

### Australasian Institute of Dangerous Goods Consultants

### **WHAT'S HAPPENING?**

**July 2013** 

Welcome to our new associate

Member

Wayne Lamb Queensland

.....

HERE'S A RAW VIDEO OF THE FIRE AFTER THE CRASH

http://www.youtub e.com/watch?feat ure=player\_embed ded&v=HA30i\_EFg

### **Canadian Oil Tanker Crash**

Chief Investigator Breaks Down in Tears as Horrors Sink in

After nearly two weeks of picking through the rubble of the deadliest rail accident in recent Canadian history, the head of the Quebec provincial police's crime scene investigators broke down in tears. "There are new problems every day," said an overwhelmed Steven Montambeault, the Sûreté du Québec sergeant responsible for directing the recovery of bodies from the shattered downtown of Lac-Mégantic.

As of Thursday, 42 bodies have been pulled from the rubble of the once picturesque town in eastern Quebec. Police expect a total of 50 will eventually be found.

Tears ran down the police officer's face as he described the dark green pools of highly flammable benzene still found across the accident site. The chief investigator said he will never forget the look and stench of the mud-like pools left after a wall of burning oil washed through the area.

After 13 days in which police spokesmen delivered mechanical and detached updates about progress at the accident site, Sgt. Montambeault's tears matched the exhausted stares of first responders walking away from the scene.

The local fire chief came over and described the chaos of the first days after the July 6 derailment of a train carrying 72 tankers of crude oil. "We learned that some zones were toxic, but we had been working in them for days. I was proud when no one said: 'I'm leaving.' We kept working," he said.

Source: Justin Giovannetti, The Globe and Mail

The Transportation Safety Board of Canada is handling this investigation and have issued an update identifying immediate safety issues: goto:

http://www.tsb.gc.ca/eng/mediasmedia/communiques/rail/2013/r13d0054-20130719.asp

# RAILWAY CHAIR QUESTIONS IF BRAKES WERE SET ON TRAIN, BLAMES EMPLOYEE



http://www.theglobea ndmail.com/news/new s-video/railway-chairquestions-if-brakeswere-set-on-trainshifts-blame-toemployee/article1312

AIDGC/AGM
Sydney
with
Keynote Speaker
Peter Hunt
July 26
Biodiesel: How
to make it and
what goes
wrong

- Full coverage: Lac-Mégantic disaster stories, photos, video, commentary
  - http://www.theglobeandmail.com/news/national/topic/Quebec -Train-Explosion
  - ESafety Expecting federal safety crackdown, CP tightens rules on unattended trains

http://www.theglobeandmail.com/news/national/expecting-federal-safety-crackdown-cp-tightens-rules-on-unattended-trains/article13294365/

#### **Deadly Derailment in Quebec Underlines Oil Debate**

The derailment and explosions underscored a debate in the effort to transport North America's oil across long distances: is it safer and less environmentally destructive to move huge quantities of crude oil by train or by pipeline?

The oil aboard the train had come from the Bakken oil fields of the Western United States. The Bakken oil deposits, which are often drilled through hydrofracking, have become a major source of oil for the railroads to move because the deposits lack direct pipeline links. Canada's oil sands producers, frustrated by a lack of pipeline capacity, are also turning to trains to ship their products. Their move to rail comes as the Obama administration continues to weigh an application for the Keystone XL pipeline, which would deliver synthetic crude oil and bitumen, an oil-containing substance, from Alberta to refineries on the Gulf Coast. An analysis of the pipeline plan for the State Department concluded that if the pipeline was rejected, oil sands producers would instead turn to railways for shipments to the United States. **Both the Canadian National Railway and the Canadian Pacific** Railway have extensive rail networks into the United States and have been promoting what the industry often calls a "pipeline on rails" to serve the oil sands. Mark Hallman, a spokesman for Canadian National, said the railway moved 5,000 carloads of crude oil to the United States from Canada in 2011, increased that amount to 30,000 carloads in 2012 and "believes it has the scope to double this business in 2013." Unlike pipeline proposals, the escalation of rail movements of oil, including light oil shipments from the Bakken fields as well as from similar unconventional, or tight, oil deposits in Canada, is not covered by any regular government or regulatory review. "We have an explosion of tight oil production in Canada and the United States, and most of it is moving by train," said Anthony Swift, a lawyer with the Natural Resources Defense Council in Washington. "But this process has happened without due diligence." Source: The New York Times

# 1075

The wheel chock behind the rear axle of this liquefied petroleum gas cargo vehicle is one of several required safety features.

### Hazardous Materials: Parking LPG Cargo Vehicles: USFA Coffee Break Training

Liquefied petroleum gas cargo vehicles transport millions of gallons of hazardous cargo along our roads and streets every year. What safeguards are in place when those vehicles complete their delivery routes and are parked at the end of the commercial day? National Fire Protection Association 58, Liquefied Petroleum Gas Code, provides guidance for these vehicles that may be parked indoors or out.

