

# 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, PA, BETHLEHEM**

**JULY 23 2011.**

### **ACCIDENTAL GASOLINE FIRE DESTROYS 12 CARS AT PA. DEALER**

Investigators say an accidental fire destroyed a dozen used cars at a Pennsylvania dealership after flaming gasoline floated on water running beneath the vehicles. Fire officials in Bethlehem say gasoline vapor ignited as workers refilled a power washer at the Chevy 21 dealership. They say the washer's water container melted, sending the flaming gasoline down the lot and under a line of cars. Employees unsuccessfully tried to knock down the flames before firefighters arrived. It took firefighters about 30 minutes to control the blaze.

[http://www.timesonline.com/news/state/accidental-fire-destroys-cars-at-pa-dealer/article\\_1b2dc7d6-54a0-5081-8ddf-7f757a195bfe.html](http://www.timesonline.com/news/state/accidental-fire-destroys-cars-at-pa-dealer/article_1b2dc7d6-54a0-5081-8ddf-7f757a195bfe.html)

## **USA, OH, MCCUTCHEMILLE**

**JULY 24 2011.**

### **MACHINE SHOP DAMAGED IN FIRE**

#### **WELDING ON FUEL TANK BLEW CAUSES EXPLOSION**

A fire at Bucky's Machine Shop caused extensive damage to the building Friday afternoon.

McCutchenville Fire Chief Bob Palmer said a fuel tank blew up as someone was welding on it, causing a large fire to ignite at 8400 S. CR 47.

"The whole building was on fire when I got there," he said.

Palmer said because the fire spread quickly through the metal fabrication shop, the building is considered a loss. He estimated damage to the equipment inside to be significant.

"There are a lot of expensive machines in there," Palmer said. "That's a fantastic shop. They make and do everything there."

Firefighters weren't able to assess the damage in detail Friday because the roof had fallen in.

"We don't know what's damaged or ruined," he said. "It'll take a day or two to figure out the loss."

The owner of the shop suffered scrapes and scratches on his arms from the fire, and he was treated at the scene, Palmer said.

Palmer said McCutchenville firefighters were assisted at the scene by NBS, Sycamore and Bascom firefighters.

<http://www.advertiser-tribune.com/page/content.detail/id/538838/Machine-shop-damaged-in-fire.html?nav=5005>

## **USA, MA SPRINGFIELD**

**JULY 24 2011.**

### **SPRINGFIELD FIRE DEPARTMENT: OIL TANK FIRE AT EPIPHANY TOWER CAUSES SMOKE DAMAGE**

A small fire at Epiphany Tower -- an historic, eight-story building that is slated to become a chain hotel -- triggered a big response from city firefighters Friday evening.

"It attracted a lot of attention," Springfield Fire Department spokesman Dennis G. Leger said of the 7:57 p.m. blaze, which looked worse than it was, sending thick, black smoke into the air shortly before sundown.

Leger said the fire was sparked by workers who were cutting up and removing an old oil tank from the State Street building, which is located between Willow and Dwight streets. Leger was unsure if workers used a blow torch to

737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748

## Tank and Petroleum Use Mishaps

dismantle the roughly 2,000-gallon tank, but a section of pipe that still had oil in it apparently caught fire, he said.

The smoke was visible from the street and caused about \$10,000 in damage, according to Leger.

Located across from the MassMutual Center, Epiphany Tower is poised to become a Holiday Inn Express Hotel, according to the latest plans for the downtown building.

As of May, that plan was on track, said a spokesman for Jamsan Hotel Management, the Lexington-based development firm that hopes to transform the building into a 98-room hotel.

The \$5 million project calls for creating additional parking and demolishing an adjacent building, among other things, and is expected to create 50 permanent hotel jobs and 100 temporary construction jobs.

Plans for the site were approved by the Springfield Redevelopment Authority in April 2010.

Epiphany Tower -- formerly known as Civic Tower -- has had many uses over the decades, but in recent years has remained vacant.

"The place has had a lot of fires (over the years)," Leger said.

According to The Republican's archives, a Springfield man was sentenced to up to 10 years in prison in August 2002 after admitting to setting a series of fires in the empty building that caused an estimated \$100,000 in damages.

[http://www.masslive.com/news/index.ssf/2011/07/oil\\_tank\\_fire\\_in\\_epiphany\\_towe.html](http://www.masslive.com/news/index.ssf/2011/07/oil_tank_fire_in_epiphany_towe.html)

### USA, FLA, MANGO

JULY 30 2011.

#### COUNTY PLANS TO TEST MORE WELLS NEAR JET FUEL SPILL

#### THE THREE WELLS NEAREST TO THE SPILL HAVE PASSED CONTAMINATION TESTS.

#### MEANWHILE, A PUBLIC FORUM ON THE ISSUE IS PLANNED.

*Kevin Brady*

The county health department plans to test more water wells near a pipeline that leaked jet fuel along Broadway near Williams Road in Mango.

The pipeline, which carries jet and diesel fuel to Orlando, ruptured July 22. It was repaired three days later but not before leaking 31,500 gallons of jet fuel into a small creek just behind the Sabal Business Park.

Residents and environmental experts were concerned the fuel might leak into the Tampa Bypass Canal, a source of drinking water for the county.

Three water wells within ¼ mile of the leak all got a clean bill of health after tests earlier this week carried out by Kinder Morgan, the pipeline's owner.

The Hillsborough County Department of Health is awaiting results of its own tests on those wells but doesn't expect find any contamination.

Those wells will be tested weekly for the next month, said Steve Huard, a spokesman for the department of health. "We will also be working with the county's Environmental Protection Commission and the Department of the Environment to determine what kind of future testing might be required," Huard said.

