



Hazardous Area Specialists

Capability Statement

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As trade qualified, experienced engineers HAZ simplifies our clients compliance requirements and offers cost effective solutions.

HAZ believes compliance can be made simple.





About

Hazardous Area Specialists is an industry leader in hazardous area and Type B Gas compliance, inspection, installation and design. HAZ assists clients throughout Australia, South East Asia and North America to achieve and maintain hazardous area compliance.

Focusing primarily in the areas of flammable gases, vapours and combustible dusts, HAZ works with clients across a wide range of industries to analyse, document and minimise safety hazards in the workplace.

As trade qualified, experienced engineers, HAZ simplifies clients' compliance requirements and offers cost effective solutions by providing practical and pragmatic solutions to complex problems.

HAZ are specialists at reducing risks to businesses and people.

HAZ challenges the status quo with the belief that compliance can be made simple.

Capabilities

HAZ's service offering is as varied as our clients. Backed by a diverse skillset, trade experience and professional qualifications, HAZ provides clients with cost-effective Hazardous Area compliance services which range from routine EEHA inspections through to installation and commissioning of Type B Gas appliances.

HAZ also provides a range of Oil Field and Rig Services. Our professional engineers and electricians provide ongoing maintenance and improvement to reduce your downtime.

Hazardous Areas Services

- Electrical Engineering
- Electrical Equipment in Hazardous Areas (EEHA) Inspections
- Accredited Regulatory Audits
- Installations / Refurbishments & Rectification
- Dossier / Submission Generation and Completion
- Classification & Design
- Conformity Assessment Reports
- Fitness for Purpose Reports
- Mentoring and Training
- Safety Management System Audits

Type B Gas Services

- Gas Compliance Audits
- Installations / Refurbishments & Rectification
- Type B Gas Appliance Design
- Type B Gas Appliance Installation / Commissioning
- Unodourised Gas Risk Assessments

Rig Services

- Electrical / Mechanical Compliance Audits
- Mechanical Maintenance
- Electrical Maintenance
- Engineering & Project Management
- Shut Down & Maintenance Support
- New builds
- Refurbishing of old equipment
- Electrical / Mechanical Compliance Audits
- Remediation Works
- Rig Move Assistance
- Upgrade Projects
- Training and Mentoring
- Electrical / Mechanical support to new tradesman
- Asset Management Reviews
- Development of Standards / Strategies
- Engineering & Design Services



