

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/>

CANADA, MONCTON

OCTOBER 28 2008.

EXTENT OF SPILL UNKNOWN

Michael Staples

A northside chemical spill has environment officials scrambling to determine if and how bad the groundwater system in the area may have been contaminated. The incident occurred early Monday morning or overnight Sunday at Custom Machine and Hardchrome Inc., located at 85 Melissa St. in Pepper Creek.

Officials said more than 2,700 litres (600 gallons) of chromium acid escaped containment, some of which leaked into the facility's septic system. It was in a flake form but was diluted with water.

The Fredericton Fire Department along with the Department of Environment responded to the incident and were at the scene most of the day.

A consulting firm has been hired and will be giving officials a briefing as soon as possible as to how far it believes the product may have travelled.

Jeff Williams, an inspector with the Environment Department, said some people should take precautions.

"Right now, I have told the immediate area - of this property ownership anyway - that they shouldn't be drawing water," Williams said late Monday afternoon. "They should be buying drinking water."

Williams said he's still waiting for the results of the assessment to determine how far an advisory should go.

"I am not saying there is a danger; I am just saying we don't know," he said. "In groundwater, it does spread quickly. At this point, we don't know how far it's gone."

"We don't know if it's in fast aquifer, where it would run fast, or is it sitting in stable groundwater?"

Because of the dilution factor, Williams said a plan is being devised to determine how far out of the affected area any advisory should go.

Pepper Creek is outside city limits and the lots aren't serviced.

The affected business is one of four contained in the same shopping-centre type structure. At least one other business was impacted by the spill.

"We know that on this particular (location) the well has been impacted," Williams said. "What I have advised is that we do not draw water at this point until we do further assessment. I told the responsible party for this spill to call their insurance (company)."

Bob Martin, assistant deputy chief of operations with the Fredericton Fire Department, said a large part of the cleanup has already been accomplished. Six barrels of the product have been contained in a liquid form and about 40 bags of used absorbent have been reclaimed.

"It's a dangerous product; we're treating it very seriously," Martin said. "The big thing to us is that if it gets in the waterway, it's a danger to fish and things like that. (But) we're pretty comfortable that it actually hasn't left that area yet."

Glen Allen, who operates Custom Machine and Hardchrome Inc., said he expects his business will be shut down for a while, at least until testing is completed at that location.

An investigation into what caused the spill is continuing.

<http://dailygleaner.canadaeast.com/front/article/462345>

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USA, ILL, CROSSVILLE

OCTOBER 30 2008.

OIL WELL BLAST KILLS 2 IN ILLINOIS

Authorities began investigating an oil well explosion today in southern Illinois that killed two people and injured five others.

Medical helicopters airlifted four of the injured victims from the scene of the morning explosion west of Crossville.

The names of the victims had not been released pending notification of family members, said Anita Sullivan of the White County Sheriff's Department.

Grayville-based Mason Well Servicing was working to cement a finished well when the explosion occurred around 10 a.m., Sullivan said. Fire crews from Illinois and Indiana had the fire under control by afternoon.

Messages left for the company and the county coroner were not immediately returned.

The federal Occupational Safety and Health Administration sent investigators to the scene, said OSHA spokesman Scott Allen. The investigation could take six months, he said.

Hundreds of small independent oil companies operate in the region, said Mount Vernon-based Illinois Oil and Gas Association executive vice president Brad Richards.

The Illinois Basin -- encompassing parts of Illinois, Indiana and Kentucky -- produces about 10 million barrels of oil annually, Richards said.

"It's important to understand what happened and make sure we do what's necessary to make sure it doesn't happen again," Richards said.

"The primary concern is with the people who were hurt and their families," Richards said. "It's a small industry and we all know each other."

Crossville is about 30 miles northwest of Evansville, Ind.

<http://www.chicagobreakingnews.com/2008/10/oil-well-blast-kills-2-in-illinois.html>

USA, ME, STONINGTON

NOVEMBER 3 2008.

MAINE FIRM FINED FOR OIL SPILL PREVENTION VIOLATIONS, INADEQUATE SECURITY

An oil distribution company will pay \$8,000 for failing to adequately prepare and implement Spill Prevention, Control and Countermeasure (SPCC) plans at two of its facilities in Stonington, Maine, located directly adjacent to Penobscot Bay. An inspection by EPA and the Maine Dept. of Environmental Protection found that R.L. Greenlaw's oil storage facilities in Stonington had failed to maintain sufficiently impervious secondary containment for its oil tanks at both locations and failed to construct adequate containment for the loading and off-loading areas at one of the locations adjacent to the harbor. Both facilities lacked adequate security measures, said EPA, which has regulations to prevent unauthorized access to oil storage containers.

Following EPA's inspection and contacts with the company, R.L. Greenlaw submitted and has begun implementing corrective action plans for both facilities. These plans include liquid-tightness tests at the site near the harbor to identify leaking areas in the containment walls and floor, dike repairs, and construction of poured concrete spill containment areas for the oil transfer areas.