An information line — 877-936-2253 — has also been set up for residents with questions about the release. The line will be open 8 a.m.-5 p.m.

The department of health also plans to test wells serving homes along Valley Tree Drive and Julian Road as a precaution, Huard said. Those wells are between ¼ and ½ mile of the leak.

"They are well outside where we would expect anything to happen," Huard said, "but just to be safe and give those residents a good level of confidence nothing is happening to their wells, we have offered to test those wells free of charge. We are doing it out of an abundance of caution. I don't think they have anything to worry about."

Working at the site for a week now, Kinder Morgan cleanup crews are removing some vegetation and contaminated soil and flushing water through the area to capture more fuel, which is then siphoned into larger container trucks.

The cleanup should be complete by early August, said Joe Hollier, a Kinder Morgan spokesman.

"But that is a tentative date based on the progress they make and the weather," Hollier said.

County, state and federal agencies are overseeing the cleanup.

Kinder Morgan will also conduct long-term cleanup activities. "Just to make sure everything meets the environmental standards," Hollier said.

The county has also answered the call for a public forum on the topic.

Terry Flott, chairman of the 600-member United Citizens' Action Network, had been calling for a public hearing in the wake of the leak.

"(A public meeting) is something that I think is really needed," said Flott, a Seffner resident. "We need to make

# Tank and Petroleum Use Mishaps

sure everyone who was involved in this is there to answer questions for everyone who was impacted by this, and we need to know what the emergency action plan is for future spills or leaks.”

The date and location of the public meeting should be announced next week.

<http://brandon.patch.com/articles/county-plans-to-test-more-wells-near-jet-fuel-spill>

## **USA, WA, BELLEVUE**

**AUGUST 1 2011.**

### **BACKYARD BIODIESEL KIT SUSPECTED IN SUNDAY MORNING HOUSE FIRE THREE-DOZEN FIREFIGHTERS RESPONDED TO THE SINGLE-ALARM RESIDENTIAL FIRE IN THE LAKEMONT NEIGHBORHOOD.**

*Kendall Watson*

Several fifty-gallon fuel drums are suspected as the main culprit in a Sunday morning single-alarm residential fire in Bellevue's Lakemont neighborhood. Neighbors reported seeing flames 20-feet high shooting up from the back of the house, located at 17811 SE 60th Street on a wooded foothill below Cougar Mountain. Firefighters responded to the single-story house fire at 6:32 a.m. and the first engine reached the home about ten minutes later, containing the damage to the rear of the home and the attic.

Bellevue Fire Department spokesperson Lt. Troy Donlin said the cause of the fire is undetermined, but investigators discovered a number of 50-gallon fuel drums and equipment necessary to manufacture biofuel in the backyard near the suspected source of the fire. (The fire) was related to some part of the biodiesel process," Donlin said. He said the homeowners were away at the time of the fire and no one was injured.

Over three-dozen firefighters and three fire engines from Bellevue, Eastside Fire and Mercer Island responded to the blaze.

<http://bellevue.patch.com/articles/backyard-biodiesel-kit-suspected-in-sunday-morning-house-fire>

## **USA, TN, SUMMITVILLE**

**AUGUST 1 2011.**

### **CREWS BATTLE LARGE BIO DIESEL FIRE IN COFFEE COUNTY 60K GALLONS**

Emergency crews from across Coffee County responded to a fire at the Tennessee Bio Energy plant in Summitville. For more than eight hours, flames engulfed the building. The two employees inside made it out alive along with two dogs. A cat is believed to have died in the fire. Since thousands of gallons of chemicals were inside, nearby residents were forced to evacuate.

A small spark is said to have morphed into uncontrollable flames at the bio diesel plant. Firefighters feared the unknown after an initial explosion. The plant makes the fuel from used vegetable oil. Thousands of gallons of agents like methanol and glycerin were inside.

"That's the fuel inside burning the diesel itself," Assistant Chief James Maxwell with the Summitville Volunteer Fire Department explained. "That's going to be hard to put out because you can't put it out with water."

Water was in short supply. With no hydrants in the area, firefighters had to take turns refilling their trucks. After burning for more than three hours, crews retreated, fearing another explosion.

By 9:00pm residents were allowed back in their home after firefighters got the flames under control.

Environmental crews are on the scene to assess the damage.

<http://www.newschannel5.com/story/15179847/crews-battling-large-ethanol-fire-in-coffee-county>

## **USA, FLA, ORLANDO**

**AUGUST 1 2011.**

### **SHUTTLE, ROCKET LIFTOFFS LEAVE LEGACY OF COSTLY CLEANUPS AT KSC NASA WILL SPEND MILLIONS REMOVING CHEMICALS FROM DEEP BENEATH LAUNCH PADS**

*Jim Waymer*

NASA spent decades to send men to the moon, launch the space shuttles and build a laboratory in space, and now it will take a century to clean up the chemical messes left behind.

Plumes of carcinogenic chemicals used in the launching of the space shuttles, Apollo moon shots and other rockets seeped deep into sandy soils beneath launch pads and other structures at Kennedy Space Center and Cape Canaveral Air Force Station.

They form viscous toxic goo that will take \$1 billion in cleanup costs agency-wide over many decades, and

737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748

## Tank and Petroleum Use Mishaps

could bog down funding for next-generation spacecraft.

NASA estimates it will spend \$96 million in the next 30 years at KSC, including \$6 million this year. The Air Force says it will take another \$50 million to get the rest of its cleanups at Cape Canaveral under way by 2017.

