

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, LA, NEW ORLEANS

SEPTEMBER 2 2008.

LOCK EMPLOYEE JUMPS IN WATER TO SECURE TANK

Sheila Grissett

When Lafitte native Billy Zar spotted a diesel fuel tank bobbing in the extraordinarily high water of the Industrial Canal on Monday, there was no question in his seagoing mind that it couldn't be allowed to float free and hit the canal floodwall. Zar, captain of the Corps' "little spud" tug, the Kent, who was patrolling the area, went into the water south of the Claiborne Avenue Bridge after the 500-gallon tank around lunchtime. "I've been around the water all my life. Ain't nothing to it," Zar said Monday, surrounded by the jovial crew members who helped rig him up to a safety net. Later on in the day at the other end of the canal, Zar back went back in after more debris. Crew member Dana Perkins said it was only right: "He's the best swimmer. But if the weather wasn't so bad, we would have used him for fish bait." The Corps chief of engineers, Brigadier General Robert Van Antwerp, and New Orleans Corp commander Co. Al Lee made a special trip to the lock to meet Zar and his crew and thank them for their service.

http://www.nola.com/hurricane/index.ssf/2008/09/ihnc_lock_employee_takes_one_f.html

USA, TX, LAKE PALESTINE

SEPTEMBER 4 2008.

DOES ETHANOL-BASED GAS DEMAND A BOAT UPGRADE?

More and more gas stations are serving up a blend of ethanol and gasoline, nicknamed gasahol. While most cars run reasonably well on the blend, infrequent gas fill-ups for antique cars, power tools and older boats don't work quite as well.

A blended ratio of 10 percent ethanol with gasoline acts as a solvent in older fiberglass and metal tanks. As the dissolved resins in the fiberglass tank make their way through the fuel line and working parts of the engine, it can foul up carburetors and bring motors to a standstill.

In metal tanks, it cleans out the gunk and varnish that's accumulated over the years and sends those downstream to clog parts. Ethanol also weakens rubber parts such as hoses and gaskets.

Another issue for boaters is the fact that ethanol attracts water, from condensation in the tank and from water vapor entering through the tank vents.

When a fill-up is not completely used and sits for periods of time, the fuel can go into phase separation. The water and dissolved solids in the tank sink to the same level as the fuel intake and when the motor is finally restarted this accumulation can wreck havoc with an outboard engine, explains outdoor writer Angus Phillips in a November, 2007 article.

"When you crank up the motor, the crud is sucked into the carburetor or injectors and plugs things up," he writes.

Boat U.S. warns boaters that once phase separation has occurred in E10 gasoline, additives and water separators can't help. The only remedy is to have the gas and ethanol/water professionally removed from the tank.

Scott Cook of the Boat Owners Association of the United States confirms ethanol's solvent properties in older boats. "We have plenty of evidence of fuel tanks degrading on older vessels to the point that they can totally destroy an

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engine with sludge," he said.

"Usually, by the time it degrades to the point of a leak, the engine has conked out or is dead, and someone has realized that something is seriously going on," Cook said.

While advice from boat mechanics vary on how to compensate for the use of E10 in older boats, using the regular unblended gas seems the best preventative measure.

Flat Creek Marine and Lake Palestine Resort have different experiences with this.

Charlie Miller, Flat Creek Marine manager, said the older model boats are suffering from ethanol-based fuel.

"It's cutting stuff loose and sending it to the carburetors," Miller said.

He added many of the problems come from older models and equipment.

Jeff Wygren, the marine's service manager, said the old carburetors can't handle ethanol's cleaning effect, and gunk will get stuck, clogging the intake.

Miller said old fiberglass fuel tanks can actually break down when in prolonged contact with ethanol fuel.

There are precautions boat owners can take to avoid these issues. The most obvious one is to simply purchase newer equipment designed to handle ethanol fuel.

Another precaution is to not mix the two types of fuel available for boats.

"If you mix the two gases together, it'll create crystals in the system," Miller said. "I saw a motor that had this, and it took several hundred dollars to fix it."

In addition, when putting a boat away for an extended period of time, such as during the winter, it is wise to totally empty the gas tank. If a trip is necessary afterward, fill the tank with only as much gas as is needed.

Above all, follow the manufacturers' recommendations for their specific models, as each manufacturer can have different recommendations.

Lake Palestine Resort confirmed newer boat models show very few, if any, problems with ethanol-based fuel, which is the type of gas it serves.

While advice on what to do varies, here's what the folks at www.drivingethanol.org/ethanol_vehicles/boating.aspx say about changing to the E10 ethanol blend for boats: Before switching from regular gas to E10 for the first time, check for the presence of water in the fuel tank. If any is found, dry the tank completely. Fill your tank as full as possible to limit the flow of air into and out of the vent, thus reducing the chance of adding water to the tank through condensation.

It is critical to minimize water in the gas tank. If too much water is present, it will cause ethanol to separate from the gasoline (phase separation), which can cause stalling and even engine damage.

