



AIDGC

Australasian Institute of Dangerous Goods Consultants

WHAT'S HAPPENING?

March 2014



**Welcome to
our new
Members**

**Paul Brown
Queensland**

**Vinay Malge
Victoria**

**Tian Song
Queensland**

Eleven Killed in Qatar Restaurant Explosion

11 people were killed and 35 injured in a huge gas tank explosion in a Turkish restaurant next to a petrol station complex behind the Landmark Mall in Doha.

The Istanbul restaurant building collapsed under the impact of the explosion, which led to the high casualties, the Ministry of Interior said. The cause of the blast was not immediately known.

Preliminary investigations suggested a gas tank on the roof of a Turkish food restaurant and gas cylinders on neighbouring roofs had exploded, the Qatar News Agency reported.

A Woqod official claimed that there was no safety lapse on the part of the company and the tank involved had been properly inspected.

“The Woqod conducts periodical inspection of all gas tanks in all restaurants and expert engineers ensure inspection procedures have been carried out by approved companies. We never allow anybody to fix any product that is not approved by Woqod. All equipment of this restaurant and the tank were inspected on January 15. For additional safety, Woqod had fixed a gas detector on the top of the restaurant, beside the tank,” a company spokesman said.

The Interior ministry has asked the Woqod to carry out a technical probe into the blast. He said the committee formed to investigate the explosion will also assess the losses caused by the blast.

Source: Peninsula News

White Paper Featuring Chemical Reactions

Chemical reaction engineering is a discipline that focuses on optimizing chemical reactions and the design of chemical reactors. This paper shows step-by-step modeling strategies and real-world examples to demonstrate how simulation can be used as an integral component in ensuring optimized reaction design.

[Start reading now.](#)

AIDGC 2014 Conference

**September 19
“Hazardous
Areas”**

HazMat 2014 Melbourne, May 2014

**“Achieving a
Productive &
Resilient
Industry”**

Railroad Safety Measures Agreement U.S.A.

Railroads that haul volatile crude shipments have reached an agreement with U.S. transportation officials to adopt wide-ranging, voluntary safety measures after a string of explosive and deadly accidents.

The deal calls for oil trains to be slowed from a maximum of 50 to 40 miles per hour through major cities, more frequent track inspections and better emergency response planning along routes that carry trains hauling up to 3 million gallons of crude each.

The new safety steps would begin going into effect in late March and be fully in place by July 1.

The agreement does not resolve concerns over another hazardous fuel, ethanol, involved in a spate of rail accidents in recent years. It also does not address an estimated 78,000 flawed tank cars that carry crude and ethanol and are known to split open during derailments.

The U.S. Department of Transportation said it would address the tank car issue separately. Source: The Washington Post

U.S. Federal Agency Detail Tests for Crude Oil Moved by Rail after Accidents

Federal regulators offered more details on testing requirements for oil transported by rail on Thursday and warned companies against skirting the rules after a spate of explosions caused by crude train derailments in the U.S. and Canada.

The new order from the U.S. Department of Transportation builds on a Feb. 25 declaration that the industry's unsafe handling practices have made crude shipments an imminent hazard to public safety and the environment.

Testing already was broadly required to gauge the volatility of oil, one of hundreds of hazardous materials subject to federal oversight. But there were no standards on how frequently that testing had to be done or on what parameters companies must follow.

Transportation Secretary Anthony Foxx said in Thursday's order that within the "reasonable, recent past" companies must have tested the flash point and boiling point of crude. Such tests help determine how likely the fuel is to ignite and dictates what type of rail car can be used for shipments.

Officials also warned companies not to re-label crude as a more generic category of flammable liquid in an attempt to get around the testing. Read full article:

<http://uk.finance.yahoo.com/news/feds-detail-tests-crude-moved-191624479.html>



Storage tanks at Fukushima Dai-ichi - Photo: IAEA

Operating Rooms at the Fukushima Nuclear Plant are unveiled for the first time since the meltdown in 2011

<http://www.youtube.com/watch?v=clnOvkqLAjU>

Initial tests from New Mexico show 13 workers at a nuclear waste facility were exposed to radiation at a leak. The 13 work at a facility that houses waste from nuclear bomb building

<http://www.youtube.com/watch?v=Y961nJXFwe4>

New Radioactive leak from Fukushima

Japanese utility TEPCO said that some 100 tonnes of radioactive water may have escaped a concrete tank holding contaminated water at the stricken Fukushima Dai-ichi nuclear plant. The latest leak is the most serious since August, when the plant lost 300 tonnes of water, prompting Japan's nuclear agency to raise the incident's alert level. Source: TEPCO

Guide for Hazardous Areas from E2S

E2S (European Safety Systems Limited) Warning Signals has published a new 'Guide for Hazardous areas' which is available as a free download from their website. The guide has been put together with specifiers and hazardous area engineers in mind with matrix tables that enable fast cross-referencing of information between the main certification systems: ATEX, IECEx, North American and Canadian standards.



Protection concepts are listed along with applicable zone, class or division and typical equipment protection level in an easy to read format.

In addition, the guide contains ample reference information related to gas and dust atmospheres and potentially explosive environments, such as:

- Gas and dust groups and typical substances according to the main certification systems
- Maximum surface temperature of equipment, temperature classifications and ignition temperature limits of gas / dust
- Apparatus groups and typical ignition temperatures for common gases, vapours and dust
- Type of protection and basic concepts of protection listed by zone according to ATEX & IECEx and class and division according to US and Canadian standards
- IP ratings and NEMA enclosure types
- Typical equipment markings of hazardous area signalling products from the E2S portfolio.