EPA noted that spill prevention and control laws help ensure that a tank failure or spill does not lead to oil being released into surface waters, such as harbors, rivers or streams. The regulations require that certain spill prevention and response measures be implemented at facilities that store oil above threshold amounts. Since 2007, EPA has conducted inspections at more than 100 facilities in New England to determine their compliance with the Oil Pollution Prevention regulations, the agency said.

<http://ohsonline.com/Articles/2008/11/3-Maine-Firm-Fined-for-Oil-Spill-Prevention-Violations.aspx>

USA, WA, SPOKANE VALLEY

NOVEMBER 4 2008.

UNKNOWN AMOUNT OF GAS SPILLED

John Stucke

Thousands of gallons of gasoline spilled Monday afternoon from a holding tank at the ExxonMobil fuel storage facility in Spokane Valley.

Maintenance workers sheared a small pipe that was part of a temperature gauge, said Spokane Valley Fire Department Marshal Kevin Miller. Gasoline spilled from the three-quarter-inch pipe for 90 minutes until a city

445, 446, 447, 448, 449, 450, 451, 452

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emergency crew plugged the leak at 4 p.m.

Sheriff's deputies diverted traffic from roads near the 6300 block of East Sharp Avenue and evacuated neighboring industrial-area businesses.

State Ecology officials and cleanup crews were unsure if the tank sits atop an impermeable liner that would help keep the fuel from reaching the Spokane Valley Aquifer some 80 feet below the site.

The tank holds 40,000 barrels of fuel, or about 1.6 million gallons. It is among many in the area served by the Yellowstone Pipeline, which delivers fuels from refineries near Billings.

The tanks are surrounded by earthen dikes designed to keep spills contained. Officials won't know how much fuel spilled until ExxonMobil reviews its records.

More than three dozen firefighters and cleanup workers responded to the spill, including crews from Fairchild Air Force Base.

Cleanup workers were attempting to siphon any fuel that may have pooled on the ground late Monday afternoon. The remainder of the fuel-saturated dirt will have to be excavated and dumped at a special disposal site.

<http://www.spokesmanreview.com/breaking/story.asp?ID=17545>

USA, AZ, BUCKEYE

NOVEMBER 6 2008.

RAIL CAR CARRYING ALCOHOL COLLAPSES IN BUCKEYE

A rail car carrying isopropyl alcohol collapsed on itself, forcing an evacuation of some businesses and homes in Buckeye on Wednesday. There were no immediate reports of injuries.

The incident involved a Bulk Transportation train tank car, which contained 23,000 gallons of the highly flammable alcohol, Bob Costello, Buckeye Fire Chief said. Isopropyl alcohol is commonly called rubbing alcohol.

The car was being offloaded into a semi-truck tank at 400 Arizona Eastern Ave., near Fourth Street and Baseline Road, just before 2 p.m. The material created a vacuum causing the outer tank to collapse on itself, said Costello.

The offloading process involves applying pressure to one side of the car, causing the alcohol to offload through the other end of the car. There was a malfunction during this process, causing the implosion.

The reason for the malfunction was still being investigated. The car containing the alcohol was still connected to cars carrying other hazardous materials including methanol and hydrochloric acid. After the implosion, the tank was not leaking, but was still a concern because the integrity of the tank itself was compromised.

A 1,000-foot-radius around the incident was evacuated, which included 20-25 homes and six businesses. Evacuees were sent to the Buckeye Community Center, at 201 East Centre St. near Monroe Avenue and First Street.

The incident did not impede any railroad transportation because it happened off the main lines.

Officials were still trying to decide how to remove the risk of the hazardous materials.

"It could take several hours to offload the tank car, once we have a plan formulated," said Costello.

<http://www.azcentral.com/news/articles/2008/11/05/20081105abrkhazmatrailroad1105-ON.html>

USA, TX, DRIPPING SPRINGS

NOVEMBER 8 2008.

EXPLOSION AT DRIPPING SPRINGS DISTILLERY INJURES 1

An explosion at the San Luis Spirits distillery injured one person Friday morning. The company makes Dripping Springs Vodka.

Firefighters got the call just before 7 a.m., and when they arrived at the Dripping Springs distillery, the building had collapsed and was still burning.

The Hays County Sheriff's Office said a man was working inside the building when the blast occurred.

"He was welding on the distillery itself," Deputy Pam Robinson said. "Sparks ignited casing some type of explosion here."

The man was air lifted to Brooke Army Medical Center in San Antonio, with burns to his arms, hands, and face.

An investigation is ongoing, no other buildings were damaged in the incident.

<http://www.news8austin.com/content/headlines/?ArID=223964&SecID=2>

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INDONESIA, JAKARTA

NOVEMBER 12 2008.

