean out old oil by holding the tank over a fire, causing it to explode.

Two of the men were airlifted to a Burlington hospital. The other man was treated locally and released.

Neighbors heard a loud boom, and according to neighbors, one of the men had burns over much of his body.

"You know, we hope for them that they're going to be alright, but it's obviously not the kind of injury you want to see somebody take," said New York State Police Lieutenant Kevin Boyea.

The names of the men and extent of their injuries have not been released.

Boyea said this could have been a lot worse.

"We could have had maybe an innocent bystander, or some type of other property damage, but since it was such an isolated area, there was no concern," said Boyea.

Boyea said after the explosion, there wasn't much of a fire to contain because there wasn't much left around to burn.

"In speaking to the firemen at the scene, it's, in our experience, it's not something that's typically done, so it's kind of unusual," says Boyea.

<http://www.twcnews.com/nys/watertown/news/2015/05/29/explosion-in-canton.html>

USA, HI, HONOLULU

JUNE 2 2015.

EPA, HAWAII AND MILITARY REACH PLAN TO PREVENT FUEL LEAKS

Audrey McAvoy

The U.S. Environmental Protection Agency and the Hawaii state Department of Health on Monday announced a tentative deal with the military to better prevent and detect leaks from 20 giant fuel storage tanks near Pearl Harbor.

The proposed agreement announced Monday commits the Navy to installing improved technologies at the Red Hill facility. Fines may be imposed if the work isn't conducted in accordance with the plan.

The agreement calls for a feasibility study to examine options to upgrade tanks. Each storage tank that is in service would be upgraded over the next 20 years. The cost is expected to run into the tens of millions of dollars, the agencies said in a joint statement.

"This agreement will ensure the safety of Oahu's drinking water supply, while allowing the Red Hill tanks to remain in use as a resource for our national defense," Jared Blumenfeld, the EPA's regional administrator for the Pacific Southwest, said in the statement.

Last year, the Navy detected a leak of 27,000 gallons of fuel from one tank. Samples from nearby water-monitoring wells indicated a spike in hydrocarbons.

The Navy owns the tanks, which at 250 feet tall and 100 feet in diameter are the largest of their kind in the world. They were built in the 1940s. They supply fuel to Navy ships and aircraft as well as to other military services.

Public comment on the plan will be accepted during the next month. A public meeting has been scheduled for June 18 at Moanalua Middle School.

The plan will allow for "well-researched, well-planned and cost-effective improvements to protect the groundwater resources," said Keith Kawaoka, the Department of Health's deputy director for environmental health.

Tank and Petroleum Use Mishaps

Gary Gill, who was the department's deputy director under former Gov. Neil Abercrombie, noted leaks have been a problem at Red Hill since the tanks were built 70 years ago. But the problems came into clearer focus after last year's spill, Gill said.

Resulting groundwater contamination hasn't reached Honolulu Board of Water Supply water sources, so the general public's water has been unaffected to date. But existing Board of Water Supply wells are just a mile away.

The public should pay close attention to what steps the Navy will be taking, Gill said.

"There's a lot that remains unknown with this agreement as to how the tanks will be upgraded, with what technology, and over what timeline and how much that will cost," Gill said. "So the need for eternal vigilance and oversight on this facility is going to continue rightfully for a couple decades at least."

<http://www.militarytimes.com/story/military/2015/06/01/epa-hawaii-and-military-reach-plan-to-prevent-fuel-leaks/28331691/>

GHANA, ACCRA

JUNE 5 2015.

DEATH TOLL RISES TO 150 IN GHANA GAS STATION EXPLOSION, FLOODS

The death toll from a huge gas station explosion and flooding in Ghana's capital has more than doubled to 150 people, the president said Thursday night.

Dozens of people had sought shelter at the gas station and in nearby shops in central Accra to escape the torrential rains at the time of Wednesday night's blast. Flooding swept fuel being stored at the station into a nearby fire, triggering the explosion that also set ablaze neighboring buildings, officials said.

The West African nation will observe three days of mourning with flags flying at half-staff, and the government will allocate about \$12 million for relief operations and to repair damaged infrastructure, President John Dramani Mahama told journalists before heading into an emergency meeting.

Before Mahama's announcement, the death toll stood at 73. The president didn't give a breakdown, but the new figure appears to include people killed in the explosion, others who drowned at the blast site trying to escape the flames and still more who drowned elsewhere in the city.

