Government of Western Australia
Department of Mines and Petroleum

AGENDA – Confined Spaces Working Group

Date:	**Thursday 3 July 2014**	Time:	**11:00am – 12:30pm**
Venue:	**Level 8 South, Director General's Conference Room Mineral House – 100 Plain Street, East Perth**		

Item No.	Item	Who
1.	Apologies and actions from the previous meeting	Chair
2.	Review issues identified at the previous meeting	Working group
3.	Findings & recommendations for MAP	Working group
4.	Other business	Work Group
5.	Next Meeting: TBD	

Information Papers:

- Draft recommendations Confined Spaces working group

References:

- Confined Spaces Code of Practice (SafeWork Australia, February 2014)
- Confined space entry (Resources Safety, April 2012)

Mineral House 100 Plain Street East Perth Western Australia 6004
Telephone: +61 8 9222 0411 Facsimile: +61 8 222 3300
www.dmp.wa.gov.au
www.wa.gov.au

Government of **Western Australia**
Department of **Mines and Petroleum**

File No: A0864/201401

MEETING MINUTES – Confined Space Working Group

Date:	Friday 20 June 2014	Time:	10:00am to 11:00am
Venue:	Level 8 South, DG's Conference Room Mineral House – 100 Plain Street, East Perth		

Present

Mr Kevin Wolfe	(Independent Chairperson), Business Development Manager, Monadelphous KT (representing Australian Pipeline Industry Association)
Mr Mick O'Neill	HSE Lead, Monadelphous KT (representing Australian Pipeline Industry Association)
Mr Danny Spadaccini	Director of Safety, Alcoa of Australia Ltd (representing Chamber of Minerals and Energy WA)
Ms Lisa Moore	Senior Health and Safety Advisor – KHG Operations WA, Wesfarmers Chemicals, Energy & Fertilisers (representing Plastics and Chemical Industries Association)
Mr Glenn McLaren	Australian Manufacturing Workers Union (AMWU) (representing UnionsWA)
Ms Jennifer Low	Policy Advisor, Chamber of Commerce and Industry WA (CCI WA) *(Proxy for Karin Lee)*
Mr Graham James	Regional Inspector of Mines (West), Department of Mines and Petroleum (DMP)
Ms Jennifer Shelton	Principal Policy Officer, Department of Mines and Petroleum (DMP)
Mr David Eyre	Senior Policy Officer, Department of Mines and Petroleum (DMP)

Apologies

Ms Karin Lee	Manager Safety and Risk Services, Chamber of Commerce and Industry WA (CCI WA)

Agenda items

Item	Topic	Action
1.	**Introduction**	
	• The Chair welcomed members to the initial meeting of this working group. • Ms Jennifer Low attended as proxy for Ms Karin Lee, representing CCI WA.	
2.	**Review Terms of Reference**	
	• The Working Group had no objections to the Terms of Reference.	DMP to upload Terms of Reference to website
3.	**Overview of role of group and timeline**	
	• The working group was formed by the Ministerial Advisory Panel on Safety Legislation Reform (MAP) to make recommendations regarding the regulation of safety and health relating to working in confined spaces. • The group should conclude its work within two meetings (more if required), but the draft regulations will not be ready for consultation until 2016.	
4.	**Discussion on issues with legislation**	
	• Alcoa identified specific issues regarding the reclassification of confined spaces.	

