

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/>

AZERBAIJAN, SUMGAYIT

SEPTEMBER 18 2012.

BLASTS AT AZERBAIJAN FACTORY KILLS 6

EXPLOSIONS OCCURRED AS A RESULT OF WELDING WORK IN ONE OF THE TANKS

Two powerful explosions at a detergent factory in Azerbaijan's second-largest city of Sumgayit on Monday killed six people and left seven more injured, police told local media. Firefighters and emergencies ministry helicopters were dispatched to the scene in an attempt to extinguish flames in the industrial Caspian Sea coast city. It was not immediately clear what caused the explosions. "So far it is impossible to say anything concrete. Efforts to extinguish the fire are continuing," Sumgayit's local chief executive Eldar Azizov told journalists.

<http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/international/18-Sep-2012/blasts-at-azerbaijan-factory-kill-six>

USA, OH, JEFFERSON

SEPTEMBER 21 2012.

FEDERAL OFFICIALS PROBE JEFFERSON OIL SPILL

CITIES' WATER OK, BUT POSSIBLE SIZE OF INCIDENT LEADS TO ROLE FOR EPA

Perry Beeman

Two federal environmental agencies this week took over the investigation of an oil spill at Jefferson, now considered one of the largest to ever reach an Iowa waterway.

A 20,000-gallon, above-ground storage tank at Krieger Greenhouses spilled an undetermined amount of oil, and possibly chemicals, into the North Raccoon River, which feeds into the Des Moines area's drinking water supply. The spill was first reported last week.

Cleanup crews stopped the oil before it reached any municipal water supplies, according to the Iowa Department of Natural Resources. No fish kills were reported, but one wood duck and a green heron were at least partly covered in oil, investigators said. The DNR warned residents to stay out of the oil, which can irritate skin.

"We have it pretty much contained," said environmental specialist Alison Manz of the DNR's Atlantic field office. Water sample test results could be available as early as today, said Manz, who is checking for pesticides and other chemicals.

"They have no records, no gauges," Manz said of the nursery, which stored waste oil to burn for heat. "We know nothing about this product" except that it appears to contain oil, she added.

The U.S. Environmental Protection Agency took over the investigation on Wednesday in part because there were questions about whether the nursery could cover cleanup costs, said EPA spokesman David Bryan of the Kansas City, Kan., office. He added that the EPA leads investigations any time a spill into a river has the potential to exceed 10,000 gallons. The 20,000-gallon tank had 5,000 gallons left in it after the spill, he added.

Greenhouse owner Ernie Krieger told The Des Moines Register that he still thought the spill involved only 50 to 500 gallons of oil.

"They told us it was no big deal," Manz said of the greenhouse staff.

So far, 800 gallons of oil and 1,000 gallons of mixed oil and water have been recovered. Manz said crews have used vacuum trucks, skimmers, booms and absorbent pads to recover the product.

The DNR's Kathy Lee said that based on the investigation so far, the oil spill appeared to be one of the largest

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involving an Iowa river.

Crews installed shiny ribbons hanging from poles near the remaining ponded oil to try to scare away waterfowl. "Shorebirds are starting to migrate now, and given the lack of water due to drought, the river becomes very important to them to get a meal of bugs," said Michael Coffey, contaminant biologist for the U.S. Fish and Wildlife Service in Moline, Ill.

EPA and wildlife service staff were at the scene Thursday and will oversee cleanup lasting at least through early next week.

The Oil Pollution Act holds those responsible for such spills liable for damages and cleanup costs. Possible penalties include \$25,000 a day for the duration of the spill. Federal and state officials are mulling enforcement actions, which will depend on what the rest of the probe finds.

In response to a question, Krieger said he was concerned about possible environmental penalties. The business has insurance, "but who knows if it's enough?"

There are legal issues beyond pollution of a river.

State law required the business to report the spill to the state within six hours, but the firm didn't, said Manz. The Greene County Sheriff's Department reported the spill to the DNR on Sept. 13.

Krieger's son, Kurt, discovered oil on his shoe while walking in rain on Sept. 14. A valve used to empty condensation from the tank — unused for six months — was open. The nursery owner said his son closed the valve and left town on a business trip.

"We didn't report it because he didn't know the spill amounted to anything," said Ernie Krieger, adding that his son did not notice any large amount of oil on the ground.

"If it hadn't rained, the oil probably wouldn't have reached the river," he said.

Manz said state officials weren't sure when or how the spill started. Kurt Krieger initially told state investigators that the valve broke. The next day, he told them that an employee had left the valve open.

In his interview, Ernie Krieger said Thursday that no employee had touched the tank. He speculated that it might have been vandalized or that an animal might have bumped and opened the valve.