Drilling Industry

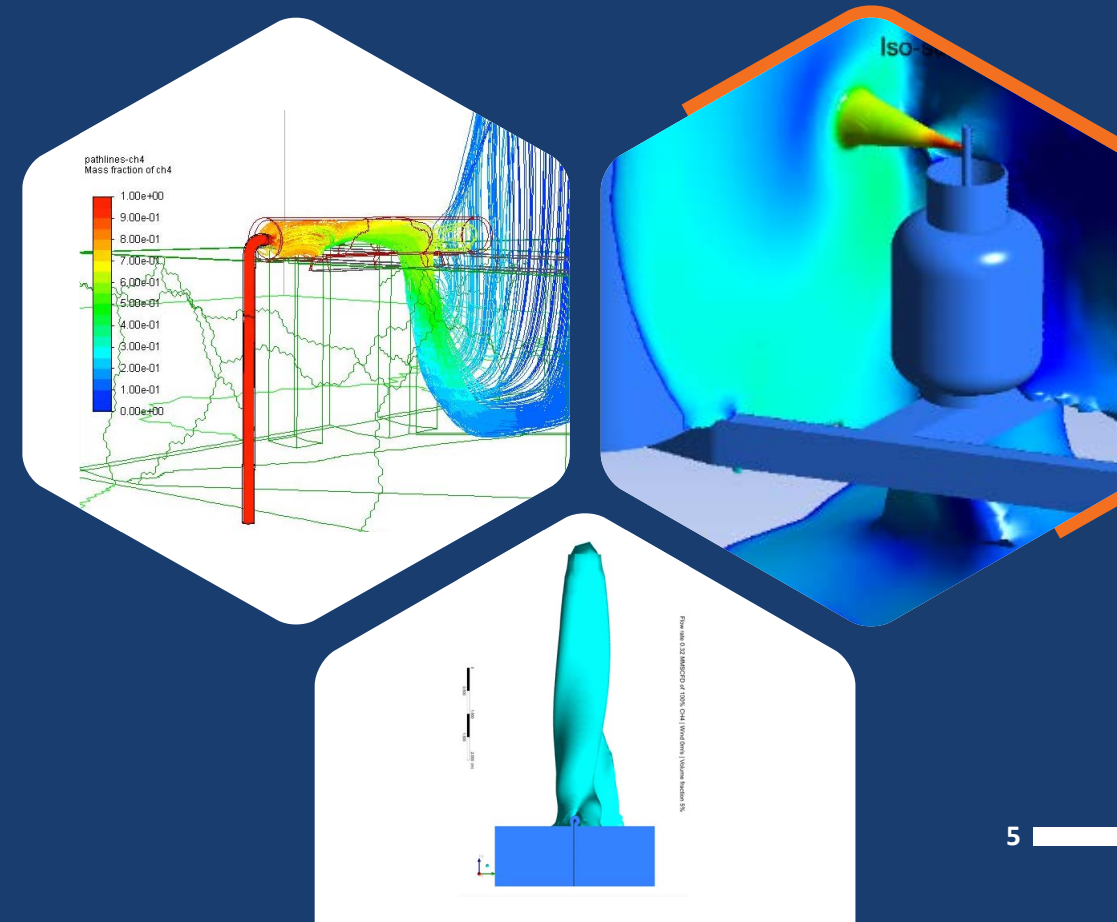
HAZ has extensive experience in the drilling industry, with senior rig electricians and mechanics who have worked within Australia, PNG and the Middle East Region.

HAZ can provide compliance audits, hazardous area inspections and dossier compilation, and asset management reviews. We're there to be part of your Team, offering training and mentoring, electrical/mechanical support to new tradesmen, as well as refurbishment of old equipment, remediation work and assistance with rig moves.

HAZ understands that our industry requires specialist equipment, which is not readily available in Australia. If you have equipment coming from outside Australia, HAZ can assist you to work through the compliance issues before the equipment arrives. This allows HAZ clients to focus on rig operations.

Modelling Services - Computational Fluid Dynamics

HAZ uses Computational Fluid Dynamics (CFD) to improve our understanding of the effects and risks of leaks in systems. CFD has enabled our clients to gain a good understanding of the effects and risks if containment is lost within their systems. Type B standards is an improvement to utilising examples provided in Hazardous Areas and Type Standards as the analysis is based on the specifics of the systems being modelled. HAZ have found the examples contained in AS/ NZS 60079.10.1 or API RP 505 are conservative when compared to the CFD models built for our clients.





EXMAN

EXMAN: A Smarter Approach to Hazardous Area Compliance

HAZ in collaboration with Ex Management have developed EXMAN, an online hazardous areas compliance management tool (HAVD) that is web and App based.

The App allows inspectors to conduct inspections and manage defect and maintenance compliance in the field using RFID technology while maintenance managers and schedulers can observe progress and results in real time.

EXMAN is the simplest solution to demonstrate compliance, providing a digital hazardous area dossier that stores all your equipment documents and certificates in one place. Gone are the days of paper-based inspection sheets being entered in spreadsheets.

With the ability to manage, inspect, create defects lists and plan and schedule your inspection campaigns, EXMAN gives you complete control and transparency throughout the life cycle of your equipment. Inspectors have all the information they need at their fingertips and the ability to manage hazardous compliance from multiple sites, for any number of assets.

Regardless of having 100 assets or 10000+ assets, EXMAN will digitally transform the way you see Hazardous Area compliance, making you more efficient and giving you the confidence knowing where your business is with compliance, at all times.

Want to see how EXMAN can simplify compliance for your business?

