

Tank and Petroleum Use Mishaps

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By learning about the misfortunes of others, it is STI's hope to educate the public by creating a greater awareness of the hazards with storage and use of petroleum and chemicals. Please refer to the many industry standards and to the fire and building codes for further guidance on the safe operating practices with hazardous liquids. Thanks and credit for content are given to Dangerous Goods-Hazmat Group Network.

<http://groups.yahoo.com/group/DangerousGoods>

USA, ORE, PORTLAND

JULY 25 2009.

NORTH PORTLAND FIRE "A VERY CLOSE CALL" AS OIL TANK EXPLODES

A burner that was left on in a North Portland oil recycling facility is said to be the cause of a two-alarm blaze there this afternoon.

Employees of Energy Material and Recovery Inc. were refueling a burner, used to separate water from oil, when fuel vapors reached the burner and caused a storage tank to explode just after noon, said Justin de Ruyter, a Portland Fire & Rescue spokesman.

Once the fumes hit the burner, a fireball reportedly erupted and engulfed the tank in flames.

The exterior of other oil storage tanks about 15 feet away also caught fire and caused firefighters concern that more explosions might occur.

"This was a close call, a very close call," de Ruyter said.

Because of the potential danger, Portland police set up a half-mile perimeter to keep people out of the area, and the Oregon Department of Transportation considered closing Interstate 5.

But firefighters were able to put out the fire so quickly that no more explosions occurred, said de Ruyter.

"Once they were getting water on it, they got it down real quick," he said.

The employee who was refueling the burner was able to get behind a wall when the explosion occurred. No one was injured in the blaze.

The employee also managed to shut off the fuel supply to the burner before escaping the area.

The Portland plant is one of six such locations in the country, according to a statement by the company that owns it, Oil Re-Refining Co.

"These kinds of incidents are extremely rare, and this is the first one that has occurred at this facility in many years," the statement said. "The quick containment of this situation is evidence that there is a very low risk of a major incident occurring."

The company has a similar facility in Klamath Falls.

Damage estimates were not available tonight, but de Ruyter said the storage tanks, piping and some valves would need to be replaced.

He added that there were no environmental hazards from the fire.

http://www.oregonlive.com/news/index.ssf/2009/07/fire_in_north_portland_attribu.html

USA, ORE, PORTLAND

JULY 25 2009.

FUEL STORAGE TANK FIRE IN PORTLAND

Portland Fire and Rescue crews responded to a commercial fire this afternoon at Energy Material & Recovery Incorporated located at 11535 North Force Avenue. The fire was dispatched at 1205 hours with initial reports of a fuel storage tank on fire with possible explosions. At 1207 hours, fire crews requested a second-alarm assignment in addition to Portland Fire's Hazardous Materials Team based on the visible smoke column, reports of heavy fire from witnesses, and potential severity with the types of fuels located on the premise.

At 1210 hours, the first-arriving engine company reported heavy fire with flames over 50' in height burning 516, 517, 518, 519, 520, 521, 522

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next to four large vertical oil storage tanks. Crews were able to quickly deploy high volume hose lines onto the fire with the main concern being to keep the fire away from the large storage tanks, and keeping the fuels inside those tanks cool enough so that they would also not ignite. It was later determined that the storage tanks each contained 25,000 gallons of used crankcase oil that in the process of being recycled.

Portland Fire crews were successful in quickly knocking down the fire even though the insulation around the 25,000 gallon tanks was burning. Because of the quick actions of company personnel and fire fighters on-scene, the fire was quickly knocked down before it had an opportunity to spread into the used oil stored inside of the 25,000 gallon tanks.

It was later determined that the fire started while company personnel were refueling the diesel fuel mix tank used to provide fuel for the burner that heats up the used oil inside of the large storage tanks. According to Portland Fire Investigator Rick McGraw, fumes from the diesel fuel mix reached the burner and ignited causing a vapor explosion. There was one individual near the burner when the fumes ignited, but fortunately was protected by a concrete wall. That individual was also able to quickly shut-off the flow of the diesel fuel mix to the burner which was no doubt one of the factors in keeping the fire to a relatively confined area.