TV footage earlier Thursday showed corpses being piled into the back of a pickup truck and other charred bodies trapped amid the debris. Floodwaters around the site hampered rescue and recovery efforts.

Officials at the nearby 37 Military Hospital said its morgue had reached capacity.

Mahama visited the blast site during the day, calling the death toll "catastrophic" and offering condolences to families of the victims.

"Steps will be taken to ensure that disastrous floods and their attendant deaths do not occur again," he said.

Michael Plange, who lives a few blocks away, said many people had taken shelter under a shed at the station from the rain and were hit by the explosion.

The flooding "caused the diesel and petrol to flow away from the gas station and a fire from a nearby house led to the explosion," said Billy Anaglate, spokesman for Ghana's national fire service.

The deaths are likely to intensify criticism of the government's failure to improve the country's infrastructure. Though the downpours this week have been especially bad, heavy rains in June are not unusual - yet drainage systems in Accra remain inadequate.

The area where the blast occurred is a heavily trafficked section of central Accra with several banks and other offices in addition to residences. Multiple bus terminals connect the area to the rest of the city.

Throughout Accra, drivers caught in the flooding abandoned their cars on the road. The Education Ministry instructed all children who weren't already at school Thursday morning to stay home.

Tank and Petroleum Use Mishaps

The city is also grappling with an energy crisis resulting in blackouts lasting for as long as 48 hours in recent years, sparking large-scale demonstrations that have drawn everyone from blue-collar workers to local movie stars.

<http://www.nydailynews.com/news/world/ghana-gas-station-explosion-kills-73-people-article-1.2246181>

USA, PA, ALLENTOWN

JUNE 5 2015.

HARRY'S U-PULL-IT FIRE: GASOLINE TANK RUPTURED IN BUILDING STORING CHEMICALS, OFFICIAL SAYS

A gasoline tank was ruptured, the fuel went under a forklift and it ignited early Thursday afternoon at Harry's U-Pull-It at 1213 Plymouth St. in Allentown, leading to a large fire and a two-block evacuation, fire Capt. John Christopher said.

Eyewitness video from Susan Leibelsperger of Allentown of the Harry's U-Pull-It fire in Allentown on June 4, 2015.

The blaze destroyed a building in which the auto salvage yard, billed as the largest in the world, stored all its chemicals, along with waste oil, gasoline and propane, Christopher said.

Much of the two-alarm fire was believed to be contained by 1:20 p.m., but an hour earlier a huge, black plume of smoke rose from the building.

From initial reports, employees were working inside the building when the gasoline tank was punctured, Christopher said. The fuel went under the forklift and "that's what got ignited," Christopher said.

There were no reported injuries and all the employees got out safely, Christopher said.

All businesses and homes within a two-block radius were evacuated, he said. There were bits of ash all over the neighborhood.

Fire crews did not enter the building because "it was a defensive operation from the get-go," Christopher said.

There was a 1,000-gallon gas tank and a 4,000-gallon tank of waste oil, which is flammable, inside, Christopher said.

City firefighters, police and EMS responded; PPL was called out because it has a small facility nearby.

"The bulk of the fire seems to be knocked down," Christopher said about 1:20 p.m. A crew in an aerial truck was putting out hot spots, he said.

All the nearby streets leading to Plymouth and Nelson streets were closed. Police were directing traffic.

A Lehigh County hazardous materials team was on the scene and as much as 200 gallons of oil had washed into storm drains, according to emergency dispatches.

The drains spill into the Lehigh River, according to Christopher.

Pennsylvania Department of Environmental Protection spokeswoman Colleen Connolly said DEP officials have not been called to the fire, but are aware of it.

Connolly said she would have more information to provide later Thursday afternoon.

"People should stay away from the area for their own safety," police Assistant Chief Keith Morris said about 1 p.m.

http://www.lehighvalleylive.com/allentown/index.ssf/2015/06/ruptured_gas_tank_leads_to_fir.html

GHANA, ACCRA

JUNE 6 2015.

CIRCLE FIRE: LOOSE VALVES LED TO FATAL EXPLOSION - GNFS REVEALS

The Ghana National Fire Service (GNFS) said preliminary investigations into the explosion at the GOIL fuel station at the Kwame Nkrumah Circle that claimed over 100 lives have revealed that some valves were not properly tightened leading to the inferno.