"In the past, back in Apollo, the normal disposal of the solvent cleaning was down the drain . . . out the back door," said Rosaly Santos-Ebaugh, KSC's remediation program manager, the person responsible for leading the cleanup.

A FLORIDA TODAY analysis of hundreds of pages of KSC and Cape Canaveral Air Force Station cleanup records and extensive databases of toxic spills obtained under the Freedom of Information Act found:

- At least two square miles of chemically-contaminated soil and groundwater, some of the "plumes" reaching as deep as 90 feet, at KSC and the air station, where the earliest rockets blasted off. That includes 600 acres of chemical plumes at KSC or nearby sites under former NASA control and 1,030 acres at Canaveral.
- Of 267 known contamination sites at KSC or under former NASA control, 141 are cleaned up. The other half are either under investigation, undergoing treatment or left for contaminants to break down naturally.
- By far, the most common contaminant is a chlorinated solvent called trichloroethylene, or "trike," and its breakdown products -- substances known to cause birth defects and cancer and reaching concentrations thousands of times higher than federal drinking water standards allow.

No one drinks water drawn at the space center, nor the air station, but federal law still mandates the cleanup, at taxpayer expense. Other potential harm to humans and wildlife is uncertain.

Most of the contamination occurred before federal standards and science caught up with the potential dangers, and today's launches contribute little to the environmental pollution.

Spaceflight was a dirty business. And astronauts walked the moon in 1969, a year before Richard Nixon established the U.S. Environmental Protection Agency.

"So we can put a man on the moon, but we don't have all the regulations in place so we can understand the effect of some of the chemicals that were disposed of," NASA scientist Jackie Quinn said in describing how the contamination was allowed to occur.

### **Toxic solvent**

From 1959 to 1968, during Apollo, when NASA launched Saturn rockets from Launch Complex 34 at Canaveral, trike went straight into the ground. An estimated 88,000 pounds of the solvent soaked into the soil and groundwater.

KSC's sandy, alkaline soils are thought to neutralize most metals and other contaminants before they become a problem up the food chain. But trike dies hard.

And workers kept pouring it into the ground in the early years of the shuttle program, thinking it would evaporate.

Industry chemists knew as far back as the 1940s that trike could contaminate groundwater, according to research by Steven Amter, an environmental consultant in Washington, who has written a book on the history of industrial pollution.

Safety guidelines for trike were among the first Chemical Safety Datasheets published by manufacturers in 1947, Amter said. They advised users to pour the solvent on "dry sand, earth, or ashes at a safe distance from occupied areas" to promote evaporation.

That practice since has proven ineffective, given all the trike that seeped into groundwater at KSC and elsewhere.

Few but chemical industry insiders and scientists who studied groundwater understood the full implications of the early guidelines.

"It doesn't say, 'Just pour it on the ground and forget it,' " Amter said. "It was intended to promote evaporation, not infiltration into the ground."

NASA officials couldn't cite the year KSC workers stopped pouring trike on the ground, but said they did so when the Materials Data Safety Sheets first warned against the practice. Dow Chemical's safety sheet in 1974 and General Electric's in 1978 recommended used solvents be sent to a licensed disposal company.

After Congress passed extensive hazardous waste regulations in 1980, Amter said, trike users should have been aware of the risks to groundwater.

"Anything you didn't want to drink, you shouldn't be putting in the ground."

# Tank and Petroleum Use Mishaps

## How much, where?

Historically, NASA has spent an average of \$8 million to \$10 million a year treating trike and on other cleanups at KSC, at least through 2009. Last year, funding for cleanups dropped to \$4 million, then increased to \$6 million this year.

Since 1989, NASA has spent \$128 million on KSC environmental cleanups.

At Cape Canaveral Air Force Station, where spills aren't just space-related, the military has spent \$175 million since 1985 investigating and cleaning up 94 of 127 contamination sites. They've also paid out \$15 million on several ongoing cleanups at Patrick.

KSC's cleanup program traces its origins to two legal orders issued by the Florida Department of Environmental Protection in the late 1980s for the space center's two earliest contaminated sites: Wilson Corners and Ransom Road Landfill.

Ransom is a 24-acre closed dump operated during early construction at KSC, from 1964 to 1970. Groundwater contaminants include volatile organic compounds and ammonia.

A 33-acre plume surrounds Wilson Corners, originally a general store, acquired by NASA in 1963. KSC converted it to a rocket-engine cleaning lab, operated by a private contractor. Trike was the predominant solvent used there until the early 1970s.

## Main contaminant

Florida environmental regulators enforce cleanup standards at Kennedy, but it was federal law that first forced NASA in the 1980s to begin assessing hazards to humans and the environment. Ultimately, they unearthed the 267 sites, most with trike as the main contaminant.

The largest: a 352-acre plume at Canaveral air station's Launch Complex 34 -- site of the 1967 Apollo 1 fire that killed three astronauts.

NASA, in most cases, can't tell if spills are from the shuttle or other programs such as Apollo.

Solvents foul surface waters around the main shuttle pad, 39B -- a National Historic Site, and the more polluted of the two shuttle launch pads. Flame retardants, arsenic and nickel also penetrate the soils there.

The pad launched 52 shuttle flights, all three Skylab missions and the Apollo-Soyuz test flight. NASA began dismantling the pad earlier this year to clear the way for future, larger rockets.

Most of the trike at KSC and the Air Force station launch pads is stopped from reaching deeper aquifers -- where drinking water could be drawn -- by a natural clay layer about 40 feet underground. But in some spots, the solvents reach depths of 90 feet.

Left alone, all the trike at Launch Complex 34 would take 300 years to naturally break down, NASA officials say. With human intervention, it might still take a century.