The main fire that the crews had to deal with upon arrival was from the burning foam insulation surrounding the large fuel tanks, which burns much like gasoline when ignited. Fire crews did an excellent job at quickly attacking the fire with the large volume hose lines which kept the fires from growing any larger and spreading to other nearby fuels.

This fire was a very close to becoming a much larger fire. Had the used oil inside of the large tanks caught on fire, the fire would have been much more severe. It is not uncommon for large storage tank fires to last for many hours or even days. There would have also been the need to order complete evacuations within at least 1/2 mile of the incident, including an evacuation of the Expo Center.

Portland Fire & Rescue would also like to thank the Port of Portland Fire for their quick response and assistance. Upon hearing of the incident, the Port of Portland Fire immediately dispatched one of their crash rescue fire apparatus with heavy foam capabilities. If the oil inside of the large tanks would have ignited, there would have been a great need for that foam resource from the Port of Portland Fire.

Fortunately there were no civilian or firefighter injuries, nor any environmental damage. There is no damage estimate available at this time, but is believed to be fairly minimal.

Total Units from Portland Fire & Rescue that responded:

- 8- Engines
- 4- Trucks
- 4- Chief Officers
- 1- Foam Unit
- 1- Rehab Unit
- 1- Air Unit
- 1- Hazardous Materials Team

Total of 65 personnel

Port of Portland also responded with 1 Crash Rescue apparatus

1205 hours Fire Dispatched

1207 hours Upgraded to 2nd Alarm and Hazardous Materials Team Requested

1210 hours First Unit Arrived

1240 hours Fire Under Control

<http://www.columbian.com/article/20090724/NEWS02/907249983/Fuel+storage+tank+fire+in+Portland>

USA, ID, WEST VALLEY CITY

JULY 26 2009.

MAN KILLED IN WEST VALLEY CITY EXPLOSION

John Daley

An industrial accident killed a 63-year-old worker at a chemical plant in West Valley City Friday morning.

Brody Chemical is the largest "ice melt" producer in the west, and it makes cleaning and chemical supplies. Fire officials say the man died at the scene after a large drum he was working with exploded. The top of the container exploded, and hit him in the face.

West Valley City Assistant Fire Chief Kris Romijn said, "It appears it was blunt force trauma related to a 55 gallon drum that he was dispensing out of. Apparently it's under pressure. Employees there tell us that normally the 516, 517, 518, 519, 520, 521, 522

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operating pressure is between 4 and 5 psi. Uncertain what caused the failure this morning. That will be up to OSHA to look into and discover what exactly occurred."

Romijn added, "Yeah, very sad. We called on our fire chaplains to be there for assistance for anybody that needed it, and they went over with the police department, the chaplain, to notify the family. So very tragic."

Michael Orgera a company vice president, said, "We're just grieving. We loved the guy, everybody loved the guy. We don't even know what happened."

He said fellow employees are devastated. "We're just grieving. We loved the guy, everybody loved the guy."

As for the cause of the accident, Orgera says the company doesn't know what caused it. He says the plant was shut down following the accident.

The man's name has not been released.

<http://www.ksl.com/?nid=148&sid=7280040>

USA, TX, WACO

JULY 28 2009.

WACO MAN'S LEG SEVERED WHEN NITROUS OXIDE TANK EXPLODES

Chad Shanks

A Waco man lost a portion of his leg Friday when a nitrous oxide tank exploded while he was working on his car in a shed off Old Marlin Road.

Blake Robinson, 39, and Chris Ragsdale were installing the gas in his Chevrolet Camaro to increase its speed when it exploded, severing Robinson's left leg at about six inches above his ankle, Fire Marshal Jerry Hawk said. Ragsdale was unharmed and called 9-1-1.

Robinson was in stable condition Friday night at Hillcrest Baptist Medical Center.

Christina Jergones, 27, was also in the shed at the time of the accident and received burns on her left arm and cuts from shrapnel.

A small child was also in the vicinity and complained of having problems hearing, but her condition was unknown as of Friday evening.

The explosion also caused a small fire.

Investigators believe oil or grease from Robinson's hand could have ignited the gas in the low-pressured bottle when he opened it, Hawk said.

"It's an unfortunate accident," Hawk said. "Any time you work with nitrous oxide it can be catastrophic. It could've been much worse."

http://www.news-journal.com/news/content/news/misc/stories/2009/07/27/07252009_Car_explosion.html

USA, NH, HOOKSETT

AUGUST 5 2009.