To download the guide for hazardous areas visit <http://www.e2s.com/system/hazardous-area-guide>



South Africa Mining Explosives Road Accident

The SA National Roads Agency Limited (Sanral) said the N1 highway near Mokopane in Limpopo has been reopened following an accident in which five people were killed. A section of the highway was closed off the previous day following an accident where a truck carrying groceries crashed into the rear of another truck carrying explosives.

Four police officers attending the accident and a truck driver were killed. Police said the truck carrying blasting cartridges caught fire and exploded.

The driver of the truck containing the explosives was not harmed. Three other police officers were seriously injured in the blast and three motorists were also injured.

Source: HazardEx

Russian Chemical Plant Explosion

The Stavrolen polyolefins plant at Budennovsk in Russia's Stavropol region experienced an explosion and fire that injured 15 employees. Russian oil and chemicals group Lukoil said 15 personnel had suffered burns and other injuries and four of them were hospitalised, after a fire broke out in the gas separation section of the ethylene plant at the plant in southern Russia.

Owner-operator Lukoil-Neftekhim, a petrochemical subsidiary of Lukoil, said it has suspended production as a result of the incident. Its cause, nature and scope as well as the expected date of resumption of output would be decided by a special commission set up with state supervisory authorities.

According to European Plastics News, this is the third incident of this type at the plant in the past six years. The Stavrolen plant only fully came back on stream in September 2012, almost a year after nine employees were injured in a previous €20m blaze there in December 2011.

The cause of that incident was a gas leak in the ethylene plant. It occurred a little over two months after an industrial safety inspection by the Russian state environmental, technical and nuclear regulatory agency Rostekhnadzor.

Lukoil's Stavrolen complex remains one of Russia's biggest petrochemical sites with 300,000 tpa high density polyethylene and 120,000 tpa PP capacities.

Lukoil Press Service said the fire was contained within an hour and that there was no further threat to the plant or to the residents of Budennovsk or other neighbouring settlements as the incident resulted from hydrocarbons catching fire, which decomposed into water and carbon dioxide during combustion. Source: LUKOIL



**Lukoil-Neftekhim's
Stavrolen plant - Photo:
Lukoil**



Photo: Muswellbrook Chronicle



Photo: Newcastle Herald



The photo shows a vehicle carrying two green barrels featuring radio-active warning stickers being driven down the Arnhem Highway.

Botched Blast at BHP Mt Arthur Coal Mine

EPA investigators are currently looking into effects of a botched blast at Mount Arthur Mine, which caused toxic fumes to spread several kilometres from the site.

When the blast was triggered it turned skies near Muswellbrook bright orange as a result of poisonous nitrogen dioxide fumes being released into the atmosphere. EPA Director – North Branch Gary Davey said the fumes impacted on the nearby Muswellbrook Industrial Estate. According to local mine workers the ammonium nitrate and fuel oil explosives were left in the ground for 21 days, a week longer than recommended due to risk of water contamination. BHP Billiton NSW energy coal asset president Peter Sharpe confirmed that the incident on Wednesday was caused by delays with activating the explosives.

The incident has raised concerns over the culture of risk assessment on the Mt Arthur site, as BHP Billiton was already fined \$1500 last year for breaching Mt Arthur Mine’s environment protection licence by allowing explosives to rest in the ground too long, causing excessive blast fumes. Source: Muswellbrook Chronicle

ERA “uranium transport in line with guidelines”

Uranium miner Energy Resources of Australia says transporting barrels of geological samplings on the back of a ute poses no risk to the community after a photo emerged of this occurring in the Northern Territory.

NT Work Safe has confirmed the packaging and transport arrangements were in accordance with Northern Territory legislation and national requirements. “The drums did not contain processed uranium ore and the transport of the samples in this manner is allowed,” Work Health Authority Doug Phillips said. ERA has been seen a number of safety incidents occur at its site in recent months. In December a leach tank at the site’s processing plant ruptured and collapsed, causing an acidic radioactive slurry spill. The incident forced the shutdown of operations and a massive clean-up at the site, with the Federal Government announcing the mine will not be able to restart production operations without regulatory approval and the go ahead from a joint operation taskforce.

In early November a mine left the site’s controlled areas sparking fears of contamination, while later that month four uranium storage barrels were discovered in bushland near Darwin.

ERA says it acknowledges that there is strong community interest in its activities. Source: Australian Mining



An Indonesian flag is seen at a Navy ammunition warehouse, after an explosion took place in Pondok Dayung Island, Jakarta

Indonesia Navy Ammunition Store Explosion Kills one, Injures eighty six

A naval officer was killed and dozens injured when an explosion ripped through a navy ammunitions warehouse in the Indonesian capital. Military spokesman Iskandar Sitompul told reporters: "There were 87 victims. One of them died...and one remains in the intensive care unit."

Nearly 150 naval officers were stationed nearby when the warehouse blew up around mid-day. He said an electrical short circuit was suspected to have triggered the explosion.

"We want to emphasize there was no sabotage and that it was an accident," Sitompul added.

Source and Photo: Reuters: Jakarta Bureau, Kanupriya Kapoor

Fire at Formosa Oil Refinery in Mailiao

Two employees at Formosa Petrochemical Corp's naphtha cracker complex in Yunlin County's Mailiao Township yesterday suffered minor burns after a hydrogen leak at the second oil refinery caused a fire.