Book a demo at <https://exman.online/>

Projects



Industry: Coal Seam Gas

A client purchased equipment from outside Australia and system components had no acceptable certification (IECEX or ANZEx). In order to demonstrate compliance to Australian Standards they elected to have Conformity Assessments completed for each equipment type.

There were enclosures which had no temperature classes, as they were a unit certification. Therefore, an assessment of the internals along with temperature rise calculations was conducted and compiled in a Fitness for Purpose report.

Services:

- Hazardous Area Classification
- Conformity Assessment Reports
- Fitness For Purpose Reports
- Electrical Engineering Services
- Computer Aided Design Drawings
- Hazardous Area Inspection
- Dossier Compilation

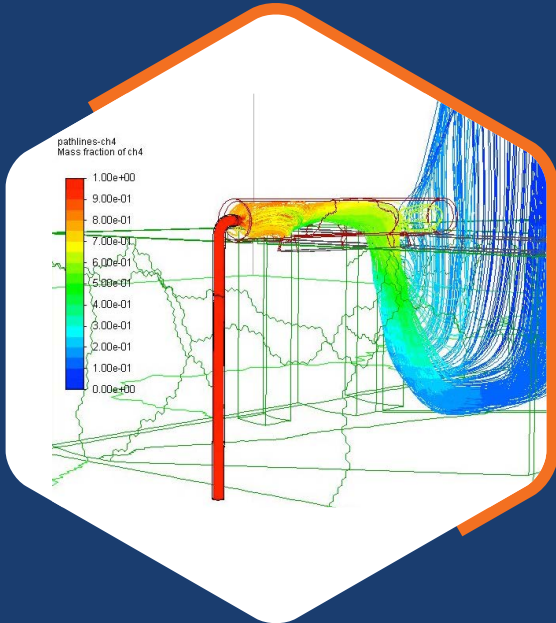


Industry: Coal Seam Gas

A client purchased a drilling rig and asked HAZ to work with them to make it compliant for use in the drilling industry. Although the rig had been used previously in Australia there were many non-compliant items requiring replacement.

Services:

- Hazardous Area Classification
- Conformity Assessment Reports
- Fitness For Purpose Reports
- Electrical Engineering Services
- Computer Aided Design Drawings
- Compliance review to IEC / AS/ NZS standards
- Hazardous Areas Inspections
- Dossier Compilation



Industry: Coal Seam Gas

A client wanted to understand the risks posed by a gas return from the well being directed into their system. CFD was used to model gas returns from the well. The model supported the client to select appropriate equipment to be selected and installed.

Services:

- Computational Fluid Dynamics
- Hazardous Areas Design
- Electrical Engineering Services
- Computer Aided Design Drawings

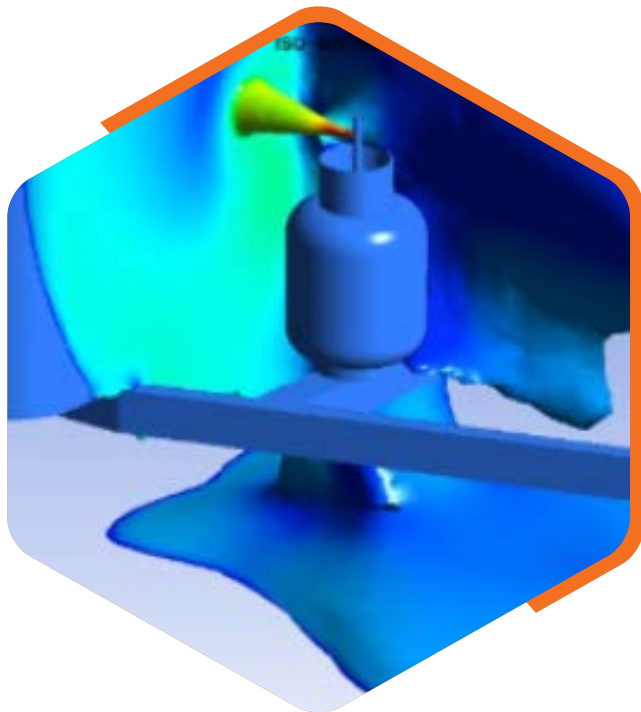
Industry: Coal Seam Gas

A client needed a pilot system designed and installed to meet the Type B requirements. HAZ were involved with the design review and compliance inspection to ensure that the flares pilot was Type B compliant and met the requirements of the standards.

