VIVA ENERGY AUSTRALIA

Newport Terminal Safety Case Summary

2023

VIVA EnergyAustralia

Achieving Goal Zero

We are committed to not harming people, respecting our neighbours, managing safety as a critical business activity, and publically reporting our performance. Goal Zero is our belief that all accidents and injuries are preventable and it is a commitment that extends throughout every level of our business.

Our Newport Terminal holds a Major Hazard Facility (MHF) operational licence. As a MHF, we are required to submit a Safety Case for assessment by WorkSafe Victoria. This outlines the stringent processes and procedures that allow us to safely import, store and distribute petroleum products to thousands of customers across Victoria. This document is a summary of that Safety Case and explains how we manage and minimise the risk of potential impacts of our terminal operations on our neighbours and the community.

Across Viva Energy we take a systematic approach to managing safety and preventing incidents. This means that at all our facilities, including the Newport Terminal, safety is embedded into everything we do. All of our equipment is maintained in top condition and operated within equipment limits. The mechanical integrity of our equipment and pipework is maintained through inspection programs and safety critical equipment is routinely maintained and tested. We have systems, processes and barriers to ensure safe and reliable operations and we train our people and empower them to stop work and address any safety issues identified.

Our commitment to safety and a Goal Zero mindset drives us to continuously improve our safety performance. This means we actively pursue opportunities to further reduce our risk to as low as reasonably practicable. Our stated aim is to have a safety performance we can be proud of, to earn the confidence of customers, share holders and communities.

Scott Wyatt
Chief Executive Officer

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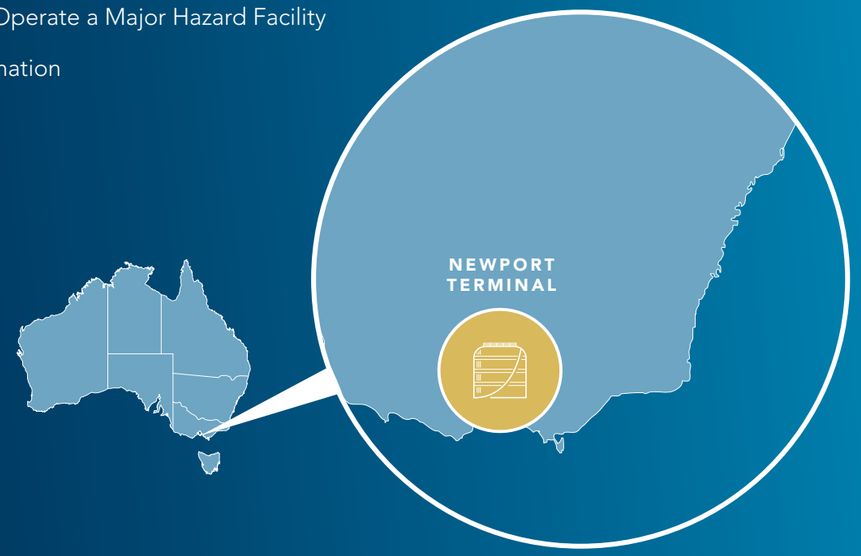


BACKGROUND

What is a Major Hazard Facility?

Major Hazard Facilities (MHF) are industrial sites that store, handle or process large quantities of hazardous chemicals and dangerous goods. Examples include oil refineries, chemical manufacturing sites and some warehouses. Petroleum products are classified as dangerous goods.

MHF must comply with stringent legal requirements, including preparation of a Safety Case when applying for an operating license provided by WorkSafe Victoria.

Viva Energy Australia's Newport Terminal has been a licensed MHF since 2002. Other MHFs in the immediate vicinity of our Newport Terminal include the Ampol and Mobil Terminals.

What is a Safety Case?

Viva Energy's overarching objective is to provide a safe work place for workers, contractors, visitors, neighbouring properties and businesses.

In accordance with the Occupational Health and Safety Regulations 2017 (OH&S Regulations), the objectives of the Safety Case require operators to demonstrate the MHF has:

- Established a robust safety management system;
- Identified all potential major incidents relating to the facility's operations and all potential causes of major incidents;
- Conducted a comprehensive and systematic safety assessment of identified potential major incidents;
- If elimination is not reasonably practicable adopted control measures that reduce risk to health and safety associated with major incidents so far as is reasonably practicable (SFARP);
- Prepared an emergency plan to control and minimise any major incident consequences;
- Established a review mechanism to ensure that control measures are continually assessed for performance and updated as necessary.

