

WHAT'S HAPPENING?

November 2014



The factory and drug squad detectives inspecting the scene. Photos. Nathan Patterson



Explosion Uncovers Drug Laboratory inside Warriewood NSW Chemical Factory

POLICE have discovered an “elaborate” drug lab hidden inside a chemical factory after the building caught fire on Friday, in a scene straight out of *Breaking Bad*.

Officers were called to the Prosperity Pde, Warriewood factory after an explosion sparked a fire inside the building.

But they were in for a surprise while examining the scene after the fire was extinguished.

With a large-scale clandestine drug laboratory discovered to be taking up much of the building’s mezzanine level.

Police are still in the process of dismantling the lab, which they say will take “some time” due to its large size.

However more than 200kg of chemicals they say are believed to be have been used for producing MDMA have already been seized.

Source: Daily Telegraph

Second Explosives Truck Accident Q’ld

Another truck carrying explosive materials has been involved in an accident on Central Queensland roads.

A section of the Carnarvon Highway was closed to clean up spilled ammonium nitrate, the result of a truck rollover.

This is the second ammonium nitrate carrying truck to crash in two months, as a truck [exploded in September near Charleville](#), destroying large sections of road and rail and injuring the truck’s driver, firefighters, and other motorists.

Queensland Police Service is now investigating the crash.

Source: Safetowork

AIDGC 2014 Annual Conference Papers

are now available for download or viewing on the Members’ Only Pages of the [AIDGC Website](#)

AIDGC
WELCOMES OUR
NEW
ASSOCIATE
MEMBER

Branko Poljak
N.S.W.

CSB Investigation Finds Three DuPont Accidents in Belle, West Virginia, in July 2010, Resulted from Numerous Safety Deficiencies including Lack of Safe Equipment Design, Ineffective Mechanical Integrity Programs, and Incomplete Investigations of Previous Near Misses

[Source: CS Link](#)

MeSH is a toxic chemical that is widely used to 'odorize' natural gas and propane. It has a strong, easily detectable odor that can be added to odorless flammable gasses to make leaks more easily detectable. It is this very strong odor that makes it a 'friendly' toxic gas.

With a human detection limit somewhere in the neighborhood of 1 ppb, very small amounts of this material are very easily detectable.

Chemical Leak at DuPont Plant

Four workers died and a fifth was hospitalized after a chemical leak at a DuPont facility near Houston, the company said.

The workers were performing routine maintenance tasks at the company's manufacturing facility in La Porte, Texas, when the chemical, methyl mercaptan, began to leak.

Woods would not say how the company learned of the leak, but said that the Harris County Medical Examiner pronounced four of the workers dead at the scene.

The chemical, used to make insecticides and fungicides, is liquid when it is contained, but becomes a gas when it is released and mixes with oxygen, Woods said. "The company did not yet know how the chemical began to leak".

"Our focus at the moment is solely on the employees and the family members that are impacted and the individual that is in the hospital," Woods said. "But as we move past that we will begin a full investigation to understand what went wrong and what we need to do to prevent this from ever happening again

Source: CNBC News

Read More: [West Virginia chemical spill prompts water ban](#)

Video: [Minute-by-minute account of DuPont chemical spill](#)

The Chemical Safety Board, an independent federal agency charged with investigating industrial chemical accidents, has a team of individuals inside the plant. Interviews of shift workers and potential witnesses are taking place."Until the particular building is clear it's unsafe right now to go in there. So until that's fixed I couldn't tell you what it looks like," said John Morawetz with the International Chemical Workers Union. One investigator described the area where the leak occurred as a 5-stories tall structure with piping, valves and other equipment."One accident like this is one accident too many, that's why there are strict regulations on the books regulating methyl mercaptan and the other chemicals that are used on this plant. Now, are those regulations strict enough? Were they enforced properly? How did company respond to those regulations?" said Daniel Horowitz with the U.S. Chemical Safety Board.

Those are questions so far without answers.

Source: Click2Houston.com

Four workers who died on Saturday at a DuPont and Co plant in Texas were accidentally asphyxiated by chemicals, the coroner's office said on Wednesday, another finding that suggests the victims were not wearing full safety equipment. The Harris County Medical Examiner's office previously said coveralls were the only clothing mentioned in preliminary autopsy reports. Source: Reuters

LISTEN TO THE
911 CALL

The incident is the worst loss of life in an industrial accident at the world's biggest petrochemical complex since 2005, when a refinery explosion killed 15 workers in Texas City.

Report: Plant Spill's Toxic Chemicals Downplayed in 911 Call

Four workers killed by poisonous gas during a recent chemical leak were trapped inside the Texas pesticide plant for an hour before anyone called 911, and no one told dispatchers what substances were inside.

The DuPont plant in La Porte typically housed as much as 250 tons of highly flammable methyl mercaptan. But it also contained at least some methyl isocyanate. That's the same chemical that escaped a Bhopal, India, pesticide plant in 1984, killing more than 2,200 people in the world's worst industrial accident.

On Nov. 15, DuPont's shift supervisor Jody Knowles gave no details about the presence of methyl isocyanate and methyl mercaptan, an ingredient of insecticides and fungicides and an odorant for natural gas, in a 911 call to the fire department. Knowles also attempted to downplay risk to the general public. After he told the dispatcher about anticipated casualties, the dispatcher asked: "Can you tell me is this any risk to the public? Is it gonna be a possible escaping from your premises?"

"No ma'am, it is not," Knowles responded.

The plant covers 600 acres along the Houston Ship Channel in LaPorte and has operated since 1956.

Federal officials are investigating the accident. However, emergency management officials say it's already clear that the response to the leak was inadequate and slow, especially given the scope of the disaster. The accident site had been plagued with recurring maintenance problems, and workers lacked quick access to breathing equipment that would have given them a better chance at survival.

No DuPont official contacted a special emergency industrial response network called the Channel Industries Mutual Aide, a nonprofit formed to deal with potentially deadly disasters. It was hours before DuPont verified that anyone had died. DuPont has refused to clarify how many pounds of toxins were released.

Officials said a valve failed on a container of methyl mercaptan and the four were killed after inhaling too much

gas. Source: Statesman and Houston Chronicle

HAZMAT Fire Burns near Santa Paula

A fire continued to burn and explosions were still occurring at a wastewater facility near Santa Paula agricultural fields several hours after a vacuum truck exploded overnight.

