



# Australasian Institute of Dangerous Goods Consultants

Developing Compliant Strategies for a Safer Workplace



## AIDGC DANGEROUS GOODS CONFERENCE 2023

8<sup>th</sup> September 2023

Pullman Hyde Park Sydney

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HAZARDOUS MATERIAL STORAGE SOLUTIONS

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# AIDGC 2023 DANGEROUS GOODS CONFERENCE

The Australasian Institute of Dangerous Goods Consultants (AIDGC) is proud to present its 2023 Dangerous Goods Conference on the 8th of September 2023 at the **Pullman Hyde Park Sydney**.

*This year's conference addresses a wide range of current and emerging topics and facets of Dangerous Goods in Australia, including an industry update by SafeWork NSW. Other subjects include renewable energy related dangerous goods, transport of dangerous goods by rail, advances in dangerous goods facility fire and vapour detection. Standards Australia will present a dangerous goods focussed circular economy topic and the AIDGC team will provide an update on Standards development.*

## SPEAKER LINE UP

8:30 – 9:00am

**Registration**

9:00am

**Opening Address and hand over to new AIDGC President**

Frank Mendham, Former National AIDGC President

9:05am

**Welcome address from the new AIDGC President**



9:15am - Session 1

### REGULATOR UPDATE AND LEARNINGS FROM SIGNIFICANT DANGEROUS GOODS INCIDENTS

**Andy Battye**

Manager | Dangerous Goods & Explosives, SafeWork NSW

This regulator update will include Machinery of Government (MoG) updates inline with the change of Government in NSW in March 2023. This will cover WHS and explosive legislation updates including storage and handling of ammonium nitrate. Andrew will also provide a review of significant dangerous goods incidents and lessons learned.



**Monique English**

Engagement Manager  
&



**Stephanie Groves**

Strategic Initiatives Officer, Standards Australia

9:45am - Session 2

### STANDARDS AND WHY DO THEY MATTER IN A WORLD OF CIRCULARITY

Standards Australia (SA) is the nation's peak non-government, not-for-profit standards organisation. Standards are voluntary documents that set out specifications, procedures and guidelines that aim to ensure products, services, and systems are safe, consistent, and reliable.

But how are standards created? Who creates them and why do they matter in a world of circularity? This session will demystify the standardisation process and delve into the creation, adoption, and consensus-driven process behind standards and explore the role they place in supporting circularity in Australia and abroad.





10:15am - Session 3

## STORAGE SOLUTIONS FOR DANGEROUS GOODS

Engineering controls are an essential part of any risk management methodology. The successful development of these dangerous goods solutions relies on constant innovation from manufacturers who must continue to identify and control emerging hazards.

### Caleb Urquhart

CEO, Storemasta

From the perspective of an established local manufacturer, this presentation examines the technical and manufacturing capabilities that align with the development of storage and handling controls for companies including ANSTO, General Electric, Flick Pest Control and Westrac. Whether it's controlling lithium-ion battery hazards or meeting the challenges of outdoor chemical storage, equipment must always be practical and safe, while providing efficiency and value to the user.

10:45am

Morning Tea



11:15am - Session 4

## STAYING ON TRACK – CONTROLLING DANGEROUS GOODS ON RAIL

Dangerous goods transport on rail can be a safe and efficient method of moving large volumes of various dangerous goods at the same time. Paul will take you through the key controls for dangerous goods transport on rail and the challenges it can bring. This presentation will cover key aspects such as segregation, documentation; emergency preparedness; collision prevention; and regulatory compliance.

### Paul Garvey

Safety Partner –  
Corporate, Aurizon



11:45am - Session 5

## LITHIUM BATTERY RECYCLING – STATE OF THE MARKET FROM COLLECTION THROUGH CONSOLIDATION TO RECYCLING

This presentation will focus on three areas:

- A snapshot of the emerging reverse logistics supply chains for consumer and large (energy storage and EV) lithium batteries and the role of key players
- Emerging challenges particularly around collection, transport and consolidation sites for used batteries
- Overview of work programs underway to address challenges and support safe and sustainable lithium battery recycling



### Katharine Hole

Chief Executive Officer,  
Association for the  
Battery Recycling  
Industry

12:15pm - Session 6



## AIDGC – AUSTRALIAN STANDARDS AND REGULATIONS UPDATE 2023

This presentation will cover the recent updates to several Australian Standards and a number of Regulations that AIDGC members have been involved in during 2022/23. The following presenters and the Standards they have been involved in are as follows:-

**Renton Parker MAIDGC** – AS/NZS 3833 (General changes within the Standard), AS1894 (Agreed scope and priorities).

**Richard Greenwood MAIDGC** – AS/NZS 3833 (Changes to the segregation table), AS4552 (Agreed scope and priorities).

**Peter Hunt FAIDGC** – AS 3780 – Corrosives, AS2507 Ag and Vet, AS1894 Oxidising Substances.

**Frank Mendham FAIDGC** – AS/NZS 60079 Series (New combustible dust Standard), AS2187 Explosives (AIDGC Plan to introduce Class 1 Storage Design assessment)

1:00pm

Lunch



1:45pm - Session 7

### HYDROGEN STORAGE, TRANSPORT AND HANDLING - RISK ASSESSMENT PRINCIPLES

**Rao Vasantharao**

Executive Advisor –  
Risk, GHD

Hydrogen is rapidly emerging as the clean energy commodity of the future in the next generation of energy technologies in various sectors spanning across sectors - domestic, transport, power generation and industrial.