TANKER EXPLOSION DAMAGES BUILDING AT TERMINAL

Pat Grossmith

Monday's explosion inside a J.P. Noonan Transportation garage happened as a mechanic was removing a broken valve from underneath a tanker, an employee said this morning.

Bill Flint, a mechanic who has worked at the transportation company for 19 years, is credited with having the foresight to move the tanker that was on fire out of the garage.

He said the explosion blew off two of the five lids on the tanker, igniting vapors that set fire to the tank.

Flint said the mechanic, who had been under the tanker, was up and moving after the explosion and seemed all right but flames were coming from two of the five compartments on the tanker.

Flint, instead of fleeing the area, ran in the direction of the explosion and got the tanker out of the garage where firefighters poured water on it to extinguish the flames and cool it down.

"I knew I had to get the tanker out of there because it was on fire," Flint said.

His co-worker, whose name officials have not released, was treated for injuries to his knees at a local hospital and released yesterday.

What caused the explosion remains under investigation.

"It must have been a spark that ignited some vapors," Flint said.

The tanker's lids went through the metal roof of the garage, buckling it. Other debris ended up across the street at a nearby auto body shop.

The trucking company evacuated all employees from the property at 240 Londonderry Turnpike.

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Assistant Fire Chief Dean Jore said the tanker was empty at the time but had previously contained a petroleum product. He said fumes from the tanker ignited in the explosion, causing a small fire.

Ron Mailhoit, co-owner of Nu-Coat Auto Body at 9 Zapora Drive, across the street from J.P. Noonan, was driving a car across the lot when he heard the explosion.

"I never heard anything like that. It went, 'ba-boom!'" said Mailhoit.

Mailhoit said he got out of the car, and immediately fell to his knees. Then he heard another deafening sound as a large projectile landed on the ground near him.

"Another six to eight feet and it would have landed on the roof of my car. It was scary. I've never heard anything like that," Mailhoit said.

Amanda Compas, 8, whose father is another co-owner of Nu-Coat, was playing in the back of a pickup truck at the time of the explosion. Another projectile broke the windshield of the truck she was playing in.

"That would have killed somebody without a doubt," said her father Chris Compas.

The explosion sent debris through the roof of one building and damaged two other nearby buildings on the property, according to Jore. He did not have an estimate of the damage but said the maintenance building where the tanker was being worked on has significant damage.

The town's building inspector was checking the structure to determine its stability, Jore said.

Kevin Brownell, J.P. Noonan manager, said the company employs about 60 people and transports petroleum products including gasoline, oil and diesel.

The state Department of Environmental Services was called to the scene because of the potential for a hazardous spill, according to Jore.

Fire crews from Manchester and Concord were on the scene while others from Auburn and Allenstown covered the fire stations.

<http://www.unionleader.com/article.aspx?headline=Explosion+damages+building+at+tanker+terminal&articleId=1f5d27a2-2727-45c4-813d-0d0ea06a2350>

USA, MI, GENESEE COUNTY, VIENNA TWP

AUGUST 5 2009.

EPA ON SCENE AT VIENNA TOWNSHIP CHEMICAL FIRE AS SECOND BUILDING GOES UP IN FLAMES

Bryn Mickle

A second building is now burning on the scene of the chemical fire in Vienna Township that forced the evacuation of 1,000 people this evening at White Oil Company.

Kerry Paulson, assistant Clio Area Fire Chief, said a warehouse that was also used as office space caught fire when a 55-gallon fuel tank exploded.

The major concern for firefighters, according to Paulson, is three above ground fuel tanks -- two with diesel fuel and another with gasoline -- with capacity for 65,000 gallons.

Representatives from the Environmental Protection Agency came in from Toledo, Ohio, and are monitoring air quality.

Paulson said the evacuation will likely stay in place until morning.

Two firefighters were injured in the blaze. One was treated on scene and another taken to an area hospital for non-life-threatening injuries.

Fire departments from as far as Oakland County are currently fighting the blaze.

Fire officials are still unsure about cause of the fire, but believe an electrical meter may be to blame.

http://www.mlive.com/news/flint/index.ssf/2009/08/epa_on_scene_at_vienna_townshi.html