GASOLINE TANK EXPLODES IN BANDUNG, KILLS ONE

A metal seal on an underground gasoline storage tank exploded as the tank was being repaired in a Bandung gas station Tuesday, killing Asep, a welder, the police said. Bandung Police chief, Adj. Sr. Comr. Ahmad Dofiri said the seal had exploded when Asep started welding a pipe connected to the storage tank, which had been drained of gasoline and out of operation for about a week. However, Dofiri said, the tank could have contained flammable gasses. Ahmad said the explosion had severed Asep's body into several pieces which were hurled up to 60 meters from the explosion's center. A witness, Tendri Gunawan, saw the body atop the gas station canopy after it was jettisoned by the blast. "I heard an explosion and a headless body fell from the canopy. I realized the victim was Asep, the welder" he said. Asep's body was later taken by the police to Hasan Sadikin Hospital for autopsy and identification.

<http://www.thejakartapost.com/news/2008/11/11/gasoline-tank-explodes-bandung-kills-one.html>

USA, TN, ATHENS

NOVEMBER 13 2008.

GAS THEFT PLAN EXPLODES

Ryan Harris

Two men trying to steal gasoline by siphoning it from a convenience store's underground tank saw the plan blow up in their faces Tuesday evening.

Vapors from the fuel ignited and blew up a van the thieves were using to store the stolen gas in. Firefighters rushed to the Rocky Top convenience store on Decatur Pike, near the Athens exit on Interstate 75, and extinguished the stubborn blaze before more explosions could rock the crowded commercial area.

The suspects, meanwhile, fled from police into a wooded area near the Homestead Inn West hotel.

"The thing that surprises me is the inherent danger this presented to themselves and the surrounding area," Athens Police Chief Chuck Ziegler said. "This is just another example of the risks that people will take to commit crimes."

Ziegler said it was fortunate the fireball from the van explosion didn't cause a larger explosion in the underground tank or nearby vehicles.

Capt. Charlie Dennis of the Athens Fire Department said setting off a chain-reaction explosion at the convenience store wouldn't have been as easy as is often depicted in Hollywood. But he said if the right mix of air, vapor and fire collided, it could have led to a massive boom.

The worst-case-scenario, he said, would have been if the store's gas tanks were almost empty.

"The less liquid and more vapors you have, the bigger chance for an explosion," Dennis said. "Any time you are messing with gas vapors, you have that potential."

Investigators don't know what sparked the gas vapors, although they suspect an electric pump used to siphon the gasoline could have triggered the fire.

The explosion occurred at about 8:30 p.m. Tuesday in one of the city's most high-traffic areas, near the new Cracker Barrel restaurant at Exit 49.

An incident report filed by Athens Patrolman Adam Green said there was a large gasoline tank inside the 1996 Mercury Villager van, which was reported stolen from Bradley County. There was a hose connected to a pump inside the van, Green reported.

A store clerk told police 37 gallons of gasoline, valued at almost \$73, was stolen. The unusual gas theft mirrors an incident in July where a man rigged a utility trailer with pumps and tanks to steal fuel from Athens stores. A hole was cut in the floor of the trailer, allowing the thief to park over the top of a store's tank and siphon fuel without being detected.

Lloyd J. Powell, 38, of Decatur, was charged with stealing more than 700 gallons of diesel and was suspected of stealing up to 1,000 more gallons of fuel.

Powell posted bond, ran from police and is still wanted. While he is not being named a suspect in Tuesday's explosion, investigators said he is a person of interest.

<http://dpa.xtn.net/dynamic/News/Story/152317>

Tank and Petroleum Use Mishaps

SOUTH AFRICA, DURBAN

NOVEMBER 14 2008.

FIRE HITS REFINERY

Mpume Madlala

A fire at the Engen oil refinery in Durban on Thursday morning, the third within a year, shut the refinery down and it is feared that petrol supplies to the country might be threatened.

The refinery, located in Durban's southern Wentworth suburb, supplies the country with almost 20 percent of its fuel.

Workers were still assessing the damage after the fire was finally doused at 3.10am. The full impact of the fire would only be apparent then, an Engen spokesperson said.

Firefighters from the eThekweni Fire Department who worked with the refinery's fire-fighting personnel, took three hours to put out the fire at the "crude unit".

In November last year R120-million worth of petrol and equipment "went up in smoke" at the refinery after a 45m-high petrol tank containing 7,5-million litres of petrol was struck by lightning.

That blaze continued for nearly three days.

Thursday's fire has again sparked calls for the facility to be relocated from its position in the middle of a densely-populated suburb.

Resident Zolla Reddy said she and her three children were awoken after midnight by the explosion.

"When I looked out of the window I was shocked. I have never seen such a big fire in my life. The flames were higher than the highest pipe," she said.

For three hours residents suffered tight chests and sore throats, she said.