The tank was surrounded by a concrete containment that only covered three sides, Manz said. Many storage tanks of that type are required to have four-sided containments. The valve in question was outside the containment. <http://www.desmoinesregister.com/article/20120921/NEWS/309210031/0/photogalleries/?odyssey=nav%7Chead>

USA, CA, MARTINEZ

SEPTEMBER 21 2012.

CAR BACKS INTO GAS STATION PUMP, IGNITES FIRE

Alan Wang

ABC7 News caught up with the driver who crashed into a fuel pump at a Martinez gas station Wednesday night. Two cars were torched in the blaze and a gas pump was knocked off its foundation.

A surveillance camera from across the street caught video of the accident. The car backed up toward the gas pump then suddenly accelerated, smashing into the pump and igniting a fire.

Gas station attendant Paul Burg says he realized his worst fear. He said, "...The whole place going kaboom. I mean there's only about 4,000 gallons of gasoline underground there."

Burg said a man, who would not identify himself, is the driver who quickly got out just before the flames engulfed his car and another one next to the pump.

"Saw the black smoke, ran out front, hit the emergency shut off switch, ran into the back, hit the main power breaker fuse box and then high tailed it out of here," said Burg.

Witness Russ Erickson says he was sitting on his porch a few blocks away. He said, "...and then started hearing explosions. We heard seven or eight explosions."

"I started yelling at everybody to get the hell out of here. It was definitely a big hazard," said Burg.

Burg says the owner of the Ford SUV that was also destroyed was inside the gas station paying when it happened.

"The flames erupted, tires popped, gas tanks popped and the flames were coming out over the edge [of the roof] a little bit," said Burg.

No one was injured. Martinez police say no charges are being filed, and they're still trying to figure out why the driver suddenly backed into the gas pump. But no one seems to know, not even the man behind the wheel.

Wang: Sir, can you just tell us what happened?

Driver: Accident. I don't know.

Wang: Did you lose control? Is the car functioning properly?

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Driver: Well everything was... I don't know what happened.

And because of that gas station attendant's quick thinking, firefighters were able to get it under control in less than 20 minutes. The gas station will be closed Thursday for repairs.

http://abclocal.go.com/kgostory?section=news/local/east_bay&id=8817379

VENEZUELA, CARABOBO, EL PALITO

SEPTEMBER 21 2012.

FIRE BREAKS OUT AT VENEZUELA'S EL PALITO REFINERY

Two oil tanks in an oil refinery in Venezuela's northern state of Carabobo have caught fire due to lightning during a storm, the Venezuelan energy minister says.

Rafael Ramirez said the incident took place at El Palito refinery, located in the northern coastal city of Puerto Cabello, on Wednesday.

"We've been able to extinguish the fire in one of the tanks, and we're working to put out the fire in the other tank," Ramirez stated.

He added that firefighters of the state oil company were using foam dispensing trucks to combat the flames and that there hadn't been any kind of blast or fire in the refinery's processing areas.

The blaze in Venezuela comes less than a month after an explosion rocked the Amuay refinery on the Paraguana Peninsula in the northwestern state of Falcon, killing 48 people and injuring dozens others.

Venezuelan President Hugo Chavez declared three days of national mourning and promised an investigation into the explosion, which is said to have been caused by a gas leak.

In late July, state oil company Petroleos de Venezuela SA, or PdVSA, said it had signed a deal with a consortium of engineering companies to expand El Palito over the next four years to double its refining capacity.

In its annual report released in March, PdVSA listed El Palito as one of its production facilities most prone to accidents.

http://online.wsj.com/article/SB10000872396390444620104578007210840697842.html?mod=googlenews_wsj

ENGLAND, CORNWALL

SEPTEMBER 22 2012.

FIREFIGHTERS STRUGGLE TO PROTECT HEATING OIL TANK AFTER BLAZE BREAKS OUT

Neil Brunskill

The fire brigade in north Cornwall had to be called out this week after a fire broke out dangerously close to a storage tank in which thousands of litres of heating oil was being stored.

Members of the public alerted the emergency services when they saw flames at a property in Tregolds Lane in Padstow yesterday (September 20th) at around 15:10 BST, West Morning News reports.

Crews arrived and discovered a garage was on fire, but they realised the blaze was in danger of spreading to the house and heating oil storage tank nearby.

They called for back-up as they fought to stop the 12,000 litres of fuel going up in flames and after using two jets of water and two hose reels, they managed to get the fire under control after an hour-and-a-half.

A spokesperson for the fire brigade said: "The fire was contained to the ground floor of the premises, the first floor of the premises was smoke-logged."