LPG cargo vehicles should not be left unattended on any street, highway, avenue or alley, except for necessary absences from the vehicle associated with drivers' normal duties. These absences include stops for meals and rest stops during the day or night. As a matter of course, vehicles should not be parked in congested areas. Read More: <a href="http://www.usfa.fema.gov/downloads/pdf/coffee-break/cb-fp-2013-13.pdf">http://www.usfa.fema.gov/downloads/pdf/coffee-break/cb-fp-2013-13.pdf</a>

### Oil Tank Battery Fire: Virginia, U.S.A.

One spot where you definitely DO NOT WANT TO STAND during a lightning storm is next to an oil tank battery. These structures have a strong tendency of being a lightning attractant. That's exactly what happened in northern Stafford County.

An oil tank battery located a quarter mile south of 170th Street –

an oil tank battery located a quarter mile south of 170th Street – just west of Highway 281 – was struck by lightning. The photo of the fire was taken shortly after firefighters arrived on scene. Firefighters from three stations responded to the fire.

The firefighters cooled the perimeter to prevent the surrounding grassland from igniting. Once the fire had burned down to an extinguishable level they applied a blanket of foam to the battery. Firefighters remained on scene for two hours.

Source: Steve Moody, kiowacountysignal.com

### **Child Dies after Swallowing Lithium Battery**

A child has died after swallowing a lithium battery on Queensland's Sunshine Coast. Susan Teerds from Kidsafe Queensland says the button-shaped batteries are found in many common household items, and parents must be vigilant. "When a child swallows a battery it often gets caught in the oesophagus, around the voice box. Once it's been lodged, within an hour, it will start to burn a hole," she said. "The saliva actually starts a chemical reaction and burns a hole through the oesophagus and can keep burning a hole into the aorta, through to the spine and whatever else is there." Source: ABC News





Photo: sunshinecoastdaily.com.au

SAI Global – Remember your AIDGC is a member and you are eligible to discounted standards.

Go to the Members' Only Pages for details http://www.aidgc.org.au/members/standards

### Australian Dangerous Goods Code + Referenced Standards Online Service

If you are involved in the transportation of Dangerous Goods, you may have certain obligations under the Australian Dangerous Goods Code (ADG7) and its referenced Standards, which extends to OHS and environmental protection obligations.

The Code references many Australian Standards, which represent good practice, as defined by industry experts. By complying with these Standards, your transport activity will be deemed-to-satisfy the relevant section of the Code's performance requirements.

Understand your obligations with our new ADG7 + Referenced Standards Online Service which includes:

- Access to the most recent Code; with
- Direct hyperlinks to all the referenced Australian and ISO Standards.

#### To learn more goto:

mailto:nfostore.saiglobal.com/store/Details.aspx?ProductID=1611937&ut m\_campaign=BAP\_NEWS\_JUL13\_WP&utm\_source=BAP&utm\_content=&ut m\_medium=email&et\_jobid=16108404&sf\_id=robhogan@tpg.com.au

### New Online Auditing OHS Management Systems Training: SAI Global

SAI Global's new Online Auditing OHS Management Systems gives you the freedom and flexibility to up-skill at your own pace from any computer.

This nationally and internationally recognised course leads to the BSB60607 Advanced Diploma of Occupational Health & Safety qualification. This course forms part of the 5-day Lead Auditor course and provides a technical understanding of AS/NZS 4801:2001 and AS/NZS 4804:2001 OHSMS from an audit perspective. Goto:

http://training.saiglobal.com/tis/promotion.aspx?id=a0c20000004Cv BW&utm\_campaign=BAP\_NEWS\_JUN13\_WP&utm\_source=BAP&utm \_content=&utm\_medium=email&et\_jobid=16047761&sf\_id=robhoga n@tpg.com.au





Photo: www.onderzoeksraad.nl



Photo: www.nlms.info



**Watch the Videos** 

http://www.theaus tralian.com.au/ne ws/catex/storye6frg6n6-1226678209406

### **Dutch Safety Board Report into Odfjell Terminals Rotterdam: 2000 to 2012**

Inspectors established that there were three main failings:

- Major maintenance backlog to the floating roof and pressure valves
- Inappropriate equipment was being used in explosion hazard area
- Tank cooling and fire protection systems had not been tested for many years

What is of concern is that these failings were notified to the company by inspectors years earlier, however the company had not taken effective measures to address these shortcomings. Following political and local citizen concerns/pressure, the company shut down operations in July 2012.

It's a quick read (summary report) with process safety lessons for every operator....

**Summary Report from Dutch Safety Board:** 

http://www.onderzoeksraad.nl/uploads/phase-docs/339/d477bf4d8c42rapport-odfjell-web-en-beveiligd.pdf

### **Major Fuel Spill: Caltex Sydney**

Three people suffered minor injuries and a firefighter was taken to hospital as a precaution following a major fuel spill at the Caltex terminal. "They were working on a tank which contains 2 million litres of unleaded fuel," Superintendent Tom Cooper fire and rescue NSW said. "As a result of the failure with the tank valve around 130 thousand litres of fuel leaked out."

Fire crews were called in following the spill and immediately started applying topping foam to the petrol to stop the fumes becoming dangerous before two firefighters in spill suits closed the faulty valve.