"We want this refinery to be shut, because I fear that one day we will all die in our sleep. I really think that we are living on a time bomb, which could explode any day.

"And that scares us," she said.

"The fact the bright flames made night look like day is a sign that the flames will one day catch our homes and that is a very scary and worrying thought," she said.

Engen spokesperson Herb Payne said that the full impact of the fire was not yet known.

Air samples that were taken during the fire would be sent to an independent laboratory in Italy for testing to see if it was dangerous to people, he said.

Payne said that effluent used in fighting the blaze had been contained and would be disposed of safely.

Desmond D'Sa, the chairperson of the South Durban Community Environmental Alliance, said it was clear that the refinery needed to be moved.

"It is ironic that the fire happened on the very same night that our organisation launched our spatial and development plan for the people of south Durban.

"This fire serves to highlight a cause that has existed since 1953, when the ageing refinery opened. The (alliance) remains strong in its call for the Engen refinery to be scrapped," he said.

"The absolute paranoia of the people as they gathered in groups on the roads way into the morning makes me shudder to think how (matric) students will perform in these national papers with no sleep and added stress.

"The Engen oil refinery does not understand just how it affects ordinary people."

D'Sa said he felt that city manager Mike Sutcliffe needed to do more to ensure people were safe.

Sutcliffe said he was glad that the fire was put out when it was.

"I will be awaiting reports regarding the fire and we will take it from there. No-one can predict that a fire is going to happen," he said.

Environmental lawyer Jeremy Ridl, who has worked with the South Durban community, said calls for the refinery to be closed needed to be balanced with the economic ripple effect of such an act.

"The community has every right to raise its concerns about its environment, and demand the authorities take action to prevent a fire such as this from happening again," he said.

However, should the refinery be closed, there would be a massive number of jobs lost in the area.

"One solution, I believe, is for the community to demand that the authorities put money into getting new technology that would ensure these industries run efficiently, as these industries are not coping with old technologies," he said.

http://www.iol.co.za/index.php?set_id=1&click_id=594&art_id=vn20081113110618736C546105

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USA, TX, FORT WORTH

NOVEMBER 14 2008.

BADLY BURNED FORT WORTH MECHANIC COUNTS HIS BLESSINGS - FOUR MONTHS AFTER ACCIDENT, CLIFTON ATKINS IS THANKFUL

Alex Branch

Fire engulfed him from his knees to his chin, but Clifton Atkins doesn't remember any flames, just the torturous sensation of intense and spreading heat.

And the 27-year-old mechanic doesn't recall worrying too much about himself.

"I worried that my dad's shop was going to burn down," Atkins said. "I worried about my wife, who was seven months pregnant, and whether I would be there to see my son's birth."

It was four months ago that the fire, fueled by diesel, scorched 70 percent of Atkins' body as he worked at his father's west Fort Worth business. He spent 48 days in the hospital, undergoing six surgeries that included painful skin grafts on his arms, stomach and legs. He lost the little and ring fingers on his right hand.

But Atkins says he is grateful.

His father's shop still stands. He was at wife Stacie's side when she delivered their first child, a son they named Noah. And because of donations from strangers who read about his accident, he can concentrate on his ongoing treatment and therapy rather than always worrying about supporting his family.

"It could have been worse," he said. "I've got my son, my wife, my family. So I'll be OK."

The accident

Atkins was working on a 2006 Toyota Scion. Its owner had accidentally pumped diesel into the car, and Atkins was using an electric pump to draw it out of the fuel tank at Affordable Muffler and Auto Repair at White Settlement and Roberts Cut-Off roads.

His younger brother, Dustin Dilsaver, worked nearby. They talked about an upcoming July 4 boat trip.

"And then whoosh," Atkins said. "I guess being inside a fire, you can't see it, you just feel it. You feel yourself burning, and things start to go in slow motion."

Dilsaver said he heard his brother shout. He shoved Atkins to the ground and made him roll.

It didn't work.

He grabbed a fender cover and tried to pat out of the flames. Finally, he succeeded by ripping off Atkins' shirt.

Atkins got up and walked with him to the front of the shop to wait for an ambulance. The Scion exploded behind them, partially melting a metal wall.

"My skin was dripping off," Atkins said. "I told my brother I wasn't doing good. I told him to call my dad and call Stacie and, if she was driving in the car, make her pull over and stop before he told her."

Fire officials would later say they didn't determine what caused the fuel to ignite. Because it was clearly accidental, there was no need for further investigation, they said.

Atkins' father, Chris Dilsaver, said it was probably a spark.

His dad's promise

A helicopter ambulance took Atkins to Parkland Memorial Hospital in Dallas. He had second- and third-degree burns on almost three-quarters of his body.

Atkins was in intensive care for several weeks. Doctors scrubbed his body with plastic brushes to remove debris and dead skin. But Atkins showed signs of an early recovery.

The 6-foot-5-inch Atkins was strong and had played semipro football.