According to the company's Mailiao administration department, the fire broke out at after hydrogen and steam started leaking from the flanges of a flow meter in the plant's No. 2 residue desulfurizer (RDS) unit.

The company is still trying to determine what caused the leakage.

Source: Stacy Hsu, CNA

Sulphuric Acid Spill at Chemical Plant

An accident at the Almalyksy, Uzbek, chemical plant led to the spill of about 1,200 kg of sulfuric acid. According to employees the accident happened either on February 27 or 28.

The plant's management has concealed the accident from the public and its site is heavily guarded.

According to a plant employee, the accident is a result of an overturned tanker carrying 600 liters of acid (1,200 kg). It was not possible to isolate the spill as most of it seeped into the soil, thus polluting ground waters as well. Source: Uznews.net

Fire at Mt Maunganui Chemical Plant

Several people have been decontaminated after a large fire at a chemical plant in Mount Maunganui. A police spokesperson said huge amounts of smoke were coming from the fire. The plant had been evacuated and surrounding businesses were being evacuated due to fears the fumes could be toxic. Source: Otago Daily Times

Pentane:

- A hydrocarbon of the methane series.
- A colourless liquid, pentane evaporates easily at room temperature and boils at 36 degrees celsius.
- Pentane is highly flammable and mixtures of the vapour with air can be explosive.
- It is also used as an ingredient in petrol, as a solvent and to fill plastic foams.

N.Z. Power Plant Gas Leak Scare

The Ngawha geothermal power station near Kaikohe has been declared safe after a buildup of pressure in a safety valve and the possible release of pentane gas. "There was 30,000 litres of pentane in the system," Peter Heath, spokesman for plant operator Top Energy, said. "The safety valve operated and we think it released some of it. "We don't know at this point how much, if any at all. That's part of the investigation we're undertaking."

The investigation would look for the reason the safety valve operated, Heath said. "The pressure valve would have opened to the atmosphere, [but] whether it actually released anything into the atmosphere we're not sure."

Pentane was lighter fluid and had a very low flash point. "It catches fire very easily. It doesn't take much heat or much friction to create a spark," Heath said. "If pentane had been released there could have been a potential risk of explosion."

Emergency services were called to the geothermal station following a report of an explosion.

Source: Michael Daly, Fairfax NZ News

New WA Mining Laws Flagged for 2014

New resource sector safety laws are expected to be introduced in Western Australia in early 2015. The legislation – to be known as the Work Health and Safety (Resources) Act – will cover mining, petroleum and major hazard facilities, says the WA Government's resources website.

This single piece of legislation will be based on the model work health and safety laws developed through Safe Work Australia and the National Mine Safety Framework.

Meanwhile, the model Work Health and Safety laws are included in the WorkSafe WA Business Plan 2013-2014. "WorkSafe (subject to government prioritisation) will implement the Harmonisation Framework across Australian workplaces and will ensure timely implementation of 2013-2014 budget priorities and initiatives," the plan says.

For more details, visit the [WA resources website](#) and the [WA Business Plan](#).

Worker Burnt in Dry Cleaning Chemical Spill

An employee of a Flagstaff Arizona, dry cleaning business, is recovering after receiving burns from a chemical spill.

Investigators said the chemical that spilled is a commonly used dry cleaning chemical and when used, it heats to "very high temperatures." Copyright 2014 CBS 5



US Wood Pellet Plant Cited after Explosion

After an explosion last August and subsequent investigation, a Rhode Island wood pellet plant, Inferno Wood Pellet, is being cited by the Occupational Safety and Health Administration (OSHA) with 11 serious violations of workplace safety standards and has proposed \$43,400 in fines.

A worker was injured and the Inferno Wood Pellet building in East Providence was completely demolished after wood dust ignited and caused an explosion and fire.

An investigation found that employees at the plant were exposed to wood dust explosions, deflagrations, or rapid combustion, and other fire hazards, and that there were not adequate protective measures in place.

Source: OSHA

This Article from Atex Explosion Hazards

The State of Dust Explosion Prevention in the Biomass Industry

With more and more plants moving towards biofuel, dust explosion prevention and protection in the biomass industry is more important than ever before. It's vital that manufacturers switching to biofuel are fully able to face the challenges that are unique to the biomass industry.

In this multi-part series we will be examining the state of dust explosion prevention in the biomass industry and what plant owners can do to meet their legal obligations, prevent damage to their premises and most importantly, protect the lives of their workers and anyone in the nearby area.

With the Kyoto Protocol and the EU's continuing objective to reduce its member states' carbon footprints, more and more countries are making the push towards biofuel. However, in the production of biomass wood pellets, wood chip and similar renewable resources, the materials are continually broken down in the process, which can result in high levels of combustible dust. Proper dust explosion prevention measures demand that dust levels must be monitored carefully and frequently.

As all engineers and plant owners will know, oxygen, fuel and finally a source of ignition is required for a fire to break out. However, for an actual dust explosion to occur, the combustible dust must be subject to over-pressurisation due to how it is stored and confined - and secondly, the dust concentration must be dispersed and mix with the air at the right level.



Wood chips in a storage hopper. Image via Wikimedia Commons. This file is licensed under the [Creative Commons Attribution-Share Alike 3.0 Unported](#) license.