"Any spillage of fuel is dangerous," Supt Cooper said. "Petrol is very volatile at low temperatures and when it mixes in the right concentrations with air you have a problem." "That's why it's important to get this foam in place. It's like putting a lid on something to stop it getting out."

Supt Cooper said all of the fuel had been captured by "what we call a bund" into a 50m by 25m area. "None of this fuel has escaped into the environment," he said. Source: The Australian



Photo: oilguru.org

**Paul Berriff** remembers the events of 25 years ago as though they were yesterday: the smell of burning oil; the sea burning orange and on fire; the bodies in the water. It was, he says, "apocalyptic". "I've experienced all sorts of tragedies -I'm a survivor of 9/11, I know what it's like not only to witness trauma but to be a casualty myself. But there's nothing, nothing like Piper Alpha," the TV cameraman, who sustained injuries filming near the twin towers, said. **Source: The Independent** 

### **Piper Alpha: Remembering the Lessons**

Piper 25 was a three-day event held at Aberdeen Exhibition and Conference Centre from 18 to 20 June 2013, chaired by Oil & Gas UK chief executive, Malcolm Webb. It aimed to bring together people from across the oil and gas industry to reflect on the lessons learnt from the tragedy, review how far offshore safety has evolved since and to reinforce industry commitment to continuous improvement.

With Piper Alpha as a central theme, the conference also explored broader safety issues and featured high profile international speakers from a diverse range of backgrounds. The three days comprised of both plenary and parallel sessions allowing delegates to tailor their individual programmes to their own areas of expertise and interest.

The parallel sessions encompassed the following topic areas:

- Safety Management Systems and Control of Work
- Major Hazard Management and Safety Technology
- Human and Organisational Factors
- Emergency Preparedness and Response
- FABIG Session: Advances in Fire & Explosion Engineering Some links to the presentation materials and the plenary session speakers videos are listed below.

The video premier showing of Remembering Piper is a powerful video and essential viewing and should form part of your safety stand downs or safety moment sessions...

6th June 1988 - 167 Fatalities - Take the time to reflect and learn – Advances have been made – can we do better?

#### **Presentations:**

http://www.oilandgasuk.co.uk/events/Piper25/Presentations.cfm

#### **Plenary Session Video Recordings:**

http://www.oilandgasuk.co.uk/events/Piper25/Webcasts.cfm

#### **Remembering Piper Video:**

http://www.youtube.com/watch?v=3bMevR9Hayl

Process Safety Beacon also has an article on Piper Alpha including "What can you do?" Goto:

http://www.aiche.org/ccps/resources/process-safetybeacon/201307/english

### Corporate Members

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

AECOM Kevin Blackie 61 7 3553 3449 Kevin.Blackie@aecom. com

ENLOG Grant Cullen +61 2 9669 4811

Ovivo Australia Pty. Ltd. Shannon Ballard +61 2 9542 2366

Store-Safe Pty Ltd Grant Breeze 02) 9569 2122

VOPAK Terminals Sydney Pty. Ltd. Nathan Barnes 02 9666 4455

### Slingshot Fired at Explosive-Laden Truck

A truck driver carrying a load of explosives has managed to keep his vehicle under control after a boy broke his cab window with a slingshot, showering the driver with glass.

The truck was targeted as it approached Meekatharra in central Western Australia on Sunday afternoon. "The driver did a good job of maintaining control of the truck as he was transporting explosives at the time," a police spokeswoman said.

A 10-year-old boy has been charged with causing fear or alarm to a driver of a conveyance. He will appear in court at a later date. It will be alleged the boy used a slingshot to fire a rock at the truck, smashing the passenger side window.

Source: AAP

### \$1M Scientific 'Super Truck' for Brisbane

Queensland firefighters will have the technological advantage with hazardous chemical, radiological or biological incidents, after becoming the first in Australia to take delivery of a new fully-equipped Scientific Response Unit. Police and Community Safety Minister Jack Dempsey said the new vehicle would be used for incidents ranging from chemical spills, to identifying dangerous materials. "Using the very latest technology and operated by some of the world's most experienced chemical engineer firefighters, this 'chemical lab on wheels' will provide the best possible scientific support to the Queensland Fire and Rescue Service (QFRS) and other agencies including the Queensland Police Service (QPS). "The equipment allows officers to rapidly identify hazardous materials in real-time, at the scene, as opposed to having to collect samples, transport them and then undertake an assessment.

"Officers will also be able to identify liquids and solids through closed glass containers and determine the concentration of airborne contaminants in emergencies such as those at a fire. "Being able to pin point almost automatically if the material is dangerous or not will give firefighters the information they need to determine faster than ever before the extent of the incident, who is affected and what they need to do to protect themselves and the community and make the site safe. "There is no other vehicle that has the size, capability or capacity of this new truck and coupled with our experienced QFRS officers, it is going to make an enormous difference."

Source: Media Release, Queensland Government

Smoke rises over the skyline following the fire. Image AP



John MccNaughton / West Midlands Fire Service via



**Explosion at West, Texas** 



Asiana Airlines Flight 214 Crash at San Francisco Airport

### Small Paper Lantern Sparks Massive Fire at UK Recycling Plant

A very large fire started by a paper lantern has consumed more than 100,000 tons of plastic materials at a recycling facility in central England.