The Oil Firing Technical Association (Oftec) recently told Farming Life that people in rural areas need to be careful not only of theft and accidents, but also of deliberate attacks on their property.

A serious fire was started maliciously in an oil tank in Newtownards in the County Down part of Northern Ireland over the summer, causing a considerable amount of damage.

"The key messages are safety and efficiency, with a recommendation oil storage tanks should conform to current good practice for safety standards," said the organisation's David Blevings.

Oftec regulations state that heating oil customers must take precautions and comply with fire separation distances to adequately protect their stored fuel.

Tanks need to be situated 1.8 metres away from non-fire rated eaves of a building and the same distance from structures like garden sheds.

A fire protection barrier with at least 30 minutes fire rating should be provided to protect nearby property if the tank does catch on fire.

If you have been the victim of a heating oil theft in the last year, visit BoilerJuice's new oil theft watch service to make an anonymous report or to register for free oil theft alerts in your area.

<http://www.boilerjuice.com/news/2146/Firefighters-struggle-to-protect-heating-oil-tank-after-blaze-breaks-out.html>

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GERMANY, SÜDLOHN-OEDING

SEPTEMBER 26 2012.

WEEKEND FIRE INCIDENT AT GERMAN BIODIESEL PLANT CONTAINED IN TIME

At Petrotec's biodiesel production plant in Südlohn-Oeding, Germany, a fire broke out on the morning of Sept. 23 in a side production line of its biodiesel production process. The local fire brigades were able to quickly extinguish the fire. The main biodiesel production line has not been damaged and there was no production halt of this line. Petrotec reports that biodiesel production throughput might be reduced at approximately 5 percent for up to six weeks. The management, however, estimates that the incident will most probably have no impact on the outlook it has provided in the second-quarter report published by the company.

Petrotec AG, Germany, is the largest European producer of waste-derived biodiesel, mainly based on used cooking oil. The company owns an overall nominal biodiesel production capacity of 185,000 tons per year (approximately 55.5 MMgy) at two locations in Germany. Petrotec runs a vertically integrated business model including collection of used cooking oil from more than 15,000 collection points, treatment and refining of the raw material up to the technologically demanding production of waste-based biodiesel. The company sells its biodiesel to large mineral oil companies in northwest Europe. The usage of waste based biodiesel is incentivized by major EU countries with a double counting scheme as part of the mandatory blending quotas.

Petrotec's EcoPremium biodiesel provides significant environmental and climate advantages with the highest CO2 emission reduction of 83 percent (compared with fossil diesel) amongst all biofuels approved by the EU Renewable Energy Directive (2009/28/EC). Since its IPO in 2006, Petrotec cleaned 600,000 tons of waste and saved over 1.6 million tons of CO2 emissions. Petrotec is a public listed company in the regulated market of Frankfurt Stock Exchange, in the Prime Standard segment, complying with high international transparency standards. It has a capital stock of 24,543,741 Euro, equaling 24,543,741 shares. Main shareholder is IC Green Energy Ltd., Israel, with a stake of 69 percent, freefloat is approx. 18 percent. In the 2011 business year Petrotec reached sales of €173 million and generated an EBIT of €5.3 million and a net profit of €3 million. The company employs about 100 employees.

<http://www.biodieselmagazine.com/articles/8712/weekend-fire-incident-at-german-biodiesel-plant-contained-in-time>

USA, MN, BATTLE LAKE

SEPTEMBER 26 2012.

3 HURT WHEN FUEL TANK EXPLODES ON COMBINE IN OTTER TAIL COUNTY

A FUEL TANK EXPLOSION IN OTTER TAIL COUNTY HAS LEFT 1 MAN CRITICALLY INJURED AND 2 OTHERS WITH LESS SERIOUS INJURIES.

Authorities say three people suffered burns Monday when a fuel tank exploded as a cutting torch was being used to dismantle a farm combine so it could be crushed. According to a news release from the Otter Tail County Sheriff's Office: William Litzau, 57, of Osage, and Tresten Schaefer, 36, of Frazee, were using the torch to remove straps on the fuel tank when it exploded at about 2:05 p.m. Monday. Litzau suffered severe burns to his upper body and face. He was taken to Perham Health with life-threatening injuries and later airlifted to Regions Hospital in St. Paul. Schaefer sustained a second-degree burn to his arm and first-degree burns to his neck and face. He was taken to the Perham hospital in a private vehicle. Curt Zacharias, 35, of Richville, also was present when the tank exploded. He sustained burns to his right hand.

<http://www.dl-online.com/event/article/id/70135/>

CANADA, N.B, SAINT JOHN

SEPTEMBER 27 2012.