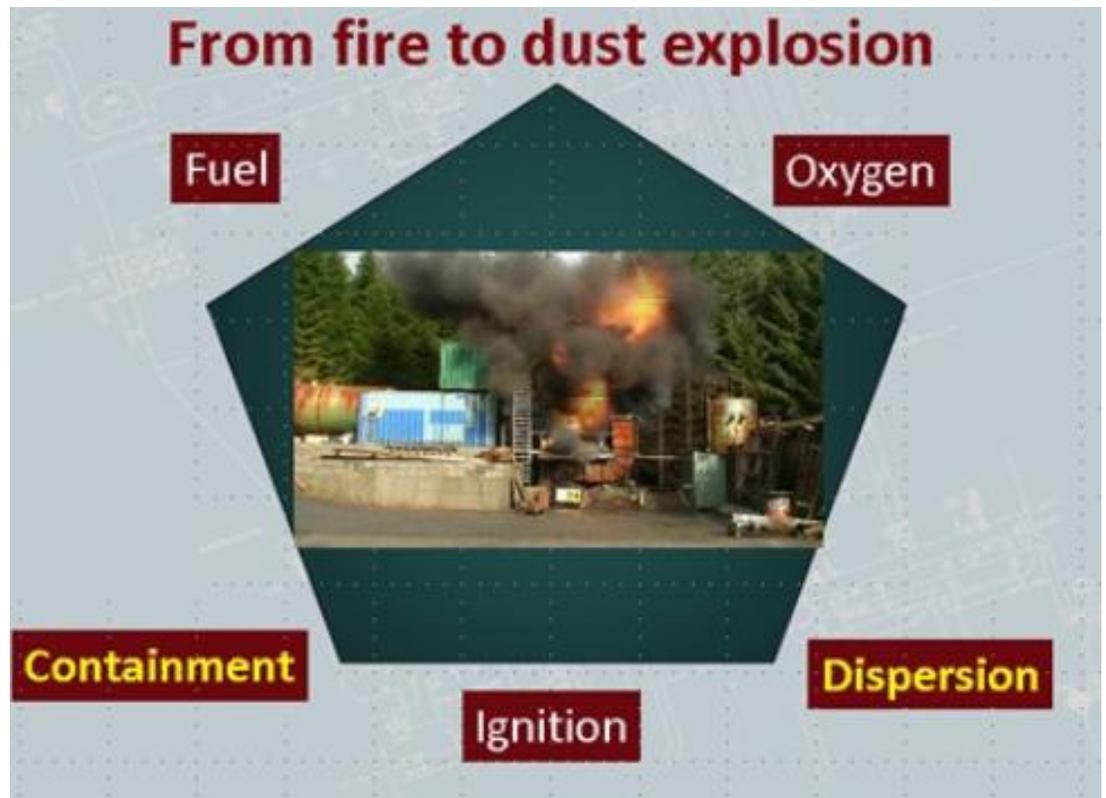
The dry, flammable dust in mills found in the biomass is exposed to constant friction and abrasion - chippers, grinders, even conveyor belts can be the source of ignition.

More importantly, the source does not require high levels of ignition energy for the ultimate ignition. This is one of the major factors in biomass dust explosion prevention - the dust can be highly prone to self-ignition.

For more information on how a dust explosion can occur in the Biomass industry, [download our whitepaper here.](#)

If you have any parts that might be useful or of interest to Members they would be much appreciated! Please forward to: robhogan@tpg.com.au

My thanks this month goes to Don Johnston.



Accordingly, storage and waste management is vital to running mills in the biomass industry. Without correct maintenance and supervision, hazardous dust quickly gathers and the risk of a dust explosion can be huge. This has become a major consideration as countries seek to meet their EU obligations.

The countries that are the most involved in the use of industrial wood pellets within the EU are Belgium, the Netherlands, Sweden, & Denmark. Sweden and Denmark are moving towards 100% biomass-fueled plants obligations and have strict regulations for dust explosion prevention in their plants.

The UK has seen a recent shift, keeping subsidies for co-firing equal to that of full biomass firing.

In the UK:

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Our Corporate Members provide a range of products and services to the Dangerous Goods Industry. Their contact details are:

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- **RWE Tilbury Power Plant 2.5 million tonnes of wood pellets due to close 2015**
- **Drax Group uses about 1 million tonnes of wood Pellets in co-firing in Drax and has plans to increase this up to 900MW or 3 million tonnes**
- **EON converted a 500 MW unit at its Coal fired power plant in Ironbridge, due to close 2015**
- **Eggerborough IP and Lynemouth Alcan power are the next likely developments for biomass conversion.**

Most of the utilities active in the aforementioned countries are Electrabel, RWE, Drax, EON, Vattenfall and DONG Energy. There are further plans for large scale full biomass power plants driven by their respective CO2 intensity of assets and increasing indirect costs for the coal that can be substituted by Biomass.

Up to 2013, 22 fires and explosions have been recorded in biomass plants, encompassing 45 wood pellet plants and 20 wood products mills, with fires of varying degrees of destruction. Fires at biomass facilities typically start from spontaneous combustion of woodchip or sawdust piles or wood dust explosions according to the Institute of fire Engineers.

Explosion Hazards has been reporting on dust explosions for many years now. A large percentage of these tragic accidents could have been prevented with correct dust explosion prevention measures in place. Source: Atex

Safety in Laboratories - Fume Cupboards Revision of AS/NZS 2243.8:2014

AS/NZS 2243.8:2014 supersedes the 2006 edition and provides requirements for fume cupboards relating to their safety and performance, along with recommendations and procedures for their selection, installation, testing and use.