The Transom Newsletter put out by iBoats.com adds boats with metal tanks should be inspected for signs of corrosion. These and older fiberglass fuel tanks should consider replacement with a new plastic tank.

Polyethylene fuel tanks are not affected by ethanol, age well and are incredibly durable. Any boat with a fiberglass gas tank that was not specifically designed for ethanol, especially ones built before the mid-1980s, are particularly susceptible. Short of replacement, older fuel tanks should be professionally cleaned beforehand.

Inspect the fuel filter frequently. Stock your boat with extra filters and place the old filter in a metal container to prevent spillage on the deck. Know how to replace the filter in case it clogs while you are on the water.

Replace fuel filters regularly when burning the first several tanks of E10. A 10 micron filter is recommended. Inspect fuel lines and gaskets throughout the fuel system. The Transcon newsletter also recommends tinkering with the idle adjustment screws, high-speed air/fuel adjustments as rough running may occur on switch-over to the newer fuel.

During winter storage or extended storage, boaters from Minnesota (the Land of Lakes, boasting one boat for every six people) recommend topping off a boat's fuel tank to 95 percent full to leave room for expansion and to cut down on water accumulation during periods of inactivity.

Also, use a fuel stabilizer. Add it at the time of fill-up, anytime the fuel may sit for more than a month.

While this organization recognizes that older boats may "experience significant difficulties with E10 ethanol," it says these difficulties "affect less than 1 percent of the 13 million registered boat owners in this country."

Technical advisor for Boat U.S. Bob Adriance says, "We found that once the transition to E10 ethanol is complete and the first few tanks of ethanol-enhanced fuel are run through the system, the issues with E10 are manageable. "We've also seen that owners who use their boats frequently and cycle through fuel have fewer problems than those whose boats are only occasionally used," he added.

http://www.c-bstatesman.com/news/2008/0904/Front_Page/001.html

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KUWAIT, DUBAI

SEPTEMBER 4 2008.

FIRE AT KUWAIT'S LARGEST OIL REFINERY CONTAINED

A fire broke out at Kuwait's largest oil refinery on Wednesday but was quickly brought under control, an oil official said. "The fire is under control and will be put out in a few minutes," said spokesman for national refiner Kuwait National Petroleum Co, Ahmad al-Muzaiel. Muzaiel told AFP that operations at the refinery and exports of crude or petroleum products had not been affected. The blaze started in a crane operating near an oil tank at the Mina al-Ahmadi refinery, which has a capacity of 460,000 barrels per day (bpd), he said. "The crane knocked off a small pipe connecting oil tanks at the refinery. That caused an oil leak and the fire," Muzaiel said. Three teams of firefighters worked to put out the fire, he said, adding that there were no casualties. Witnesses said a huge cloud of smoke covered the sky over a nearby residential area, some 40 kilometres (25 miles) south of Kuwait City. Kuwait, which pumps around 2.6 million bpd, has two other oil refineries at Shuaiba and Mina Abdullah with a combined capacity of 450,000 bpd.

http://afp.google.com/article/ALeqM5iedpj_OT-SjgkvpJB6gESsX54vQ

USA, NORTH DAKOTA, YORK

SEPTEMBER 17 2008

EQUIPMENT CAUSES NORTH DAKOTA PLANT FIRE

Kris Bevill

The North Dakota Fire Marshal's office has completed its investigation into the cause of an August fire at the All-American Biodiesel production facility in York, N.D.

The fire, which was discovered in the overnight hours of Aug. 25, destroyed one of four All-American buildings that housed the plant. A local voluntary fire department extinguished the blaze after some difficulty due to chemicals that were in the building.

Deputies completed the state's investigation Sept. 9 and ruled the cause of the fire was accidental. A piece of equipment is believed to be the source of the fire, however, destruction of the equipment was so great that it was difficult for investigators to ascertain. The fire marshal investigation is now closed but insurance companies may continue a more in-depth investigation into the source of the fire.

A spokesman for the fire marshal's office said the state's investigation focused on determining what the local fire department witnessed upon arrival at the scene, the actions taken to extinguish the fire, and determining the origin of the fire and the ignition source. In this instance, the local voluntary fire department "didn't know a whole lot" and couldn't provide many details for the state's investigation.

The state's initial investigation was delayed due to hydrochloric acid vapors in the air at the site. State fire marshals don't have the necessary equipment to conduct investigations in such health hazards so investigators had to wait for the company to neutralize the vapors before they could enter the area.

http://www.biodieselmagazine.com/article.jsp?article_id=2785

USA, TEXAS, HOUSTON

SEPTEMBER 17 2008

HURRICANE IKE DAMAGES GREENHUNTER FACILITY

Anna Austin

GreenHunter Biofuels LLC, a subsidiary of Grapevine, Texas-based GreenHunter Energy Inc., announced its Renewable Fuels Campus in Houston will be shut down for six to eight weeks due to water damage caused by Hurricane Ike.

The company has released a preliminary damage assessment report. The facility, which includes the largest biodiesel plant in the United States, was shut down and evacuated 48 hours prior to the storm's arrival. It's currently without power and local utility companies estimate it could take six to eight weeks to restore power to the area.