The explosion and flood Wednesday evening led to the death of close to 150 people. Officials of the

Tank and Petroleum Use Mishaps

GNFS are yet to reveal the exact number of people who lost their life.

The deputy Public Relations Officer of the GNFS, Billy Anaglatey told TV3 that the failure to tighten the valves of the fuel storage bay by the fuel attendants allowed the fuel to float on the surface of the flood water, which came into contact with fire 100 meters away from the station.

“Our [GNFS] investigations continued and we realised that some of the valves were not properly closed so the running water was entering into the underground tank and because of density factor, it went under the fuel and pushed the fuel up.

“So the fuel was coming from the underground tank and the whole area was having the fuel on the surface of the running water.

“It is not all the fuel that comes out that was mixable with water...but it was a running water so it was able to move from the Goil Filling Station to over 100 meters, where it met a naked fire and traced it back to the filling station then the explosion happened”.

<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=361091>

USA, CA, BAKERSFIELD

JUNE 8 2015.

ATTORNEY DISCUSSES RICO LAWSUIT INVOLVING GOVERNOR AND OIL COMPANIES: CALIFORNIA'S "WATER-GATE"

Jane Mundy

Just when you think the water situation in California can't get much worse, fracking in Kern County has resulted in contaminated water that has so far killed one plaintiff's cherry orchard. A RICO lawsuit filed two days ago claims that Governor Jerry Brown's office ordered the California Division of Oil, Gas, and Geothermal Resources (DOGGR) to approve permits to inject contaminated water, which violates the Safe Drinking Water Act.

“The potential impact to our food supply and water supply is enormous,” says attorney Patricia Oliver.

“Mike Hopkins' cherry orchard in northwest Bakersfield died in 2012 - he lost 2,232 cherry trees,” says Oliver, who co-leads the special litigation team at R. Rex Parris. “He got the water tested from a reputable lab that showed the chloride levels exceeded those allowed by the EPA. Chloride is caused either by de-icing of roads or by hydraulic fracking. There are no icy roads in Bakersfield.”

Oliver says that Hopkins first went to the Water Board with his contaminated water and they sent him to the DOGGR. (To obtain a permit under the Safe Drinking Water Act, oil companies must provide geological and engineering studies. These studies are reviewed by the DOGGR, which is responsible for issuing permits under the Safe Drinking Water Act.) Hopkins was told that the deputy of the district would call back. You know how that goes...Hopkins eventually called the deputy (Burt Ellison) who told him the chloride was not caused by oil activity. Next up, Hopkins met with a state gas and oil supervisor and got the same answer: nothing. It was starting to sound like Bakersfield-Gate...

The RICO (Racketeer Influenced and Corrupt Organizations) lawsuit claims that the defendants began to “conspire” back in 2010. Governor Jerry Brown in November of 2011 fired DOGGR Elena Miller, his top oil industry regulator, because she insisted on engineering and geologic studies before issuing permits for wastewater injection wells. Avoiding the costs of such studies and in turn more expensive disposal methods would mean big savings to the oil industry in Kern County. Miller also required testing at drilling sites to prove that waste would be contained. The governor replaced Miller with Timothy Kustic, who said the division would develop a “more flexible approach” to the permitting process, relying on historical records from worksites rather than new testing, according to a report from the California Department of Conservation. “As a result, permit approvals went from the typical 50 permits a year to 1,575 permits in 2012 alone,” noted attorney Rex Parris.

At this point Hopkins retained legal counsel. Oliver got involved because she specializes in complex litigation and is able to think outside the box, which clearly this case would need. She explains that there are

Tank and Petroleum Use Mishaps

two major issues at stake.

“The first issue relates directly to the water in this valley that is used for drinking water,” says Oliver. “The second issue is that this water is used to irrigate crops. The whole valley feeds 25 percent of the nation, but the state of California never conducted studies to determine how much water contamination is too much.” Right now, continual wastewater injections in the valley have the potential to cause irreparable damage.

“We have been investigating the chloride contamination since Hopkins approached attorney George Martin, our co-counsel back in December 2012. We discovered last summer that Occidental and Chevron Oil companies were directly injecting contaminated water into the aquifer. According to the lawsuit, the oil companies were injecting contaminated water directly into the aquifer, into areas between 300 to 800 feet below ground, which is directly at the levels of many farmers’ aquifers.