This new edition differs from the 2006 edition as it includes:

- **Requirements for risk assessment for the operation of the fume cupboard and the lab in general. This is in line with other parts of AS/NZS 2243 which have been revised in the last few years.**
- **Requirements and guidance regarding "manifolded" (multi-head) duct systems which are now a common solution in fume cupboard design.**

Preview and Order:

nfostore.saiglobal.com/store/Details.aspx?ProductID=1699511&utm_campaign=GC_2243.8_Feb14_TD&utm_source=GC&utm_content=&utm_medium=email&et_jobid=16974014&sf_id=0032000000Im2LWAAZ

Libya's Category 1 Chemical Weapons

Libya has destroyed its chemical weapons, including bombs and artillery shells filled with mustard gas, according to the country's Foreign Affairs Minister Mohamed Abdelaziz.

"We are very happy that the operation to destroy chemical weapons in Libya was carried out in a professional way and finished without any harm to the environment or the area where the weapons were stored," he confirmed.

Ten years ago, under Colonel Gaddafi's rule, Libya signed the Chemical Weapons Convention, committing itself to ridding the country of chemical arms. Director General of the Organisation for the Prohibition of Chemical Weapons (OPCW), Ahmet Uzumcu visited the site in Ruwagha where the weapons were destroyed.

He drew comparisons with Syria's programme for destroying chemical weapons, calling the Libyan operation a "good example of international co-operation now emulated in Syria on a larger scale."

"There are some residuals which remain and Category 2 weapons which remain and we are confident that they will be destroyed also in due course," Uzumcu added. "I believe this is a significant milestone on the road to Libya becoming entirely free of chemical weapons."

According to the OPCW, Libya's Category 2 chemical precursors must be destroyed by December 2016.

The operation is an international effort, with technical support being offered by Canada, Germany and the US. Copyright © 2014 euronews

Liquid Metal Embrittlement by Mercury in the Refining and Allied Process Industries

This safety notice describes the potential integrity hazards relating to the presence of mercury in crude oil, the refining process and some downstream industries. The element is increasingly present in crude oil feedstock, and contaminates parts of the process in varying degrees. Some metallurgies are known to be vulnerable to cracking when exposed to mercury, so precautions need to be taken to ensure that the processing plant is not at risk.

HSE Safety Notice: <http://www.hse.gov.uk/safetybulletins/lme-by-mercury.htm>

Hazelwood Mine Water Tests - Toxic Bacteria in Water Used to Fight Fire

Read the Article: <http://www.abc.net.au/news/2014-03-07/tests-reveal-toxic-bacteria-in-water-used-to-fight-hazelwood-fi/5305830>

An unidentified firefighter had to have surgery and stitches to a wound exposed to the water





Watch
Video!



Photo: abc.net.au

N.T. - Important Changes to OHS Licences and OHS Certifications

OHS Licences and OHS Certifications are being phased out in the Northern Territory and across Australia. If you hold a licence or certificate, you will need to upgrade to a nationally-recognised High Risk Work Licence.

[Read the Advisement](#)

Risks Life to Shut off Valves on Fuel Tanker

A brave Russian petrol station worker has risked his life to shut off the valves of a damaged fuel tanker only moments before it was engulfed by flames. The terrifying events were sparked by a passing black car that bungles a turn and clips the fuel tank, releasing highly flammable gas and leaking petrol all over the ground. The motorist speeds away from the scene as Mr Fitsulaev sprints out to the tank, which is immediately shrouded in fumes. He is seen desperately trying to turn off the fuel taps and runs away from the tank mere moments before the leaked fuel explodes.

EPA Investigating Bird Deaths in Dubbo

The NSW Environment Protection Authority (EPA) is currently investigating the death of a large number of birds in the Dubbo area. The birds affected included Sulphur-crested Cockatoos, Galahs and Corellas.

Initial laboratory tests conducted by the EPA on a number of the dead birds indicate that they may have died as a result of pesticide exposure. The EPA is investigating the source of the pesticides.

Source: EPA Media Release

NICNAS Chemical Gazette – March 2014

Download from:

<http://www.nicnas.gov.au/communications/publications/chemical-gazette/chemical-gazette-march-2014>

Toxic Costs of Bangladesh Tanners

Bangladesh's tanneries produce leather for fashion brands around the world but the environmental cost of global demand for cheap shoes is on full display in Dhaka where the industry's toxic waste is killing the city's main river.

Watch this Video provided by AFP:

http://www.sciencedaily.com/news/earth_climate/hazardous_waste/

OSHA: 24 Violations and \$91,800 in Fines for Minster Ohio Printing Company

Globus Printing & Packaging Co. Inc. has been cited by OSHA for 24 safety and health violations, carrying proposed penalties of \$91,800. OSHA initiated an inspection of the Minster-based manufacturing plant in August 2013 after receiving a complaint.

“Workers were exposed daily to many dangerous hazards at the Globus Printing & Packaging Co.,” said Kim Nelson, OSHA’s area director in Toledo. “The company lacks adequate employee training on those hazards.”

Thirteen serious safety violations were cited for issues such as:

- Failing to provide electrical personal protective equipment for employees doing electrical work.
- Failing to remove damaged forklifts from service.
- Failing to maintain exit lighting and an employee alarm system.

Six health violations were cited, including:

- Failing to maintain an environment free of combustible dust.
- Not ensuring employees used eye and face protection.
- Failing to conduct and certify a personal protective equipment assessment.
- Lack of an eyewash station in the battery servicing area.
- Failing to ground drums when dispensing flammable liquids.
- Lack of training in hazard communication and safe chemical handling.