The Safety Case is prepared in consultation with Fire Rescue Victoria, Hobsons Bay City Council, employees and health and safety representatives from Newport Terminal.

What is a Major Incident?

A major incident is an uncontrolled incident, including an emission, loss of containment, fire, explosion or release of energy that involves a Scheduled 14 Material which poses, or has the potential to pose, a serious and immediate risk to the health and safety of people.

What is a Scheduled 14 Material?

The term Scheduled 14 Materials is derived from the part (schedule) of the OH&S Regulations that defines the types and quantities of hazardous materials the MHF regulations and WorkSafe oversight is focusing on. The physical and chemical properties of these materials carry the potential to generate major incidents.
The Schedule 14 Materials at Viva Energy's Newport Terminal are flammable liquids. These are discussed in the 'Scheduled Materials' section of this document.

About Viva Energy

Viva Energy is a leading energy company that supplies about a quarter of Australia's fuel requirements. We make, import, blend and deliver fuels, lubricants, solvents, polymers and bitumen through our extensive national and international supply chains.

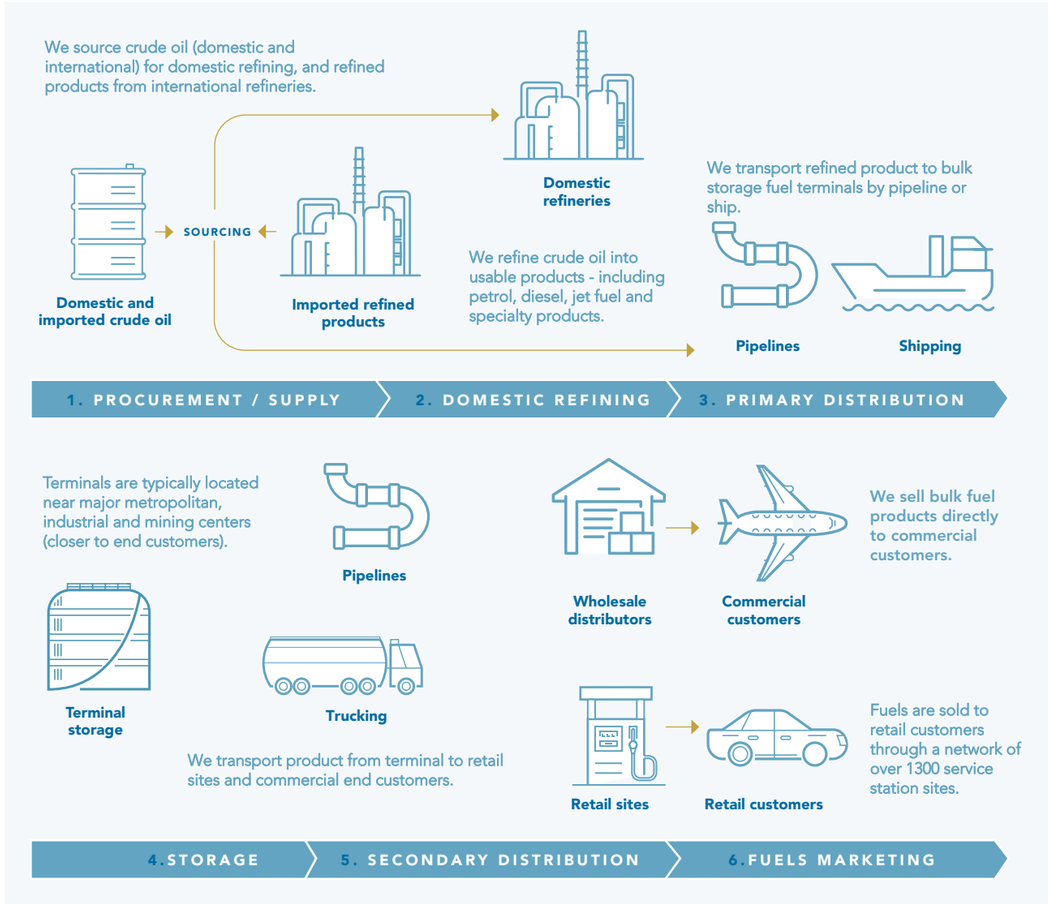


Figure 1 *An overview of our supply chain*

The Australian economy relies on the products we supply, our experience in operating supply chains safely and reliably, and our commitment to helping Australian motorists, businesses and industries.