## Corn oil solution

Traditionally, solvent cleanups involved pumping up contaminated groundwater and treating it -- a lengthy, expensive and not-always-successful process. The dense liquid solvents are tough to pump.

But scientist Quinn's homestyle blender churns up promising and cheaper solutions, using tabletop ingredients such as corn oil and more-exotic substances such as nanoparticles. In a small lab in KSC's Operations and Checkout Building, the same place astronauts suit up before launch, it sloshes iron powder and corn oil into a gray goop.

The method, called Emulsified Zero-Valent Iron (EZVI), requires injecting the salad-dressing-like mix into plume hot spots, where it finds and binds to the similarly dense solvents, rendering them harmless. It does the same to heavy metals such as chromium, arsenic and lead.

"The technique works well and it works fast," said Quinn, an environmental engineer with NASA's Surface Systems Office, who developed EZVI along with University of Central Florida scientists.

## Long road ahead

The iron particles float in oily bubble blobs that enclose the solvents and break them down into natural, nontoxic salts and gases. Naturally occurring bacteria consume the leftover vegetable oil.

"It's totally nonhazardous byproducts," Quinn said.

The idea, which began on the back of a napkin, won its inventors a place in NASA's Space Technology Hall of Fame in 2007. NASA licensed the technology to several companies, and now, 16 states and several countries, including France and Japan, use it.

# Tank and Petroleum Use Mishaps

But KSC has a long way to go in solving its trike troubles.

"It's not just a problem that's affiliated with us, it's a global problem," Quinn said. "Environmental cleanup science is a very young science."

<http://www.floridatoday.com/article/20110731/NEWS02/107310321/Shuttle-rocket-liftoffs-leave-legacy-costly-cleanups-KSC>

**USA, CA, LA**

**AUGUST 3 2011.**

## **WORKER DIES IN OXYGEN-DEFICIENT TANK, PHARMACEUTICAL FIRM FINED \$371,250**

Cal/OSHA has issued 11 citations totaling \$371,250 to Baxter Healthcare Corporation dba Baxter Bioscience for deliberate and willful workplace safety violations which resulted in the death of one technician and serious injuries of two other workers.

"We will not tolerate employers who intentionally sacrifice the safety of their workers," said DIR Acting Director Christine Baker. "Our goal is to prevent these needless tragedies and ensure employers live up to their responsibility of protecting their workers."

On Jan. 21, Baxter technician, Henry Astilla, collapsed when he entered a 7-foot deep, 6,000-liter tank in which nitrogen gas was being bubbled through plasma as part of a protein extraction process. Air in the tank had been displaced by the nitrogen gas resulting in an oxygen-deficient atmosphere in the tank. Cal/OSHA regulations require employers to have special protective procedures in place prior to the entrance by employees into these types of confined spaces. In this case, the employer had not tested the atmosphere prior to entrance to ensure there was sufficient oxygen, which led to Astilla's death.

Cal/OSHA's investigation further revealed that when Astilla was discovered, a supervisor ordered two other employees to enter the tank and retrieve him, without testing the atmosphere of the tank or providing proper equipment and other safeguards necessary for a safe rescue. As a result, Astilla died and the two employees sent to retrieve him were seriously injured. One remains hospitalized since January.

"The hazards of working in confined spaces are well-documented and this is a classic example of the kind of injury that occurs when employers fail to adequately protect their employees," said Cal/OSHA Chief Ellen Widess. "When confined space operations are not properly planned, it is unfortunately common for other employees to be injured or killed while attempting impromptu rescue of the initial victim."

Cal/OSHA determined that Baxter's confined space program failed to comply with all requirements, including appropriate atmospheric testing, protective equipment, and rescue equipment and procedures.

Baxter Bioscience is a multinational pharmaceutical company with a Los Angeles plant located in Atwater Village. The facility uses advanced technology to produce plasma proteins.

The citations issued by Cal/OSHA include one general and 10 serious, four of which were classified as willful. <http://ohsonline.com/articles/2011/07/27/worker-dies-in-oxygen-deficient-tank-pharmaceutical-firm-fined-371250.aspx?admgarea=news>

**USA, KS, BUTLER CO, ROSE HILL**

**AUGUST 3 2011.**

## **PROPANE EXPLOSION KILLS ONE, FORCES EVACUATIONS NORTH OF ROSE HILL**

Emergency crews converged on the scene of a propane explosion in Butler County Tuesday afternoon. Hospital workers confirm a 40-year-old Rose Hill man who was critically burned, died from injuries sustained in the initial explosion. Two others were treated for less severe injuries. Hundreds were forced to evacuate.

"I just know they said if that 23-thousand tank goes, nobody is safe back there," explained Bill Stuhlfatz who owns a business near the explosion. "My shop is three quarters of a mile from there."

Stuhlfatz says he was told to stay put after the original explosion. Then residents in the area say multiple explosions continued to rock Global Propane Energy in the 13000 block of SW Butler Rd just after 2 p.m.

As of Tuesday night a 16-thousand gallon propane tank continued to burn.

So what caused the massive explosion? One worker originally told emergency crews he heard a loud "whoosh" sound and then there was an explosion. And while the exact cause is not yet known, the fire continued to burn hours later.

Fire crews still on scene Tuesday night began to allow residents to go back home. Emergency workers say they plan to let the tank on fire at the propane company continue to burn so it does not explode.

"This thing has to vent," explains Emergency Manager Jim Schmidt of Butler County. "If it does not vent then it

## Tank and Petroleum Use Mishaps

will heat and heat and heat until it expands and explodes."