Additionally, the company was cited for five other-than-serious violations for failing to mount and mark portable fire extinguishers; conduct forklift training at least every three years; improper use of power strips; evaluate workplaces for confined spaces; and inform employees of permit-required confined spaces.

Globus Printing & Packaging Co. employs 140 workers.

Source: OSHA

New Yorker Dies - Carbon Monoxide Fumes

A mall worker is dead after he was overcome by carbon monoxide fumes inside a Long Island strip mall. The man who died was a manager of a seafood restaurant.

Twenty-seven other people, including three first responders, were also treated for carbon monoxide poisoning. It appears the leak started in the mall's heating system. Carbon monoxide gas is odorless and colorless and leads to death by suffocation.

Source: kiiiTV



Chlorine Leak Forces Hotel Evacuation

A luxury hotel at The Rocks in Sydney was evacuated and six people were taken to hospital when chemical fumes spread through the air conditioning system.

Firefighters were called to the Park Hyatt Sydney, on Hickson Rd, after someone incorrectly mixed two chemicals in the pool area causing a pungent smell of chlorine to spread through the building. About 100 guests and staff were evacuated from the building and six people were taken to hospital after being overcome by the fumes.

Source: The Telegraph

Chemical Explosion at Toronto Factory

One person suffered burns to their lower legs after a chemical explosion at a factory. According to a Toronto Fire official, eight people were inside the factory when a 30-litre container of cyclotetadiene exploded, covering one person in a black substance as a result.

Fire officials decontaminated that person on scene, before transporting them to hospital with burns to their legs.

The extent of the damage from the explosion is not known, but police say the blast was contained to one room.

Source: CTVNews Toronto

Hazardous Materials: Cryogenic Materials

Coffee Break Training: Learning Objective: The student will be able to summarize the physical characteristics of cryogenic fluids. To read this USFA article goto:

http://www.usfa.fema.gov/downloads/pdf/coffee-break/cb_fp_2014_9.pdf

5 Workers Suffocate in Indian Factory

Five men from Bihar, India, aged between 22 and 30 years, died due to asphyxiation when they entered a waste oil storage tank in a private factory at Tubinakere Industrial Area on the outskirts of Mandya city on Thursday. The victims entered the tank one by one and fell unconscious after inhaling toxic gas, Mr. Manjunath, Fire Station Officer, Mandya, told *The Hindu*. Fire and Emergency Services personnel used gas cutters to cut open the tank and extricate the bodies. The refinery unit is used to refine waste engine oil from different parts of the state. The refinery plant has four oil tanks, refining nearly one lakh litres of waste oil every month. Source: M.T. Shiva Kumar, The Hindu



People begin filing back into the hotel after the all-clear. Picture: Jessica Dietrich/Channel 7/Twitter



Emergency crews are shown at the scene of the chemical explosion



Photo:
<http://news.chennaiatrika.com>

Coal Seam Gas Project Leaks into Aquifer

A coal seam gas project operated by energy company Santos in north-western NSW has contaminated a nearby aquifer an EPA investigation has found.

The EPA says it launched an investigation after routine testing in March last year by Santos of groundwater around the project - which remains in the test well stage - detected "elevated levels of total dissolved solids and slightly elevated levels of other elements". The investigation concluded there was no evidence contractors engaged by the previous owner of the project, Eastern Star Gas, followed strict rules when building a pond to hold waste water and brine produced when gas is extracted. The investigation concluded the pond liner was of "poor quality, which resulted in the integrity of the liner being questionable". EPA chief environmental regulator Mark Gifford confirmed the contamination was caused by water leaking from the pond and that lead, aluminium, arsenic, barium, boron, nickel and uranium had been detected in an aquifer at levels "elevated when compared to livestock, irrigation and health guidelines". Mr Gifford said the metals are "not additives" and occur naturally in the surrounding soil and water. "However, the leaking pond has mobilised the elements and moved them into the aquifer, increasing their concentrations," he said. "Importantly this water is not used for livestock, irrigation or human consumption." The \$1500 fine "reflects the level of environmental impact, which was small", he said. Mr Gifford also confirmed uranium levels were detected in an aquifer at 335 micrograms per litre - about 20 times the safe drinking water guideline of 17 micrograms per litre.

Source: Sydney Morning Herald, Sean Nicholls



Photo: abc.net.au

Earth slip damages tanks
Photo: Iain McGregor



Spilled Fuel Escapes into N.Z. Harbour

Firefighters are still pumping leaked jet fuel off the ground in Lyttelton, New Zealand, but about 1500 litres has already leaked into the harbour.

The Mobil jet fuel tank, containing 1.2 million litres of fuel, was severely damaged from a landslide next to the Lyttelton terminal following heavy rainfall. The leak was contained yesterday and a Fire Service spokesman said firefighters were working with Mobil to continue pumping spilled fuel into other tanks at the terminal. About 40,000 litres of jet fuel was removed from the stormwater system near the tank, but a small amount of fuel was still getting in. A boom had been placed in Lyttelton Harbour around the stormwater outlet to capture any more jet fuel that spilled into the sea which would then be removed with special equipment. Source: Fairfax News N.Z.

TonenGeneral Kawasaki Cracker on Fire

Japanese oil refiner TonenGeneral Sekiyu KK said several workers were injured when a fire broke out in the residue hydrocracking unit of its Kawasaki plant near Tokyo, but that other refining units were operating normally.