Approximately 1,000 gallons of organic peroxide spilled after the rear of the vacuum truck exploded.

Hazmat teams from Ventura County and L.A. County fire departments responded to the scene. A large plume of smoke from the fire was going into residential areas.

Fire officials said they were dealing with a 300- to 400-foot radius of white substance, identified as organic peroxide. When the material dries, it crystallizes and catches fire.

"As this liquid began to dry out, the companies on scene noticed that it was very unstable and reactive, and as they stepped on it or tried to move their engine, it would spontaneously ignite under the tires of the engine or their boots," said Ventura County Fire Capt. Mike Lindberry.

Because the material ignited spontaneously, firefighters were forced to retreat, officials said. Firefighters were allowing it to burn off because officials were very concerned about the water going into the Santa Clara River.

A mandatory evacuation was ordered for all residents within a mile of 815 Mission Rock Rd, and a "shelter in place" was ordered for residents within two to three miles of the location.

Two workers were injured during the early part of the incident. One of the workers was transported to Ventura County Regional Medical Center in unknown condition, and the other went to the hospital on his own later, officials said.

Ten firefighters were also taken to an area hospital for precautionary measures, including at least three due to flames on the bottom of the firefighters' boots.

Hospital officials say 37 people were treated as a result of the explosion and fire. All were expected to be released, except the driver of the truck that exploded, who suffered traumatic injuries.

Source: ABC7 News



[VIDEO OVER THE FIRE](#)

[PHOTOS: Flames, smoke from Santa Paula vacuum truck explosion](#)

Gas-Powered Freight Transport

Eminent Australian energy expert professor Bob Clark has issued a clarion call for national energy security at a gas fuel industry gathering.

He believes having more trucks on gas will cover vulnerability and play to a strength, given the country is to become the third largest exporter of gas and there are plenty of reserves.

However, like other national security initiatives, it relies on political leadership for impetus. "It is time now to take out an insurance policy," Clark told Gas Energy Australia's (GEA) Gas 2014 industry forum.

He nominates Port Botany container transport as the strategic entry point, noting the GE can furnish small gas plants for about \$50 million.

Clark's comments come amid federal senator Ricky Muir's call for an increase in the use of Australian gas as a transport fuel to improve fuel security.

Read the full article: [Australian Transport News](#)

First Look at Nuclear Fuel in a Meltdown

Scientists have managed to take their first close-up look at what happens to nuclear fuel when it becomes molten, as it would in a nuclear reactor meltdown.

In an innovative lab experiment, they discovered that uranium dioxide fuel behaves differently when molten than in its solid state. The findings, reported in the journal Science, may help researchers improve safety at nuclear power plants, by better understanding uranium dioxide's behaviour under extreme temperatures.

[Read the article from ABC Science](#)

How Compliant is Your Emergency Shower and Eyewash? Free White Paper

Up to 50,000 eye injuries occur in Australia every year, with a large percentage of these occurring in the industrial and mining sectors. Australian Standards dictate employer responsibilities for providing emergency showers and eye washers to assist in avoiding serious injury to employees, but still many companies are unaware of minimum requirements for compliance.

[This free white paper examines the WHS requirements, the consequences of non-compliance, and measures that can be taken to ensure a safer working environment.](#)





Pike River Mine Re-Entry too Dangerous

Solid Energy has ruled out ever re-entering the Pike River coal mine, deeming it too dangerous.

The decision comes close to four years after the initial tragedy, which cost the lives of 29 miners at the site.

The decision to enter the mine to recover the bodies of the men has been repeatedly delayed due to ongoing concerns about toxic gases inside and the stability of the mine's tunnels.

New Zealand prime minister John Key attended a meeting with Solid Energy and the families of the victims of the coal mine explosion, where the announcement was made.

Families were informed that current owner Solid Energy, who acquired the mine in 2012, will not attempt to enter the mine as risk to life is too high.

Source: Cole Latimer, Australian Mining

Overhaul for Safety Legislation in WA

The WA state government has committed to modernising the safety legislation covering mining, petroleum and major hazard facilities (MHFs) in Western Australia.

With legislation for all three areas undergoing reform, there is an opportunity to review the legislative structure and consider consolidation of the current Acts and regulations.

Department of Mines and Petroleum resources safety executive director Simon Ridge said the department was seeking stakeholder input into the process. "There are five options regarding how we can structure the safety aspects of mining, petroleum and MHF legislation," Ridge said. "These options range from consolidating all resources safety elements into one unified act, partially consolidating the current safety acts or leaving the acts as they are."

Legislated safety obligations for industries in the resources sector are currently contained within six different parliamentary acts and associated regulations.

Mr. Ridge said the initial focus of the consultation was only on the structure of the Acts. "This is one of the first steps as we look to reform safety legislation in WA's resources industry," he said. "Once this has been finalised, we will then consult separately on proposed changes to the content of the legislation."

The department has engaged Marsden Jacob Associates to conduct the independent consultation process. The consultation paper and further information about how you can contribute to the process are available on the [Marsden Jacobs website](#).

Source: Safetowork





LPG Usage at Public Events

WorkSafe Tasmania has updated their Guidance Notes. View the .pdf [Storage and use of LP gas at public events](#)

Gas Explosion in London Hotel Basement

Fourteen people have been injured at a five-star London hotel after an explosion in the basement believed to have been caused by a gas leak, emergency services say.

About 500 guests had to be evacuated following the blast at The Churchill Hyatt Regency hotel the London Fire Brigade said. Five of the injured required hospital treatment, including two men with leg wounds, the London Ambulance Service said.

"The explosion was in the hotel basement which has caused extensive damage to the basement and the ground floor," the fire brigade said. "Five cars in a neighbouring street were also damaged." "The cause of the explosion is being investigated but is believed to have been caused by a suspected gas leak."

The explosion caused part of the 434-room hotel to collapse. Jeanette Unsworth, a National Grid spokeswoman, said its investigators had not yet been able to enter the kitchen area in the basement of the hotel because of the amount of structural damage caused by the explosion. Source: AFP

[WATCH THE VIDEO](#)

Warnings about Hazardous Material from Spaceship Explosion in US

There are concerns that hazardous material from a rocket which exploded after takeoff could be dangerous to the public. The unmanned spaceship was carrying food and supplies for the International Space Station when it blew up in Virginia in the US. The public are being warned not to collect souvenirs from the debris.

