



IONA GAS STORAGE FACILITY SAFETY CASE SUMMARY

Community Update
November 2024



This document presents a summary of the Iona Gas Storage Facility Safety Case and is provided to the local community and municipal councils in accordance with Occupational Health and Safety Regulations 2017 (OHS Regulations).

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Overview

The Iona Gas Plant is located at 285 Waarre Road, Port Campbell, Victoria. It is owned and operated by Lochard Energy and is the largest energy storage reservoir in Victoria and plays a vital role in maintaining reliable gas supply to the East Coast energy market during periods of high demand.

The Iona Gas Plant is classified by WorkSafe Victoria as a Major Hazard Facility under Victorian legislation. These facilities are sites that store, handle or process hazardous chemicals and dangerous goods, including petroleum products that meet a legislated threshold requiring site classification as a Major Hazard Facility.

The Iona Gas Plant has a Safety Case in place. The Safety Case is assessed by WorkSafe Victoria and provides the basis for the facility licensing decision.

This document presents a summary of the Iona Gas Plant Safety Case and is provided to the local community and municipal councils in accordance with the requirements of the Victorian OH&S Regulations.

The Iona Gas Field was first discovered in 1988 and subsequently drilled, before being converted into a gas storage facility in 1998. The Iona Gas Plant was officially commissioned and began operations on 6 July 1999.

The Iona Gas Plant is part of the Iona Gas Storage Facility which includes:

- Iona Gas Plant;
- a number of remote storage and observation fields including North Paaratte, Wallaby Creek, Seamer fields and associated flowlines and facilities; and
- a number of non producing wells that are part of the Heytesbury fields.

The Iona Gas Plant is a gas processing plant with inlet separation, gas conditioning (dehydration and hydrocarbon dew pointing), compression and liquid handling facilities.

The plant produces sales gas either for export to transmission pipelines or reinjection into the onsite and remote storage wells. The plant can also import sales gas from the transmission pipelines for reinjection into the onsite and remote storage wells.

Hydrocarbon liquids produced at the Iona Gas Plant are stabilised for export by road tanker. Produced water is treated and reinjected into onsite observation wells.

Iona Gas Plant Safety Case

The Safety Case is a document that describes the facility, the associated hazards and risks, and the safety management system in place to control them. The Safety Case is revised every 5 years in support of the renewal of the Major Hazard Facility Licence.

The purpose of the Safety Case is to demonstrate that the facility complies with the relevant requirements of the Victorian OH&S Regulations which include:

- Major Incidents that may arise on the facility and the hazards that may lead to a major incident are identified and understood;
- Control measures that have been adopted are adequate to reduce the risk to health and safety associated with Major Incidents so far as is reasonably practicable;

- Safety management system provides a comprehensive and integrated system for managing all aspects of the control measures so that the risk of Major Incidents is reduced to as low as reasonably practicable; and
- Safety Case has been produced with extensive involvement and consultation with employees, management and external stakeholders including neighbouring Major Hazard Facilities and Emergency Services.

The Iona Gas Plant Safety Case was revised and resubmitted to WorkSafe Victoria for assessment and facility re-licensing in 2024.

The licence to operate a Major Hazard Facility was granted for the maximum term of 5 years and without any special licence conditions. A copy of the licence is included in this summary.

Licence to operate a Major Hazard Facility

This Licence is issued to the operator

Lochard Energy (Iona Operations) Pty Ltd
Level 10
2 Southbank Boulevard,
SOUTHBANK VIC., 3006
ACN: 608441729

and authorises the facility:

Lochard Energy (Iona Operations) Pty Ltd
Iona Gas Plant
285 Waarre Road,
Port Campbell, Victoria, 3269

to operate as a Major Hazard Facility.

Licence Number	Date Granted	Effective Date	Expiry Date
MHL 047/08	20 August 2024	25 September 2024	24 September 2029

Conditions and Schedule 14 materials associated with this licence are detailed in subsequent page(s).