Soon, he could lift his arms, and eventually he took walks down the hall.

His father said, "I told them: 'You don't know him. He's a tough kid and, I promise you, he'll be ahead of schedule.'"

Atkins went home Aug. 18 still unable to open a door or dress himself. He and Stacie moved in with his parents so they could help care for him. One month later, early in the morning, Stacie's water broke.

Atkins' parents drove them to the hospital; Stacie delivered Noah a few hours later.

"That was something I'd been waiting for my whole life," Atkins said. "It was unbelievable."

Making progress

Today, Atkins can dress himself, even drive with one hand. Most importantly, he said, he can hold his son. He undergoes occupational therapy four times a week to regain movement in his hands.

He and Dustin even threw a football around a few days ago.

The money that people donated after the fire helped a lot, Atkins said. Stacie was able to take maternity leave.

He asked the bank where his friends and family set up a fund for his recovery for the names of people who

Tank and Petroleum Use Mishaps

donated, but bank officials said they couldn't give them to him.

"I feel really lousy [that] I can't even send them a thank-you card," Atkins said. "I just really want them to know I'm doing well and I'm so thankful."

<http://www.star-telegram.com/388/story/1030639.html>

USA, TX, GIDDINGS

NOVEMBER 22 2008.

EXPLOSION INJURES THREE WORKERS AT GIDDINGS WATER TANK

An explosion at a water tank critically injured three workers, including one who suffered severe burns.

It happened in Giddings, in Lee County, about 55 miles east of Austin on Highway 290. The workers were contracted by the city.

City officials say they may have been welding and sanding at the top of the more than 30 foot tank when the flashover or explosion occurred.

Work boots and other articles of clothing lay on the ground close to the water tank that exploded in Giddings about 11 AM, critically injuring three workers.

"I hear a big noise, like something like BWOP," said Sandy Desai.

"It was loud, people came from back here three or four blocks back to see what happened," said Leroy Stemridge who witnessed everything right after the explosion. He saw it all from his car dealership across the street. "I was sitting in my chair, the window is just to my left and I hear the explosion, I turned and saw two guys falling off the water tower."

Then he called 9-1-1.

"They was moving, but boy they was in terrible pain I tell you," Stemridge said.

The three workers were taken by STARFlight to Brackenridge Hospital where one underwent surgery and another was in ICU. A third, Orlando Olivia of Bryan Texas was transferred to the Brooke Army Medical Center in San Antonio for burns he received from the explosion. Witnesses say a fourth worker was not injured.

"He told me that they were up there and he was going up the stairs while the others were already on top and it just exploded, he said he fell, but he was O.K., but the other ones weren't," said Diane Sowdern

Giddings city officials say the water tank appears to be full of water and no city services were interrupted as a result of the explosion.

U.S. Highway 290 was shut down for about 45 minutes shortly after the explosion so STARFlight could land two helicopters.

http://www.txcn.com/sharedcontent/dws/txcn/austin/stories/112008kvue_water_tower_explosion-cb.1cfd0917a.html

USA, OH, LA RUE

OCTOBER 20 2008.

TWO KILLED IN CENTRAL OHIO OIL WELL

A pair of explosions heard for miles have killed two men working at the site of an oil well in central Ohio's Marion County.

Authorities say Kevin Fout, 53, and Jessie Price, 45, were doing some welding on an oil storage tank on the property Sunday afternoon when there was one huge explosion followed by another.

Marion County Sheriff Tim Bailey says the blasts at the site near the community of La Rue were heard as far as six miles away and prompted a flood of calls to his office.

Officials are investigating whether the explosions were sparked by the welding and grinding tools being used.

No one else was injured.

Investigators planned to return to the site on Monday.

La Rue is about 60 miles northwest of Columbus.

http://www.wcpo.com/news/local/story.aspx?content_id=965fedd5-5bf0-45c0-a50e-006d4edea6c7

Tank and Petroleum Use Mishaps

USA, OH, LA RUE

OCTOBER 24 2008.

CSB TO INVESTIGATE OHIO OIL TANK EXPLOSION WHICH KILLED 2 WORKERS

The US Chemical Safety Board sent two investigators on Oct. 20 to the site of an Ohio oil tank explosion which killed two workers on Oct. 19.

The blast was on private property in La Rue, about 60 miles northwest of Columbus, at an oilfield operated by Mar Oil Co., a Canadian firm, CSB officials said. They said that the victims, who worked for a contractor, apparently were welding near an oil storage tank.

"This latest tragedy comes less than two weeks after a welder was killed and others were injured by an oil tank explosion in Honolulu. Our team will seek to determine if there are similarities between the accident in Ohio and previous cases involving welding in the vicinity of flammable storage tanks," CSB Chairman John S. Bresland said.