Although GreenHunter anticipated the damage would be caused primarily from high winds, it reported that the majority of the damage sustained at the facility was caused by floodwaters. Losses included damage to offices, piping between reagent tanks, as well as some small and intermediate tank foundations. Additionally, two bulk storage tanks containing vegetable oil and methanol tanks were affected, and as a result, GreenHunter said just under 50 barrels of edible canola oil were released into the environment. The company said it notified all appropriate local, state and federal agencies besides the company's third-party oil spill response organization.

Bruce Baughman, senior vice president of technology and engineering for GreenHunter Biofuels, said that so far in assessing damage at the facility, the company has concluded that damage to major process equipment is minimal.

428, 429, 430, 431, 432, 433, 434

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"Given the sheer volume of water and the extreme flood levels that we faced, our initial assessment is that we sustained overall minor to moderate impact to the Renewable Fuels Campus from Hurricane Ike."

GreenHunter President and Chief Executive Officer Gary Evans said the company's property insurance carriers are in the process of sending response team adjusters to Houston. "We are dedicating all of our company resources deemed necessary to ensure this is accomplished as quick as possible for the benefits of our shareholders," he added.

In August, Biodiesel Magazine reported GreenHunter had achieved over 50 percent of its 105 MMgy nameplate production capacity.

On Sept. 11, just prior to Hurricane Ike, the company reported reaching 65 percent capacity. Operations were suspended the same day in preparation for the storm.

"This is a tough time for biodiesel producers as a whole," Baughman said. "But GreenHunter BioFuels is proving that we are an exception to the norm, and that we will be long-term players in this industry."

http://www.biodieselmagazine.com/article.jsp?article_id=2786

USA, SD, SIOUX FALLS

SEPTEMBER 13 2008.

10 THOUSAND GALLONS OF JET FUEL SPILLS AT SIOUX FALLS AIRPORT

Robert Wilson

Aviation officials in Sioux Falls spent most of the day cleaning up after a massive spill of jet fuel overnight. It happened at the fuel tank farm located north of the airport terminal. It happened because an employee forgot and left a fuel valve open.

Crews spent most of Friday morning collecting as much of the spilled fuel as possible. Landmark Aviation General Manager Jack Browning tell KSFY this collection pond is double lined and can hold seven times the amount of fuel that spilled. "We are very confident that it has not gone out of the containment area at all."

Browning says the spilled fuel would not pose much of a fire danger, but it did smell. The odor was bad enough that the National Weather Service office nearby evacuated for several hours. Meteorologist Greg Harmon tells us they first noticed the smell around midnight. "But it wasn't until 8 o'clock this morning when the wind picked up a little bit and the fumes got strong enough that we made the decision to evacuate."

Browning says he would have moved faster to contain and recover the jet fuel overnight if he'd known how big the spill was. "Upon light we discovered a lot more gallons than was originally thought."

Airport officials tell us this fuel spill has not had any effect on flights arriving or departing from Sioux Falls. As far as clean up, experts say it may actually take several weeks until all of the spilled fuel can be recovered.

<http://www.ksfy.com/news/local/28314814.html>

UK, NEWCASTLE UPON TYNE

SEPTEMBER 15 2008.

FUNFAIR EVACUATED AFTER DIESEL SPILL FEARS

Dan Warburton

A funfair was evacuated last night and an oil tank drained after cracks appeared in a North East harbour wall. Emergency services were called to Amble harbour, on the south bank of the River Coquet near the car park at Leazes Street, at around 5.20pm.

They had been called by the harbour master who had concerns for the condition of the harbour wall and the 18,000 litres of diesel in the storage tank.

A series of cracks which had appeared over the past few days had worsened, and after a full assessment was conducted, a nearby amusement park was evacuated and diesel was siphoned off.

The area remained sealed off last night as police as Environment Agency staff continued to drain the tank. It is not yet known what caused the damage, but police said residents living in the surrounding area were not at risk.

Superintendent Gordon Milward said: "The harbour master contacted us reporting concerns for the harbour wall. We closed off the area as a precaution, which caused minimum obstruction to the local people. There is no risk to people living nearby."

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A commercial company was contacted to remove the fuel, but the Environment Agency were standing-by with two tankers. A spokesman for the Environment Agency said, "Our main concern was to ensure, no matter what happened, the oil does not leak out into the estuary, and that's what we were dealing with. The oil is used for the fishing boats. We are not yet sure what caused the incident, but we can confirm it was not a result of the recent floods. If the oil is drained and dragged away then, in terms of potential environmental issues, there would be no way the oil could seep into the harbour."

<http://www.journallive.co.uk/north-east-news/breaking-news/2008/09/14/funfair-evacuated-after-diesel-spill-fears-61634-21817741/>

AUSTRALIA, SOUTH AUSTRALIA, ADELAIDE

SEPTEMBER 15 2008.