Services:

- Type B Design
- Type B Installation and Commissioning
- Electrical Engineering





Industry: **Caravanning**

A client wanted to understand the effects of a leak on the High side of an LPG bottle installed on a caravan. HAZ used CFD to build a model to demonstrate the effects. The model was then updated with a number of alternate LPG bottle installation configurations allowing the client to mitigate the risks of LPG bottle leaks.

Services:

- Computational Fluid Dynamics
- Hazardous Areas Classification
- Electrical Engineering Services
- Computer Aided Design Drawings



Industry: **Education**

A newly constructed school manual arts facility contained equipment for wood working and spray painting. HAZ were engaged to Audit the installation as per the requirements in the Electrical Safety Regulation Section 221.

Services:

- Hazardous Areas Auditing
- Dossier Compilation Assistance



Industry: **Manufacturing**

HAZ conducted a review of a site that manufactures batteries. The batteries are charged on site using charging tables with extraction systems to extract hydrogen gas produced during charging. If the ventilation was not present then a flammable atmosphere is likely to form. HAZ conducted a site visit, took ventilation measurements, and prepared a Hazardous Area Classification. The site was also audited to ensure compliance with AS 2676.1:2020 and AS 3011.1:2019

Services:

- Hazardous Areas Classification
- Electrical Engineering Services
- Computer Aided Design Drawings
- Site Compliance Audit

Industry: **Various**

HAZ have performed many inspections of hazardous areas equipment. The use of EXMAN has allowed HAZ to be more efficient and the RFIDs allow for quick access to the data via a tablet.

Services:

- Hazardous Area Inspections



Latitude 12 Rugged Extreme Tablet 7212 ATEX Edition



Industry: Various

HAZ have developed over 50+ conformity assessment documents for UL, CSA and ATEX pieces of equipment in various industries. It is important to note that not all equipment will be suitable to have a CAD completed.

Services:

- Conformity Assessment Documents
- Fitness for Purpose Reports



Industry: Coal Seam Gas

HAZ were asked to design a standalone flaring system for the coal seam gas industry. The system had to be compliant to the Type B Standards and be signed off by an Approval Authority.

The system used solar and batteries to power the control system and 2 x 90kg gas bottles for the pilot. It was constructed robustly to deal with movement from site to site.

Services:

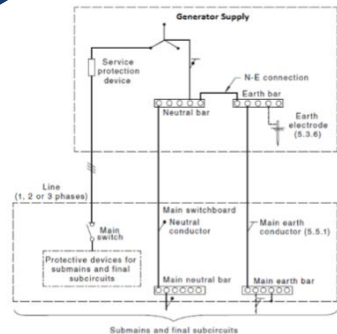
- Type B Design
- Type B Installation/Commissioning
- Electrical Engineering Services

Industry: Standalone Power Generation

Generators are used throughout many industries where power is needed. Our client had multiple generators and was concerned that the earthing and equipotential bonding system was not correct. HAZ reviewed AS/NZS 3000 AS/NZS 3007.2 and AS/NZS 3010.2 and provided a detailed analysis of the different types of earthing systems and how that reflected their installations.

Services:

- Electrical Engineering



LEGEND:
— Protective earth neutral (PEN) conductor
— Neutral conductor (N)
— Protective earthing conductor (PE)

Industry: Manufacturing

A client's manufacturing process produced CH₄ (methane) as waste gas that they wanted to use as a fuel gas. HAZ were asked to review an imported gas fired engine and develop a compliant Type B design so that the unused CH₄ could power the generator.