The board, which makes safety recommendations but does not issue citations, investigated a June 2006 accident near Jackson, Miss., which killed contract workers during an operation to weld a pipe onto a crude oil storage tank. Investigators found that flammable gas testing had not been conducted, and flammable vapor from a nearby tank ignited.

CSB recently issued a safety video, "Death in the Oilfield," which is based on the case. It can be viewed online at www.safetyvideos.gov.

USA, TN, ATHENS

OCTOBER 21 2008.

GAS TANK EXPLODES, INJURING WORKER

A worker sawing through an abandoned gas tank was injured in a minor explosion Monday.

Athens Fire and Rescue Lt. David Ledford said the explosion occurred at 8:12 a.m. on Jefferson Street south of U.S. 72.

Ledford said a worker with Keenum Excavation and Construction in Muscle Shoals was injured. He did not have the man's name. An ambulance took the worker to Athens-Limestone Hospital.

Interim Fire Chief Danny Southard said the man had lacerations to his face, and his skin was red as if he were sunburned.

Southard said the worker was cutting a hole in the tank to fill it with concrete. A BP gas station is at the intersection.

Ledford said the tank still contained vapors, and sparks from the worker's saw blew the piece of metal he was cutting from the tank. Ledford said the tank remained secure in the ground.

The city contracted with Keenum to widen Jefferson Street south of the highway to service Steelcase and the site of its Martin Luther King Jr. Industrial Park.

<http://www.tradingmarkets.com/.site/news/Stock%20News/1958669/>

USA, TN, ATHENS

OCTOBER 21 2008.

ABANDONED GASOLINE TANK EXPLODES IN ATHENS

A worker sawing through an abandoned gas tank was injured badly hurt as the old gasoline tank was severed.

Firefighters say the crews were working on widening Highway 72 in Athens.

The worker was cutting a hole in an abandoned gas tank to fill it with concrete and while the making the cut, sparks got into the tank. The worker had already cut two holes in two gas tanks. But when he made that 3rd cut, the tank exploded. The explosion blew the lid off.

That worker was cut on his face and taken to hospital.

<http://www.fs-world.com/Show.asp?ID=8788&Form=1>

USA, VA, CHESAPEAKE

NOVEMBER 24 2008.

WELDING IS A SUSPECT IN TANK COLLAPSE IN CHESAPEAKE

Mike Saewitz

In trying to unravel the mystery of the collapse of Allied Terminals Tank 201 in Chesapeake, experts say those investigating the failure will be trying to determine whether the liquid fertilizer corroded welds that held the massive tank together. They also are likely to review major welding work that was done on the structure in late 2006.

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Tank collapses are an extremely rare occurrence, experts say. But when any above ground liquid fertilizer tank has failed in recent years, investigators have determined that defective welding was the main cause, according to Environmental Protection Agency documents.

The collapse in Chesapeake on Nov. 12 appears to have been among the largest of its kind in recent history.

At 2:25 p.m. that day, the tank collapse spilled 2 million gallons of liquid fertilizer and injured two workers.

About 200,000 gallons of product remained unaccounted for after the cleanup. Some of it flowed into the Elizabeth River's Southern Branch, which could result in federal and state enforcement actions against Allied Terminals, officials say.

The Chesapeake Fire Marshal's Office and the federal Occupational Safety and Health Administration will be looking into the tank's collapse, officials say.

Allied Terminals is doing its own investigation. The company's executive vice president, Bruce Law, said it was too early to guess at any cause of the tank failure.

The key to the investigation, experts say, will be figuring out which part of the tank split to cause the collapse: one of the vertical welds that helped keep the tank together or one of the numerous steel plates that made up the tank's walls.

"If it was a weld that was split, the weld wasn't properly evaluated" in an inspection, said Gary G. Boley, a Norfolk-based engineer who has inspected more than 500 above ground liquid fertilizer tanks and thousands of fuel storage tanks. "If it was a split plate, they would never have seen that coming."

Executives with Allied Terminals are unsure about the age of Tank 201, which appeared in an aerial photograph from 1937.

But regulators say the tank's age is not necessarily a factor in its collapse. Portsmouth's Craney Island has fuel storage tanks that were built in 1917 or 1918, and "many of them have outlasted some of the newer tanks" built in the area, said Tom Madigan of the Virginia Department of Environmental Quality's petroleum storage tanks program. "It's unfair to characterize them by age alone," he said.

There have been few collapses of liquid fertilizer tanks in recent years.

In 1997, a 1-million-gallon liquid fertilizer tank in Iowa ruptured, according to EPA documents. Its walls fell onto two other tanks. A temporary dike prevented the spill from flowing into the Missouri River.

In Ohio in 2000, a tank collapsed and sent a wave of liquid fertilizer crashing through a concrete wall. More than 800,000 gallons spilled into the Ohio River. The force pushed two tractor-trailer rigs into the water as well.

In both of these cases, the tanks appeared to have had defective welds, the EPA documents say.