Item	Topic	Action
	Current legislative framework • Worldwide, the legislative frameworks for confined spaces range from very loose regulation; to looking specifically at atmospheres; to looking at atmospheres and processes carried out in the confined space; to the approach used by Australia, the UK, and USA. In the UK, they can declassify and reclassify a confined space repeatedly during a period of work. In the USA, there are confined and non-confined spaces, but they grant exemptions. • Within Australia, the regulatory framework is structured differently in each jurisdiction. In WA, the Mines Safety and Inspection Regulations has a regulation (4.2) referring to the requirements of Australian Standard AS2865, but Queensland has a number of regulations and a Code of Practice. **Proposed legislative framework** • The proposed risk-based mine safety legislation will be less prescriptive and will not refer to Australian Standards. Codes of Practice and guidelines will contain more detailed requirements and may refer to Standards. To assist smaller operators, templates and other tools may be developed. **Issues with reclassification of a confined space to a non-confined space** • Reclassification requirements need to consider a wide variety of confined spaces, ranging from large tanks with easy access, to small tanks where only one person can work, to a series of tanks, which may not provide direct line of sight for monitoring, or may require the use of a breathing apparatus. • For some infrastructure, it may be difficult or impossible to reclassify, because there are inherent hazards that cannot be eliminated. • Standards may be rewritten every few years. AS2865 on confined spaces has changed significantly in its intent and wording since the Mines Safety and Inspection Act was developed. This is another reason for not referring to Australian Standards in legislation. AS2865 allows reclassification of confined spaces, but the requirements are open to interpretation. This creates difficulties for industry and the regulator in assessing compliance. • AS2865: 1.5.5 Risk Control Measures, clause 2.4.6 states: *"For a confined space to be reclassified as a non-confined space, it needs to have undergone sufficient changes in structure or usage to eliminate (without the need for risk control measures) all possible sources of inherent hazards that define a confined space. Any changes to a confined space would have to be such that a subsequent risk assessment would determine that it no longer meets the criteria for a confined space."* The words "sufficient"; "changes in structure"; and "risk control measures" are all open to interpretation. Another issue is that it mentions "the criteria for a confined space", but there may be other hazards not covered by these criteria. • The Code of Practice on confined spaces by Safe Work Australia is also unclear on reclassification of confined spaces. It uses different terminology ("declassifying" instead of "reclassifying") and states that the space needs to have undergone "sufficient changes in structure and use to eliminate all inherent hazards", without clearly defining what this means. • Skills, experience, training, equipment, and procedures vary across the industry. Of particular concern are small to medium operators. For example, at some smaller companies the emergency procedure consists of phoning 000. Also some treat a vessel as a restricted area rather than a confined space. • The risk is that an operator may not interpret the confined space requirements in a safe manner. Alcoa only reclassifies a confined space where inherent	

Item	Topic	Action
	hazards can be eliminated altogether. For example, to reclassify a tank, Alcoa may remove a spool, a valve and add a pressure blank to eliminate the hazard, and design this capability into their plant/equipment. Other companies may consider that closing a valve to a tank is sufficient to eliminate the inherent hazards, and then reclassify the tank as a non-confined space. • A risk is that once a confined space is reclassified as a non-confined space, operators may become complacent. They may then cease regular monitoring of gas levels, reconnect power sources, and not consider emergency response when work is being undertaken in the (non-confined) space. • Resources Safety has today (19 June 2014) issued *Mines Safety Bulletin Number 111: When can a confined space be reclassified?* This is intended to clarify the requirements for a confined space reclassification. A copy was tabled at the meeting. • The group agreed that the clarifications provided in Mines Safety Bulletin 111 help address shortcomings of AS2865 and the Code of Practice. When preparing its report to MAP, the group will consider recommending that the last four dot points from the Bulletin are included in the Code of Practice. • A confined space reclassification risk-assessment "tool" may also be useful. • Clarification is needed to ensure the safety of emergency service workers before entering a confined space. Regulation 63 of the National Work Health and Safety Regulations only states that regulations 67 (Confined space entry permit) and 68 (signage) do not apply to emergency service workers rescuing or providing first aid to a person in a confined space. Alcoa's process is that emergency response workers must assume that every possible safety issue within the confined space has occurred, and is present, and hence they must wear breathing apparatus and PPE. 'Emergency service worker' should be defined, as it may be interpreted as applying to a firefighter or ambulance driver, but not to a mine site emergency response worker. • Trenches and when they are classified as a confined space is another issue requiring clarification. • Confined space hazards differ from site to site, and it is important that workers moving between sites are appropriately trained on the differences. It would be useful to compare gap training between the various companies, to obtain a consistent approach. • There is a need to ensure that the recommendations from this group are captured at the national level in the Codes of Practice produced in conjunction with Safe Work Australia, to ensure a consistent message to industry. • Use of technology in confined spaces is something which should be considered by industry. It can assist in providing visibility for monitoring/inspections (e.g. using a 'GoPro' camera to inspect confined spaces or monitor a worker in a confined space), and for improving communication and worker training, and hence reduce the likelihood of injury to workers. Examples of the application of technology should be provided in the Code of Practice.	DMP to prepare a draft set of findings and recommendations for the next meeting
5.	**Other Business**	
	• NA	
6.	**Next Meeting**	
	• The next meeting is **Thursday 3 July 2014, 11:00am – 12:30pm.**	

Government of Western Australia
Department of Mines and Petroleum

Confined Spaces Working Group Report

This report documents the observations and recommendations of the Confined Spaces Working Group.

Background

The Western Australian Government has committed to overhauling the way safety and health in the resources industry is regulated.

In January 2014, the Minister for Mines and Petroleum established the Ministerial Advisory Panel on Safety Legislation Reform (MAP), comprised of industry, union and government representatives, to provide advice on the development of safety reforms.