Frank Culbertson, executive vice-president of Orbital Sciences confirmed that none of the staff at the launch site were injured. "It's a tough time to lose a launch vehicle like this and its payload. It's not as tragic as losing a life associated with it, so we're very happy to report that there were no injuries and the safeguards both in-flight and on the ground worked as they should have, and all we lost was hardware," he said. Orbital Sciences is being paid billions of dollars by [Nasa](#) to make deliveries to the International Space Station. [WATCH VIDEO OF EXPLOSION](#)



From the company's description of its operation:
Located on 544 acres in Regina, the Co-op Refinery Complex (CRC) is a wholly-owned subsidiary of Federated Co-operatives Limited (FCL). The CRC manufactures and supplies petroleum products to FCL's members through the co-operative retailing system. The refinery was established in 1934.

Leak at U.S. Co-Op Refinery

Repairs are complete and officials at Regina's Co-op refinery in Saskatchewan, say there was no permanent damage to their facility following a leak that forced a partial evacuation of the plant. About 250 contract employees were told to evacuate the area.

Another 600 refinery staff remained on site, according to a spokesman. There were no injuries.

Brad DeLorey, director of communications said after a leak was discovered in one of the processing units, workers isolated the area and sounded the alarm as a "stage-one evacuation."

DeLorey said described the problem as being in a section of a coker unit, which is involved in the production of gasoline.

The company said they were still investigating what happened to determine why the unit leaked.

This latest leak comes nearly one year after a major explosion at the Refinery on Christmas Eve last year.

The plant, which has gone through several upgrades and expansions in its 80-year history, has recorded five significant incidents between 2011 and 2013.

The most serious was a 2011 blast that injured 36 people.

- [Federated Co-op refinery explosion marks 4th fire in 2 years](#)

Source: CBC News

Thousands of Iraq Chemical Weapons Destroyed in Open Air, Watchdog Says

The United States recovered thousands of old chemical weapons in Iraq from 2004 to 2009 and destroyed almost all of them in secret and via open-air detonation, according to a written summary of its activities prepared by the Organization for the Prohibition of Chemical Weapons, the international body that monitors implementation of the global chemical weapons treaty.

The 30-page summary, prepared after quietly held meetings between the organization's technical staff and American officials in Washington in 2009, was provided to The New York Times by the Pentagon.

It included a table disclosing limited details on 95 separate recoveries and destructions of chemical warheads, shells or aviation bombs, for a total of 4,530 munitions from May 2004 through February 2009 — a period of often intense fighting in Iraq.

[Read full story from N.Y. Times](#)



Hot rocks: Abiotic methane seeps from chromium- and ruthenium-containing minerals.

Credit: Shutterstock

Methane Mystery

'Minecraft' Meets Materials Science

For thousands of years, the Chimaera fires have burned near the ancient chromium mines of Cirali, Turkey. Flames leap from small fissures in the rocks at Los Fuegos Eternos in the Philippines. At these and other sites around the world, natural gas is produced by geological means without the aid of biological actors such as microbes. The fires from this gas have come to be known as eternal flames. Research by Giuseppe Etiope of Italy's [National Institute of Geophysics & Volcanology](#) and his team now suggests that ruthenium-catalyzed Fischer-Tropsch chemistry could be responsible for these abiotic methane seeps (*Geofluids* 2014, DOI: [10.1111/gfl.12106](#)).

Ruthenium is a rare element, but it reaches parts-per-million concentrations in certain Cr-bearing minerals. Etiope noticed "a geographic coincidence between the occurrence of Ru-rich chromitites and methane." Purified and pretreated Ru is known to catalyze the reaction of carbon dioxide and hydrogen to produce methane and water, and hydration of nearby peridotite minerals is known to produce hydrogen gas, so Etiope wanted to know if dispersed Ru in the chromitite could be responsible for the methane evolution.

Toll North: Dangerous Goods Breaches

The freight transport company Toll North Pty Ltd has been fined a total of \$9,680 and ordered to pay \$10,000 in costs after pleading guilty to two dangerous goods offences in the Downing Centre Local Court last week.

In March 2012, Toll North was engaged to provide transport for a consignment of 21,000L of toluene diisocyanate. Toluene diisocyanate is a toxic chemical which can cause severe injury or death, and is listed as a dangerous good in the Australian Dangerous Goods Code (ADG Code). Toll North subcontracted the transportation to another company, which was not licenced to transport dangerous goods.

The Environment Protection Authority's (EPA) Director of Hazardous Incidents and Environmental Health Craig Lamberton said the truck carrying the toluene diisocyanate was pulled over in Botany during a joint dangerous goods compliance campaign with officers from Roads and Maritime Services and the EPA on 28 March 2012.

For more information about the transport of dangerous goods visit the EPA website:

<http://www.epa.nsw.gov.au/dangerousgoods/index.htm>



Chemical Leak at Alloy Plant in U.K.

Two men have been taken to hospital following a chemical leak at a metal plant in South Lanarkshire.

Fire crews were called to reports of a leaking valve and vapour cloud at Ireland Alloys, on Whistleberry Road, near Blantyre.

Firefighters in breathing apparatus and gas tight chemical suits sealed the valve and dispersed the cloud.

Two workers were treated by paramedics at the scene before being taken to Hairymres Hospital in East Kilbride.

Specialist unit

Group manager Stuart McLean said: "Three appliances from Bellshill, East Kilbride and Hamilton and a specialist chemical unit from Hamilton attended the incident.

"On arrival the incident commander was faced with a leaking chemical and a small vapour cloud inside the factory. "He immediately gathered information regarding the chemical involved and took direction from a specialist scientific advisor."

Group manager McLean said crews isolated the leak and ventilated the area.

The brigade's scientific advisor then conducted atmospheric monitoring before confirming the air was safe.

Source: BBC News

Blast at Chemical Plant in Argentina

An explosion at a chemical plant in Cordoba left 65 people injured and caused extensive damage to nearby buildings, officials said.

Officials said the injured were neighbours of the plant, which was closed at the time of the explosion.

The province's health ministry said 65 people were injured, many of them from debris and glass from windows shattered in the blast.

Two people were hospitalised, including a 70-year-old woman with a heart condition and a youth with head trauma.

Most injuries were light, officials said.