We are a vital part of Australia's economic prosperity and current and future energy security as our products are supplied to and used in the transport, aviation, marine, agriculture, mining, industrial, defence and resources sectors. As the exclusive licensee of the Shell brand in Australia, fuels manufactured and imported by Viva Energy are also sold to consumers and customers through Shell and Liberty branded retail sites.

In addition to this retail network, we own and/or operate more than 50 fuel import and storage terminals across Australia.

Our operations in Victoria include the Newport Terminal in Spotswood (approximately five kilometres west of the Melbourne CBD), the Geelong Refinery, Corio ,the Lara Gas Terminal, and associated fuel pipelines.

There are approximately 250 Shell branded service stations across Victoria.

Facility Description

Viva Energy's Newport Terminal is one of Victoria's primary fuel distribution centres. It services the Melbourne and greater Victorian marketplace for fuels

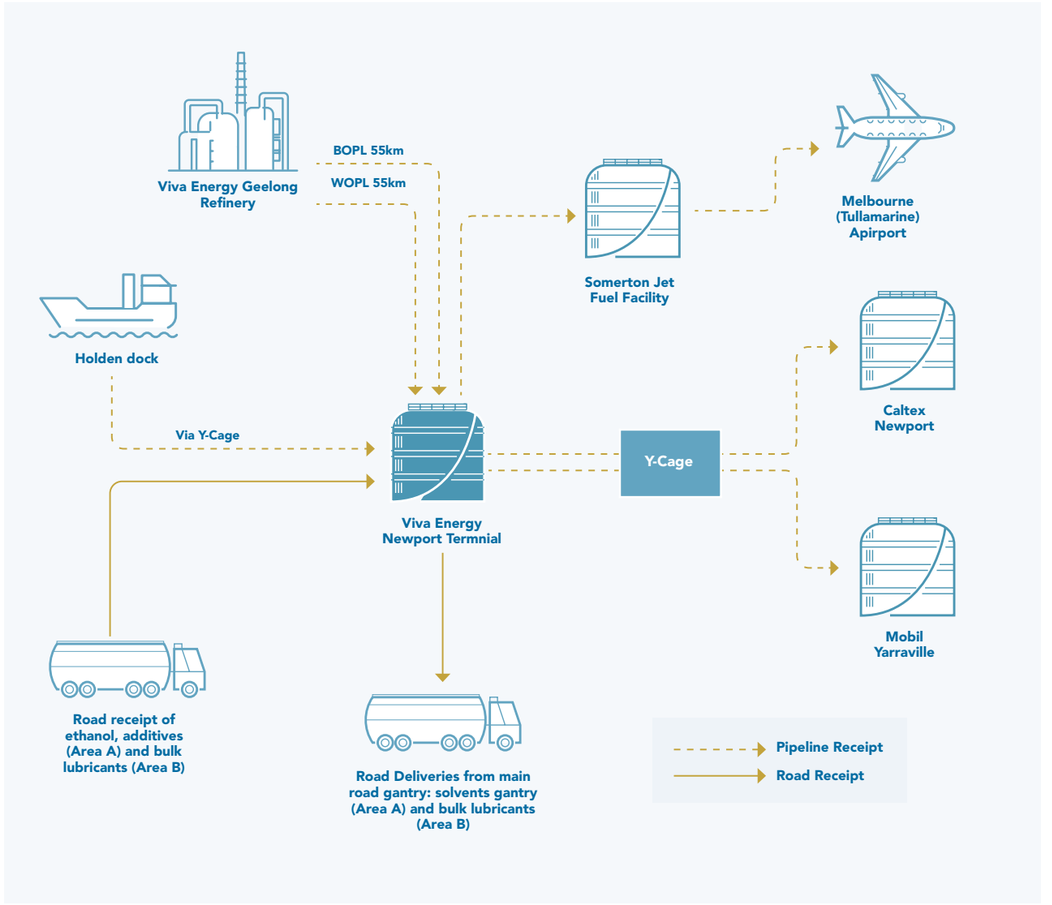
The Terminal operates 24 hours per day, 365 days of the year. It has 40 storage tanks with a total capacity of 140 million litres and road tanker filling gantries for fuels, solvents and lubricating oils.