In June 2014, MAP established the Confined Spaces Working Group, to examine the regulation of safety and health relating to confined spaces. Minutes and supporting papers from Working Group meetings are published on the DMP website.

Role

The role of the working group was included in the Terms of Reference:

- Review the section of the nationally harmonised work health and safety regulations for confined spaces;
- Identify areas of prescription that could be added and/or removed and put into codes or guidance material;
- Review legislation from other jurisdictions, and the Australian Standard on confined spaces; and
- Propose provisions, and level of prescription that should be included in the regulations.

Membership

Name:	Job Title:	Representing:
Kevin Wolfe	Business Development Manager Monadelphous KT	Australian Pipeline Industry Association
Mick O'Neill	HSE Lead Monadelphous KT	Australian Pipeline Industry Association
Danny Spadaccini	Director of Safety Alcoa of Australia Ltd	Chamber of Minerals and Energy of WA
Lisa Moore	Senior Health & Safety Advisor - KHG Operations WA Wesfarmers Chemicals, Energy & Fertilisers	Plastics and Chemical Industries Association
Glenn McLaren	State Organiser Australian Manufacturing Workers Union	Unions WA
Jennifer Low	Policy Advisor Chamber of Commerce and Industry WA	Chamber of Commerce and Industry WA
Graham James	Regional Inspector of Mines (West) Department of Mines and Petroleum	Department of Mines and Petroleum

Summary of Issues

The Working Group examined the differences between WA and national Acts, Regulations, Codes of Practice and Guidelines, and identified specific issues regarding:

- the reclassification of confined spaces as non-confined spaces, due to ambiguity in the Australian Standard and Code of Practice, as well as the risk of operator complacency regarding non-confined spaces;
- ensuring the safety of emergency response/emergency service workers before entering a confined space;
- the application of regulatory requirements, due to variations in skills, experience, training, equipment, and procedures, particularly for small to medium operators;
- trenches and when they are classified as a confined space;
- workers moving between sites and the need for appropriate training on the differences in confined space hazards and different expectations for working in confined spaces;
- promoting the safety benefits of technology for work in confined spaces in the Code of Practice;
- including more examples and definitions in the Code of Practice.

Key Observations and Findings

Current Regulatory Framework

Worldwide, the regulatory frameworks for confined spaces range from very loose regulation, to the approach used by Australia, the UK and USA, subject to differences. In the UK, it is possible to declassify and reclassify a confined space repeatedly during a period of work. In the USA, there are confined and non-confined spaces, but exemptions may be granted.

Within Australia, the regulatory framework is structured differently in each jurisdiction. For example, Queensland uses national model legislation with multiple regulations and the national Code of Practice.

In WA, safety and health related to confined spaces is regulated under the WA Occupational Safety and Health Act 1984 (by WorkSafe) and the Mines Safety and Inspection Act 1984 (by Resources Safety). The Mines Safety and Inspection Regulations has a regulation (4.2) referring to the requirements of Australian Standard AS2865: Confined Spaces.

Proposed Regulatory Framework

The Department of Mines and Petroleum is modernising the mining legislation to move to a more risk-based approach to safety. Legislation will be less prescriptive, with Codes of Practice containing more detail. Guidelines for industry may be produced, including templates to assist smaller operators in managing their risks. There will be no reference to Australian Standards in the legislation.

Reclassification of confined space as non-confined space

Reclassification requirements need to consider a wide variety of confined spaces, ranging from large tanks with easy access, to small tanks where only one person can work, to a series of tanks, which may not provide direct line of sight for monitoring, or may require the use of a breathing apparatus. For some spaces, it may be impossible to reclassify as a non-confined space, because there are inherent hazards that cannot be eliminated.

Australian Standard AS2865

Standards may be rewritten every few years. AS2865 on confined spaces has changed significantly in its intent and wording since the Mines Safety and Inspection Act was developed.

AS2865 section 1.5.5 Risk Control Measures, clause 2.4.6 covers reclassification of confined spaces:

"For a confined space to be reclassified as a non-confined space, it needs to have undergone sufficient changes in structure or usage to eliminate (without the need for risk control measures) all possible sources of inherent hazards that define a confined space. Any changes to a confined space would have to be such that a subsequent risk assessment would determine that it no longer meets the criteria for a confined space."

The words "sufficient"; "changes in structure"; and "risk control measures" are all open to interpretation. Another issue is that there may be other hazards not covered by "the criteria for a confined space". This creates difficulties for industry and the regulator in assessing compliance.