CHEMICAL SPILL AT WOOL PROCESSING PLANT

An emergency services worker is decontaminated at the scene. A vandal attack which caused thousands of litres of chemicals to spill at one of Australia's largest wool processing plants has been described as both very stupid and life-threatening. Thousands of litres of hydrogen peroxide and sulphuric acid were among chemicals spilt in the Michell Pty Ltd plant in Adelaide's north. The spill led to the evacuation of workers and nearby residents today, police establishing an exclusion zone around the Salisbury factory amid fears of an explosion.

"All persons ... are urged to avoid the area completely due to a real and immediate danger to life," a SA Police spokesman said. Michell Pty Ltd managing director David Michell said the premises, one of the southern hemisphere's largest wool processing factories, were broken into overnight.

Vandals opened and smashed valves on a number of chemical tanks, causing the spillage which was contained to the site. "This is a very stupid act by a very stupid person," Mr Michell said.

About 60 staff returning to work after a seasonal break were evacuated this morning and police evacuated nearby businesses and residences.

Police this morning declared an 800 metres exclusion zone around the factory and of the specialist fibre producer. An air exclusion zone to a height of 3,000 feet over the area. They declared the area safe at 2.15pm CST and lifted the zones.

http://www.weeklytimesnow.com.au/article/2008/09/15/6375_latest-news.html

USA, KS, WICHITA

SEPTEMBER 19 2008.

CSB FINDS STATIC SPARK SET OFF FIRE AND EXPLOSIONS AT BARTON SOLVENTS DES MOINES FACILITY, INVESTIGATION FINDS EQUIPMENT NOT INTENDED FOR FLAMMABLE SERVICE OR PROPERLY BONDED AND GROUNDED

A fire and series of explosions at the Barton Solvents Des Moines, Iowa, chemical distribution facility on October 29, 2007, was caused by a static electrical spark resulting from inadequate electrical bonding and grounding during the filling of a portable steel tank, the U.S. Chemical Safety Board (CSB) determined in a final report today.

One employee received minor injuries and one firefighter was treated for a heat-related illness in the accident, which occurred about 1 p.m. A large plume of smoke and rocketing barrels and debris triggered an evacuation of the businesses surrounding the facility. As the CSB Case Study notes, the main warehouse structure was destroyed and Barton's business was significantly interrupted. The accident occurred about three months after a July 17, 2007, explosion and fire destroyed a Barton Solvents facility in Wichita, Kansas. The CSB attributed that accident to static sparks and lack of bonding and grounding as well in a June 2008 final report.

CSB Chairman and CEO John Bresland said, 'These accidents show the need for companies to address the hazards associated with static electricity and flammable liquid transfer. They should apply good practice guidelines - outlined in our Case Study - to determine if facilities are properly designed and safety operated.'

The accident in Des Moines occurred in the packaging area of the facility as an operator was filling the 300-gallon steel tank, known as a tote, with ethyl acetate, a flammable solvent. The operator had secured the fill nozzle with a steel weight and had just walked across the room when he heard a 'popping' sound and turned to see the tote engulfed in flames. Employees tried unsuccessfully to extinguish the fire with a handheld fire extinguisher before evacuating.

CSB Lead Investigator Randy McClure said, 'The CSB investigation found the nozzle and hose were not intended for use in transferring flammable liquids. Furthermore, we found the steel parts of the plastic fill nozzle and hose assembly were not bonded and grounded. Static electricity likely accumulated on these parts and sparked to the

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stainless steel tote body, igniting the vapor that accumulated around the opening of the tote during filling.'

The report notes that static electricity is generated as liquid flows through pipes, valves, and filters during transfer operations. Metal parts and equipment must be electrically wired to each other, known as bonding, and then electrically connected to the earth, known as grounding.

'In this case, all the conductive metal objects in the nozzle and hose, and the steel weight which was suspended from the handle by a wire, were all isolated from ground and were susceptible to static accumulation and discharge,' Mr. McClure said. 'This is a set-up for disaster.'

The packaging area - where the fire started - had no automatic sprinkler system and was adjoined to the flammable storage warehouse. The investigation found the wall separating the two areas was not fire-rated. As a result, the warehouse was rapidly consumed, and although this area had an automatic sprinkler system, it was incapable of extinguishing the large blaze.

The Case Study lists several key lessons for safe handling and storage of flammables. 'We would hope every operator of similar liquid transfer facilities downloads and studies this report and the earlier Barton Solvents Wichita report to avoid a repetition of these accidents,' Chairman Bresland said.

Facilities are urged to ensure that equipment used to transfer liquids is properly bonded and grounded; fire suppression systems should be installed in packaging areas; and packaging to be used for flammable liquids - such as the portable steel tanks - should be separated from bulk storage areas by fire-rated walls and doors.

The CSB investigation determined that if Barton had implemented a comprehensive static electricity and flammable liquid safety program, in compliance with current regulatory standards and good practice guidelines, the fire likely would have been prevented. These include OSHA's Flammable and Combustible Liquids standard and codes and recommended practices of the National Fire Protection Association.

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.

USA, AL, GADSDEN

SEPTEMBER 19 2008.