Fire services said Monday more than 200 firefighters fought the blaze near the city of Birmingham.

Officials said in a statement that a paper lantern was spotted on CCTV floating into the site before starting a fire among plastic bales.

Fire services said the smoke plume made by the fire was rising up to 6,000 feet and may affect air travel. Birmingham International Airport spokesman David Lavender said officials did not anticipate any disruption to flights.

Officials said 11 firefighters were treated for various injuries. There were no reported injuries to the public.

**Source: Fox News** 

### **Process Safety Accidents Continue to Kill**

Process safety accidents are accidents that kill people not by standard industrial safety hazards like falls from height or contact with electrical lines. Rather, process safety accidents happen when a potentially hazardous process fails.

OSHA and the EPA have written regulations to attempt to control these accidents – fires and explosions – in the chemical industry. But process safety accidents happen in more industries than chemical manufacturing plants and refineries. Examples include the Deepwater Horizon oil drilling accident, the fertilizer explosion in West, Texas, (a distribution site), airline crashes, nuclear plant accidents, grain elevator dust explosions, etc. The list goes on and on. You might even include patient safety accidents at hospitals. Why, when we know how to make these processes work reliably, do accidents continue? I believe management doesn't understand the keys to running a high reliability operation at a high hazard facility. These lessons go beyond OSHA/EPA regulations and require a commitment and understanding by senior management of the technology being managed and of the processes to ensure safety.

Mark Paradies from TapRoot spoke about these concepts at the 2010, 2012, and 2013 TapRooT® Summits. If you missed these talks, you can see them by clicking on:

http://www.taproot.com/archives/37987

AIDGC Annual Conference Sydney September 27

This month my thanks for their contributions go to Don Johnson and Scott Young.

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

### Organophosphate Suspected in Indian Childrens' School Lunch Poisoning

Grieving parents have rampaged through a village in eastern India to protest the deaths of 23 pupils who ate a poisoned school lunch and the perceived slow police response to the tragedy.

Many of the victims, aged four to 12, from Gandaman village, were laid to rest on a playing field adjacent to the primary school that served the free meal of rice, lentils and potatoes - the only meal of the day for many. Some 30 children remain sick in hospitals, mainly in the state capital Patna, officials said.

Police said they are probing whether the food or the cooking oil was accidentally or deliberately poisoned, after initial tests showed traces of insecticide.

India runs the world's largest school feeding programme involving 120 million children, and Bihar is one of India's most populated and poorest states.

Educators see the scheme as a way to increase school attendance, in a country where almost half of all young children are undernourished.

But children throughout the country often suffer from food poisoning due to poor hygiene in kitchens and occasionally substandard food.

Senior police officer Sujit Kumar said they had raided the home of Kumari, who fled with her husband and brother-in-law, when they saw children fainting in the school.

"We found bags of fertilisers and pesticides kept next to bags of potato and rice in the headmistress's house," Kumar told AFP.
"She was an educated woman, so why was she storing poison and food together?"

Source: 9News World

See video: http://www.youtube.com/watch?v=2hkw7uA1bH8
Read More: http://www.enewspf.com/latest-news/science/science-a-environmental/44554-organophosphate-poisoning-leads-to-the-death-of-school-children-in-india.html

### **Dangerous Chemicals not really 'Stolen'**

A batch of extremely dangerous chemicals reported stolen from a Melbourne warehouse has been found. Police said that thieves had broken into a warehouse in Melbourne's west and stolen 80 cans of aluminium phosphide, which explodes when it comes in contact with water. On Wednesday it said the company involved had found all the cans at another warehouse interstate.

Worksafe is now handling the issue. Source: AAP



**Photos: Australian Mining** 



### No individual Will Face Criminal Charges over Deadly Pike River Disaster

New Zealand police will lay no criminal charges on any individual over the 2010 Pike River mine explosion which killed 29 men. Police investigations began the day after the explosion with the aim of assessing if criminal liability could be attributed to any individual.

In a statement NZ police yesterday said there is insufficient evidence to lay manslaughter charges against anyone involved in the management of Pike River Coal Limited prior to the explosion. "This has been a very difficult decision and not one taken lightly," inquiry head Detective Superintendent Peter Read said. Police said there is ample evidence that there were widespread departures from accepted standards of mine operations. However they determined there is insufficient evidence to support manslaughter charges because of a lack of any causative link to the specific events which led to the explosion.

Police did say there was enough evidence to support a charge of criminal nuisance but have refrained from doing so for fear it would interfere with prosecutions being pursued by the NZ government.

Source: Mining Australia

The mine owner Pike River Coal (PRC) was last month ordered to pay \$760,000 in fines and more than \$3 million in reparations for breaches of health and safety regulations. Read more: http://www.miningaustralia.com.au/news/pike-river-ordered-to-pay-

victim-compensation

The families of the 29 men that were killed in the disaster along with two survivors were each awarded \$110,000 in compensation.

But the company is now in receivership and according

to 3news.co.nz it has just \$156,000 available in a post-explosion insurance fund for fines and reparations.