The fire originated from the reactor of the 31,000 barrel per day hydrocracking unit during cleaning work. The unit, which processes low-priced heavy oil into lighter products such as gasoline, has been shut since early February for maintenance.

TonenGeneral said the fire had almost been brought under control by pumping nitrogen into the unit. Six workers were treated in hospital and one of them was been admitted.

Local officials said the fire had not spread to the surrounding facilities.

It was not yet clear what had caused the fire, how much damage had been done to the hydrocracking unit, or when it would resume operations, a company spokesman said.

Source: Reuters, Osamu Tsukimori



Photo: www.brecorder.com

Chlorine Gas Exposure Beck Aluminum

Beck Aluminum Alloys faces up to \$77,472 in fines from the U.S. Department of Labor's Occupational Safety and Health Administration for 13 "serious" violations.

OSHA said it is recommending the fines following an inspection in September after receiving a referral that a worker was sickened by exposure to hazardous chlorine gas while changing cylinders.

The inspection also found that company officials did not remove other workers from the area after exposure to the gas was known and failed to evaluate the danger to life and health, OSHA stated. The agency issued 13 serious violations. Beck Aluminum was cited for failing to establish lockout/tagout procedures to prevent the inadvertent release of chemical energy; an inability to estimate employee exposure during a chlorine release; failing to provide training to employees performing emergency response procedures; lack of annual inspections of energy control procedures; and stacking large totes of crushed aluminum casts in an unstable manner.

Six of the citations involve violations of OSHA's respiratory protection standards, such as not having a written respiratory protection program, failing to medically evaluate workers required to use a respirator and not providing adequate training.

Source: The Journal Times.com



Beck Aluminium Alloys.
Photo Gregory Shaver



Preventing Potential Chemical Threats and Improving Safety: Oversight of the US President's Executive Order on Improving Chemical Facility Safety and Security

"I advocate that the EPA use its existing authority under the Clean Air Act to encourage chemical facilities to make their operations inherently safer where it is feasible to do so. Then the EPA should follow up by adopting specific regulations with clear requirements. The goal should be to drive chemical process risks "as low as reasonably practicable." In Europe, this is a cornerstone of the regulatory system. Insurance statistics tell us European chemical sites have an accident rate at least three times lower than the U.S. Time and again, as our reports show, we find examples where companies could have used available, feasible, safer technologies to prevent disastrous accidents, but chose not to do so." To read U.S. Chemical Safety Board Chairperson's Testimony [Full Testimony](#)

U.S. Proposes Toxic Chemicals Reform

House Republicans are moving forward with a plan to reform decades-old chemical laws. Rep. John Shimkus (R-Ill.) introduced a discussion draft that he says would strengthen chemical protections by, among other provisions, requiring the Environmental Protection Agency (EPA) to focus on high-priority chemicals that pose the greatest risk to the public. "The vast majority of chemicals are low priority, and we really want to free up the time and energy to focus on the more important chemicals," said Shimkus, chairman of the House Energy and Commerce Subcommittee that is working to update chemical standards.

The reforms have received renewed attention following a chemical spill in West Virginia earlier in the year, which involved a chemical with unknown health risks, due to lapses in the outdated EPA regulations.

Shimkus touts the draft's ability to strengthen chemical protections and commerce, allow for regulatory certainty by creating national standards and to put more power in the hands of the EPA. Rep. Henry Waxman (D-Calif.), ranking member of the House Energy and Commerce Committee, said the draft would weaken the country's chemical laws and "endanger public health," in a statement released shortly after the draft was posted online.

Read article by Megan R. Wilson and Tim Devaney <http://thehill.com/blogs/regwatch/pending-regs/199528-house-gop-pushes-toxic-chemicals-reform>

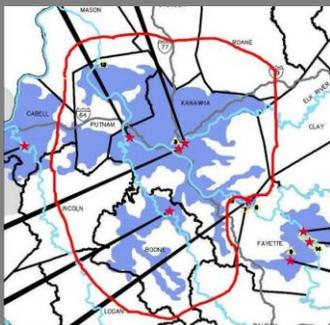
“There are a few things that people here in West Virginia will never take for granted again. Common acts such as using tap water to prepare dinner for your family or drawing a bath for your child; everyday activities that quickly became impossible for approximately 300,000 West Virginians on January 9, 2014.”

Read all:

[Charleston Chemical Spill](#)



Freedom Industries. Photo: www.telegraph.co.uk



Map by West Virginia Am Water affected areas. pic.twitter.com/e0Hcg2JTk

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Chemical Storage Tanks and Drinking Water

West Virginia inspectors have discovered 600 more above-ground chemical storage tanks located near public drinking-water supplies, pushing their current inventory to more than 1,600 such tanks, according to data made public.

The Department of Environmental Protection for the first time released lists of storage tanks that could be subject to new rules if lawmakers pass legislation drawn up in response to the January chemical leak on the Elk River.

DEP officials cautioned that they could end up with a final inventory showing even more storage tanks located in or near the "zone of critical concern" near public water-supply intakes.

DEP inspectors are still visiting more than 100 sites they believe have tanks located near drinking-water intakes, and plan to examine a much larger number -- 600 facilities with an estimated 3,000 tanks -- to confirm locations, double-check the number of tanks and examine the tank contents.

After the Jan. 9 leak of Crude MCHM at Freedom Industries contaminated the drinking-water supply for 300,000 West Virginians, the DEP began putting together an inventory of above-ground chemical storage tanks across the state. They looked at water-pollution permit information, compared that to mapping data that pinpoint water-intake locations, and then went through permit files to identify facilities with plans showing storage tanks.