“We then tried to get records to show that the aquifers were exempt and this past January, the state finally admitted that they were indeed allowing direct injection into the aquifer,” says Oliver.

Interestingly, Oliver and her team were about to file a lawsuit against the government for failure to provide information and very shortly thereafter (January 2015), the state admitted that they were indeed allowing direct injection into the aquifer. “They were definitely aware that a lawsuit was about to be filed against them,” quips Oliver.

Hopkins has 3,636 almond trees that won’t survive if this practice continues. His well is literally across the street from the aquifer believed to be causing the contamination. But Hopkins is just one of millions of people that could be affected if this continues. At this point the lawsuit is dependent upon what the oil companies and the state decide to do.

The lawsuit is seeking damages in the tens of millions, which under the RICO statute could be tripled if they prevail in Los Angeles federal court. The case number is 2:2015cv04149. For more information, see a copy of the complaint.

“It is in the public interest that this complaint should not spend years dragging through the legal channels,” says Oliver. Interestingly, Mark Nechodom, one of the Defendants and Director of the California Department of Conservation - he wrote the e-mail welcoming another defendant as an “unindicted co-conspirator” resigned yesterday. Stay tuned for more about California’s Water-Gate...

<http://www.lawyersandsettlements.com/articles/hydraulic-fracturing-water-contamination-epa-fracking-hydrofracking/interview-hydraulic-fracturing-water-contamination-11-20692.html#.VXUTv8-gqko>

USA, TX, DENTON

JUNE 10 2015.

GAS WELL EXPLOSION INJURES WORKER, MAN NOT CRITICALLY INJURED

Peggy Heinkel-Wolfe

A small explosion at an EnerVest gas well near Masch Branch and Hampton roads sent one worker to Denton Regional Medical Center with burns on his hands and face Tuesday morning.

Kenneth Hedges, spokesman for Denton Fire Department, said the man’s burns were not critical. A second worker was not injured.

Firefighters were dispatched at about 8 a.m. to the 4300 block of Hampton Road on reports of a possible flash fire in a 300-barrel storage tank. Houston-based EnerVest operates the well site and had a contractor servicing the tanks, Hedges said.

Smoke was visible from a distance when both firefighters and the operator responded to the blaze.

Two of the 10 tanks at the well site were burning when firefighters arrived, Hedges said.

After the operator stopped a compressor at the well site, the fire diminished significantly.

The operator decided to let the fire burn out, Hedges said.

EnerVest spokesman Ron Whitmire did not immediately return a call for comment Tuesday morning.

Some firefighters remained on the scene Tuesday to monitor both air quality and the fire as it

Tank and Petroleum Use Mishaps

burned itself out. Nothing outside the containment area caught fire, Hedges said.

No evacuations were ordered, according to Denton police spokesman Orlando Hinojosa. The nearest buildings sit about one-quarter mile away, Hinojosa said.

The cause of the fire is under investigation.

<http://www.dentonrc.com/local-news/local-news-headlines/20150609-gas-well-explosion-injures-worker.ece?ssimg=2327655#ssStory2327623>

USA, TX, KARNES CO

JUNE 10 2015.

WEEKS AFTER TEXAS OIL WELL EXPLOSION, FAMILIES STILL CAN'T GO HOME

Lisa Song

Three weeks after well explosion, families are still waiting and worrying as Canadian oil company Encana decontaminates their homes in Karnes County.

Several families remain displaced three weeks after an oil well exploded in Karnes County, Texas, and the true extent of the contamination is unknown.

More than a dozen households were evacuated after the well blowout in mid-May. As of Monday, five families were unable to return home because their houses are being decontaminated, said Doug Hock, a spokesman for Encana, the Canadian company that owns the well.

Three of the families are at a local hotel. Leonard Cordova, his wife and their 2-year-old daughter have shared a hotel room since May 19. Their three indoor cats are staying with them. The family's dogs are at a friend's house, and their three outdoor cats are still living on the Cordovas' property, which is across the street from the well that blew.

"As far as I know, our [home] is one of the hardest ones hit," Cordova said.

"They're not allowing us to go back to our property," he added. "They have guards out front, and if we try to go back, they call the police."

Cordova said he wants to go back to retrieve important documents like birth certificates. Encana has offered to do it for him, but Cordova said he's uncomfortable with the idea of strangers going through his personal belongings.