Former chief executive of the mine Peter Whittall is currently facing 12 health and safety charges over alleged failures relating to the explosion. Read more:

http://www.miningaustralia.com.au/news/pike-river-trial-moved-to-wellington



### BUTANE GAS CARTRIDGE

Photo: bushwalking.com.au

### What's Going On? (in the Air) The who, what and why of dangerous goods

Your challenge as an operator is to know about dangerous goods, or 'DG', because inevitably you will have to make decisions about what's safe to carry.

What were they thinking of? Clearly not aviation safety. Did the passenger who had a dozen flares in checked baggage consider what an effective bunch of fire starters they were? Luckily, they were picked up on the ramp by a vigilant employee. Another passenger had five butane canisters hidden in a canoe-as you do. Many dangerous goods don't seem hazardous on the groundbecause they're not. The danger arises when they enter the cramped, carbon fuel-rich, vibrating and (this is the critical one) inescapable environment that is an aircraft in flight. 'We all use an assortment of substances and articles every day—whether it's personal toiletries such as perfume, cologne or aerosols containing deodorant, insect repellent or shaving foam; or the usual tools of trade of a business or office, such as laptops, phones and cameras,' Firkins says. 'You don't consider that they are dangerous, but they do meet international DG classification criteria.

The DG classification criteria for articles and substances are set down by the United Nations. Some countries may apply local variations, but in general, a DG item in Australia is the same DG in Asia or Europe............ Governments and other regulatory authorities may impose additional requirements.

To read this extensive article goto Flight Safety Australia: <a href="http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC\_10">http://wcmS:STANDARD::pc=PC\_10">ht



### The Explosibility of Non-traditional Dusts

This paper explores the explosion characteristics of three non-traditional dusts. Nanomaterials have a high likelihood of explosion with minimum ignition energies potentially less than 1 mJ.

Flocculent materials with a high length-to-diameter ratio exhibit explosion behaviour patterns similar to those for spherical dusts, while hybrid mixtures of a combustible dust and a flammable gas display a higher explosion severity and a lower minimum explosible concentration than dust alone. To read goto: <a href="http://www.hazardexonthenet.net/article/59462/Review-of-the-Explosibility-of-Non-traditional-Dusts.aspx">http://www.hazardexonthenet.net/article/59462/Review-of-the-Explosibility-of-Non-traditional-Dusts.aspx</a>



Ammonia RV Safety

-smell anything yet? - see anything yet?

### Comcare: Health and Safety Representative Handbook

An updated version of Comcare's Health and safety representative handbook is now available. Also available is a pocket guide, which provides a brief overview for health and safety representatives in the federal jurisdiction.

While everyone in the federal jurisdiction has a role to play in making workplaces safer and healthier, federal law recognises the importance of health and safety representatives (HSRs) by giving them specific powers and rights. HSRs represent workers in their work group and monitor that the person conducting the business or undertaking (PCBU) is ensuring health and safety standards. At Comcare, our work is to help HSRs be as effective as possible in representing workers at the workplace and preventing workplace harm. The handbook provides guidance and information for HSRs about exercising their powers under the Work Health and Safety Act 2011. The handbook is also a valuable resource for other stakeholders who need to understand the role of HSRs. The pocket guide supports the handbook by providing a brief overview of the HSR role including roles, responsibilities, powers and functions.

#### **Health and safety representative handbook**

http://www.comcare.gov.au/Forms\_and\_Publications/publications/services/safety\_and\_prevention/safety\_and\_prevention/health\_safety\_rep\_handbook

#### **Pocket Guide**

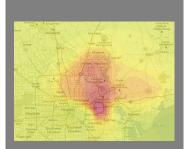
http://www.comcare.gov.au/Forms\_and\_Publications/publications/services/safety\_and\_prevention/safety\_and\_prevention/information\_for\_health\_and\_safety\_representatives\_in\_the\_commonwealth\_jurisdiction\_whs\_058

### **NICNAS Chemical Gazette: July, 2013**

Is now available for download from:

http://www.nicnas.gov.au/issues-and-

<u>consultations/publications/chemical-gazette/chemical-gazette-july-</u> 2013



This image, from the **Houston Clean Air Network Ozone** Viewer, shows readings taken on Jan. 21, 2013, at 3:15 p.m., on a particularly bad air day in the region. At the **Houston Clean Air** Network site, you can watch the plume grow and spread over the city over the course of several hours.

http://houstonclea nairnetwork.com/ ozoneviewer#/snapshot ?t1=1358794200& t2=1358804400&z =9&lating=29.723 770868168458,-95.109837998046 88

# Shell Oil to Spend Over \$115 Million to Reduce Harmful Air Pollution at Houston Area Refinery and Chemical Plant

The Department of Justice and the U.S. Environmental Protection Agency (EPA) have announced that Shell Oil and affiliated partnerships (Shell) have agreed to resolve alleged violations of the Clean Air Act at a large refinery and chemical plant in Deer Park, Texas by spending at least \$115 million to control harmful air pollution from industrial flares and other processes, and by paying a \$2.6 million civil penalty. Shell has agreed to spend \$1 million on a state-of-the-art system to monitor benzene levels at the fenceline of the refinery and chemical plant near a residential neighborhood and school and to make the data available to the public through a website.