EXPLOSION INJURES ONE WORKER AT IRVING OIL REFINERY IN NEW BRUNSWICK, CANADA

Alistair MacDonald and Jerry Dicolo

An explosion at an Irving Oil refinery in New Brunswick injured one person on Wednesday and sent gasoline futures higher on fears that the blast threatens already-stretched fuel supplies.

Privately-held Irving Oil said that production was resumed soon after the incident, which will have no impact on the 300,000 bpd refinery, one of the largest in North America.

The accident happened just before midday Atlantic Daylight Time when a tank undergoing maintenance became overpressurized, Irving Oil said in a statement.

"An employee suffered minor injuries and was taken to hospital as a precaution," the company said.

The fire service was called but soon downgraded its presence to one fire crew to act in a "monitoring role," a spokesman for the service said.

Gasoline futures rose 3.7% to a high of \$3.0874/gal on the New York Mercantile Exchange midday Wednesday

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on reports of the blast. In more recent trading, futures were still up 2.8% at \$3.0508.

The accident comes as fuel stockpiles in the Northeast US are at the lowest level since November 1990. The East Coast imports roughly 10,000 bpd from Canada, according to the latest Energy Department figures.

Irving Oil is a regional energy processing, transporting and retail company that sells its fuel in stations throughout Atlantic Canada, Quebec and New England.

The company is owned by the New Brunswick-based Irving family, whose large business interests in that province stretch from timber to local newspapers and oil.

An explosion at an Irving Oil Saint John refinery killed one person in 1998, according to media reports at the time.

<http://www.hydrocarbonprocessing.com/Article/3094938/Latest-News/Explosion-injures-at-least-one-at-Irving-Oil-refinery-in-New-Brunswick-Canada.html>

USA, FLA, LAKE CITY

OCTOBER 3 2012.

PERRY POLLARD FATALLY INJURED BY EXPLOSION AT ANDERSON COLUMBIA

On Monday, October 01, 2012, an industrial accident claimed the life of Perry Pollard, 30, of Lake City, at the Anderson Columbia plant at 871 N.W. Guerdon Street, Lake City.

At approximately 5:15 a.m., Pollard was checking a diesel fuel tank when an explosion occurred. Pollard was fatally injured as a result of the explosion.

No other injuries were reported to other workers.

Columbia County Fire Department responded with multiple units and personnel. CCFD was assisted with containment by the Lake City Fire Department. Fire officials verified the contents of the fuel tank as #5 diesel. There was no contaminant threat to the surrounding neighborhood. No other injuries were reported to other workers.

The State Fire Marshall was on scene this morning and is working closely with the Columbia County Fire Department, the Columbia County Sheriff's Office and Anderson Columbia to determine the cause of the accident. Representatives from OSHA were also on scene this morning.

The Office of the Medical Examiner in Jacksonville, will determine the exact cause of death. The current investigation by the State Fire Marshal and OSHA may take several weeks to be completed and additional details will be released upon completion of the investigation.

<http://www.lakecityjournal.com/main.asp?SectionID=14&SubSectionID=74&ArticleID=9235>

CANADA, B.C, FORT ST. JOHN

OCTOBER 16 2012.

WORKER BURNED IN METHANOL TANK EXPLOSION

Description of Incident:

An operator was checking the level in a 500 gallon methanol storage tank

- Tank was polyethylene plastic, double wall
- A worker climbed on top of the tank. Flammable vapour was ignited, when the worker touched the cap on the inner tank, resulting in an explosion and flash fire.
- The worker received first aid for a second degree burn to the arm.

What Caused It:

- The worker accumulated an electrostatic charge, when positioned on top of the tank
- Flammable methanol/air mixture developed inside the inner tank or interstitial space
- It was 18 degrees Celsius at the time of the incident and methanol has a flash point of 11 degrees Celsius
- Level inside the tank was low (less than 10 percent of total volume)
- Plastic is nonconductive and difficult to ground, and not recommended to store flammable liquids (as per API RP 2003)

Corrective/Preventive Actions:

- Update procedures for tank inspections, maintenance, and filling
- Under no circumstances is climbing on top of a tank permitted
- Install sight glass and piping to allow for filling from the ground level, with stinger extending to the bottom of the tank to prevent splash filling
- If it is necessary to open the tank cap, a personal ground strap must be worn in combination with gauntlet style gloves. Platforms to be provided if necessary.

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Long Term Action Plan:

- Evaluate the suitability of plastic tanks for storage of flammable fluids such as methanol
http://www.enform.ca/safety_resources/safety_alerts/Safety_Alerts.aspx