Boley, who is certified by the American Petroleum Institute and works for an environmental inspection services company called InterSpec LLC, said all major tank collapses can be attributed to one of three things: foundation settlement of the tank, corrosion or poor workmanship.

Tank 201 sits on property that was owned by an affiliate of Texaco before Allied Terminals took over the facility, located off Rosemont Avenue, in 2000, Law said. Previous owners used the tank to store petroleum products before Allied began to use it to store liquid fertilizer in March 2003, he said.

Liquid fertilizer weighs 70 to 80 percent more than gasoline, and that could have stressed the tank, Boley said. It was up to inspectors to determine how high the tank could safely be filled with the product.

The material, known as urea ammonium nitrate, or UAN, can also corrode or deteriorate welds or other pieces of the tank.

At Allied Terminals' Chesapeake facility in 2006, nearly 12,000 gallons of liquid fertilizer spilled from a 10-inch pressure relief line when a fitting corroded, according to a National Response Center report. Law said the spill was caused by using a pipe plug made of a material incompatible with the fertilizer and had nothing to do with Tank 201.

Still, the spill triggered a 2007 inspection by the EPA, which recommended that Allied develop a plan to evaluate how a change in stored liquids will affect the company's equipment and operations. Law said Allied did as the EPA asked.

The welding work done on Tank 201 in late 2006 was to upgrade the structure, which had no problems before then, Law said.

There are no required inspections for tanks storing liquid fertilizer, because it is not a flammable, combustible liquid. But Tank 201 passed an inspection in 2007 by an API-certified technician, Law said. It was visually inspected by a terminal operator on a daily basis, he said.

The two workers who were injured in the Nov. 12 collapse were reportedly doing welding work, Law said.

"To my knowledge, the work being accomplished had no relationship to the tank failure," he said.

<http://hamptonroads.com/2008/11/welding-suspect-tank-collapse-chesapeake>

Tank and Petroleum Use Mishaps

USA, ORE, CLEAR LAKE

NOVEMBER 25 2008.

NEW FUEL TANK EASES POLLUTION FEARS - OLD UNIT WAS NOT UP TO MODERN STANDARDS, AND WAS PERCHED JUST YARDS FROM THE EDGE OF CLEAR LAKE

Shelby Martin

John Brown had no idea such a dire environmental threat was sitting right next to the birthplace of the McKenzie River.

At Clear Lake Resort off Highway 126, lakeside cabins use diesel-powered generators in the cold winter. The fuel for those generators — 1,000 gallons of it — rested in an aging, single-walled diesel tank just yards from the water's edge.

"If someone had backed into it, if someone had shot it — it would have been our own local version of the Exxon Valdez," Brown said, noting the infamous oil tanker spill in Alaska.

But the threat was dealt with this week. Thanks to efforts by the Eugene Water & Electric Board, Linn County Parks and Recreation, and Lane Rural Fire/Rescue, the outdated tank was replaced by a double-walled model with twice the capacity.

"We're being proactive," EWEB legislative representative Jason Heuser explained.

On Friday afternoon, Linn County park ranger Steve Christiansen pointed out the old tank, which hangs over the side of its tiny containment berm by a good six inches.

"When you see how it hangs over the box, you say, 'What were they thinking?'" Christiansen said. "But back then, we were like: 'Environmental laws? What are you guys talking about?'"

The environmentally questionable diesel tank came to public attention this summer, when Linn County acquired the cash-strapped Clear Lake Resort. Next, county officials set up a meeting with the McKenzie Watershed Council to discuss applying for a federal grant to address pollution in the area.

The McKenzie River's purity also is important to EWEB, which uses the river for its primary water source.

When the utility tested water from the river earlier this year, contaminants weren't detectable using traditional sampling.

"I'm not a rocket scientist, but when I heard there were 1,000 gallons of diesel above a 100-gallon containment berm, I just went nuts," said Brown, who sits on the EWEB board of commissioners. "I said, 'You know this is our only water supply, right?'"

"We could have polluted our entire river from the source," Oregon Department of Fish and Wildlife biologist Jeff Ziller said.

He added that the river is home to threatened species such as the bull trout and the spring chinook salmon.

Despite the danger, Brown said the move to upgrade the tank was stymied by slow progress at first, but things picked up once Congressman Peter DeFazio facilitated the permit process to get the replacement.

As word spread that Clear Lake needed a new diesel tank, Lane Rural Fire/Rescue showed up with a spare.

On Friday, after months of negotiating among all the agencies involved, a crane set the tank in its new home in less than an hour.

Heuser explained that pending a federal environmental analysis, the diesel tank will be moved next to the highway — away from the lake. This move will protect the watershed from another potential hazard — a tanker truck overturning while driving from the highway down to the resort to make a delivery.

As it stands, in the winter fuel trucks have to wind down a snowy route to supply the resort.

Last winter was especially icy, Christiansen explained.