Conditions:

No Conditions

OHS1713193 BMS LIC-CRT-031-062023

Licence to operate a Major Hazard Facility

The Schedule 14 materials present or likely to be present at the facility are listed in tables 1 and 2 below

Extracted from Table 1 of Schedule 14, Occupational Health and Safety Regulations 2017

ITEM	MATERIAL	CAS or UN No. Included UNDER NAME
7	AMMONIA (anhydrous, liquefied)	CAS No. 7884-41-7
35	METHANE or NATURAL GAS, including biogas upgraded to the equivalent quality of natural gas	CAS No. 74-82-8
40	PETROLEUM AND RELATED VAPOUR CLOUD FORMING SUBSTANCES at ambient temperature and pressure (stabilised natural gas condensate)	UN 1268

Extracted from Table 2 of Schedule 14, Occupational Health and Safety Regulations 2017

ITEM	MATERIAL DESCRIPTION
11	Flammable materials; Flammable liquids, hazard category 1

Note:
The small quantities of other Schedule 14 materials mentioned in the Safety Case that may be present at the facility are noted.

OHS1713193 BMS LIC-CRT-031-062023

Major Incident Hazards

Major incident hazard is any activity, procedure, plant, process, substance, situation or any other circumstance that could cause or contribute to causing a Major Incident. The hazards identified as a potential cause of a major incident at the Iona Gas Plant are broadly categorised as below:

- mechanical hazards including equipment failures, corrosion/erosion, dropped or swinging load, vehicle impact;
- process hazards including over/under pressure, high/low temperature hazards;
- utilities and services failures hazards;
- general hazards (operating or maintenance procedure failures, equipment start-up and shut-down hazards);
- natural hazards (including bushfire, lightning, flooding and earthquakes); and
- external or third party hazards (including malicious intent and cyber threats).



Major Incident Risks

A major incident is an uncontrolled incident including an emission, loss of containment, escape, fire, explosion or release of energy, that:

- involves Schedule 14 materials;
- and poses a serious and immediate risk to health and safety.

The Iona Plant has the potential for a major incident due to the quantities of Schedule 14 materials present at the facility, namely quantities of natural gas, ammonia and flammable liquids. A full list of Schedule 14 materials stored or handled at the facility are listed in the Major Hazard Facility Licence.

In common with other gas plants, potential major incidents at the Iona Gas Plant involve the loss of containment of Schedule 14 materials that could result in fire or explosion and have the potential for serious injury or fatalities.

All potential major incident scenarios have been reviewed and assessed in detail to understand the hazards that could lead to the major incident and to ascertain the magnitude of the consequences and the risk of occurrence.

The major incidents associated with operations at the Iona Gas Plant are low likelihood events with limited impact beyond the Iona Gas Plant site boundary.

Gas Plant Major Incidents

- Loss of containment of natural gas from onsite wells and flowlines (Iona and Seamer)
- Loss of containment of natural gas from Remote Sites
- Loss of containment of natural gas from gathering lines
- Loss of containment from natural gas / condensate North Paaratte / Wallaby Creek inlet facilities
- Loss of containment of natural gas / condensate from Train 1 inlet facilities
- Loss of containment of natural gas / condensate from Train 2 inlet facilities
- Loss of containment of natural gas / condensate from Train 1 dewpointing system
- Loss of containment of natural gas / condensate from Train 2 dewpointing system
- Loss of containment of ammonia from Train 2 refrigeration system
- Loss of containment of natural gas from Train 1 gas compression system
- Loss of containment of natural gas from Train 2 gas compression system
- Loss of containment of natural gas from export headers and customer connections
- Loss of containment of condensate from Train 1 liquid handling system
- Loss of containment of condensate from Train 2 liquid handling system
- Loss of containment of condensate from condensate tank
- Loss of containment of natural gas / condensate from vent / flare system
- Loss of containment of natural gas from fuel gas system
- Loss of containment of natural gas from fuel gas blanketed tank
- Loss of containment of natural gas from hot oil burner
- Loss of containment of condensate during export to condensate truck
- Loss of containment of Spotleak 1005 (odorant)
- Loss of containment of natural gas / condensate - generic