FAULTY HEATING ELEMENT LIKELY CAUSE OF BIODIESEL BLAST

Andy Powell

A faulty heating element on the city of Gadsden's biodiesel equipment likely caused the top of a tank to blow off today, but the only damage was a hole in the roof of the building, Fleet Management Superintendent Greg Noah said.

Noah said the equipment is going back to the manufacturer for inspection and repair and the city's biodiesel program will continue.

Noah said he expects to be back producing biodiesel fuel in a few days.

The equipment, which is located in the city's Fleet Management facility on Chestnut Street, converts used cooking oil into biodiesel fuel by mixing the oil with lye and methanol.

Noah said no one was injured and the top of the tank where the oil is poured into is designed to come off if too much pressure is in the tank.

"For some reason the heating element was red hot in it and when the oil hit the element it ignited and the fumes inside ignited and it blew off the burst plate and went up and poked a hole in the ceiling," Noah said.

Noah said the equipment has a "burst plate" which is designed to go off and relieve pressure rather than the tank exploding when pressure builds up.

The hole in the roof was about a foot in diameter.

Jeff Breeden, president of Biodiesel Logic in Arab, said in a phone interview the equipment had safety designs and "did exactly what it was designed to do."

Breeden said the equipment would be repaired at no cost to the city. He said the equipment would be "up and running in a few days."

The company was scheduled to pick up the machine today and make repairs.

Noah said the equipment had made a batch of fuel overnight and oil was being put into it this morning.

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He said workers used a fire extinguisher to put out a small flame.

Noah said employees didn't know the element was still hot because the element is designed to turn off as the fuel level in the tank drops.

A sensor could have gone bad, Noah said.

Noah said he was in his office when the incident occurred and it sounded "like a tailgate slamming or a car backfiring."

Charles Sharpe, a mechanic's helper and tire changer who operates the biodiesel machine, was standing by the equipment when the incident occurred and was not injured.

Sharpe said he was putting grease and oil in the equipment as he does every morning.

"Something must have shorted out on the machine," Sharpe said.

He said he wasn't concerned.

"It's just something I do every day; it's just a freak accident," Sharpe said. "I don't think it's anything we did or anybody did, it's just one of those freak accidents that happen."

When asked what he did, Sharpe said, "I got out of here. I didn't stick around to see what happened."

While he said he was scared during the incident, he added that when the machine is back working, "I'll be at it again."

Sharpe said he believes the biodiesel program is good. He said people should continue to participate or support it.

Breeden said the company has about 50 machines in operation worldwide and that have produced "hundreds of thousands of gallons" of biodiesel fuel. He said this was the first time this has happened.

Since the city started the biodiesel program this year, it has produced about 1,600 gallons of diesel fuel from cooking oil collected from residents, restaurants and industry, Noah said. The equipment can produce about 55 gallons of biodiesel fuel in eight hours and it costs the city about 80 cents a gallon to produce it. Noah said the city pays about \$3.75 a gallon for diesel fuel.

The biodiesel equipment, which cost about \$14,000, was given to the city by Auburn University as part of a pilot program to encourage biodiesel fuel development.

The Gadsden Water Works and Sewer Board bought the jugs that residents can use to collect cooking oil and turn in to recreation centers.

<http://www.gadsdentimes.com/article/20080917/NEWS01/80917028>

USA, NM, HOBBS

SEPTEMBER 22 2008.

POSSIBLE OIL FIELD PIT LEAKS CAUSING CONCERN IN NEW MEXICO

Records proving oil field pit leaks are contaminating the groundwater in New Mexico are at the heart of a freedom of information request filed against the State by the New Mexico Oil and Gas Association. Association President Bob Gallagher says the group is concerned that the energy, minerals, and natural resources department is claiming there have been 300 incidents of groundwater contamination but the documents proving it have been unavailable. Oil conservation division officials say the data is easy to find on the agency's website and is already public record.

<http://www.newswest9.com/Global/story.asp?S=9048419>

UK, HERTS, HERTFORD

SEPTEMBER 22 2008.

BLAZE IN OIL TANK IN BACK GARDEN

Elizabeth Reeve

BISHOP'S Stortford firefighters were called to a fire involving a ruptured oil tank containing about 600 litres of heating fuel in the garden of a house in Furneux Pelham, last night (Sunday, September 21).

Two crews from Stortford and one from Buntingford attended the home in The Causeway at 8.30pm. The tank, which contained about 600 litres of heating oil, had ruptured and the blaze also engulfed a wood store.

The householders initially used a garden hose on the fire. Firefighters tackled the blaze with foam and stopped the flames spreading to a house about 20yds away.

At one point they had to leave the immediate area after a gas cylinder containing an at first unknown gas was discovered inside the burning building.

The cylinder was cooled and a thermal image camera was used to ensure the temperature was kept down.

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Crews were then told that it was an empty LPG gas cylinder.

No one was injured. The cause of the fire is still being looked at.

