

HAZARD STUDIES

The experience of our Hazard Study Facilitators dates from the early 1990's, covers a wide range of industries and projects of varying complexity.

Our personnel are certified Facilitators based on the ICI HAZOP Facilitators course and capable of leading Hazard Studies such as What If/Checklist Analysis, HAZID (Hazard Identification) and HAZOP (Hazard and Operability) studies compliant to AS IEC 61882:2003.

Our inhouse developed HAZOP Minuter software produces tailored reporting of HAZOP meetings which can be customised to meet our clients requirements.

HAZOP Minutes of Meeting							
Client Name							
Client Plant Name							
Node: 1 - Node Title		Brief description of the equipment node and the process operating conditions.				P&ID's:	
Date Modified: 18/12/2015 System: Plant System Name							
ID	Guideword	Deviation	Causes	Consequences	Safeguards	Recommendation	Responsibility
D			Identify a cause with hazardous consequences.	All of the potential consequences.	Identified Safeguards	Recommendation to mitigate the identified consequences.	

HAZOP Action Items Report						
Client Name						
Client Plant Name						
Recommendation	Responsibility	Priority	Date	Status	Action	
1	HAZOP Recommendation 1			Open		
Node	Guideword	Causes	Consequences	Safeguards	Comments	
1 - The First Node		Identify a cause with hazardous consequences.	Potential consequences from the identified cause.	List Identified Safeguards		

HAZARD STUDIES

Our Facilitators have lead the following studies for clients

✓ AGL

- Silver Springs Pressure Upgrade Project; this involved HAZOP of the entire Silver Springs Plant which comprised wellheads and flowlines, water bath heaters, 3-phase separation, gas dehydration, compression and all utility systems such as fuel gas, flare, cold vent, instrument air and glycol
- Wallumbilla LPG Plant; this involved HAZOP of the entire Plant which comprised turbo expansion, demethaniser, deethaniser, depropaniser, debutaniser, recompression, liquid dehydration and all utility systems such as fuel gas, flare, cold vent, instrument air and firewater

✓ Santos

- Flare replacement at Compressor Station 2 (CS2) at Moomba
- Hazard studies for various minor projects undertaken by AMEC for modifications to the Moomba facilities
- Modification to the Big Lake LP Compressor Station, which included two new LP compressors, modifications to existing plant and associated services.
- Permanent pumping facilities to replace Pump Station 1.
- Existing pipeline to Port Bonython prior to commissioning temporary pumping facilities.
- Installation of temporary pumping facilities following fire in Pump Station 1.



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- ✓ **BP Australia**
 - Terminal projects; this involved HAZOP of modifications to terminal facilities at Broome, Kewdale, and North Fremantle Western Australia and Largs North South Australia
 - Wirra Project Depot integration program. This involved HAZOPs of the entire distribution facilities for six depots located throughout Queensland and NSW over a period of seven months. Trained in the BP method of risk assignment and preparation of HAZOP Terms of Reference and Reports in accordance with BP procedures.
- ✓ **Queensland Gas Company Ltd Berwyndale South Projects**
 - Gathering lines to field compression stations
 - Trunkline interconnection between Central Processing Plants at Berwyndale and Kenya
 - Field compression station at Kenya and Berwyndale
 - New field compression stations at Windibri and Codie
 - Berwyndale Central Processing Plant additional compressors



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✓ **Alpharma Animal Health**

- Thioglycol Storage and Delivery System.

✓ **CSL Ltd**

- \$30M Haemostasis plant modification and upgrade at CSL Bioplasma Broadmeadows.

✓ **Dulux Powder Coatings**

- Addition of additional dehumidification unit for new powder coatings line.

✓ **Bonlac Foods Ltd, Projects**

- New 'Triple M' cream plant designed by APV and located at Cobden to produce high fat content cream.
- New R&D spray drier plant.

✓ **Oilsearch Ltd Projects**

- Microstill unit and associated pipework and equipment located in PNG.
- Addition of new condensate line, pump and control system in existing gas plant located in PNG.
- Modification to the Hides wellhead pressure control system and telemetry.