Schmidt confirms several smaller propane tanks exploded in the initial fire, but the one "main" propane tank at the facility did not burn.

Residents and business owners were evacuated in the area that is bordered by SW Prairie Creek on the east, 159th on the west, SW 140th on the south and SW 130th on the north. Officials blocked traffic. All roads east of 31st St., Pawnee and MacArthur were also blocked at the Butler County line. As of Tuesday night, all but a few residents near 130th and Butler road were being allowed back to their homes.

For those not in their homes, an emergency shelter was put together in Andover at the Andover Methodist Church at 1429 N. Andover Road. The American Red Cross was on the scene to help.

At one point the fire burned several power poles to the ground along Butler Road. Power crews were busy into Tuesday night trying to restore power to pockets of homes left with no electricity.

The fire remains under investigation but it could be some time before the exact cause is known.

"It will take some time to get it all sorted out," explains Schmidt. "But it looks like the worst is behind us."

<http://www.ksn.com/news/local/story/Propane-explosion-kills-one-forces-evacuations/zX8u1bqmNEWn8mRywHwzAg.csp>

### **USA, UT, ST GEORGE**

**AUGUST 12 2011.**

#### **OIL TANK EXPLOSION CAUSES RECYCLING PLANT EVACUATION**

*Nur Kausar*

Workers evacuated the Dixie Metal Recycling plant on 1630 East off Commerce Drive at 11:30 a.m. Thursday after an oil tank explosion started a fire.

The workers had been cutting two empty, 10,000-gallon tanks to recycle when sparks from their cutting tools reached residual fuel inside one tank and ignited.

St. George Fire Chief Robert Stoker said no one was injured and everyone working at the plant evacuated before a larger explosion could occur if flames reached the large amount of fuels on the property.

Approximately 15 firefighters responded to suppress smoke and vapor coming from inside the tank.

A foam was used for suppression, Stoker said, because using just water would have caused the fuel to rise out of the tank.

Some runoff of the fuel occurred, he said, but firefighters dammed the moving fluids before they reached drainage areas and used Hazmat booms to soak up what was left.

Stoker said this situation is different than the restriction on using cutting tools in unincorporated parts of the county, where the use of such tools have been the major cause of human-started fires.

He said workers had fire extinguishers ready and cut the metal far from the main building outside, on a paved parking lot. However, since the fire got out of hand, they called 911.

"Recycling areas have a high level of fuels around so they follow different rules and we regularly inspect them," Stoker said.

<http://www.thespectrum.com/article/20110811/NEWS01/110811020/Oil-tank-explosion-causes-recycling-plant-evacuation?odyssey=nav|head>

### **USA, PA, ERIE CO, HARBORCREEK TWP**

**AUGUST 13 2011.**

#### **DEP FILES COURT ACTION AGAINST FIRE-DAMAGED HARBORCREEK BIODIESEL FACILITY**

*Tim Hahn*

The state Department of Environmental Protection wants an Erie County judge to put a stop to demolition at a fire-damaged Harborcreek Township biodiesel facility until the chemicals on-site are removed and properly secured or removed.

American Biodiesel Energy Inc. owner Lee Akerly calls the action a "moot point" because, he said, he has already taken the required action to safeguard what's on-site.

The DEP filed a petition to enforce an administrative order on Thursday, seeking a judge's order that would require Akerly to remove all drums of chemicals from the building at 4680 Iroquois Ave.; to place all damaged and leaking drums in secure containers; to remove and properly dispose of visibly contaminated soil and water; and to provide written documentation of the "hazardous waste determinations" on the contents of the drums and the recovered waste material.

# Tank and Petroleum Use Mishaps

Portions of the building were heavily damaged in a fire May 14 that investigators believe started in a front office. The blaze wiped out a powder-coatings business that Akerly operated in the building and shut down his biodiesel operation.

Akerly has been working to repair the building to possibly restart biodiesel production. He said Friday that a DEP official was at the site on Friday morning and said nothing about the suit filed Thursday. He also said that the drums have already been put in "secondary confinement," as required by the agency.

"They gave us until this coming Monday to take care of it, and we've done so," Akerly said.

According to the suit, DEP officials inspected the facility on June 28 and observed numerous burned and damaged metal drums within the building, and stained soil and "visibly contaminated" surface water beyond the building's west wall. The observations were made as preparations were under way for the demolition of the damaged portion of the building, officials said.

The burned and damaged drums, left at an active demolition site, present a danger of pollution to waterways, and constitute a public nuisance, officials wrote in the suit.

The DEP said it gave Akerly a copy of a department order that required him to rectify the chemical storage and waste issues at the property. He did not file an appeal within the 30-day time limit, according to the suit.

Akerly also has not fully complied with the order, officials said.

The suit asks a judge to require Akerly to remove and secure the drums within three days, and to remove contaminated soil and water and file documentation on the wastes within seven days.

The DEP petition does not list the chemicals suspected of being on site.

Erie County emergency officials said that on the day of the fire, Akerly identified nine chemicals that were in the building: vegetable oil, glycerin, ethanol, methyl hydroxide, toluene, sulfuric acid, dry lye, powder coating and sodium methoxide.

Officials also said that Akerly violated federal and state law by failing to report the materials used at the facility -- a charge that Akerly denies.

The county's Local Emergency Planning Committee is expected to review the fire and consider whether to take action against Akerly for failing to report the materials at the committee's Sept. 8 meeting. Akerly could face fines of up to \$5,000 per day over the issue, officials said.