*Hydrogen is a highly flammable gas that is often stored under high pressure. The transportation pattern will include gaseous, liquid, and solid forms. It is highly flammable, with an ignition energy that is twenty times smaller than that of natural gas or gasoline.*

It is vital that hydrogen facilities and installations are correctly designed, built, operated, and maintained so that risk is minimised to people, property, and the environment. Its storage, transport and handling are controlled by the Dangerous Goods Safety Act 2004 and associated regulations like Petroleum and Gas (Production and Safety) Act 2004.

*Hydrogen pipelines have caused explosions, posing a threat to communities near that infrastructure. Moreover, hydrogen is currently stored as ammonia, a hazardous chemical that can cause death in high concentrations, if released. This presentation covers the risks associated with hydrogen across the project and asset life cycle.*





2:15pm - Session 8

## COMBINATION DETECTION TECHNOLOGIES FOR DANGEROUS GOODS FACILITIES

In the production, handling, distribution, storage and use of chemical substances, unexpected chemical leakage accidents can cause immeasurable damage to people, property and reputation. In the event of a chemical leakage accident, early identification of the leaked material and prompt initial response are essential in minimising the loss caused by the accident.

*Every substance has different physical and chemical properties, fast and accurate detection often requires multiple technologies. Installing many devices for individual substances can be a costly and flawed approach. Cross sensitivities can cause false positives, alarm fatigue and a loss of productivity.*

**Luke Todisco**  
Product Manager –  
Connected Solutions,  
Draeger

Understanding and implementing complimentary technologies to monitor DG facilities can deliver increased safety and reduced costs.



2:45pm - Session 9

## LITHIUM BATTERY CELLS

Batteries have become the invisible energy source of the modern world. As lithium-ion batteries power a vast array of devices, from smartphones to electric vehicles, understanding the risks they pose is paramount. While these batteries offer exceptional energy density and longevity, their improper handling, manufacturing defects, or thermal runaway styled events can lead to catastrophic incidents such as fires, explosions, and toxic gas emissions. These represent significant hazards for first responders, consumers, commercial operators, and regulators.

In this presentation, we will delve into select examples of hazards associated with lithium batteries, explore preventive measures & best practice, and discuss ongoing research and technological advancements to mitigate these risks effectively

**Nicholas Assef**  
Founder & CEO,  
Battery Pollution

3:15pm

Afternoon Tea



3:30pm - Session 10

## CYANIDE – MAKING SENSE OF PERCEPTION AND REALITY

Few toxic substances enjoy the prominence and notoriety of cyanide in popular imagination. However, as well as being the poison of choice in many an Agatha Christie murder mystery, cyanide is an important industrial chemical with many applications. In the mining industry, cyanide remains the overwhelmingly preferred reagent for the extraction of gold from ore. Cyanide is used in large quantities at major gold processing facilities, leading to strict requirements for its transport and handling before and during use, and the management of process waters and tailings after use. How does the perception of cyanide marry with reality? It's an interesting story...

**Michael Cramer**  
Director, Accent  
Environmental





**Kevin Cen**

Senior Consultant, Asset Management and Performance, Aurecon

**4:00pm - Session 11**

## **CONSEQUENCE MODELLING OF HYDROGEN INCIDENTS: A RECENT REVIEW OF APPROACHES**

Hydrogen is the emerging topic in sustainable energy sector. Safety has been a critical concern due to the flammable and explosive nature of the substance, process/storage conditions and unique modes of failure caused by the property of hydrogen. This presentation will highlight some lessons learned from Aurecon's research and project experiences, on:

- Potential hazardous consequences related to hydrogen.
- Modelling hydrogen incidents consequence impact distances.
- Key message on frequency assessment of corresponding consequences.

**4:30pm**

**PANEL DISCUSSION**

**5:00pm**

**Closing and Networking Session**



# REGISTRATION BOOKING FORM

PLEASE REGISTER BY THE 4TH OF SEPTEMBER 2023

## REGISTRATION DETAILS

Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Organisation: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Any Dietary requirements: \_\_\_\_\_

## PAYMENT DETAILS

**A/C Name:** AIDGC  
**BSB:** 082 356  
**A/C No.** 301 969 966

**PAYMENT BY CHEQUE**  
PO Box 461 Crows Nest  
NSW 1585

Email Form & Payment Remittance to : [info@aidgc.org.au](mailto:info@aidgc.org.au)

Register online here: <https://events.humanitix.com/aidgc-dangerous-goods-conference-2023>

## REGISTRATION FEES (ALL PRICES INCLUDING GST)

- Full Price Registration - \$935
- Early Bird Discount - \$840 (Only until 11th August 2023)
- AIDGC Member \$295 (External to Sydney area)
- AIDGC Member \$0  
(Sydney area members or members who paid for the conference in their membership)

## REGULATORY BODIES (INCLUDES FIRE SERVICES)

- One Delegate \$420
- Over two or more Delegate \$360 Each

**ANY ENQUIRIES** - Email: [info@aidgc.org.au](mailto:info@aidgc.org.au)

### LOCATION:

PULLMAN SYDNEY HYDE  
PARK  
36 COLLEGE STREET  
Darlinghurst  
SYDNEY NSW 2000  
Telephone: +61 (02) 9361 8400

### PARKING:

At Pullman Sydney Hyde Park,  
self parking is available at a  
rate of \$59 AUD per night

### ACCOMMODATION:

PULLMAN SYDNEY HYDE  
PARK  
36 COLLEGE STREET  
Darlinghurst  
SYDNEY NSW 2000  
Telephone: +61 (02) 9361 8400  
Email: [H8763@ACCOR.COM](mailto:H8763@ACCOR.COM)

Members in Sydney area have  
paid the conference cost as  
part of the annual fee.  
Student members are invited  
to attend the conference  
without additional cost.  
PLEASE RSVP BY E-MAIL to  
[info@aidgc.org.au](mailto:info@aidgc.org.au)