The day before, on Saturday (September 20) Stortford brigade was called just after 11pm when thieves torched a stolen car at the Thorley Community Centre in Stortford. After dealing with this they went straight to a wheelie bin fire.

For the second time in two weeks jobs had pushed a bin into the underpass near Sainsbury's at Thorley Park and set fire to it.

<http://www.hertsandessexobserver.co.uk/hertsandessexobserver/DisplayArticle.asp?ID=351017>

CANADA, TORONTO

SEPTEMBER 23 2008.

FIRE MARSHAL FINALLY FINISHED AT SITE OF PROPANE EXPLOSION

It has been more than a month since homeowners in the Keele and Wilson area were forced to abandon their homes for days following a huge propane tank explosion

Fears of asbestos contamination and even more blasts have surfaced ever since the morning of August 10th, with some residents insisting they would move the first chance they get.

It seemed like the clean-up at the site would never end. But now it finally has. The Ontario Fire Marshal (OFM) confirmed Monday it has finally wrapped up all its work at the site and will finally be leaving the 54 Murray Road location where the tanks were stored.

Sunrise Propane, which owns the property, has retaken control of the area, putting additional security in place to prevent any intruders. The City has guaranteed it won't be allowed to reopen in its old location.

But the end of the site processing and clean-up doesn't mean the end of the investigation. Officials insist they're still looking into what caused the mishap - although it could still be awhile before we know exactly what they've found.

"Given the number of items taken from the scene by investigators, the process of examining these items may take considerable time," a statement warns. "At this time, there is no new information available on the OFM investigation."

A preliminary report on the cause of the blast hinted at one strong possibility - a suspected truck-to-truck transfer of fuel that violates safety rules. One worker died in the explosion and a firefighter collapsed and succumbed trying to help residents evacuate the inferno.

The city was forced to take over the clean-up after complaining Sunrise didn't do enough to expedite the task. A host of lawsuits have been launched against the company, as anxious residents look for ways to recoup the damages they suffered that awful night.

http://www.citynews.ca/news/news_27144.aspx

NEW ZEALAND, WAIKATO

SEPTEMBER 23 2008.

COOLSTORE FIRE REPORT CALLS FOR OVERHAUL

James Ihaka

A Fire Service inquiry into a fatal explosion and fire at a Waikato coolstore is calling for an overhaul of regulations and standards at coolstores.

The report says it is unclear whether the facility at Tamahere, about 12km south of Hamilton, had fully complied with its requirements to manage and use flammable refrigerants.

It found there were no warning signs of hazardous materials nor a gas stenching agent to alert firefighters who attended the callout, with no risk assessment plan, on April 5.

"If the firefighters had smelt the usual stenching agent associated with propane they would have been made aware of the potential dangers."

The report said the coolstore was "always at risk from fire" with very large quantities of combustible material in storage and did not have the facilities onsite to deal with fire.

"There were no compliant fire detection or protection systems or hydrants and very limited firefighting water," it said.

The huge blast at the 4000 sq m Icepak Coolstore in Tamahere about 12km south of Hamilton, killed senior station officer Derek Lovell and seriously injured seven other firemen.

The inquiry team report identified factors which could have avoided the risks and injuries to the responding
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firefighters.

It said The Hazardous Substances and New Organisms (HSNO), regulated by the Environmental Risk Management Authority, should be amended so coolstores and the refrigerants they contain, were subject to appropriate controls.

It has also recommended large-scale flammable gas installations should by law require inclusion of stenching agents in the gas.

The report found firefighters followed operational instructions but said "ideally" fire crews should have visited the facility as part of their risk planning process.

It was uncertain whether the firefighters had turned on their breathing apparatus when entering the building. "Whether or not they had done so did not affect the outcome of the incident in this case."

It has since recommended pre-incident planning process are needed to identify high-risk buildings, including those outside the urban fire district.

The regulatory regime as a whole needed to be reviewed to promote information sharing about hazardous substances.

The report identified nine factors which might have prevented the tragic outcome:

- Having hazardous substances regulations applied fully at the installation;
- Prior notification to the fire service that there were hazardous substances at the premises;
- Receipt of an application for approval of an evacuation scheme;
- A familiarisation visit by local fire service staff;
- Fire service awareness of the large scale use of flammable refrigerants in new zealand;
- Warning signs at the coolstore;
- Smell added to refrigerant gas, so firefighters would know of its presence;
- Gas detectors to warn fire crews;
- Fire crews to use a portable gas detector.

"This indicates that the fundamental cause of the incident may lie in part in systemic defects in the regulatory environment and the communication between the various regulatory agencies," the report said.

"This is an issue that may deserve wider investigation by the Government."

Firefighters Union spokesman Derek Best said the coolstore was "a disaster waiting to happen", and it was extraordinary so many potential safety nets were absent.

Of additional concern was comment in the report that there was another coolstore using highly flammable and potentially explosive gas.

"Given the circumstances surrounding the existence of the Icepack coolstore, no one really knows whether or not there could be more," Mr Best said.

"In any event, where is the other coolstore identified in the report?"