<http://www.goerie.com/apps/pbcs.dll/article?AID=/20110813/NEWS02/308129892/-1/newssitemap>

## **USA, VA, WORMLEY CREEK MARINA**

**AUGUST 13 2011.**

### **FUEL LEAK AT YORK MARINA AFFECTS CREEK**

*Sam Thrift*

The York County Department of Fire and Life Safety and Maritime Incident Response Team helped contain an overnight diesel fuel leak Friday at the Wormley Creek Marina, located in the 1200 block of Waterview Road in the Seaford area of York County.

According to Captain Paul Long, around 7:32 a.m. the department received a report of a diesel fuel release. Upon arrival and investigation, it was determined that an above ground diesel fuel storage tank with underground piping that served a nearby pier area had developed a leak overnight.

The United State Coast Guard has preliminarily indicated that approximately 350 gallons of diesel fuel leaked into the soil surrounding the piping, a portion of which was released into Wormley Creek, a tributary of the York River.

According to Long, it appears that the release has been contained. Wormley Creek was closed to maritime traffic during the initial response and investigation as a precaution, but has since reopened.

Wormley Creek Marina remains closed at this time.

Residents with concerns about their property may contact the marina directly at 757-898-5060 or the York County Department of Fire and Life Safety at 757-890-3600.

<http://wydaily.com/local-news/7049-fuel-leak-at-york-marina-affects-creek.html>

## **USA, KS, BUTLER CO**

**AUGUST 14 2011.**

### **FIRE CHIEF: PROPANE EXPLOSION COULD HAVE BEEN 'MUCH WORSE'**

Authorities say a broken propane container fitting caused last week's deadly explosion in Butler County. They're also releasing new information on how much worse the situation could have been.

The fire engulfed an 18,000 gallon propane tank, which had potential to create a fireball more than 1/8 mile in  
737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748

# Tank and Petroleum Use Mishaps

diameter and send the several ton tank about 3/4 mile away.

The explosion happened Tuesday, August 2nd. Police evacuated residents from a four square mile area because they knew what many residents didn't at that point -- that a catastrophe was likely about to happen.

"This could have been so much worse," said Rose Hill Fire Chief James Woydziak.

It could, and should, have been a BLEVE, or boiling liquid expanding vapor explosion, according to experts. If the tank would have exploded, it would have devastated a much larger area than what was impacted. You can view a demonstration of a BLEVE by [CLICKING HERE](#).

"You know they talk about the perfect storm, this one was it. The damaged piping was putting the flames right on the tank," said Woydziak.

The piping leading up to the tank was damaged, fire officials say, after a smaller container exploded and hit it. This reportedly happened after a Global Propane employee, 40-year-old Jeffrey Burnham, was filling up a smaller tank and the fitting between the hose and the container broke. Under pressure, the hose then apparently began whipping around and somehow sparked a fire, setting off dozens of other explosions and fatally burning Burnham.

"We don't know what caused that fitting to break. We just don't know. There's been a lot of speculation but the only person that could tell us more, can't tell us anymore," said Woydziak.

But who did provide firsthand accounts were the other two Global Propane employees on scene. They're two men we've now learned received injuries themselves in trying to save their coworker.

Emergency responders on scene last Tuesday have met as the investigation wrapped up. They say proper protocol was followed, but they say a situation like this one will always teach emergency crews how to handle disasters better.

[http://www.kake.com/news/headlines/Fire\\_Chief\\_Propane\\_Explosion\\_Could\\_Have\\_Been\\_Much\\_Worse\\_127615098.html?ref=098](http://www.kake.com/news/headlines/Fire_Chief_Propane_Explosion_Could_Have_Been_Much_Worse_127615098.html?ref=098)

## **USA, ILL, CHICAGO**

**AUGUST 18 2011.**

### **EXXON OFF THE HOOK FOR CHICAGO CANAL OIL SPILL**

A cargo services provider will face a trial for its role in the explosion of 14,000 barrels of Exxon oil into the Chicago Sanitary Ship Canal, but Exxon is off the hook, a federal judge ruled.

Exxon Mobil began selling clarified slurry oil to Clark Oil Trading in 1996, with Egan Marine Corp. delivering the oil from Exxon's refinery in Joliet, Ill.

Nine years later, Exxon loaded about 14,000 barrels of oil onto an Egan Marine tanker barge heading toward Clark Oil. Cold weather caused the valve on the oil's storage tank to malfunction, so Exxon transferred the oil to a different tank before loading it onto the tanker barge.

Along the way to Clark Oil, the barge exploded, causing thousands of gallons of oil to spill into the Chicago Sanitary Ship Canal near the city's Cicero Avenue Bridge.

Alexander Oliva, a crew member working on the tanker barge, died in the explosion.

In June 2008, the U.S. government filed suit against Egan Marine. Oliva's misuse of a propane torch, along with an improperly opened valve on the barge's standpipe, allegedly caused the oil vapors to ignite and explode.

The government sought more than \$1.5 million for cleanup costs, disbursements for claims of third parties and up to \$25,000 for each day of cleanup. It also filed criminal charges against Egan Marine in September 2008.

In a motion to dismiss, Egan Marine said Uncle Sam deliberately violated discovery rules. It also moved to strike three of the government's expert witnesses, arguing that they used improper data to prepare their reports on the explosion.

Finally, Egan Marine filed a third-party complaint against Exxon for contribution, indemnity and maritime damages. The cargo company argued that Exxon contaminated the oil with more than 10,000 gallons of gasoline during the move to the second storage tank, thereby causing the explosion.