Control Measures for Major Incident Risks

The design of the Iona Gas Plant is based on the use of comprehensive sets of standards and codes that meet or exceed applicable regulatory requirements, and safety in design consideration are applied throughout the design phase to ensure technical integrity, operability and maintenance requirements are met for on ongoing safe operation of the plant.

Iona Gas Plant conducts regular comprehensive and systematic hazard identification and safety assessment process with extensive involvement of experienced and qualified technical personnel. These assessments enabled a detailed understanding of the hazards that may lead to major incidents, their nature, likelihood and consequences, the overall risk profile and assurance that the control measures are adequate to reduce the risk so far as is reasonably practicable.

Controls measures can be physical equipment, process controls systems, management systems, procedures or key personnel and their actions.

Key Control Measures

- Equipment integrity
- Emergency shutdown and blowdown System
- Pressure relief system
- Facility layout
- Spill containment
- Fire and gas detection
- Active fire protection
- Ignition control
- Emergency power supply
- Plant alert system
- Emergency response plan
- Permit to work system
- Critical operating procedures
- Management of change procedure
- Training and competency



Safety Management System

The Integrated Management System (IMS) is the safety management system framework which provides Lochard employees and contractors with the basis by which it defines, aligns, standardises and implements company processes to manage risks and ensure successful outcomes in its operations.

The structure of IMS is designed to provide a system that is comprehensive and integrated forming a continual improvement cycle.

The IMS integrates with all key aspects of the Safety Case to ensure it is a comprehensive safety management system for managing the adopted control measures and to provide ongoing compliance with applicable regulations.

Integrated Management System Elements

- Integrated Management System Policies and Objectives
- Organisation and Responsibility
- Information Management and Document Control
- Risk Assessment and Risk Management
- Operating Procedures
- Employee and Community Involvement
- Employee Selection, Competency and Training
- Personnel Health
- Contractor and Support Services
- Procurement
- Design, Construction and Commissioning
- Maintenance, Inspection and Testing
- Management of Change
- Emergency Response
- Incident Reporting and Investigation
- Environmental Management /Managing Materials, Waste and Discharge
- Decommissioning and Abandonment
- Performance Audit and Review.



Community Notification

In the event of an emergency at the Iona Gas Plant, the Emergency Response Plan will be immediately activated under the direction of the Emergency Response Team (EMT). Safety of onsite personnel and the community is the first priority.

In the unlikely event that a major incident has an impact beyond the Iona Gas Plant site boundary, the relevant Emergency Service agency responsible for public safety would issue notifications and instructions for community members to follow.

In the unlikely event of a major incident within the Iona Gas Plant site, after the Emergency Response Team has established safety of site personnel and incident control, a community notification will be issued to advise that an incident has occurred, followed by updates if required.

The Emergency Response Plan for the facility is regularly tested through the conduct of emergency exercises and drills. This provides assurance of emergency preparedness should an incident occur at the Iona Gas Plant. Emergency Services including the Victoria Police and FRV/CFA are active participants in the emergency exercises and have been consulted in the development of the Emergency Response Plan.



Contact Us

For further information regarding the Safety Case or its content, please contact:

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Community Distribution

This bulletin has been provided to the following for their information and placement on noticeboards:

- APA Group
- Beach Energy
- Cooper Energy
- SEAGas
- Community Liaison Committee Members
- Corangamite Shire Council
- Country Fire Authority (CFA)
- Department of Energy, Environment & Climate Action - Earth Resources Regulation
- Environmental Protection Authority (EPA)
- Timboon Library
- Port Campbell Visitor Information Centre