Shell will spend \$100 million on innovative technology to reduce harmful air pollution from industrial flares, which are devices used to burn waste gases. Shell is required to take the following actions to improve flaring operations: minimize flaring by recovering and recycling waste gases (which may then be reused by Shell as a fuel or product); comply with limitations on how much waste gas can be burned in a flare (flare caps); and install and operate instruments and monitoring systems to ensure that gases that are sent to flares are burned with 98% efficiency. Shell's agreement to recover and recycle waste gases (flare gas recovery) at its chemical plant is a first of its kind.

Once fully implemented, the pollution controls required by the settlement will reduce harmful air emissions of sulfur dioxide, volatile organic compounds (VOCs), including benzene, and other hazardous air pollutants by an estimated 4,550 tons or more per year. These controls will also reduce emissions of greenhouse gases by approximately 260,000 tons per year.

"The innovative emission controls required will cut harmful air pollution in communities near Houston," said Cynthia Giles, assistant administrator of EPA's Office of Enforcement and Compliance Assurance. "This case is part of EPA's nationwide enforcement effort to protect fenceline neighborhoods by significantly reducing toxic pollution from flares and making information about pollution quickly available to affected communities." Media Release:

http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceeac8525735900400c27/2eea246fc5 060f0985257ba4004d00c8!OpenDocument

# Preliminary Findings of the U.S. Chemical Safety Board on the Investigation of the West Fertilizer Explosion and Fire

The CSB has made observations and preliminary findings to 13
July, 2013, which are subject to further revision and development
as the investigation unfold – click below to read the .pdf
http://www.csb.gov/assets/1/19/West Preliminary Findings.pdf



## AS/NZS 4745:2012/Amdt 1:2013 Code of practice for handling combustible dusts

http://infostore.saiglobal.com/store/Details.aspx?ProductID=1636577

### Fire and Explosion Hazards of Combustible Dusts & Particulate Solids

This document is the Preliminary First Draft of the proposed 2015 edition of NFPA 652 issued by the USA National Fire Protection Association. The standard will provide the basic principles of and requirements for identifying and managing the fire and explosion hazards of combustible dusts and particulate solids. The standard will provide the user with general requirements and direct the user to the appropriate industry or commodity-specific NFPA standard for additional requirements. It establishes the basic principles and requirements that shall be applied to all facilities where combustible dusts or particulate solids are present. Where an industry or commodity-specific NFPA standard exists, its requirements shall be applied in addition to those in this standard.



Diagram: pharmaceuticalsonline.com

Click here to see the first draft:

https://www.nfpa.org/Assets/files/AboutTheCodes/652/652\_PreliminaryDraft.pdf

#### Watch a Video:

### **Combustible Dust can Explode**

http://www.youtube.com/watch?v=209iAmys-y0



### **New Maritime Safety Laws now in Place**

New national laws which regulate the safety of ships and seafarers and ensure shipping is conducted in a manner which protects Australia's precious marine environment come into effect today. The commencement of the Navigation Bill 2012 and the Marine Safety (Domestic Commercial Vessel) National Law Bill 2012 are the biggest reforms to Australia's maritime sector in more than a century.

The National Law Bill provides a national approach to commercial vessel maritime safety replacing 50 pieces of state and federal legislation with one national law. The National Law Bill also establishes the Australian Maritime Safety Authority (AMSA) as the single national maritime regulator.

From today, seafarers are no longer burdened by seven different marine regulatory systems, each with their own rules and regulations. A single set of rules for maritime operations, licensing, registration, design standards and seafarer education for domestic commercial vessels will cut red tape, better protect our marine environment and allow the maritime industry to operate across state and territory borders freely.

The Navigation Act 2012, which also commences today, replaces the century old Navigation Act 1912 with a modern maritime safety regime that better reflects contemporary industry practice.

The Navigation Act provides a range of new measures to ensure maritime safety compliance including increased financial penalties for non-compliant vessels, exclusion of vessels from Australian ports with poor inspection histories, and on the spot infringement notices for marine order offences.

Shipping is a crucial part of the Australian transport system with almost all our imports and exports carried by ship. Together with our shipping reforms, these national laws will grow Australia's maritime industry and cement Australia's standing as a shipping nation.

More information on these historic reforms and the National Maritime Safety Regulator is available at <a href="http://www.amsa.gov.au">http://www.amsa.gov.au</a>
Source: Media Release, <a href="http://anthonyalbanese.com.au/historic-day-for-maritime-sector">http://anthonyalbanese.com.au/historic-day-for-maritime-sector</a>

### Hydrofluoric Acid in 'Controlled' Leak at the Total Refinery in Donges, France

Read report and see video (in French):

http://www.bfmtv.com/planete/fuite-toxique-a-raffinerie-total-donges-un-blesse-557256.html



## The Latest Issue of Catalyst – the JOIFF Newsletter is now available online at: <a href="http://www.joiff.com/catalyst/July\_2013.pdf">http://www.joiff.com/catalyst/July\_2013.pdf</a>

**Included in this issue are articles on:** 

**Industrial Fire Brigades: The Dutch Approach** 

In The Netherlands things are often done differently than elsewhere. For example industrial safety. Equally to other countries it is determined by law that industrial companies handling large amounts of chemicals and dangerous substances must have their own industrial fire brigade.