Cordoba's civil defence chief said there were reports of shattered windows up to three kilometres from the blast site.

The governor of Cordoba province, Jose Manuel de la Sota, told reporters the blast created a huge crater and caused a gas leak.

One of the owners of the plant, which was authorised to make household cleaning products, was arrested, Cordoba Security Secretary Matias Pueyrredon told the local press.

Source: news.com.au



**Firemen douse flames emerging from the Rigoni chemical factory in Cordoba, Argentina.
Picture: Sergio Cejas/AP**

Corporate Members

Our Corporate Members provide a range of products and services to the Dangerous Goods industry.

Contact them:

AECOM

Kevin Blackie

61 7 3553 3449

Kevin.Blackie@aecom.com

RGM ENLOG

Grant Curran

+61 2 9669 4811

Store-Safe

Grant Breeze

02) 9569 2122

VOPAK Terminals

Sydney Pty. Ltd.

Nathan Barnes

02 9666 4455

The Ontario Ministry of Labour has also announced that the explosion started in a dust collection system outside the building, and then ripped through internal sections of the facility.

Air NZ Talks Tough over Dangerous Cargo

Air New Zealand has had clear-the-air discussions with the Royal New Zealand Air Force after it emerged dangerous items with the potential to bring down planes were flown by the carrier without its knowledge.

The air force has admitted a series of safety blunders by sending volatile substances on commercial flights, one of which was an Air New Zealand Boeing 747.

Chief of Air Force Air Vice-Marshal Peter Stockwell has also admitted the air force misled the Transport Accident Investigation Commission (TAIC) when reporting the Air NZ flight incident in 2009. It sent chemical oxygen-generating canisters from Auckland to Vancouver aboard a flight carrying 379 passengers and crew without notifying the airline.

Air NZ was unaware it was carrying the canisters, which if incorrectly activated, can create a great deal of heat and the oxygen can fuel a fire. Similar canisters brought down a United States passenger jet in 1996, killing 110 people.

The blunder was revealed this week in a damning report on the safety culture in the air force, with one of the authors saying the system designed to protect staff was broken.

In a statement Air Vice-Marshal Stockwell said the air force had shipped dangerous goods on civilian flights at least eight times between 2002 and 2009.

The air force knew of problems after wrongly shipping a helicopter engine, classified as dangerous goods, on a DHL flight, he said. A series of errors meant the Vancouver incident was kept quiet at the time.

It also failed to notify the Civil Aviation Authority (CAA) because it thought it only had to if there was "a serious harm event".

The CAA is now investigating the incident. Source: NZ Newswire

Canada: One person Dead in Veolia Blast

Five people have been injured, one critically, in an explosion at a tank car maintenance facility in the Canadian city of Sarnia, Ontario. Police in the city, home to several oil refineries and petrochemical plants, said on Twitter the fire at the Veolia Environmental Services site had been quickly brought under control.

It said one of the five injured was being transferred to a hospital in London, Ontario.

Sarnia Mayor Mike Bradley said the cause of the blast was unclear.

Copyright © 2014 euronews

[**WATCH THE VIDEO**](#)

Three Carcinogen Reports Released

Safe Work Australia has released three reports which examine exposures to the carcinogens:

- [lead and lead compounds](#)
- [formaldehyde](#) and
- [polycyclic aromatic hydrocarbons.](#)

The reports are designed to help inform future work health and safety policy development for workplace chemicals. They do not specifically focus on high risk industries or industries where high levels of exposures might occur.

There are common findings in the three reports. For example, many of the AWES respondents who had probable exposures to these carcinogens:

- were male
- worked in technical occupations, and
- worked in the construction industry.

However, a high proportion of AWES respondents probably exposed to PAHs were farmers burning wastes, repairing farm equipment or clearing fire sites.

View the reports for more information:

- [Australian Work Exposures Study: Lead and lead compounds](#)
- [Australian Work Exposures Study: Formaldehyde](#)
- [Australian Work Exposures Study: Polycyclic aromatic hydrocarbons \(PAHs\)](#)

Four Injured in Chicago Bakery Explosion

Four people were injured, one seriously, when a propane tank exploded and started a fire that destroyed a truck maintenance garage at Turano Baking Co. in Oak Park, Chicago. The explosion occurred as workers were changing a propane tank in a truck, Oak Park fire Battalion Chief Kevin Wiley said.

The workers thought the tank was empty, but it was full and shot into the air, causing the brick walls of the structure to collapse, Wiley said.

Source: HazardEx





US Vodka Distillery Explosion

An explosion believed to have been caused by a propane or ethanol leak sparked a fire at the East Bexar County vodka distillery in San Antonio, Texas. Fire crews spent 40 minutes tackling the flames and treating one worker who was sent flying through a wall from the force of the explosion.

Residents living nearby reported a strong smell near the distillery close to the time of the explosion.

Laura Jesse, Bexar County Fire Department spokesperson, told KSAT: "They're initially thinking that there was just some sort of small spark and that either there was a leak from an ethanol or a propane tank that caused the explosion.

[WATCH VIDEO](#)

Children Burnt: Fire Fuelled by Toxic Gas

Four children sustained severe burn injuries in a fire explosion created by toxic gas generated from a toilet on. The four children are Zara, 4, Sara, 6, Jihad, 9, and Raquib, 12, all members of an extended family residing at the house of Adab Ali in Savar's Aminbazar area.

Around 9:30pm, when the whole area was under darkness following a nationwide power outage, a malodour started coming out of an old abandoned toilet situated on the ground floor of the building, said Sayem Sarker, uncle of the four. Sensing the malodour, the children went down there with a candle and as soon as they opened the door of the toilet, the fire spread immediately and grilled them in a severe manner, he said.

They were admitted to the burn unit of Enam Medical College and Hospital in a critical condition. Doctor Nazim Uddin of the hospital said as the fire came in touch with the toxic gas it spread immediately and burnt the children.

The children had sustained 30%-40% injuries, however, they were now out of danger, he said. Source: Dhaka Tribune



The August-September-October issue of

Hazmat & Environment Notes

has been downloaded as two Adobe Acrobat pdf. files, "hazmt1408+09+10-scrn.pdf" and "hazmt1408+09+10-prnt.pdf" onto the Members' Only Pages of the AIDGC Website (two files, one for screen viewing and one for printing in newsletter format).