Services:

- Type B Design
- Type B Installation and Commissioning





Industry: Manufacturing

HAZ has been engaged to provide Type B Gas commissioning, approval and electrical compliance audits on multiple spray booths. HAZ worked with the manufacturer and site owners to ensure installation of compliant and fit for purpose spray booths.

Services:

- Type B Design
- Type B Installation and Commissioning
- Hazardous Areas Classification
- Hazardous Areas Audits



Industry: Manufacturing

HAZ have been working with a client to help them improve the condition and compliance of their site. They had noticed that equipment was beginning to fail and cause issues with production. HAZ reviewed area classification and helped the client to design, install, commission and maintain equipment appropriately.

Services:

- Hazardous Areas Design
- Hazardous Areas Installation
- Hazardous Areas Inspection
- Electrical Commissioning
- Hazardous Areas Dossier Compilation
- Electrical Engineering



Industry: Wastewater

A client won a tender to design and install an Odour Control Unit. The end user had specified Zone 2 for the equipment, but did not have a formal hazardous area classification for the site. The nominated Zone 2 requirement was therefore not traceable. HAZ assisted the client by increasing familiarity with hazardous area technology, installation requirements and appropriate certifications as well as providing Hazardous Area engineering services.

Services

- Hazardous Areas Design
- Hazardous Areas Classification



Industry: Food

HAZ was engaged to investigate a non-operational biogas flare at a food production site. The issue identified was the ignitor system was corroded beyond repair. Although a relatively easy fix, the challenge was that it was approximately 30m from the ground and could only be accessed via an elevated work platform.

The flare system is the last line of defence and, if not functioning, will cause the shutdown of an entire facility or the potential catastrophic failure of the facility.

Services:

- Gas Compliance
- Fault Finding and Rectification

Clients

HAZ have delivered successful projects for clients throughout Australia, South East Asia and the US. HAZ's specialist team has developed a reputation for practical and cost effective solutions across a diverse range of industries.

Acciona Construction Australia
Accensi
Australian Dynamic Technologies
Aerotek (Dymark)
Angrove Family Winemakers
AJ Lucas Services
Australian Pioneer Pistachio Company
Armour Energy
Biogas Systems
Beenleigh Rum
Caravanning QLD
Century Yuasa
Cleanaway
Coho Resources
Condor Energy
Darwalla Group
Defence
DRA Global
Durotank
Design Worldwide Partnership
Energy Developments Limited
MRC
Endura
Ensign Energy
Fraser Coast Regional Council
Fulton Hogan
Graphene Manufacturing Group

Griffith University
Helmerich and Payne
Halliburton
Highwood Technologies
IHI Engineering
Incitec Pivot
Kagome
Knauf
Lochard Energy
LMS Energy
Market Direct Campers
Monadelphous
MPC Kinetic
MYNT
Nitschke Energy
NRG Power Station
One Step Power
Pepperl & Fuchs
Pure Cannabis Australia
Powerlink
Pure Hydrogen
PZE Limited
Queensland Nitrate
Queensland Univeristy of Technology
Queensland Urban Utilities
Rheinmetall
Reinmetall-Nioa Munitions
Rotating Offshore Solutions

Santos
Savanna Energy
Silver City Drilling
SGS
Shell
Schlumberger
Shellby Power
Stralis Australia
Saint Hillers
Transurban Limited
University of Queensland
Universty of Southern Queensland
Unitywater
Viterra
PT Wilmax Control Systems
Wild desert



Qualifications and Accreditations

Electrical Licenses:

Queensland EC License 85522
Western Australia EC Licence EC13840

Gas Work Authorisation:

Kayne Herriman A1841

Approval Authority

Type B
Type B2
Hydrogen

Registered Professional Engineer of Queensland (RPEQ):

Kayne Herriman: 17932 (Electrical)

Unodourised Gas Risk Assessment Approved Persons (Queensland):

Kayne Herriman

Hazardous Areas Auditor:

Kayne Herriman 02/0193

Security Clearances: Baseline Clearance
to NV2 Clearance
Details to be provided as required

Company info and contact

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