The inquiry team, headed by Paula Beever, was originally given until July to report back, with that deadline extended 30 days to August 12.

Fire Service chief executive Mike Hall had 10 days to consider its implications and recommendations before providing comment back to Dr Beever.

In June, the Department of Labour identified the gas that exploded at the coolstore.

It was Hychill-50, previously known as HR22/502, and was a highly flammable propane gas.

http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10533690&pnum=0

USA, W.VA, BECKLEY

SEPTEMBER 26, 2008.

CSB INVESTIGATION OF THE 2007 LITTLE GENERAL STORE PROPANE EXPLOSION EMPHASIZES NEED FOR IMMEDIATE EVACUATION, RECOMMENDS ENHANCED TRAINING OF EMERGENCY RESPONDERS AND PROPANE TECHNICIANS, GUIDANCE FOR 911 OPERATORS

In a draft final report released today, investigators from the U.S. Chemical Safety Board (CSB) conclude that inadequate propane technician and emergency responder training and unsafe propane tank placement were the primary causes of a fatal accident in January 2007 at the Little General convenience store in Ghent, West Virginia.

The propane explosion on January 30, 2007, killed two emergency responders and two propane technicians. Six others were injured. All of the victims had remained in the immediate vicinity of a propane release from a storage tank behind the store and did not evacuate the area. The store, which was leveled in the explosion, was located in rural West Virginia about 70 miles south of Charleston.

Tank and Petroleum Use Mishaps

The draft report calls on West Virginia to provide annual hazardous materials training and drills for all firefighters and recommends improved training for propane service technicians throughout the country. The draft report and safety recommendations will be considered for approval by the CSB Board at a public meeting tonight in Beckley. The meeting will begin at 6:30 p.m. at the Tamarack Conference Center Ballroom located at One Tamarack Park (exit 45 off I-77).

All findings, causes, and recommendations remain preliminary pending approval by the Board. The Board will ask for public comments on the investigation at the meeting tonight.

The CSB also released today a seven-minute computer animation reenacting events during the nearly half-hour leading to the tragedy, from the beginning of the propane release to the eventual explosion.

The accident occurred as a junior propane technician, who had not been formally trained and had been on the job only one-and-a-half months, prepared to transfer about 350 gallons of propane from an old 500-gallon tank to a new tank.

Propane was released from the old tank's liquid withdrawal valve after the technician removed a safety plug from the valve. The CSB later determined the valve had a manufacturing defect that caused it to be stuck in an open position. The CSB also determined that, probably because of a lack of training, the technician likely did not observe a telltale sign that the valve was defective: the safety plug has a small hole through which propane may be seen leaking if the valve is stuck open, before the plug is fully removed.

The CSB estimated the leak began at about 10:25 a.m. and that the building exploded just after 10:53 a.m.

'We investigated this accident because of the tragic, unnecessary loss of life,' said John Bresland, CSB chairman and CEO. 'Nearly 30 minutes elapsed between the release and the explosion. If there'd been an evacuation during those 30 minutes, all of the lives would have been saved.'

The CSB investigation found that a propane tank had been installed against the back wall of the store in 1994 by propane supplier Southern Sun, in violation of OSHA regulations and the West Virginia state fire code, which require 500-gallon tanks to be placed at least ten feet away from buildings. Southern Sun was later acquired by Ferrellgas in 1996, but the tank remained where it was against the back wall.

On the day of the explosion, the tank location enabled the liquid and vapor shooting up from the valve to enter directly into the building through overhanging attic vents located above the tank. Propane then diffused down through the ceiling, and bathroom ventilation ducts also likely carried propane into the store.

CSB Lead Investigator Jeffrey Wanko said, 'Our investigation team interviewed many delivery and service personnel who worked on this tank over the years. All of them were aware of the ten-foot separation requirement but none had reported the unsafe placement of this tank to their managers.' Personnel mistakenly believed the unsafe tank placement had been approved, possibly under a variance. Ferrellgas inspections and audits did not uncover the unsafe tank placement over many years.

Mr. Wanko said, 'Had the tank been ten feet away from the building - as required by OSHA standards and the state fire code - it is unlikely that an explosive concentration of propane would have built up inside the store.'

CSB investigators found that the junior technician, an employee of Appalachian Heating, had been working alone and unsupervised on the propane system at the Little General, despite having no formal training. As propane continued to escape and infiltrate the store, the technician called his supervisor, who had left for another jobsite, then called 911. Despite the severity of the release, the technicians did not recommend an evacuation of the store and the surrounding area.

The 911 operator dispatched the Ghent Volunteer Fire Department to the report of a propane leak at the Little General. Subsequently, a volunteer fire captain, firefighter, and two emergency medical technicians arrived at the store. Four employees remained inside the store, after posting a sign saying, 'Store closed due to gas leak.'

At about 10:53 a.m., the captain told the firefighter to 'Make sure everybody's out, okay?' But before the firefighter could act, the propane ignited from an undetermined source and the store exploded. Debris struck and fatally injured the two technicians, the fire captain, and an emergency medical technician. The workers inside the store survived with serious injuries.