Code of Practice

The national Code of Practice on confined spaces by Safe Work Australia is unclear on reclassification of confined spaces. It uses different terminology ("declassifying" instead of "reclassifying") and states that the space needs to have undergone "sufficient changes in structure and use to eliminate all inherent hazards", without clearly defining what this means.

The risk is that an operator may not interpret the confined space requirements in a safe manner. For example, to reclassify a tank as a non-confined space, some operators may consider that closing a valve to a tank is sufficient to eliminate the inherent hazards, and then reclassify the tank as a non-confined space. Alcoa takes a safer approach - remove a spool, a valve and add a pressure blank to eliminate the hazard, and design this capability into their plant/equipment.

Once a confined space is reclassified as a non-confined space, operators may become complacent. They may then cease regular monitoring of gas levels, reconnect power sources, and not consider emergency response when work is being undertaken in the (non-confined) space.

Potential solutions

A confined space reclassification risk-assessment tool may be useful.

The group agreed that the clarifications provided in Mines Safety Bulletin 111 would help address the shortcomings of AS2865 and the national Code of Practice. The group recommended that the below extracts from the Bulletin should be included in the national Code of Practice:

For a confined space to be reclassified as a non-confined space:

- *Eliminate all inherent hazards, including asphyxiation, fire or explosion, and engulfment.*

  Note: The control or temporary elimination of inherent hazards alone is not sufficient to reclassify a confined space.

- *Remove all hazardous services. For example, physically isolate devices with stored energy or reduce them to a zero-energy condition and disconnect from their power sources.*

- *Identify and eliminate or mitigate all other reasonably foreseeable hazards associated with the confined space and the tasks being conducted. For example, complete a risk assessment for all tasks or activities to be conducted inside or around the confined space, and implement a safe system of work.*

- *Significantly change the physical characteristics of the space. For example:*
  - *eliminate the enclosed or partially enclosed nature of the vessel, such that a safe atmospheric condition is maintained without the need for any risk control measures (e.g. forced ventilation).*
  - *modify any restricted entry and exit to improve access and reduce emergency response time.*

  Note: Vessels such as classified plant and pressure vessels are unlikely to be reclassified because they cannot be structurally modified. These vessels will remain confined spaces.

Other safety issues regarding work in confined spaces

Clarification is needed to ensure the safety of emergency response workers before entering a confined space. Alcoa's process is that emergency response workers must assume that every possible safety issue within the confined space has occurred and is present. They must wear breathing apparatus and PPE. Additionally, 'Emergency service worker' (e.g. a firefighter or ambulance driver) and 'Emergency response worker' (as employed by the mine site) should be included in definitions. The intention of the regulations is to provide emergency service workers with an exemption from needing a certificate for working in confined spaces. Emergency response teams employed by a company may interpret that the exemption applies to them.

Trenches and when they are classified as a confined space is another issue requiring clarification and a definition.

Confined space hazards differ from site to site, and it is important that workers moving between sites are appropriately trained on the differences, and different expectations for working in confined spaces. Minimum training standards are included in AS2865, but need to be clarified in the Code of Practice.

Use of technology in confined spaces is something which should be considered by industry. It can assist in providing visibility for monitoring/inspections (e.g. using a GoPro camera to inspect confined spaces or monitor a worker in a confined space), and for improving communication and worker training, and hence reduce the likelihood of injury to workers. Examples of the application of technology should be provided in the Code of Practice.

Skills, experience, training, equipment, and procedures vary across the industry. Of particular concern are small to medium operators. For example, at some smaller companies, the emergency procedure consists of phoning 000. Also, some treat a vessel as a restricted area, rather than a confined space.

The recommendations from this group need to be captured at a national level in the Codes of Practice produced in conjunction with Safe Work Australia, to ensure a consistent message to industry.

Recommendations:

That the Ministerial Advisory Panel support:

1. **Changes to clarify the reclassification requirements in the national Code of Practice for work in confined spaces, based on Mines Safety Bulletin 111, to ensure a consistent message to industry;**
2. **Development of a confined space reclassification risk-assessment tool, referencing the Code of Practice and Regulations;**
3. **Changes to the national Code of Practice (or guidelines), to:**
    - **clarify the safety requirements for emergency response/emergency service workers entering a confined space;**
    - **include definitions for emergency service worker; emergency response worker; and trench;**
    - **clarify when a trench is considered to be a confined space;**
    - **clarify minimum training requirements for safe working in confined spaces;**
    - **include various examples throughout the Code of Practice;**
    - **include examples of the application of technology with regards to work in confined spaces.**