The latest numbers from the DEP show 595 facilities with an estimated 3,953 above-ground storage tanks. DEP officials estimate that 109 of those facilities, with 1,618 storage tanks, are located "within close proximity" to a public water supply.

The DEP's new lists include a wide variety of sites, from coal-fired power stations and chemical plants to lumber mills and trucking operations. The lists released do not identify the chemicals in question, quantities stored in the tanks or any preliminary DEP analysis of the sites.

To define tanks that could potentially impact public water systems, DEP officials expanded the area covered by the Bureau of Public Health's "zone of critical concern." The bureau defines the term to cover anything located within five hours upstream and within a 1,000-foot corridor around main-stem water supply streams and 500 feet alongside tributaries. The DEP added 500 feet to the main-stem and tributary zones to be more inclusive, officials said.

Source: Ken Ward Jr. at kw...@wvgazette.com

Gasoline Vapours under U.S.A. School

Seneca Companies, Inc. pleaded guilty in federal court today to releasing thousands of gallons of gasoline-contaminated water into the city sewer system of Duenweg. Seneca is a petroleum and hazardous materials handling company in Des Moines, Iowa. In 2010, they agreed to repair a gas line at Casey's General Store off 7th Street. They pumped gasoline-contaminated water out of Casey's containment sump and into the sewer system. Seneca must pay a fine of at least \$75,000 up to \$200,000 as well as restitution during a term of five years probation.

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Marina Needs Cleanup of Gas Contamination

Despite a major cleanup effort in 2009, groundwater contamination is still pervasive underneath Lake Ontario Mariners Marina. DEC (Department of Environmental Conservation) opened a 30-day public comment period on its plan to cleanup groundwater contamination at the facility. The move comes after 436 tons of petroleum-contaminated soil and five leaky underground storage tanks were removed during the winter of 2009. Though much of the contamination was remediated by that effort, DEC later discovered that contamination exceeding acceptable levels still is present beneath the on-site building.

The DEC proposal also calls for the installation of site cover, such as pavements or sidewalks, where contamination exists in the upper foot of exposed surface soil.

The installation of a sub-slab depressurization system may be required to provide fan-powered ventilation inside the marina building.

A summary of the DEC proposal is available online at <http://wdt.me/hLw3q8>

Hazmat Crew Called to Chemical Fire

The West Bridgewater Fire Department in Massachusetts responded to a chemical fire at a metal processing. Fire Chief Leonard Hunt said the fire began as an electrical fire that was inside of a tank full of chemicals. He did not know what the chemical was. The fire occurred at R&H Metal Processing, which, according to its website, does metal plating and x-ray florescence testing. An employee of the shop told fire officials that there was hydrochloric acid and nitric acid in the area of where the fire started.

A state hazardous materials crew was called in to deal with the chemicals.

Source: wickedlocal.com



Photo: Department of Environmental Conservation

Cootes Transport Trucks Facing NSW Roads Ban over Hundreds of Safety Defects



Photo: A Cootes Transport fuel tanker in flames after a crash in Sydney's Mona Vale last year. Photo: Tim Pascoe

The New South Wales Government is moving to have Cootes Transport's dangerous goods fleet removed from the state's roads. Roads and Maritime Services (RMS) has given the company 14 days to show cause why it should not be deregistered.

BP Dumps Cootes from List of Contract Contenders

Read Article: <http://www.fullyloaded.com.au/news/industry/1403/bp-dumps-cootes-from-list-of-contract-contenders/>

New Rules: Transporting Dangerous Goods

Heavy vehicle tank trailers built after July 1 2014 must have an approved rollover function installed or be banned from NSW roads, according to new determinations under the Dangerous Good (Road & Rail Transport) Regulation 2009.

The determination, by the NSW Environmental Protection Agency, applies to everyone who own, operate or use tank trailers in the transport and distribution of Dangerous Goods.

The move is in response to a 2011 coronial recommendation that dangerous goods vehicles be fitted with the technology.

EPA Director of Hazardous Incidents and Environmental Health Craig Lamberton wrote to the industry to inform them of the change. The letter explains that the requirement applies to all tank trailers greater than 4.5 tonnes and includes semi-trailers, B-double trailers and dog trailers.

"Stability control on dangerous goods vehicles is consistent with good industry practice both here and internationally," he wrote. ACAPMA has developed a Quick Reference Guide on the determination to assist members in understanding their obligations. It will be distributed to members directly, or can be downloaded on the [ACAPMA Website](#).

Members are encouraged to call ACAPMA with any questions on 1300 160 270.

Chemical Spill at Waste Treatment Business

The factory involved in the chemical spill at Blayney is the Environmental Treatment Solutions facility. The spill has now been contained and the 500-metre exclusion zone lifted.

At this stage the EPA are assisting Fire and Rescue NSW in their cleanup operation.

Crews were called to the factory after reports emerged that workers had been complaining of fumes inside the facility.

Three crews were dispatched to the scene, one from Blayney and two from Bathurst. One of the crews from Bathurst were specialists in hazardous materials.

They arrived to find there had been a chemical spill, measuring around 25 metres.

The 500-metre exclusion zone was enacted as crews used other chemicals to neutralise the spill while wearing fully encapsulated suits.

See photos and read full story:

<http://www.centralwesterndaily.com.au/story/2117410/gallery-blayney-factorys-chemical-spill/?cs=102>