CSB Investigations Supervisor Robert Hall said, 'We found that emergency responders' training was not sufficient to enable them to recognize the need for immediate evacuation.' West Virginia only requires initial hazardous materials training for firefighters, generally a four-hour course when firefighters begin their careers, but refresher training is not required. The Ghent volunteer fire captain had received hazardous materials training only once, in 1998.

The CSB also found West Virginia and 35 other states have no requirements for training or qualification of propane technicians.

Chairman Bresland said, 'Emergency responders often need to call on propane technicians for assistance

Tank and Petroleum Use Mishaps

during propane-related emergencies. There is a need for training of both firefighters and technicians so they may work together to safely deal with propane releases that threaten the lives of residents, workers, and responders.'

Training should include appropriate emergency measures including the need for immediate evacuation in the case of a significant propane release, the CSB said.

Mr. Wanko noted that propane emergencies occur frequently: 'There are about 17 ½ million propane installations in the United States. Firefighters respond to propane emergencies nearly every day. Propane technicians, firefighters, and 911 operators have to be prepared for these emergencies.'

Mr. Wanko said that 911 operators typically use a set of guide cards to acquire pertinent information from callers and give appropriate instructions while dispatching responders to calls for help. However, there is no card specific to propane emergencies.

'Such a guide card would prompt operators to ask about the size and nature of propane leaks and potential dangers, and increase the likelihood of timely evacuations while firefighters determine the extent of the threat,' Mr. Wanko said.

At the public meeting tonight in Beckley, the CSB Board is expected to vote on 12 safety recommendations aimed at preventing similar accidents in the future.

The draft report recommends that the governor and legislature of West Virginia require training and qualification for all propane technicians. To improve training across the United States, the report recommends the National Fire Protection Association amend the national fire codes to call for specific training and testing for all personnel who handle propane.

To assure propane technicians are knowledgeable in handling emergencies, the draft report recommends that the Propane Education and Research Council, established by Congress to promote the safe use of propane, revise its training program to include emergency response guidance. Investigators said this training should emphasize the need to evacuate the scene of a release until all the hazards are known.

The draft report also recommends that Ferrellgas establish an improved inspection program and auditing system for propane installations.

The draft report calls on West Virginia to require annual hazardous materials training for all firefighters and emergency medical technicians in the state. The report also recommends that the West Virginia State Fire Commission require all fire departments to perform at least one hazardous materials response drill each year.

Following approval of the draft report, the CSB plans to release a 23-minute video, 'Half an Hour to Tragedy,' containing the 3-D computer animation of the events in Ghent and a description of the causes, consequences, and lessons of the accident. Featured in this video will be West Virginia State Fire Marshal Sterling Lewis, Jr., CSB investigators, and CSB Chairman John Bresland.

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 companies, industry organizations, labor groups, and regulatory agencies such as OSHA and EPA. Please visit our website, www.csb.gov.

USA, TEXAS, PASEDNA

SEPTEMBER 24 2008

ONE PERSON HURT IN PASADENA KINDER MORGAN PLANT FIRE, TERMINAL SHUT DOWN UNTIL FURTHER NOTICE

A spectacular explosion and fire at the Kinder Morgan plant in Pasadena burns through the night after leaving an employee seriously injured.

A spokesman for the petroleum distribution company says the man was flown by LifeFlight helicopter to Memorial Hermann Hospital in the Texas Medical Center.

Firefighters worked to control the flames all night and kept it from spreading to and igniting nearby storage tanks.

Kinder Morgan is a major distribution hub of petroleum products, but the plant shut down as a result of the blast and may not be back to operating until Thursday.

The cause of the blast is under investigation and there is no word on the condition of the worker who suffered burns in the fire.

Several firefighting and hazardous materials units responded to the fire after 11 p.m. Tuesday in the plant at the 500 block of North Witter Street near Red Bluff Road.

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Harris County Public Health and Environmental Services and Channel Industries Mutual Aid took part in controlling the small fire, which took place in an area that measure 40 feet by 100 feet in a 3-foot-deep pit. CIMA is a non-profit corporation that specializes in "fire-fighting, rescue, and first aid manpower and equipment among Houston Ship Channel industries and municipalities for mutual assistance in case of emergency situations."

HCPHES let the fire burn up and monitored air conditions while Kinder Morgan officials were allowed to take over the site. None of the tanks inside the plant caught fire.

The fire took place at a liquid bulk terminal where refined petroleum products, petrochemicals, industrial chemicals and vegetable oil products are stored.

Smoke had risen and moved its way toward the Loop 610 early after the fire had taken place. Red Bluff Road was closed down to the Washburn Tunnel so that emergency response vehicles could travel to and from the plant.

A report released Sept. 15 on the Kinder Morgan Web site said that none of the company's terminals were significantly damaged by Hurricane Ike.

<http://www.myfoxfhouston.com/myfox/pages/News/Detail?contentId=7501242&version=3&locale=EN-US&layoutCode=TSTY&pageId=3.2.1>