U.S. District Judge Harry Leinenweber dismissed that complaint against Exxon last week. In the same decision, Leinenweber refused to dismiss the government's complaint against Egan Marine last week but partially granted the motion to strike government witnesses. "

While EMC argues that the government engaged in deliberate obstruction, its failure to raise this issue during discovery dooms its motion," Leinenweber, referring to Egan Marine. He added that, "while EMC alleges a litany of discovery violations by the government, not one of these allegations stem from the government's failure to obey a court order."

Government experts cannot reference the U.S. Coast Guard's Marine Casualty Incident Report because that  
737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748

## Tank and Petroleum Use Mishaps

report is neither admissible as evidence nor subject to discovery, according to the 33-page ruling.

Leinenweber also denied Egan Marine's claim that Exxon breached the implied warranty of safe cargo and caused the spill, holding that "no evidence exists that the allegedly contaminated CSO [clarified slurry oil] caused the explosion and subsequent oil spill."

The court rejected the challenge to Exxon's safety data sheet, disagreeing that it was too generic. Since the data sheet warned Egan Marine of the product's potential dangers, this "gave EMC sufficient warnings about the dangers of the cargo. From the facts before the court, Exxon's failure to warn EMC about the alleged contamination was not a contributing cause of the accident."

Since Egan failed to establish liability, Leinenweber said that Exxon merits summary judgment.

<http://www.courthousenews.com/2011/08/17/39070.htm>

### **USA, FLA, ST AUGUSTINE**

**AUGUST 20 2011.**

#### **GAS STATION BLAST ROCKS ST. AUGUSTINE**

#### **MAJOR FIRE FROM FUEL EXPLOSION PUT OUT IN 3 HOURS; 1 INJURED**

A petroleum-fueled blaze burned for three hours after an explosion at a gas station in St. Augustine late Friday afternoon. The station and surrounding buildings were gutted, neighbors were displaced for hours and traffic remained diverted around the scene at 11 p.m.

Authorities said a fuel was being delivered at the gas station when the explosion occurred at the BP station on state Road 16 at Masters Drive just before 5 p.m.

"They had these couple-thousand gallon tanks that were actually on the side, kind of a substation of the gas station," witness Brian High said. "A fuel truck was over there, and the whole thing exploded."

Officials confirmed that the one person who was injured in the initial blast was dragged away from the flames by several people, including an off-duty Jacksonville firefighter. Saturday, authorities identified the victim as the truck driver, 61-year-old David Hunt Cowles of Fort McCoy, Fla.

Cowles was airlifted to Shands Jacksonville Medical Center in serious condition, then transferred to the burn unit at Shands in Gainesville. Saturday afternoon, nurses said he was in good condition.

Residents told Channel 4 that an explosion could be heard 5 miles from the gas station. Black smoke from the blaze not far from the St. Augustine Airport and was visible from Clay County, 25 miles to the west.

"The fire spread rapidly to the buildings that were on that site," St. Johns County fire spokesman Jeremy Robshaw said. "We have a large petroleum fire of some sort -- some type of flammable liquid is burning."

The Sheriff's Office initially asked residents within one-half mile of the fire to leave the area for their own safety, but that was lifted about 45 minutes later. People like Trae Wolfe, who live or work in the immediate area, were not allowed to return the rest of the night.

"It literally shook the building," Wolfe said of the explosion. "We have a concrete block, two-story building. It shook the building with a big boom and a huge fireball."

Power was knocked out to about 2,000 homes and businesses. All but a few had power back on by 11 p.m.

St. Johns County Sheriff's Office Sgt. Chuck Mulligan said the fire was contained to the property of the gas station, but several buildings were heavily damaged, possibly destroyed.

Robshaw said there would be an extensive investigation into the cause of the fire by local, state and federal agencies. The results might not be available for several days.

<http://www.news4jax.com/news/28919477/detail.html>

### **SCOTLAND, DUNDEE**

**AUGUST 20 2011.**

#### **MAN WHO DIED IN TRAGIC CHEMICAL TANK INCIDENT AT DIAMOND WHEEL TECHNOLOGIES NAMED AS STEVEN CONWAY**

It is thought 33-year-old Steven Conway, of St Fillan's Road, was overcome by acid fumes and two colleagues who tried to help him had to be taken to hospital for checks after also being exposed.

The tragedy happened at Diamond Wheel Technologies on the Dryburgh industrial estate on Thursday.

Mr Conway had been working in the tank when he was taken ill around 1.30pm. An ambulance was alerted and the crew arrived to find colleagues of the worker trying to assist him.

## Tank and Petroleum Use Mishaps

Onlookers watched in horror as he was wheeled into an ambulance, while a nearby nursery was told to close its windows to prevent children from being exposed to any chemicals.

Firefighters were summoned to deal with the incident and four pumps and heavy rescue unit drawn from several fire stations were despatched to the scene in Baird Avenue as rescue attempts were made.

Speaking before Mr Conway's identity was confirmed, a police spokesman said: "Efforts to assist him were carried out at the scene and he was taken by ambulance to Ninewells Hospital, where it was later confirmed that he had died."

Firefighters made the scene safe and specialist hazardous material officers identified the chemicals involved.

Kevin Sparks, who works at neighbouring business Martin Plant Hire, said he had heard Mr Conway had been exposed to acid.

He said: "I know some of the guys there and they were all standing outside looking nervous and shocked."

Chris Lundie, who runs Covert Cleaning opposite Diamond Wheel Technologies, said there had been a strong acidic smell shortly after the accident happened.

He said: "I tried to get back just before three o'clock and they wouldn't let me down Baird Avenue but there was a smell of chemicals in the air."

Staff at the nearby Little People Nursery were advised to close all windows as a precaution.

Ian Cargill, who leased the industrial unit to Diamond Wheel Technologies, said: "I have been notified about the accident but I don't have any more information about that."