"We left with nothing," he said. "We left with the clothes we had on. All my daughter had was a shirt and a diaper."

Encana provides the three families with food every day, as well as per diem, Cordova said.

Hock, the Encana spokesman, said the remaining two families whose homes are being cleaned are vacationers or absentee landowners.

One is retired Vietnam veteran Lucas Jasso, who lives part-time in Corpus Christi. Jasso said he spends most of his time in Karnes County, and is devastated by the damage to his land, where he raises three cows and two bulls.

Jasso hasn't stepped foot into his house since the explosion, but he made two brief trips to his property while accompanied by an Encana representative.

"I felt like crying seeing the mess spewed by the well," he wrote in an email. "My [cattle's] grass was yellow, leaves off my trees were falling and on the ground."

Jasso said his cattle have been relocated. He also received \$2,000 from Encana, and a neighbor told him each of the evacuated families had received the same. "I really don't know what to make of all this," Jasso said. "It's not so much that I'm concerned...[but] I don't see a light at the end of the tunnel for the inconvenience."

Cordova said he asked Encana to help his family find temporary housing, but he expects it will be hard to relocate since the oil boom has created a housing crunch. The family needs to stay nearby, he said, because his wife works in Karnes City.

"We just need a place to stay that's not a hotel," Cordova said. "We need a yard, and a home where my daughter can play...She doesn't really have anything to do all day" at the hotel.

Tank and Petroleum Use Mishaps

Cordova and Jasso were frustrated with the oil industry long before the explosion put them out of their homes. They say their lives have been turned upside down with noise, traffic and environmental concerns. Karnes County is at the heart of the South Texas Eagle Ford Shale, one of the most active oil and gas fields in the country. Since 2008, more than 12,000 wells have been drilled in the region.

"Personally I never really liked" the industry, said Cordova, who worked for an oil and gas contractor before getting laid off when oil prices tanked. "Before all this stuff happened, it was nice and quiet...Now it's just nonstop traffic, 18-wheelers, loud and polluted. It's not what it was."

The Encana well was located near the intersection of Farm to Market Road 792 and County Road 343, a few miles outside Karnes City. When it exploded, it sprayed a mix of crude oil, natural gas and condensate (light petroleum products used for petrochemicals and manufacturing) that turned the grass brown.

Hock said Encana is in the midst of an "environmental sampling program," and is consulting an ecologist on cleanup methods. "We will have a better idea of the size of the clean-up area next week when the environmental assessment is complete," he said in an email.

Encana also brought in veterinarians to examine affected livestock, Hock said. Some of the livestock had to be washed and cleaned, but he said there were no long-term impacts.

"Hopefully they'll return the land to a pristine stage," Jasso said, though he worries he'll have reservations about lasting impacts no matter how clean it looks.

Still, Jasso has no intention of selling his property or moving away. "It's my paradise," he said. "They ruined it."

Cordova said he and his wife are debating whether they want to stay. The house has been in his wife's family for generations, he said, so she has an emotional attachment to their home. But Cordova worries about the health impacts on his daughter, even after the cleanup is complete. His own health has deteriorated since the explosion. Cordova said he's taking Ibuprofen for persistent headaches and has coughed up white mucus every morning and night for nearly two weeks.

Hock said it would be premature to discuss whether Encana would consider buyouts for families that might want to leave. "Our focus is on cleaning the environment and people's homes so they can safely return," he said.

Jasso and Cordova said the explosion has left them unsure of what to do next, and they don't know what they're entitled to receive from Encana. Jasso said he called a lawyer for help, but didn't know what questions to ask.

"We know nothing," Cordova said. "We're just kind of left in the dark, playing the waiting game." <http://insideclimatenews.org/news/09062015/weeks-after-texas-oil-well-explosion-families-still-cant-go-home>

COLOMBIA, IN NARINO PROVINCE, PAMBIL

JUNE 11 2015.

BOMBING OF COLOMBIAN PIPELINE CAUSES 'ENVIRONMENTAL TRAGEDY,' ECOPETROL SAYS

Peter Murphy

Several thousand barrels of crude oil have spilled into a river in southwest Colombia after insurgents bombed a pipeline, state-run oil company Ecopetrol said on Wednesday, describing the damage as an "environmental tragedy."