The Terminal is located in Spotswood bounded by Craig Street to the north (between Ramsay St and Drake St) and by High St in the south (between Hall St and Douglas Pde).

A map of the location of the facility is in the More Information section of this document.

Petroleum products are received into the Terminal from licensed pipelines originating in Geelong (from Viva Energy's Geelong Refinery in Corio) and Yarraville (marine imports through Holden Dock), as well as receipts from bulk road transport. Products are distributed from the Terminal using bulk road tankers in combination with direct pipeline supply to other fuel terminals (which includes jet fuel supply to Melbourne Airport).

SITE LOCATION



Safety Assessment Process

A safety assessment involves identification and analysis of the potential major incidents to provide a detailed understanding of all aspects of risk to health and safety associated with major incidents.

The safety assessments are undertaken in accordance with published good practice guidance from WorkSafe Victoria which involves the process outlined below:

- Identify the Schedule 14 Materials on the site;
- Identify all of the potential major incidents (those which pose a serious and immediate risk to health and safety) that could occur involving these materials;
- Identify all of the (hazards) causes of these potential major incidents;
- Identify the control measures in place to ensure those hazards don't eventuate;
- Identify those measures including having an emergency plan in place to minimise the impact of an incident should it arise;
- Assess the robustness of the identified control measures;
- Demonstrate that all control measures in place are adequate to reduce risk so far as is reasonably practicable (SFARP);
- Identify any actions that may be required to introduce new, or improve existing, control measures.

These assessments are carried out by Viva Energy staff and specialist risk consultants with many years experience in developing risk assessments in the energy sector. A diverse group of experts contributes to the safety assessments including shift operators, health and safety representatives, engineers and managers working at Newport Terminal.

Scheduled Materials

Viva Energy's Newport Terminal stores flammable liquids (i.e. gasoline and solvents) on-site that are classified as Schedule 14 Materials under the OH&S Regulations.

The OH&S Regulations define what materials must be considered in the scope of the Safety Case. Newport Terminal has a number of Schedule 14 materials on-site, the management of which, if not undertaken correctly, may generate a major incident.

All materials, whether scheduled or otherwise hazardous, are stored in specifically designed storage tanks.

Flammable Liquids

The Scheduled Materials present, or likely to be present, are Unleaded Petrol, solvents and kerosene. The safety data sheets for these products are available on the Viva Energy website.

These products are stored predominantly in above ground vertical storage tanks within the tank farm at the southern end of the facility, and transferred via pipelines to vehicles in the main truck loading gantry for distribution throughout Victoria and interstate, in compliance with regulatory requirements and hazardous area management principles.

Hazards, Threats and Control Measures

Potential hazards in the bulk storage of Schedule 14 chemicals involve a loss of containment and the potential for fire or explosion. Control measures to manage these hazards are the equipment, systems and procedures in place to prevent these events from occurring.

Potential threats to control measures that could potentially lead to a hazard causing an incident include: corrosion; equipment failure that causes leaks; over-pressuring or over-filling; failure of operating or maintenance procedures and mechanical impact and vibration.

The control measures in place to protect against these hazards, also called preventative measures, include:

- Equipment design specifications;
- Instrumented control and trip systems;
- Leak detection systems;
- Pressure relief systems;
- Detailed inspection strategies and schedules;
- Operating and maintenance procedures, training and competency assessment;
- Permit to work procedures; and site access controls.

Control measures are also in place to ensure that in the unlikely event of an incident, it is detected and controlled quickly to minimise the likelihood that it will become serious. These are called recovery measures.

Recovery measures include:

- Site layout and equipment separation;
- Emergency shutdown devices;
- Site alarms; automated water and firefighting foam deluge systems;
- Fixed fire-fighting facilities; and
- A comprehensive emergency plan.

Viva Energy's Newport Terminal has its own dedicated fire detection and protection system consisting of:

- Firewater storage tanks and pumps;
- Fixed fire monitors and hydrants;
- Foam and deluge provisions;
- Emergency shutdowns;
- Portable gas detection devices;
- Infra-red flame detectors.