He said there was a special container in the premises used to store the acid needed to clean alloy wheels.

Nobody from the company was available for comment, but its website says alloy wheels are dipped in acid to remove damage and corrosion before being repainted.

The Health and Safety Executive, which is responsible for investigating industrial accidents, said its officers will carry out an inquiry in conjunction with the police.

A report will be submitted to the procurator fiscal, as is normal practice in cases of sudden death.

<http://www.thecourier.co.uk/News/Dundee/article/16612/update-man-who-died-in-tragic-incident-at-diamond-wheel-technologies-named-as-steven-conway.html>

### **UK, LANKASHIRE**

**AUGUST 24 2011.**

#### **BARNOLDSWICK FIREFIGHTERS TACKLE MASSIVE FUEL BLAZE**

A massive blaze in a tank holding 5,000 gallons of fuel was tackled by firefighters at a derelict Barnoldswick mill last night. Dozens of firefighters were called to the incident at Fernbank Mill, which is currently being demolished, just before 10 p.m. to find the tank well alight. Damage at the site was limited to the fuel tank as demolition has already started on the structure around it. Watch manager Mick Strickland said: "It was a very risky situation with all that fuel. "Luckily, the wind direction was right for us not to have to evacuate any houses but as you can imagine there was a lot of thick black smoke. "We are investigating the cause of the fire today but it is not clear yet how it happened".

[http://www.pendletoday.co.uk/news/local-news/barnoldswick\\_firefighters\\_tackle\\_massive\\_fuel\\_blaze\\_1\\_3704501](http://www.pendletoday.co.uk/news/local-news/barnoldswick_firefighters_tackle_massive_fuel_blaze_1_3704501)

### **USA, N.D, BISMARCK**

**AUGUST 26 2011.**

#### **SUIT FILED ON BEHALF OF MEN BURNED IN OIL RIG EXPLOSION**

*Lauren Donovan*

A lawsuit seeking compensation for pain, medical expense and loss of income was filed in Northwest District Court in Williston against seven companies on behalf of three men who sustained severe burn injuries when an oil rig exploded northwest of Beach last month.

The workers, all from North Dakota, were bringing up drilling pipe on Cyclone Drilling Inc., rig No. 18, when gas escaped the well, causing an explosion and fire July 25.

Andrew Rohr, 53, and Timothy Bergee, 53, both remain hospitalized.

The lawsuit says Rohr, of Marmarth, has burns over 60 percent of his body, suffered septic shock and now has heart problems. Bergee, of Jamestown, has burns covering 80 percent of his body and a compromised immune system also has caused life-threatening pneumonia, the suit says.

The third worker, Jeff Morton, 39, of Stark County, is being treated as an outpatient for similar burns to his arms, said their attorney, Robert Hilliard, of Texas.

"These men have all been put through hell over the past few weeks. Two of our clients have more than half of

## Tank and Petroleum Use Mishaps

their bodies covered with burned flesh. The third has had his arms horribly burned," Hilliard said. "Bottom line, six different companies failed to protect human lives to turn a buck."

The suit was filed Friday.

The lawsuit names Continental Resources Inc., as operator, along with well majority owner Pride Energy Inc., M-I SWACO Inc., Noble Casing Inc., Superior Well Services Inc., Panther Pressure Testers and Warrior Energy Services Corp.

Hilliard said resolution before trial is possible. "Juries all over the country in oil cases, for injuries much less severe than these, have made awards for over \$50 million," he said.

The suit alleges that Continental Resources and Pride Energy rushed the operation, failed to prepare an adequate well plan and to control downhole conditions with mud and cement. The suit says Continental and Pride failed to ensure the rig had adequate blowout preventers to protect the workers.

The suit says that M-I SWACO failed to provide mud capable of holding pressure inside the drill hole and failed to provide a properly trained mud engineer.

In drilling operations, drill mud is injected as counter pressure against gas and volatile compounds as the drill pipe is pulled up.

The suit also alleges that Noble Casing's pipe plan was negligently designed and that both Superior Well Services and Warrior Energy Services Corp. provided negligent cement programs for the well and the pipe used in the rig's drilling processes. It alleges that Panther failed to properly test the well, or notify the drilling contractor that the collars around the pipe weren't completely closing.

Hilliard said Cyclone Drilling is not named in the suit because state law prohibits suing employers, who are covered under Workers Compensation, unless the employee is killed.

The suit seeks compensation for pain, medical expenses, mental anguish, loss of future earning capacity, physical impairment, disfigurement, and in Rohr's case, loss of spousal consortium.

No specific dollar amount is named in the suit and companies have 20 days to respond.

Continental Resources' spokesman Brian Engel said the company acknowledges the tragic nature of the men's injuries but has no comment on the lawsuit.

He said Continental is conducting its own investigation into the explosion and will report to OSHA, the federal health and safety regulator.

He said the well, anticipated to be a top producer in the Three Forks-Samish formation, which lies below the Bakken formation, is "undergoing remediation."

The suit says the oil rig toppled during the blaze and oil, gas and debris burned for several days.

A specialized well fire control unit was brought in to control the fire.

[http://bismarcktribune.com/news/state-and-regional/suit-filed-on-behalf-of-men-burned-in-oil-rig/article\\_7526f736-ced5-11e0-88b9-001cc4c03286.html#ixzz1XCrDRxWg](http://bismarcktribune.com/news/state-and-regional/suit-filed-on-behalf-of-men-burned-in-oil-rig/article_7526f736-ced5-11e0-88b9-001cc4c03286.html#ixzz1XCrDRxWg)