Victims Claim Poisoning: High Iodine Levels

Hundreds of people who claim they were poisoned by toxic soy milk are set to share in a \$25 million compensation payout. The proposed settlement is the biggest in Australian food safety class action history, lawyers say.

Almost 500 victims claim they got sick after drinking Bonsoy, which allegedly contained dangerously high iodine levels.

“Some people have had to have their thyroid surgically removed and will be on hormone replacement therapy for the rest of their lives,” Maurice Blackburn principal Jacob Varghese said.

“A couple of women had miscarriages, and people with underlying thyroid disease suffered exacerbated symptoms such as extruded eyeballs and heart palpitations.

“Others experienced lethargy and anxiety. While most have made substantial recoveries, some have long-lasting problems.”

A single glass of the milk, which was enriched with a seaweed extract, allegedly contained 50 times the recommended daily dose of iodine. It is alleged this interfered with function of the thyroid, the gland responsible for hormones that control body metabolism.

Under a negotiated deal, Australian distributor and brand owner Spiral Foods, and Japanese companies Muso and Marusan-Ai Co, will pay compensation without admitting liability.

Source: Karen Collier, Herald Sun

This fuel truck fire occurred in Los Angeles. The fuel truck overturned while entering southbound 5 Freeway. The wreck caused the tanker to catch on fire, hauling 4,800 gallons of fuel. 157 firefighters were called to the scene and it took 80 minutes for crews to extinguish the flames. Two nearby homes were damaged by the fire. Source: LiveLeak [Watch the Video](#)

Marine Workers Die after Inhaling Toxic Gas

Seven people working in Peru’s Marine Industrial Services (SIMA) died on a floating dock in Iquitos yesterday after allegedly inhaling toxic gases.

The workers were waiting for a vessel to dock when they detected a fault in a tank. On entering the tank to try to fix the problem, inhaling the toxic gases that killed them.

Only three survived and were taken to the Naval Clinic and the Regional Hospital of Iquitos for treatment.

Peru’s [Marine Industrial Services](#) (SIMA) are investigating the incident.

Source: Hannah Vickers, Peru this Week



Safety in Oil and Gas conference in Brisbane, 23-25 February 2015

Kevin Lacy, BP's Vice President of drilling operations in the Gulf of Mexico, exited just months before the Macondo incident because of disagreements with the oil giant over its commitment to safety. The Deepwater Horizon rig explosion occurred on April 20, 2010, killing 11 workers and causing the worst oil spill in U.S. history.

Kevin will give his insights from a leadership perspective on the organizational factors that preceded this major industrial incident and how these they can be mitigated through proper leadership, implementing an effective risk management process, and building a robust safety culture. Through a step-by-step the anatomy of this catastrophic process incident, Kevin will identify the critical concepts associated with safety leadership and safety culture.

LPG SAFETY IN INDUSTRY

Modern industrial processes at times involve the handling, storage, or transport of gases and vapours that can form gas air mixtures that can burn or explode under certain circumstances. The safe handling of such gases and vapours therefore calls for the adoption of suitable measures to minimise the risk of ignition of such potentially hazardous atmospheres.

Liquefied petroleum gas (LPG) is one of these flammable gases and needs to be handled with due care to ensure safety of plant and personnel. Industry professionals should therefore gain a degree of familiarity with the basic concepts of hazardous area protection to be able to better address the challenges the safe handling of this gas presents.



This Industrial Safety Review Report covers the following topics:

- **Basic concepts**
- **Hazardous area classification**
- **Lower & Upper Explosive Limits**
- **Some common gases and their flammability limits**
- **What are the common sources of energy that can cause ignition?**
- **Flames**
- **Sparks**
- **Hot Surfaces**
- **LPG safety challenges**
- **Storage**
- **Handling**
- **Transportation**
- **Leak detection**
- **Precautions against fire risk**
- **Emergency procedures**

[READ THE FULL ARTICLE](#)



New Zealand – Proposals for EPA Notices

The Hazardous Substances and New Organisms Act 1996 (HSNO Act) is being amended to improve its workability and make it easier for people to understand their obligations for hazardous substances. Part of this reform is the development of EPA Notices, which will simplify the HSNO Act's key requirements.

As part of developing our proposals for notices on classification, labelling, safety data sheets and packaging we recently held workshops in Melbourne, Sydney, Auckland and Wellington. The workshops were well attended in all centres and covered the key concepts proposed for these notices.

Our consultation documents on the proposals for the four EPA Notices listed above and for simplifying the hazardous substances enforcement officer qualifications will soon be released. We encourage all interested parties to provide feedback - keep checking our [website](#) for their release.

Source: EPA New Zealand

NICNAS Chemical Gazette: November, 2014

Now available for download

<http://www.nicnas.gov.au/communications/publications/chemical-gazette/chemical-gazette-october-2015>

Key Lessons for Preventing Incidents from Flammable Chemicals in Educational Demonstrations

- Due to flash fire hazards and the potential for serious injuries, do not use bulk containers of flammable chemicals in educational demonstrations when small quantities are sufficient
- Employers should implement strict safety controls when demonstrations necessitate handling hazardous chemicals — including written procedures, effective training, and the required use of appropriate personal protective equipment for all participants
- Conduct a comprehensive hazard review prior to performing any educational demonstration
- Provide a safety barrier between the demonstration and the audience

[Download USCSB Safety Bulletin](#)

My thanks this month goes to Peter Hunt and Don Johnston.

If you have any interesting articles or pars. Please let me know – they are appreciated!

robhogan@tpg.com.au



Boxship Maersk Kinloss arrived to Ilyichevsk, Ukraine, Black sea, on July 15 2012 from Konstanza, Romania, with 2082 containers on board, including 1439 transit containers and 643 to be offloaded in Ilyichevsk. On July 17 during offloading operations dockers opened one of the holds and found container with obvious signs of an explosion and fire, container had a dangerous cargo of aluminum phosphide.

[Read More](#)

Aluminium Phosphide in Grain Transportation Safety Alert – Victorian WorkCover Authority

This Safety Alert highlights the hazards of working with aluminium phosphide (an insecticide used to eliminate pests in grain), which produces highly toxic phosphine gas when it reacts with moisture.

Background

Aluminium phosphide is an insecticide used to eliminate pests such as weevils in Australian grain. It is sold under various names including Fumitoxin, Gastion, and Phostoxin.