**Inerting the Ullage Space of Storage Tanks with Nitrogen** 

Inerting ullage spaces of storage tanks containing hydrocarbons at petrochemical production sites and tank terminals using nitrogen can be an effective Line of Defence (LoD) for the prevention of deflagration vapours, that commonly cause tank fires.

#### **Mudgee Mill Manager Fined for Poisoning Birds**

The manager of Russell's Chaff and Grain Mill in Mudgee was fined \$3500 and ordered to pay \$6000 in costs for poisoning birds with the restricted pesticide Phosdrin.

NSW Environment Protection Authority (EPA) Director said Clark Bell was found to have breached the Pesticides Act relating to poisoning birds when he mixed grain with undiluted Phosdrin and left it outside the mill to kill pigeons in July 2012.

The EPA told the court that on the same day, people at the neighbouring Mudgee Golf Course saw numerous cockatoos and galahs dying on the course and birds falling from the trees and the sky.

In handing down the sentence at Mudgee Local Court, Magistrate Michael Allen said, "It is very important to send a message to the community that there is a real need in Australia for greater care to be given to the land, especially in rural communities."

"The regulatory framework around the use of pesticides is very important and needs to be supported by the courts," said

Magistrate Allen. Source: epa.nsw.gov.au



Mudgee's Russell Chaff and Grain Mill managing director, Alice Russell and general manager, Clark Bell, show the many varying feed pellets now available since the installation of their \$700,000 state-of-the-art computerised integrated pellet mill.

**Photo: The Land** 



### Sittard Biomass Plant Remembered as Blast Rocks Iowa one year on

This month an explosion rocked a laminate producing factory in lowa that is reminiscent of a similar incident at the Sittard biomass plant explosion in Missouri this time last year. This time lowa was at the centre of an explosion that once again calls into question the safety of US plants and the regulations that guide them.

Thankfully nobody was killed in either explosion however this latest blast that rocked a plant in Postville has left three people injured sources have said.

Emergency services arrived on the scene and reduced the risk of any further explosions by turning off all gas vales and pumps that may have leaked flammable substances that the plant uses in manufacturing. Of the three people injured, reports state that one of the people is in a critical condition in hospital.

The immediate cause of the blast is unknown but it is estimated that the damage is ranging from \$5 - 7 million.

Source: desmoinesregister.com

#### **Biodiesel plant blast**

This month the Natural Biodiesel plant in Missouri was at the centre of an explosion that left one man injured. According to reports, the man (56) named as Bill Farley, is actually co-owner of the plant.

The incident occurred when resin was being dumped into a section at the plants facility known as 'Tower One'. Approximately 15 buckets were emptied into 'Tower One' when the explosion occurred one employee said. The fire was contained when members of the Hayti, Missouri, Fire Department arrived on the scene and secured the area while removing smoke from the plant. Interviews with employees will now be carried out as an injury occurred but the blast is being treated as an accident for the moment.

Source: semissourian.com





#### **Sittard**

In May 2007, there was an explosion at Sittard, The Netherlands, at a biomass facility that produces fuel from plants and other organic matter. This is a real life example of a fire going out of control and products such as dust, gas and vapour expoding despite the best efforts of the fire brigade.

Watch the Video: <a href="http://www.youtube.com/watch?v=BYcz6zSEeq8">http://www.youtube.com/watch?v=BYcz6zSEeq8</a></a>



### Fire Crews Battle Blaze in Cotton Gin Storage Shed @ St George in Queensland

A large blaze has broken out at a cotton gin in Queensland's southern inland, causing millions of dollars of property damage. The fire service says more than 30 officers battled the blaze. They have managed to stop it spreading to nearby sheds which contain millions of dollars of cotton, cotton seed and chemicals, but say it will continue to smoulder for days.

Source: ABC

### **Russian Gas Tank Truck - Videos**

- Watch Video 1: Gas Tank Truck Actual Crash
- Watch Video 2: Gas Tanks Explode On Highway

Actual video of the truck that crashed in Russia, scattering its cargo of gas tanks across a busy highway. 36 of these gas tanks exploded over a period of about 10 minutes. Some of them were even projected like missiles causing a very dangerous situation for onlookers. Fortunately everyone survived, including the driver who quickly ran into the woods.

### Missing Safety Gear and Out-Dated Emergency Plans Amongst Problems in Victorian Petrol Stations

AS many as one in four petrol stations fail to meet crucial safety standards and pose major risks to thousands of unsuspecting Victorians.

Missing firefighting equipment, lack of safety barriers, missing or inoperable safety gear, no spill containments, untrained staff, and non-existent or out-dated emergency response plans are among safety problems uncovered in a secret audit by WorkSafe inspectors.

The audits resulted in 800 safety notices issued during visits to 334 service stations in the past year.