The bomb attack occurred Monday but was not previously disclosed. It was one of spate targeting oil installations this month and will affect several thousand families, Ecopetrol's Chief Executive Officer Juan Carlos Echeverry told reporters. As many as 4,000 barrels of spilled oil have contaminated rivers used for fishing and fresh water supplies.

"It's a social and environmental tragedy," Echeverry said, describing the spill as "senseless." The financial cost to Ecopetrol will be minimal compared with the harm done to the environment and affected communities, he said.

Tank and Petroleum Use Mishaps

The slick is drifting down the Rosario River, from Pambil in Narino province, and is expected to reach the Pacific Coast by Wednesday evening. The company has deployed booms to recover some of the crude but that will be made harder by rebel presence at along the river's path.

Although Ecopetrol - 88 percent owned by the government - did not name the rebel group, the Revolutionary Armed Forces of Colombia, a Marxist group known as the FARC, operate in the area.

The 300-km Transandino pipeline, attacked six times this year, was not operating at the time of Monday's bombing but it leaked several thousand barrels of residual crude.

The FARC stopped an oil truck convoy in neighboring Putumayo the same day, forcing drivers to dump nearly 5,000 barrels of crude onto the road. Environment Minister Gabriel Vallejo said pollution from that incident could take as long as 20 years to clean up.

Trucks are delivering water to some of the worst affected communities that are unable to draw from rivers.

Echeverry said the attacks had no significant impact on the company's production of around 760,000 barrels per day.

The spill from the Transandino pipeline also risks harming populations of olinguitos, a carnivorous mammal species only discovered in 2013, as the spill will pass close to their known habitat.

The attacks come weeks after the FARC canceled a unilateral ceasefire in retaliation for the government's resumption of aerial attacks on their jungle hide-outs. Peace talks between the two sides are continuing, however.

Echeverry said there have been 20 rebel attacks against Ecopetrol's infrastructure this year, affecting an estimated 84,000 people.

<http://www.reuters.com/article/2015/06/10/us-ecopetrol-spill-idUSKBN00Q2LN20150610>

USA, CA, SANTA BARBARA, GOLETA

JUNE 11 2015.

NEW PHOTOS SHOW EXTENT OF CORROSION IN PIPELINE THAT RUPTURED IN SANTA BARBARA COUNTY

New photos released Tuesday show the extensive corrosion on an oil pipe that ruptured, spilling more than 100,000 gallons of oil into the waters off Refugio State Beach near Santa Barbara.

The damaged section of pipe was removed from the west end of the spill impact zone on May 28 and inspected by personnel from the state Department of Fish and Wildlife, Plains All American Pipeline and Santa Barbara County's Integrated EQAP for Oil and Gas Projects

The oil pipe rupture on May 19 spilled 101,000 gallons of oil at Refugio State Beach, creating a 10-square-mile oil slick. Two weeks before the pipeline ruptured, tests had shown the pipe lost nearly half the metal near the break, but underestimated how thin the pipe had become.

Photos shot by the county's onsite environmental coordinator, Bruce Reitherman, showed major corrosion and the eight-inch hole created by the rupture in the pipe.

The damaged section of pipe was packed away and secured for delivery to a third-party analytical facility in Ohio.

The photos also showed a large amount of oil-soaked rock and debris at the bottom of the trench where the corroded pipe had been removed.

Reitherman said he also inspected two more sections of pipe that showed enough corrosion to require the temporary installation of a clamp.

<http://losangeles.cbslocal.com/2015/06/09/new-photos-show-extent-of-corrosion-in-pipeline-that-ruptured-in-santa-barbara-county/>

Tank and Petroleum Use Mishaps

UKRAINE, VASYLKIV

JUNE 12 2015.

14 FUEL TANKS STILL BURNING AT OIL DEPOT NEAR KYIV

Fourteen fuel tanks, one of which has a capacity of 900 cubic meters, are still burning at the oil depot in Vasytkiv district, Kyiv region, as reported by the press office of the State Emergency Service of Ukraine.

UNIAN - "As of 08:30 on June 11 one tank with a capacity of 900 cubic meters is still burning, along with 13 tanks with capacities of 50 cubic meters," the statement reads.

According to the State Emergency Service of Ukraine, firefighters are now cooling off the oil tanks.

A total of 303 rescuers and 45 units of equipment have been involved in fighting the fire.

In the evening of June 8, a fire broke out in the BRSM-Nafta oil depot in Vasytkiv district of Kyiv region. The fire began in one fuel tank and spread to another 16 tanks. A total of 17 tanks are located at the oil depot.