Aluminium phosphide is a toxic and volatile hazardous substance and is classed as a 'dangerous good'. Aluminium phosphide tablets react with moisture in the air to give off highly toxic phosphine gas. If not used correctly aluminium phosphide (phosphine) can pose a serious risk to health.

Risks of phosphine in grain transport

Phosphine is absorbed into the body by inhalation. The presence of phosphine in loads of grain may create a risk for the following people who may come into contact with the insecticide:

- transport operator
- grain depot workers
- the general public if loads contain phosphine – note that trucks containing phosphine should not ventilate in populated areas
- emergency services workers if there is a grain spill and the load contains phosphine.

Note that employers may also have duties under the *Dangerous Goods Act 1985* and associated regulations as aluminium phosphide is classed as a 'dangerous good'. Also note that legislation administered by other regulatory authorities, such as the Department of Environment and Primary Industries (DEPI), may also apply to the use of aluminium phosphide.

[Print or download a PDF version of this document](#)

Date Published: October 2014

Process Safety Beacon – AIChE

[Thirty Years Ago – Mexico City LPG Tragedy](#)

Ammonium Nitrate Stockpile Insecure

The operator of a Hunter Region ammonium nitrate transporter has promised to tighten security after a member of the public showed how easy it was to gain entry. Two Newcastle Herald staff accompanied the person, who told the gatekeeper he was “there to check the fence”. His credentials were not checked and nothing was asked about the two people in the car with him. The back of the utility carried a 200-litre plastic drum, which the man said “could have been full of diesel”.

Ammonium nitrate is mixed with diesel as the explosive in open-cut mining and the same materials are favoured by terrorists making bombs. Australia’s terrorism public alert level was raised to “high” on September 12, meaning security agencies believe a “terrorist attack is likely”.

The company insisted it had the proper security measures in place but acknowledged the gatekeeper had failed in his duty. “I wrote the procedure myself,” the manager said. The manager said the company had complied with all of its approvals, which included a “perimeter fence”, locks on unattended buildings and a “suitably qualified and experienced person or persons” as “security guard/s” to “keep the site secure 24 hours, seven days a week”. The owner said millions of dollars had been spent upgrading the site where the ammonium nitrate was stored, and while staff had not done their jobs properly this time, he could assure people it would not happen again. The man who alerted the Herald to the situation said labelled bags of ammonium nitrate were clearly visible from outside the site, where people went past every day. “There’s nothing but a cyclone fence with barbed wire on the top – anyone could cut through it,” the man said. “There’s enough ammonium nitrate on that site to blow up half of Newcastle.” The owner said the cyclone fence was all that was required and that the Australian Federal Police had told him “it was impossible to stop people wanting to break in if they really want to.” He said a security camera was installed on the fence in question and other security was being “updated”. Security of ammonium nitrate dominated a public meeting in Newcastle when the Planning Assessment Commission sought public feedback on a second ammonium nitrate factory planned for Kooragang Island.

An explosion of about 240 tonnes in Texas last year killed 15 people. In Toulouse in France in September 2001 an explosion of about 300 tonnes killed 31 people and injured 2000, triggering fears of a terrorist attack. The Hunter Region facility has permits to store 13,500 tonnes.

Source: Ian Kirkwood, Newcastle Herald



Photos: Newcastle Herald

N.B. Error in the ADG Code Edition 7.3 2014

The ADG Code Edition 7.3 2014 published in June 2014 has been withdrawn. An error occurred during production within Part 3.3.3 Australian Special Provision AU02. Replacement pages [\(304 to 309\)](#) or a replacement [\(Part 3\)](#) can be downloaded.

All the separate parts or the whole document is also available to be downloaded.

<http://www.ntc.gov.au/heavy-vehicles/safety/australian-dangerous-goods-code/>

650ft Towering Inferno after Huge Gas Explosion in Germany

A gas explosion at Ludwigshafen in western Germany killed a building worker and injured 26 people.

The blast created a crater 10 metres in diameter and 6 metres deep, damaged around 50 homes and destroyed a number of parked cars.

Police and prosecutors are now investigating the blast.

The company Gascade announced that workers had attempted to dig down to a buried pipeline in a residential area near an industrial site operated by chemicals group BASF, which has its headquarters in Ludwigshafen.

Gascade officials said it remained unclear what had damaged the pipe, a section of a 57-kilometre line that leads southward to the city of Karlsruhe.

Police said the main blaze at the site was extinguished within a few hours, and smaller fires were also soon brought under control.

The area was still sealed off the following day as the fire service discovered a fresh leak from a gas pipe, a police spokesman said.

People living within a 150-metre radius of the explosion site were evacuated.

In September, another explosion at a chemicals plant in the northern town of Ritterhude damaged dozens of homes.

Source: Daily Mail U.K.



Photos by Getty



November Issue of Hazardex

Contents include:

Delays in nuclear submarine dismantling raises leak threat

Standards Safety Auditing - losing the bigger picture

Transport UK pipeline safety trends

Risk Management – the enemy within

Sensors: the advantages of pervasive sensing



Timber Exporter Crawfords Freightlines Fuming after EPA ban on Methyl Bromide

A Sandgate, N.S.W., company has had its timber exporting operation shut down by the Environment Protection Authority over its use of a fumigant.

But the company, Crawfords Freightlines Pty Ltd, has hit back at the EPA, saying the state government’s forestry department supplied the plantation-grown timber and was fully aware of the operation. Managing director Peter Crawford said the Australian Quarantine and Inspection Service signed off on every load.

The EPA swung into action over a leaflet printed by a “concerned resident” that called for “urgent action” over the use of methyl bromide, an “ozone depleting” fumigant that is being phased out of use in Australia. It is toxic to humans and is regarded as dangerous, even at low levels of exposure.

Mr. Crawford said the company had been treating State Forests timber for export to China for the past four years, with the fumigant pumped into sealed shipping containers.

He said the fumigators were “suited and masked” with a 50-metre exclusion zone around the job, which was done, if possible, at night. He conceded, though, that the leftover methyl bromide was released to the atmosphere afterwards.

Ironically, Crawfords began fumigating at Sandgate after the Newcastle Herald revealed concerns in 2010 about the way the timber was being fumigated en route to China by another company “under tarpaulins” on Dyke Point at Carrington.