These control measures are subject to performance assessment and inspection to ensure they are reliable and robust.

Impact of a Potential Major Incident

Of the identified major incident scenarios, the number with potential to generate offsite consequences are very low.

Major incident scenarios with potent offsite risks from the facility are:

- Overfill of storage tanks;
- Storage tank shell failure;
- Piping failure at import manifold and Burleigh St pipe bridge.

Flammable Liquid fuels have been stored safely in large above ground vertical storage tanks across the country and at the Newport Terminal for over a century. Viva Energy owns and operates over 200 fuel storage tanks and has a significant depth of operational, engineering and HSSE capability in this field. We have a detailed knowledge of well-established safety assessment, design and operating standards defining good practice in this area.

We are very proud of our safety performance and relationship with our neighbours in many operating jurisdictions. Although we have been operating safely at Newport for over a century, the Newport Terminal operations are safer than ever thanks to ongoing advancements and new technologies.
Our risk reduction initiatives are outcomes of detailed safety assessments and investigations into good practice risk reduction options. The primary focus of these initiatives is to ensure that offsite locations meet industry and regulatory good practice risk criteria, such as the NSW Department of Planning, 'HIPAP 4 - Risk Criteria for Land Use Planning,' 2011, and Victorian 'interim' MHF Risk Criteria.

Storage tank overfill of flammable liquids

The offsite risk reduction project completed in 2022 resulted in us installing best-in-class ultra high integrity radar gauging systems and automated pipeline trips meeting AS61511:2016 Functional Safety requirements. This $3m investment over three years provides improved level management safeguards. Additionally a review of the site's tankage master plan identified opportunities to move more volatile products toward the middle of the site and less volatile products such as Diesel toward the site boundary. This has effectively reduced the potential for any offsite impacts. This is reflected in the construction of two new (non Schedule 14) diesel tanks on the site boundary near Digman Reserve.

Like most social infrastructure such as bridges and tunnels, fuel storage tanks are built to last. To ensure the integrity of the 12mm steel, our tanks are emptied and internally inspected using the latest scanning technologies on average every 10 years with additional external inspection every five years and close visual inspection annually. This aligns with good practice inspection methodology defined in API 650 Welded Steel Tanks for Oil Storage.

Safety Management System

Viva Energy has a systematic approach to Health, Safety, Security and Environmental (HSSE) management in order to achieve continuous performance improvement.

To this end, Viva Energy manages these matters as critical business activities, sets standards and targets for improvement, measures, appraises and reports on performance, and supports active discussion to promote learning and continuous improvement.

The HSSE Management System provides an essential reference document for personnel in the planning, implementation and operation of business activities and ensures that the necessary processes are in place to meet HSSE objectives. The HSSE Management System has been designed to be used by the operators as the primary means of ensuring the safe operation of the Facility.

Table 1 lists the elements of the HSSE Management System (HSSE MS) and the purpose of each element

ELEMENT		PURPOSE IS TO:
1	**Leadership and Commitment**	Create and sustain a culture that drives our commitment to no harm to people and protect the environment.
2	**Policy and objectives**	Support the implementation of Viva Energy HSSE Policy with objectives, targets and plans.
3	**Organisation, Responsibilities, Resources, Standards and Documents**	Establish and maintain an organisation that complies with the HSSE MS standards and is resourced effectively to meet these goals and expectations.
4	**Risk Management**	Establish a process to identify HSSE hazards and reduce the risks to SFARP.
5	**Planning and Procedures**	Integrate the requirements of the HSSE MS into Business Plans and procedures.
6	**Implementation, monitoring and reporting**	
	a. Implementation of the HSSE MS	Implement HSSE requirements embedded in plans/ procedures, and take corrective action when necessary.
	b. Performance Reporting	Report relevant, consistent, transparent, accurate and complete HSSE performance data for internal review and oversight.
	c. Procedure for Incident Notification, Investigation and Reporting	Log, investigate and learn from incidents.
7	**Assurance**	Provide assurance that the HSSE MS requirements are implemented and effective
8	**Management Review**	Review the HSSE MS's effectiveness, adequacy and appropriateness, and take action to improve. The Management Review process also informs the business planning process, as part of continuous improvement.