The fire killed four people - three rescue workers and one employee of the oil depot - while another 12 people are reported to have been injured and taken to hospital.

The Interior Ministry initiated a case under Article 275 of the Criminal Code to investigate the death of people during firefighting. It was also reported that a case under Article 273 was opened, with the Interior Ministry saying that the oil depot had not been properly commissioned.

<http://uatoday.tv/society/14-fuel-tanks-still-burning-at-oil-depot-near-kyiv-437169.html>

USA, WASHINGTON, D.C

JUNE 12, 2015.

CSB RELEASES DRAFT INVESTIGATION REPORT INTO 2009 EXPLOSION AND FIRE AT CARIBBEAN PETROLEUM TERMINAL FACILITY IN PUERTO RICO; FINDING INADEQUATE MANAGEMENT OF GASOLINE STORAGE TANK OVERFILL HAZARD

The US Chemical Safety Board (CSB) has released its draft investigation report into the 2009 massive explosion at the Caribbean Petroleum, or CAPECO, terminal facility near San Juan, Puerto Rico; the draft report includes proposed recommendations for addressing regulatory gaps in safety oversight of petroleum storage facilities by the Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA).

The draft report was discussed at a CSB public meeting this afternoon at the CSB's offices at 2175 K Street, NW, Washington, DC. The meeting was webcast and public comments were accepted. At the meeting the CSB previewed an excerpt from the upcoming video on the CAPECO incident entitled, "Filling Blind."

The 2009 incident occurred when gasoline overflowed and sprayed out from a large aboveground storage tank, forming a 107-acre vapor cloud that ignited. While there were no fatalities, the explosion damaged approximately 300 nearby homes and businesses and petroleum leaked into the surrounding soil, waterways and wetlands. Flames from the explosion could be seen from as far as eight miles away.

CSB Board Member Mark Griffon said, "The CSB's investigation determined that there are a number of shortcomings in regulations that cover petroleum storage facilities. Facilities such as CAPECO, which store large quantities of gasoline and other flammables, are not required to conduct a risk assessment of potential dangers to the nearby community from their operations."

The CSB's draft report is available on the CSB website, csb.gov.

On Wednesday, October 21, 2009, Caribbean Petroleum Corporation began a routine transfer of more than ten million gallons of unleaded gasoline from a tanker vessel docked two and a half miles from the facility. The only storage tank that was large enough to hold a full shipment of gasoline was already in use. As a result, CAPECO planned to distribute the gasoline among four smaller storage tanks. This operation would take more than 24 hours to complete. During transfer operations, one CAPECO operator was stationed at the dock, while another monitored valves controlling gasoline delivery at the terminal.

Tank and Petroleum Use Mishaps

By noon the next day, October 22, two of the tanks were filled with gasoline. The operators then diverted the gasoline into two other tanks – tanks 409 and 411. At 10 pm the night of the 22nd, as tank 411 reached maximum capacity, operators fully opened the valve to tank 409. According to witness interviews, the supervisor on duty estimated that tank 409 would be full at 1 am. But shortly before midnight, tank 409 started to overflow. Gasoline sprayed from the vents forming a vapor cloud and a pool of liquid in the tank's containment dike.

The CSB's investigation found that the measuring devices used to determine the liquid levels in the tanks at CAPECO were poorly maintained and frequently were not working. The facility primarily measured tank levels using simple mechanical devices consisting of a float and automatic measuring tape. An electronic transmitter card was supposed to send the liquid level measurements to the control room. But the transmitter card on tank 409 was out of service, so operators were required to manually record the hourly tank level readings.

Investigator Vidisha Parasram said, "We found that the 'float and tape' measuring system was the only control system CAPECO used to avoid overfilling a tank. When that system failed, the facility did not have additional layers of protection in place to prevent an incident. The investigation concluded that if multiple layers of protection such as an independent high level alarm or an automatic overfill prevention system had been present this massive release most likely would have been prevented."

The CSB report further explains that an independent high level alarm could have detected and alerted operators to the danger of an overfill, even if the primary system for measuring the tank level fails, as it did at CAPECO. An automatic overfill prevention system goes even further, and can shut off or divert the flow into a tank when the tank level is critically high. These additional layers of protection, however, were not used at CAPECO.