The company had complied with the notice, but the way the EPA had handled the matter meant that at least 100 jobs were threatened.

He said Crawfords processed about 60 to 80 containers of timber a week and everyone from timber cutters through to truck drivers, yard hands, fumigators and train crews would have no work in the short term.

If any regulations were being breached the company had not done so knowingly, he said, but the EPA had said “ignorance is no excuse”.

EPA director Gary Davey said the amount of methyl bromide being used at Crawfords appeared to be “above the scheduled threshold”, meaning it needed an Environmental Protection Licence for the activity.

“The EPA is working with Crawfords and Forest Corp NSW in an effort to minimise impacts on the industry arising from this matter,” Mr. Davey said. Source: Ian Kirkwood, Newcastle Herald



US EPA Cracks down on Toxic Chemicals

Chemical manufacturers are coming under new scrutiny by the Environmental Protection Agency.

The EPA announced Friday it is moving forward with [significant new rules](#) for using 52 chemicals. That means chemical manufacturers will be required to notify the agency at least 90 days in advance of working with these substances.

The Toxic Substances Control Act gives the EPA the authority to require pre-manufacture notifications for certain chemicals. "The required notification will provide EPA with the opportunity to evaluate the intended use and, if necessary, to prohibit or limit that activity before it occurs," the agency wrote in the *Federal Register*. The changes go into effect in 60 days. Source: The Hill

Caltex Faces \$2M Fine for Petrol Leak

Caltex Australia faces a fine of as much as \$2 million for an uncontrolled discharge of about 170,000 litres of petrol at its Banksmeadow Terminal at Port Botany in July last year.

The NSW Environment Protection Authority has sought to pursue Caltex for a Tier 1 offence, which carries its highest penalties. "The EPA Board believed this incident was significant enough to warrant prosecution in order to seek the highest penalty possible for an environmental offence," a spokeswoman for the agency said. The EPA will allege that a break in a hose during a fuel transfer led to the creation of a "pool of petrol". "It is alleged that the discharge continued for around 80 minutes before a NSW Fire and Rescue officer waded through a pool of petrol to turn off the valve," the EPA said. "There was a real possibility of an explosion if the leaking valve was not shut off". "The rate at which the fuel was escaping from the tank, about 2000 litres per minute, meant there was only a small window of opportunity in which to act," he said. The storage tank could hold 2 million litres of fuel.

It's understood that Caltex is surprised by the size of the potential fine, particularly as the fuel was contained within storage bunds. Earlier this year, oily water from Caltex's nearby Kurnell Refinery overflowed into Botany Bay, affecting the nearby national park and local fishing sites.

The pollution was triggered by a deluge that led to an overflow from containment areas, prompting an EPA probe.

"The EPA has concluded its investigation and is currently determining the appropriate regulatory response which will be made public in due course," the spokeswoman said.

Source: Peter Hannam, Sydney Morning Herald



Shipping Container Explodes - Firefighter Killed in Explosion of Flammable Liquids



A crew of firefighters responded to a fire at an industrial building. The crew had worked for about an hour and had the fire under control when there was a large explosion inside the closed metal shipping container next to the building.

The explosion blew the container's doors off. One of the doors struck and killed a firefighter.

While there was no fuel stored in bulk inside the shipping container, the container's contents did include a collection of gas-powered tools. The fuel reservoirs of these tools held small amounts of gasoline. The container also held about a litre of another flammable liquid.

Firefighters tried to keep the container cool and were aware of its contents, but did not recognize the explosive potential of such small amounts of flammable liquids.

Source: WORKSAFE, British Columbia, Canada

[Watch Excellent Re-Enactment Video](#)

Toxic Gas Release from Fire in Netherlands

Toxic hydrogen cyanide gas was released in the fire in the Haatlandhaven in Kampen. The fire broke out a little at Regelink Schroothandel.

According to Mayor Koelewijn, businesses in the immediate vicinity of the fire were evacuated. Some schools have also been evacuated. A spokesman for the Safety Region says that no dangerous concentration has been measured.

Mayor Koelwijn asks everyone to stay out of the smoke.

The municipality of Kampen and firefighters have instructed everyone to keep windows and doors closed. It is also advised to close ventilation ducts.

Traffic in the vicinity of the fire is also requested to keep windows and doors of the vehicle closed, and to turn off the air conditioning.

The municipality of Kampen says that there were no casualties.

A crisis team was formed, led by the mayor. The King's commissioner and the National Crisis Center have also been warned. This was done because this is possibly a GRIP3 situation, which means that the whole municipality suffered from the fire. Hydrogen cyanide is released through the burning of PVC and other types of plastic. Hydrogen cyanide can be life threatening if inhaled in large quantities, for example for more than an hour.

Source: <http://www.nltimes.nl/2014/10/22/huge-fire-causes-toxic-cyanide-gas-release-area-evacuated/>



CSB Releases New Safety Video, “Behind the Curve,” Detailing Report Findings and Recommendations on Fatal 2010 Tesoro Anacortes Refinery Accident

The U.S. Chemical Safety Board (CSB) has released a safety video into the fatal April 2, 2010, explosion and fire at the Tesoro refinery in Anacortes, Washington. The accident occurred during startup of the refinery’s “naphtha hydrotreater unit” after a maintenance shut down. A nearly 40-year-old heat exchanger violently ruptured, causing an explosion and fire that fatally injured seven workers – the largest loss of life at a U.S. refinery since 2005.

The CSB’s newly released 14-minute safety video entitled “Behind the Curve” includes a 3D animation of the events that led up to this tragic accident as well as interviews with the CSB’s investigators and chairperson.

The CSB’s investigation found an immediate cause of the tragedy to be long-term, undetected High Temperature Hydrogen Attack (HTHA) of the steel equipment, which led to the vessel rupture on the day of the accident. The CSB found the industry’s standard for determining vulnerability of equipment to HTHA, to be inadequate. In the video Investigator Lauren Grim discusses HTHA, stating: “High temperature hydrogen attack, or HTHA, – is a common hazard that has long been known within the petrochemical industry.

However, Tesoro engineers and corrosion experts did not believe it could occur within the heat exchanger that ultimately failed.”

The CSB made recommendations in these areas to both the industry group, which issues guidance on HTHA, the American Petroleum Institute, as well as to Tesoro.

