



# CAPABILITY STATEMENT





# ABOUT US

We are trade experienced and qualified engineers, who simplify your compliance requirements by offering cost-effective solutions for equipment installed and operated in hazardous areas.

HAZARDOUS AREA SPECIALISTS





# WHAT DO WE DO?

**Our service offering is as diverse as the clients we work with. We have the skill set, trade experience, and professional qualification to ensure we meet and exceed your expectations.**

## **HAZARDOUS AREAS**

- Electrical Engineering
- EEHA Inspections
- Accredited Regulatory Audits
- Installations / Refurbishments & Rectification
- Dossier/ Submission Generation and Completion
- Classification & Design
- Conformity Assessment Reports
- Fitness for Purpose Report
- Mentoring and Training

## **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
- Safety Management System Audits



**“ Our practical approach ensures you meet your compliance obligations in a cost effective, safe and fit for purpose manner.**

## OUR INSPECTION SOFTWARE



# EXMAN

THE SIMPLEST SOLUTION TO  
DEMONSTRATE COMPLIANCE.

**Exman:** a smarter approach to Hazardous Area Compliance

## EXMAN ONLINE PROCESS

1. Establish dossier layout for all plant
2. Create central point for Equipment/ Documents and Certificates used in your organisation
3. Create/upload asset list & verify
4. Plan and Schedule your inspection
5. Inspect equipment in the field & report back in real time
6. Synchronise APP with EXMAN online
7. Manage defect and maintenance compliance in real time.



*Simplifying and solving problems is what drives us. There are too many theoretical solutions out there which may help solve the initial issues however these solutions come at a cost and are often not the most practical solution.*

*We believe in challenging the status quo when it comes to hazardous areas and Type B compliance and firmly believe it should be simple. We want to minimise our client's workload and risk by providing a simple to use and comprehensive service in this field.*

*We pride ourselves on being accountable for the work we do. We take ownership of our work to ensure that our clients are receiving the services they have requested.*

*Our people have extensive trade experience plus professional qualifications which allows us to take a practical approach to finding the simplest and most practical solutions for our clients.*



HAZARDOUS AREA SPECIALISTS



## KAYNE HERRIMAN

### Principal Engineer

Kayne is an experienced tradesman and qualified engineer having successfully completed trades in electrical, refrigeration and instrumentation and control, along with a professional qualification as an Electrical Engineer. He specialises in hazardous areas and Type B compliance and has successfully completed a range of projects for his clients across many different industries.

## JUSTIN NALLY

### General Manager

Justin is an experienced senior executive with 18 years operations and general management experience in the public and private sector. He brings expertise in maintenance management, assurance, risk management, safety and operational improvement.

## QUALIFICATIONS AND MEMBERSHIPS



- Electrical Licenses: Queensland Electrical Contractors License 85522 | Western Australia Electrical Contractors License 13840
- Registered Professional Engineer of Queensland (RPEQ): Kayne Herriman: 17932 (Electrical)
- Hazardous Areas Auditor: Kayne Herriman 02/0193
- Gas Work Authorisation: Kayne Herriman A1654
- Unodourised Gas Risk Assessment Approved Persons
- Security Clearance: Baseline and NV2
- Worksafe Queensland Classification
- Worksafe Queensland Auditor
- Worksafe Qld Contractors License
- Board of Professional Engineers Registration
- IChemE



# CASE STUDIES

HAZARDOUS AREA SPECIALISTS



# Auditors Early Engagement

HAZ was engaged to conduct a [pre-hazardous areas audit](#) on two IECEx certified overhead cranes, which are to be installed in a Zone 22 area of a power station.

The auditor had worked with the client on other cranes they had installed, and at the time of inspection they were already in their final locations, several meters above the ground in dust filled environments, requiring the inductions, permits, paperwork and operations approval before the audit could take place.

Some [lessons learnt](#) from this experience include:

- Items found to be non-compliant during the on-site audit could not always be fixed on the spot which required a rectification work program and further delays
- Once the equipment is installed, it can be very time consuming to get the right permits to access areas and even open panels to conduct inspections. This impacted on cost to the client
- Most overhead cranes need scaffolding to gain access to the equipment
- Any screws, washers' bolts etc which were dropped were never found
- Working at heights increases the time taken to conduct routine activities
- Work was conducted with poor visibility
- In a coal dust environment everything is covered in coal dust



The client took these learnings from the [inspections](#) and made a key decision to have the overhead cranes inspected before mobilising to site. Apart from some loose terminals, cable bending radius issues and incorrectly certified adaptors and glands, the time it took to inspect the two overhead cranes was significantly reduced. Those items required for remediation were order and will arrive to be installed before the installation occurs on site.

Early engagement of an Auditor to [inspect](#) and [confirm](#) the equipment is correct prior to it going to site, will significantly reduce the time and cost of the project.

Now they have the peace of mind that the equipment is ready to be installed and that there will be no surprises when it comes to the final Audit prior to energisation.



# Gas Engine Fueled By Graphene Byproduct

Graphene is the first and only two-dimensional material produced by man which is lighter, stronger, thinner, more conductive, more resistant and is a super-material that has limitless applications.

Like all manufacturing processes there is always a by-product and in our clients case the by-product was used as a fuel gas to run a 14kW gas generator. The generator has allowed them to remove their production equipment off the electrical network and in doing so reducing their electrical power costs.

The small 14kW generator was sourced from overseas and at first arrived with very little paperwork. Although through conversations with the OEM it was found that the generator package was tested and certified to UL2200 and the company was ISO 9001 accredited.