The CSB found that existing process safety regulations exempt atmospheric storage tanks of gasoline and similar flammable liquids. Additionally the report concludes current regulations only require a single layer of protection against a catastrophic tank overfill – thereby putting workers and nearby communities at potential risk.

The draft report would recommend that EPA adopt new regulations for facilities like CAPECO to require that flammable storage tanks are equipped with automatic overfill protection systems, and to require regular testing and inspection as well as risk assessments. The Board is also recommending similar recommendations to OSHA, the American Petroleum Institute, and two key fire code organizations. The proposed regulatory changes would affect the EPA's Risk Management Program; Spill Prevention, Control, and Countermeasure (SPCC) rules; and/or OSHA's Flammable and Combustible Liquids standard.

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.

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

Tank and Petroleum Use Mishaps

INDIA, MUMBAI

JUNE 14 2015.

PETROL PIPELINE CATCHES FIRE

A major fire broke out in the petrol pipeline from the Pirpau terminal of Mumbai Port Trust to the oil refineries in Wadala on Saturday evening. Mumbai Fire Brigade brought the blaze under control. No casualties were reported. Chief fire officer Pralhad Rahangdale said nearly 30,000-40,000 litres of petrol went up in flames, with a similar quantity still stored within the pipeline. The Eastern Freeway was closed immediately as a safety measure. A Hindustan Petroleum Corporation Limited official said, "We suspect someone must have smoked a cigarette and thrown it in the mangroves, where the fuel had leaked."

<http://www.mumbaimirror.com/mumbai/others/Petrol-pipeline-catches-fire/articleshow/47659946.cms>

USA, CO, PAONIA

JUNE 16 2015.

MAPPING 7 MILLION GALLONS OF CRUDE OIL SPILLS

A THOUSAND PIPELINE RUPTURES OR SPILLS REPORTED NATIONWIDE IN THE PAST FIVE YEARS.

jonathan Thompson

On May 19, a pipeline owned by Plains All American burst near Santa Barbara, California, ultimately spilling more than 100,000 gallons, or some 2,400 barrels, of oil. Tens of thousands of gallons of the oil slid into a storm drain and flowed into the Pacific Ocean.

The spill garnered national coverage for good reason: It killed or injured hundreds of birds, sea lions and other wildlife, sullied a long stretch of beautiful coastline and happened near where the notorious 1969 spill that inflamed a burgeoning environmental movement occurred. But the spill was anything but unique. Over the past five years, there have been over 1,000 crude oil pipeline leaks and ruptures reported to the federal Pipeline and Hazardous Materials Safety Administration.

Using data from the PHMSA, High Country News put together a map of every one of those spills in the U.S., from January 2010 to May of this year. The Santa Barbara spill has yet to make the list, as the cleanup — costing more than \$60 million and growing — is still in progress. Nor did spills that weren't related to pipelines, like the BP Deepwater Horizon spill of 2010. A browse through the data reveals:

- A total of more than 168,000 barrels of oil were spilled as a result of the reported incidents. That's more than 7 million gallons.
- Many of the spills were small, releasing less than 10 barrels of oil, but some were huge. In 2013, lightning struck and punctured a pipeline in North Dakota. It leaked more than 20,000 barrels, or 865,200 gallons, of oil, making it more than eight times the size of the Santa Barbara spill.
- Lightning? Yes, lightning. It was the stated cause of four of the 1,000 accidents. Corrosion, the culprit in the Santa Barbara spill, is a common cause. Some huge spills resulted from valves being left open, while others were caused by bad seals, heavy rains and people puncturing pipelines while digging. Of all the reported incidents, only one lists "intentional," i.e. sabotage, as the cause.
- Plains All American, the parent company of the operator of the broken pipeline at Santa Barbara, is no stranger to spills. It experienced at least 120 accidents over the five year period. And that's not unusual: Almost every company listed experienced multiple spills.
- All of which leads to the conclusion that Christopher F. Jones, an energy historian at Arizona State University, came to and wrote about recently:
"To a historian of pipelines, last month's Santa Barbara oil spill is a reminder that the more things change, the more they remain the same. ... While it's true that improved technology and regulation have reduced spills significantly—much like flying today is far safer than in the early years of commercial aviation—the fact remains that there exists no such thing as a spill-proof pipeline. Recognizing this historical reality is crucial to crafting future policy."

<https://www.hcn.org/articles/spilling-oil-santa-barbara>