The CSB’s final report also recommended that the governor and legislature of the State of Washington significantly strengthen the oversight of refineries. Specifically, the Board called on the state to require refineries to:

- conduct more comprehensive hazard analyses and damage mechanism reviews;
- document the effectiveness of process safeguards;
- increase the role for worker representatives in process safety management
- have company safety reviews examined by technically competent regulators

[Final Report and Video](#)





Chemical Spill on Monash Freeway

Traffic banked up for kilometres after a section of the Monash Freeway was closed as emergency crews cleaned up a chemical leak.

The CFA said chemical containers ruptured when a truck carrying them crashed on the freeway under the Heatherton Road overpass at Endeavour Hills.

A drum of flammable aviation fuel was left leaking onto the freeway. Authorities said there was no threat to the community but people in the area were asked to turn off air-conditioning.

Source: ABC

Fire at Cootamundra Fertilizer Factory

Fire and Rescue NSW and Hazmat crews were on the scene at a factory in Cootamundra.

A dozen people in Cootamundra had to be evacuated from their homes following a chemical fire in a factory. The fire took hold on a small pallet carrying the chemical Zinc Chloride inside the factory, with the small blaze causing a chemical reaction which emitted a gas.

As a result, a 200-metre exclusion zone was set up around the factory, on the corner of Berthong and Wills streets, with six homes in the area evacuated.

Roadblocks were set up around the building on Berthong Street, Wills Street, Hume Street and Pinkerton Road as police cordoned off the area surrounding the fire.

Firefighters from Fire and Rescue NSW, along with Hazmat teams tackled the blaze and worked to isolate the burning zinc chloride.

"The crew's been inside in fully encapsulated suits and using a forklift, we've moved the pallets that were not touched,"

Cootamundra fire captain Les Carr said at about 7pm on Tuesday.

"We've left one pallet, the trouble pallet in situ, and we will be placing it in a 200-litre Hazmat bin."

The fire, which took hold at about 4.45pm, burned well into the evening as emergency services co-ordinated to defuse the situation.

Source: The Daily Advertiser

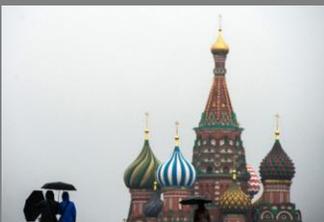
Complaints about Sulphur, Hydrogen Sulfide and Oil products in the air in Moscow

City prosecutors said checks were continuing into a Moscow oil refinery after air samples taken around it found levels of several chemicals up to 30 times over safe limits.

Source: AFP



Picture: Cootamundra
Herald via Twitter





[WATCH THIS VIDEO!](#)

Russia's Environmental Watchdog Blames Moscow Refinery for Air Pollution

Russia's environmental watchdog, Rosprirodnadzor, has noticed an increase in air pollutants to above permitted levels in Moscow coming from the area of the local region's oil refinery, the ministry for natural resources said.

It alleged that the air near the plant was contaminated with cumene, or isopropyl benzene, a colorless liquid used mainly to produce phenol and acetone. However, Gazprom Neft, the oil producer which controls the refinery on the south of Moscow, denied the allegations. "Isopropyl benzene is not used in the Moscow refinery production ... The Moscow refinery cannot be the source of the air pollution by these substances," the company said in a statement. An unpleasant smell was noticed in some parts of the city and an official with Moscow's Emergency Ministry was also quoted by the Interfax news agency as saying that a malfunction at a Moscow refinery was to blame. Source: Reuters, Reporting by Katya Golubkova and Vladimir Soldatkin

U.S. CSB Releases Final Report on Chevron Richmond Refinery Fire

The US Chemical Safety Board (CSB) has issued the final regulatory report on its investigation of the August 2012 pipe rupture and ensuing fire at Chevron Corp.'s 257,000-b/d Richmond, Calif., refinery, in which the agency reinforced its call for a more-rigorous approach to safety management at US refineries.

The second of three parts in CSB's investigation of the Aug. 6, 2012, process fire and vapour release at the Richmond refinery's crude unit), this latest report reiterates CSB's previous recommendation for California and US refiners to implement a safety case regulatory regime similar to that already adopted by refiners in Norway, the UK, and Australia. The shift to a safety-case regime would represent a fundamental change to current US practices by shifting the responsibility for continuous reductions in major accident risks from regulators to the company by requiring companies to demonstrate to refinery industry regulators—through a written "safety case report"—how major hazards are to be controlled and risks reduced to as low as reasonably practicable. Specifically, the report describes attributes of the safety case regulatory scheme that would help to transform the US's currently "reactive" PSM system into a more proactive one.

Source: Oil and Gas Journal

HazMat 2015 Call For Papers Released: Submit Your Abstract for Consideration!

The Call for Papers for the upcoming HazMat 2015 Conference and Exhibition, to be held on June 16 and 17 in Sydney, has been released and is attached.

HazMat is the leading conference for the chemical management, dangerous goods and hazardous materials industries. It brings together topical speakers and presentations covering the many niches of these industry sectors.

The theme of Hazmat 2015 - Information, Understanding, Safety, focuses on creating a safer world though ensuring required information is accurate, appropriate and available for anyone who interacts with dangerous goods and hazardous chemicals. This can include emergency service personnel, manufacturers, formulators, applicators and end-users. Information sources for dangerous goods and hazardous chemicals include chemical registers, emergency procedure guides, labels and safety data sheets (SDS). Improving the quality of information and encouraging best practices should reduce the potential risks that may occur with dangerous goods and hazardous chemicals.

The Organising Committee is now accepting abstract submissions for HazMat 2015. Papers may address any topical and current themes within the chemical management, dangerous goods, hazardous materials or affiliated industries that address the conference theme.

For a list of submission topics and all requirements for presentation abstracts download

[HAZMAT 2015 call for papers](#)

For further information regarding HazMat 2015 please contact

events@fpaa.com.au

Asphalt Tank Explodes in U.S.A.

Midwest Fuels in Wisconsin, said eight people were working at the time of the explosion. Three of the seven tanks on the ground were empty. The one tank that exploded was about 40 feet high and 24-foot in diameter. It was a 132,000 gallon tank, but only had 7,000 gallons of asphalt that is stored at 200-degrees to keep it liquid, Midwest Fuels told News 8. The roof blew off of the tank and landed on the northside of Midwest Fuels.

[READ FULL STORY AND WATCH VIDEO](#)