"We were being real frugal with fuel there at the end," he said.

To ease winter re-fueling, EWEB hopes to move all of Clear Lake's diesel and petroleum tanks away from the lake's edge by next summer.

"We don't have this sense of impending doom anymore," Ziller added.

<http://www.registerguard.com/csp/cms/sites/web/news/2986942-35/story.csp>

Tank and Petroleum Use Mishaps

USA, PA, MURRYSVILLE

NOVEMBER 26 2008.

GASOLINE LINE RUPTURES IN MURRYSVILLE

Chris Foreman and Paul Paterra

A ruptured gasoline line turned the heart of Murrysville into a ghost town Tuesday, as the threat of an explosion or fire forced the evacuation of businesses, schools and a senior citizens community.

The interstate transmission line, which officials believe might have ruptured because of a cracked valve, spewed gasoline 75 feet into the air shortly after 9 a.m. behind Hoss's Steak and Sea House on Route 22.

The eruption set off a huge chain reaction as businesses and schools were cleared, and Route 22 was closed from School Road to the Cozy Inn Cutoff. Traffic was gridlocked, and the smell of gasoline hung in the air.

More than 140 residents of a nearby senior citizen facility were evacuated along with 2,200 students in the Franklin Regional School District and employees of dozens of small businesses.

The spill flowed into nearby Turtle Creek, killing fish, but posing no danger to the water supply, according to the state Department of Environmental Protection.

Crews from Sunoco Logistics, which owns the line, were performing routine maintenance on the valve when it ruptured, company officials said.

"I'd say it leaked at least 1,000 gallons of fuel," said Dan Stevens, public information officer for the Westmoreland County Department of Emergency Management.

Route 22 was reopened shortly after 6 p.m., but Sunoco Logistics officials remained on the scene late last night to clean the remnants of the gas.

A manager for Hoss's, Margie McAndrew, said her five employees were preparing to open the restaurant when she noticed what she thought was a smoke cloud.

"It gushed out like a big geyser," said McAndrew of Greensburg. "The police called and said we had to get out of the area immediately. They told us, don't start our cars; get out."

Businesses shut their doors along a five-mile stretch of Route 22. Franklin Regional schools dismissed most of their students early. The gas line was shut down from Delmont to Pittsburgh, said Mark Whalen, a maintenance supervisor for Sunoco Logistics.

Redstone Highlands residents, some wrapped in blankets, were shuttled to Murrysville Alliance Church on Old William Penn Highway, where scores of volunteers served trays of fried chicken, pizza, salads, bread, water, doughnuts and fruit drinks. They were heading back home shortly before 6 p.m.

The gas in the creek flowed from behind Hoss's to Pleasant Valley Road, about 1 1/2 to 2 miles away, Stevens said.

Sunoco Logistics brought in two companies to help clean up the leak.

A spokesman for the county public safety department said a cracked valve was the cause, but a Sunoco official said they're still reviewing the incident.

Pennsylvania American Water Co., which treats water that flows from Turtle Creek into the river, does not believe the gasoline leak will affect the quality of drinking water coming from its Hays Mine plant in Allegheny County, a company spokesman said.

"We envision it'll be three to four days before we receive some sort of a detectable level of gasoline by-product," said Gary Lobaugh, external affairs manager. "We don't believe the amounts pose any risk to human health."

Helen Humphreys, spokeswoman for the state Department of Environmental Protection, described the spill as a "significant amount."

Some gasoline escaped downstream toward the Monongahela River.

"We walked about two miles down the stream, and fish are dead all along the way," she said. "We can't tell you the volume of the gasoline right now. The impact is relatively significant on the aquatic life in Turtle Creek."

Murrysville residents were making the best of the temporary displacement.

Emma Lyons, a Redstone Highlands resident, said: "Everyone has been wonderful. The food -- oh, the food."

Pastor Dan Lawrence of the Murrysville Alliance Church said church volunteers converged upon the church after hearing about the evacuation.

"We didn't know how many were coming," he said. "Our motto is, 'We do our best.'"

Six residents were taken from the church to Forbes Regional Medical Center in Monroeville around 1:30 p.m.

Vicki Loucks, vice president of quality services for Redstone, said there was no medical emergency, but they needed "a place to rest."

At Calvary Early Learning Center, Cindy Subotich picked up her 5-year-old daughter, Maria, after hearing about

Tank and Petroleum Use Mishaps

the leak.

"I got a call that said, 'Come as fast as you can,' she said.

Franklin Regional school officials began evacuating students from Newlonsburg and Heritage elementary schools and the middle school to the high school around noon.

Shelley Shaneyfelt, district director of instructional services and public relations, said emergency officials were concerned about the effect the leak could have on air and water quality at the schools.

"It's been a little crazy, of course, but we have a plan," Shaneyfelt said.

http://www.pittsburghlive.com/x/tribunereview/news/westmoreland/s_600254.html