These pieces of information were able to be cross-referenced with AS 3814 Section 5.8 which is specifically for Stationary Gas Engines & Turbines

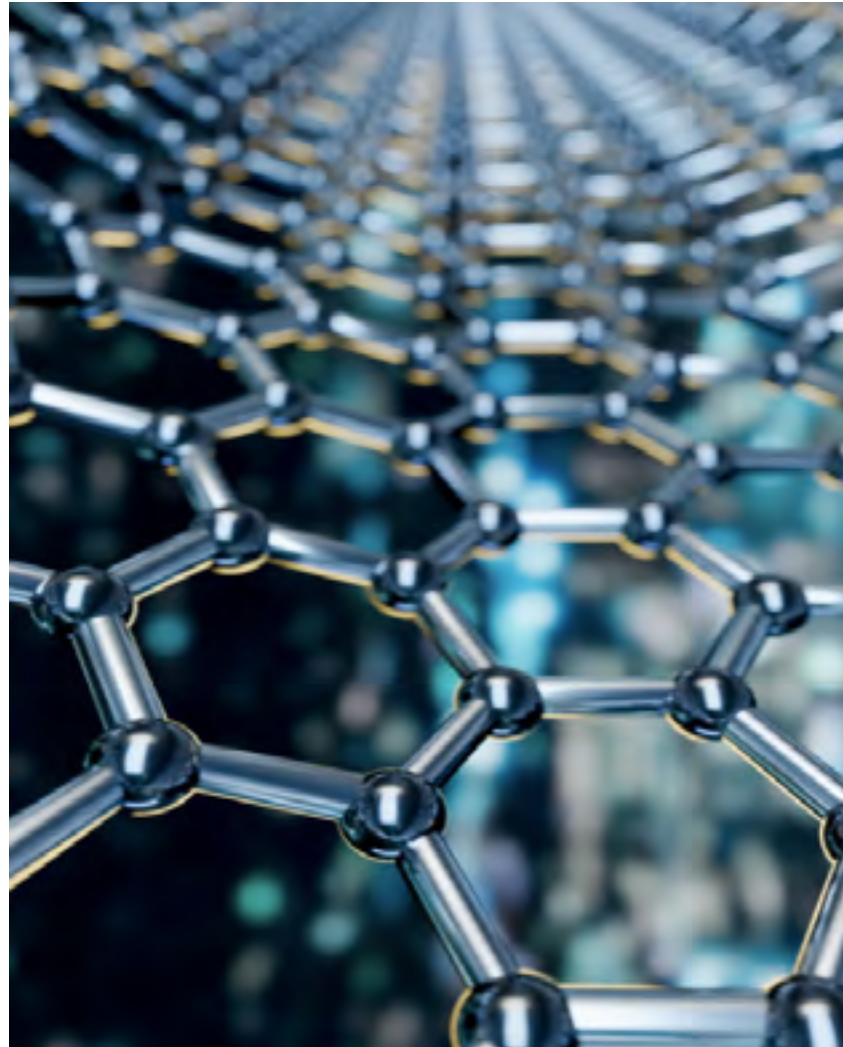
Clause 5.8.1 it states:

Gas engine and microturbine packages labelled up to 20 GJ/h that are in accordance with ANSI/UL 2200 are deemed to be in accordance with Clauses 5.8.2.3, 5.8.3.2, 5.8.3.4, 5.8.4 to 5.8.6, 5.8.10, 5.8.14 and 5.8.15.

NOTE: For conformity requirements for engine controls, see Clause 2.27.5.

These clause numbers refer to the following sections.

- 5.8.2.3 - Safety shut off valves and vent valves
- 5.8.3.2 - Gas engine purging
- 5.8.3.4 - Air flow proving
- 5.8.4 – Gas supply flexible connection
- 5.8.5 - Exhaust system to be fitted
- 5.8.6 - Flexible connection to be fitted to exhaust line
- 5.8.10 - Requirements for ignition
- 5.8.14 – Overspeed
- 5.8.15 - Gas engine and gas turbine air/fuel ratio control





In addition to the above the control system also complied to Section 2.27.5 which outlines the basic control systems and safety instrumented systems using a PES

Control systems on OEM gas engines not exceeding 20 GJ/h are deemed to be in accordance with Clauses 2.27.5 and 2.27.6 provided that it can be established that they are—

- (a) gas engine generator packages labelled in accordance with ANSI/UL 2200 and ANSI/UL 6200 (Outline of Investigation for Controls for Stationary Engine Driven Assemblies);*
- (b) gas engine generator packages labelled in accordance with ISO 8528-4;*
- (c) independently assessed by a competent person to demonstrate the gas engine driven assembly controls are in accordance with the relevant gas engine parts of ANSI/UL 2200 and ANSI/UL 6200 or ISO 8528-4; or*
- (d) proven in use as fit for purpose.*

This demonstrated that the gas engine package was built and tested to those certification recognised in AS 3814 and could be directly mapped which allowed the Technical Submission to be developed. Although compliant with UL2200 it was still decided that an AGA approved SSOV and Low Pressure switch was to be fitted along with the other fuel train components upstream as per the requirements of an engine <5GJ/hr.

Although this is only a small scale project imagine the possibility's in the future.





# OUR VALUED CLIENTS



# OTHER CLIENTS



**BlueStar**



**SIMS**  
METAL  
MANAGEMENT



**Buru**Energy

# OTHER CLIENTS



**COHO** RESOURCES



**WATPAC**



**Griffith**  
UNIVERSITY

Queensland, Australia





# CONTACT US

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## Where we operate

With our head office in Brisbane we have delivered practical solutions to clients throughout Australia, SE Asia and the USA.

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