



MineSafe

Western Australia



2008 Underground Emergency Response Competition



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Department of **Consumer
and Employment Protection**
Resources Safety Division

Vol. 17, No. 3
December 2008

Dangerous goods safety news

Legislation relating to ammonium nitrate in Western Australia previously focused on safety. The Dangerous Goods (Security Risk Substances) Regulations 2007 (SRS Regulations) introduced in early 2008 focus on security around the manufacture, storage, transport and handling of ammonium nitrate classed as a security risk substance. This new approach to security risk management is based on a 2004 agreement of the Council of Australian Governments (COAG), aimed at enhancing the management of risk posed by terrorism.

Security expert Simon Hensworth (BSc Security Science, ICCP Advanced) expands below on some aspects to be considered. Simon is a Senior Security Professional at GHD Pty Ltd. He is a certified Crime Prevention Through Environmental Design (CPTED) practitioner, accredited by the International CPTED Association (ICA).

Security risk management of ammonium nitrate

SRS legislation

The SRS Regulations cover products containing 45 per cent or more ammonium nitrate, which are termed 'security risk substances' (SRSs) in Western Australia. These ammonium nitrate products are known as security sensitive ammonium nitrate (SSAN) in some other jurisdictions.

Other substances may be added to the list if the need arises.

Requirements of industry

The SRS Regulations require users of SRS to produce and submit a *security plan*, including a security risk assessment, that details identified security risks and how security management and controls will deal with risks relating to SRS.

The security plan is required to obtain a licence to manufacture, store, import or export, or transport SRS in Western Australia. The deadline for current SRS licence holders to submit their security plans to Resources Safety, if not already done, is 1 March 2009.

Potential risks to industry

Companies or individuals that fail to produce a thorough and robust security plan by the deadline face potential risks including fines, not being issued an SRS licence and under-management of the SRS security risk.

Not being issued an SRS licence

A licence required by an organisation or individual in order to continue their normal SRS business activity may not be issued by Resources Safety if the submitted security plan does not adequately assess or address the SRS security risk. Failure to obtain licences to continue normal business operations may present significant risk or disruption to the organisations or individuals.

Under-management of SRS risk

The SRS Regulations require organisations to identify and manage their own security risk. If the SRS security risk is not managed sufficiently and results in an incident, the licence holder may be held liable for not providing adequate control measures. The licence holder may be required to defend the documented process used to determine and manage the SRS security risk.

Other considerations

Familiarity with security risk

Another consideration for those undertaking a SRS security risk assessment is their familiarity with the management of security risk. While risk assessments for safety purposes have been a familiar process for those in the dangerous goods industries, security risk assessment may not be as familiar.

Security risk assessments can involve quite a different skill set. While safety risk assessment requires a sound knowledge of both the risk management process and dangerous goods, security risk assessments, depending on the risk posed, may require knowledge of criminology theory, security science and risk management. Management of security risk can take a very different approach to safety risk.

SRS risk precedents

The security risk of SRS has been realised in many recent worldwide and local incidents. These confirm the motivation of individuals and groups to gain *unauthorised access* or steal SRS.

There have been reports of large quantities of ammonium nitrate stolen overseas and politically motivated groups studying the ballistic properties of ammonium nitrate blasts, blast effects on buildings and which vehicles are most appropriate for carrying out attacks.

In Australia, there have incidents where ammonium nitrate has been stolen or otherwise gone missing. Being a common ingredient in terrorist bombs, there is always suspicion about the motive of the thieves.

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Theft is not the only method of attaining unauthorised access to SRS. As reported in the online National Post newspaper on 4 June 2006, would-be terrorists in Canada attempted to appropriate 3 tonnes of ammonium nitrate by purchasing it through the proper channels.

Potential SRS risk consequences

The Oklahoma bombing in April 1995, a so-called domestic terrorist attack that resulted in the destruction of a nine-storey building and caused 168 fatalities, provides a disturbing glimpse of the potential consequences of the theft of

SRS if successfully used for politically motivated events.

The disaster in Toulouse, France, where an ammonium nitrate explosion at a chemicals manufacturing plant in September 2001 resulted in 31 fatalities and 2,442 injuries, and cost an estimated 1.5 billion Euros in damage (as reported by the United Nations Environment Programme at www.unep.fr/scp/sp/disaster/casestudies/france), provides a glimpse of the potential consequences of sabotage of storage areas.

Summary

The new Dangerous Goods (Security Risk Substances) Regulations 2007

introduces a focus on security of ammonium nitrate in Western Australia. Most organisations involved with dangerous goods are familiar with managing safety risk, but security risk may require further adaptation.

Organisations and individuals must ensure that their security risk management preparations not only meet the requirements for attaining the SRS licences they need to continue business operations, but are also sufficient to protect themselves from liability and potentially significant consequences.

Dangerous goods safety on the road again

Series 1 of the 2008 Dangerous Goods Safety Roadshow, held in May and June, concentrated on mining aspects of the newly introduced dangerous goods safety and security legislation. It was very successful, attracting some 300 attendees. The number of queries and requests that followed indicated a need to extend the program in terms of the target audience and locations.

Series 2, held during September 2008, saw the roadshow re-visit Kalgoorlie and Perth, with additional regional shows in Albany, Bunbury and Geraldton. The aim was to assist more employers and employees in understanding the new legislation and how it may impact on them. There were about 320 attendees, with 170 in Perth alone.

Series 2 also complemented other Resources Safety activities in the metropolitan area that targeted specific groups (e.g. laboratories, particular companies), and have attracted over 400 attendees to date.

Unless specifically requested by industry, there are presently no plans for this to be an annual event. Future Resources Safety presentations will target specific stakeholder groups as the need arises.

Lightning safety

One strike and you're out

With summer here, so is Western Australia's summer cyclone, storm and lightning season.

In the May 2008 issue of *MineSafe* (vol. 17, no. 1), readers were reminded of the dangers of lightning. The article was prompted by an interstate incident where a truck at a coal mine was struck by lightning, causing three tyres to explode and a wheel base weighing 1.6 tonnes to be propelled about 100 metres.

In this more comprehensive feature, attention is focused on how companies and workers can minimise and address the risks associated with lightning strike.

Employers in the mining industry are required to minimise such risks under the *Mines Safety and Inspection Act 1994*.

In Western Australia, the large scale of the mining and resources industries, with their remote and exposed locations, heightens the risk of deaths and injuries from lightning strike.

Yes! It can happen to you

Lightning is dangerous and it can strike anywhere.

Satellite data suggest there are more than three million lightning flashes worldwide per day, including cloud-to-cloud flashes, as well as the cloud-to-ground flashes that can kill, injure and cause extensive and expensive damage.

A large number of the state's mine sites are in areas of high thunderstorm