WorkSafe is so concerned it is increasing visits to the state's 1700 service stations to ensure compliance, with a further 250 inspections expected in the coming year.

Source: Herald Sun, Peter Mickelburough



Photo: Lee Wilkinson, Herald Sun

### Russian Rocket Releases Toxic Fuel after Blast in Kazakhstan

Watch the Video and read the story:

http://www.theage.com.au/technology/sci-tech/rocket-crash-blankets-town-with-toxic-cloud-20130703-2pam7.html

### **New European Directive on Safety of Offshore Oil and Gas Operations**

On 10 June 2013 the EU adopted a Directive on safety of offshore oil and gas operations. The new rules (initially proposed to take the form of a regulation) will make sure that the highest safety standards will be followed at every oil and gas platform across Europe. It will also ensure that we react effectively and promptly should an accident nevertheless occur. This would help minimise the possible damage to the environment and the livelihoods of coastal communities. The new directive sets clear rules that cover the whole lifecycle of all exploration and production activities from design to the final removal of an oil or gas installation.

Directive 2013/30/EU of the European Parliament & of the Council of 12 June 2013 on Safety of Offshore Oil & Gas Operations, amending Directive 2004/35/EC

#### http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:178:0066:01 06:EN:PDF

Earlier this year a technical peer review programme was carried out to examine the differences in approach between the Commission's cost benefit methodology and two studies of that work undertaken by industry. The review was independently chaired by a Director of the UK Health and Safety Laboratory (<a href="http://www.hsl.gov.uk/">http://www.hsl.gov.uk/</a>) who issued a final report on 3 July 2012.

Technical peer review of the cost-benefit analysis in the Commission's Impact Assessment

http://ec.europa.eu/energy/oil/offshore/doc/20120703\_summary\_report\_en.pdf

A new computational method for working out in advance whether a chemical will be toxic will be reporting in a forthcoming issue of the International Journal of Data Mining and Bioinformatics.

A Collection of
Storage Tank
Demolition
Videos
Viewer discretion
is advised for
storage tank

Source: Link taken from HCB Dangerous Goods Group on Linked In.

lovers!

http://www.castagra .com/2013/07/storag e-tank-demolitionvideos/ There is increasing pressure on the chemical and related industries to ensure that their products comply with increasing numbers of safety regulations. Providing regulators, intermediary users and consumers with all the necessary information to allow them to make informed choices with respect to use, disposal, recycling, environmental issues and human health issues is critical. Now, Meenakshi Mishra, Hongliang Fei and Jun Huan of the University of Kansas, in Lawrence, have developed a computational technique that could allow the industry to predict whether a given compound will be toxic even at a low dose and thus allow alternatives to be found when necessary.

Toxicity is almost always an issue of availability and dosage. Whether or not a compound is natural or synthetic it can be toxic from snake venom and jellyfish stings to petrochemicals and pesticides. However, some chemicals are more toxic than others, exposure to a lower dose will cause health problems or potentially be lethal. It is very important to find a way to determine whether a newly discovered synthetic or natural chemical might cause toxicity problems.

The team also points out that the US Environmental Protection Agency (EPA) and the Office of Toxic Substances (OTS) in the USA had listed 70,000 industrial chemicals in the 1990s, with 1000 chemicals added each year for which even simple toxicological experiments had not been carried out. This is largely a problem of logistics and costs as well as the ethical question of whether so many tests, which would have to be carried out on laboratory animals, should be done at all.

Now, Huan and colleagues in the Department of Electrical Engineering and Computer Science at Kansas, have successfully tested a statistical algorithm against more than 300 chemicals for which the toxicity profile is already known. Their technique offers a computational method of screening a large number of compounds for obvious toxicity very quickly and might preclude the need for animal testing of the compounds, provided regulators don't insist on such "in vivo" data from the latter.

Read the whole article:

http://www.sciencedaily.com/releases/2013/07/130718101337.htm

## Four Corners Investigation Finds Dangerous Dioxins in Widely Used Herbicide 24D

http://google.com/producer/s/CBIwide-CA

### **Bug Bombs Cause Partial Collapse of New York City Building**

A woman attempting to deploy nearly two dozen bug bombs inside her small New York City apartment caused a "partial collapse" of the five-story building, injuring 14 people, the fire department said on Saturday.

Fire marshals said the woman told them she set off 20 bug bombs, also known as foggers, without incident on Wednesday inside her Chinatown apartment.

But as she set about repeating that exercise on Thursday, the highly flammable cloud of insecticide was ignited, likely by the pilot light in her oven or some other kitchen appliance, said Jim Long, a fire department spokesman.

The fiery blast caused a partial collapse of some ceilings and walls on the first floor of the building, which contains businesses as well as other apartments, he said.

The woman with the bug infestation was among the 14 people who suffered injuries such as burns, smoke inhalation and respiratory distress.

Fire officials ruled the explosion an accident.

Firefighters retrieved 21 discharged bug bomb canisters from the scene, Long said. With most brands, one bug bomb per room is believed to be sufficient. It is not clear what the woman saw in her apartment to prompt such extreme measures, he added.

"That's an awful lot of insecticide," Long said.

Source: www.metro.us