Emergency Response

The Newport Terminal Emergency Response Plan (ERP) has been developed in conjunction with Fire Rescue Victoria (FRV), as the designated combat agency. Staff at Newport Terminal are trained in first response as well as interagency interaction. Newport Terminal has an on-site alarm and when activated, there is an automatic call-out to the combat agency.

FRV will lead a response to an incident where required. As the combat agency, FRV liaises with Viva Energy and other emergency services such as Victoria Police. The Hobsons Bay City Council is informed of any potential off-site risks associated with facility operations.

Training exercises, both desktop and simulations of various incident scenarios, are also undertaken on a regular basis. This involves staff from the site and various combat agencies.

In the unlikely event of a major incident, emergency services would notify and inform affected communities of any actions required, as well as any potential disruptions such as road closures.

Fire Fighting & Deluge Systems

All major storage tanks are fitted with automated water deluge systems to provide cooling in the unlikely event of fire. Storage tanks containing flammable products are also fitted with foam protection, as is the main truck loading gantry. Additional foam and water firefighting facilities are located strategically around the facility.

Firefighting and deluge systems are regularly inspected and tested to ensure they operate on demand. FRV, as the control agency, directs firefighting response, with support from Viva Energy personnel.

Continuous Improvement

Our commitment to safety and a goad zero mindset drives us to continuously improve our safety performance.

This process involves routinely reviewing industry best practice.

Some examples of current improvement activities to process control systems include:

- Tank level protection safety upgrades;
- Tank 29 (Jet A1 Fuel) replacement; and
- Pipeline transfer safety upgrades.

Newport Terminal Alarms

Alarms are vital **to** ensure on-site personnel respond quickly and safely to an incident. The primary purpose of alarms is for on-site personnel to take action. The alarms are loud and may be heard off-site. The Newport Terminal alarm system is a two-tone audible system, and in the case of activation by a fire alarm, it alerts FRV. There are two types of alarms:

GENERAL ALARM

30 seconds of alternating pitch of the alarm (high pitch followed by low muffled pitch). This signifies that an on-site incident has occurred that requires attention by terminal personnel

ALL CLEAR

30 seconds of continuous sounding of the alarm. This signifies that the all clear has sounded and the incident is under control.

The alarms are tested at 1.30pm every Thursday.

An alarm heard at any other time means an incident has occurred on site that requires attention by Terminal personnel. The community does not need to take action when an alarm sounds unless instructed otherwise by the Police or Emergency Services.

If you hear an alarm and would like more information you can call:
Operational Issues: (24-hour line) 1800 651 818
Emergency: 000

Appendix 1

Licence to Operate a Major Hazard Facility

WorkSafe VICTORIA

Licence to operate a Major Hazard Facility

Occupational Health and Safety Act 2004
Occupational Health and Safety Regulations 2017

This Licence is issued to the operator

Viva Energy Australia Pty Ltd
Level 16, 720 Bourke St
DOCKLANDS
VIC 3008

ACN: 004 610 459

and authorises the facility:

Newport Terminal
Burleigh St
SPOTSWOOD
VIC 3015

to operate as a Major Hazard Facility.

Licence Number	Date Granted	Effective Date	Expiry Date
MHL 019/09	27 September 2022	7 November 2022	6 November 2027

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

Simon Farrar — Director Major Hazards & Dangerous Goods — 26 October 2022

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Appendix 1

Licence to Operate a Major Hazard Facility

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Conditions:

No Conditions.

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, *Occupation Health and Safety Regulations 2017*

ITEM	MATERIAL	CAS or UN No. Included UNDER NAME
40	PETROLEUM AND RELATED VAPOUR CLOUD FORMING SUBSTANCES– Gasoline, Naphtha, Benzene, Crude Oils (not of hazard category 1), Reformate (light), Natural Gas condensates (that meet the criteria for hazard category 2), Motor Spirits, Toluene, Acetone, Methyl Ethyl Ketone, Methyl Tert-Butyl Ether and n-Pentane) maintained at ambient temperature and pressure	-

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

ITEM	MATERIAL DESCRIPTION
13	Flammable liquids, hazard categories 2 or 3 that, once ignited, sustain combustion

Note:

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

Simon Farrar — Director Major Hazards & Dangerous Goods — 26 October 2022

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More Information

Further details may be obtained by contacting:

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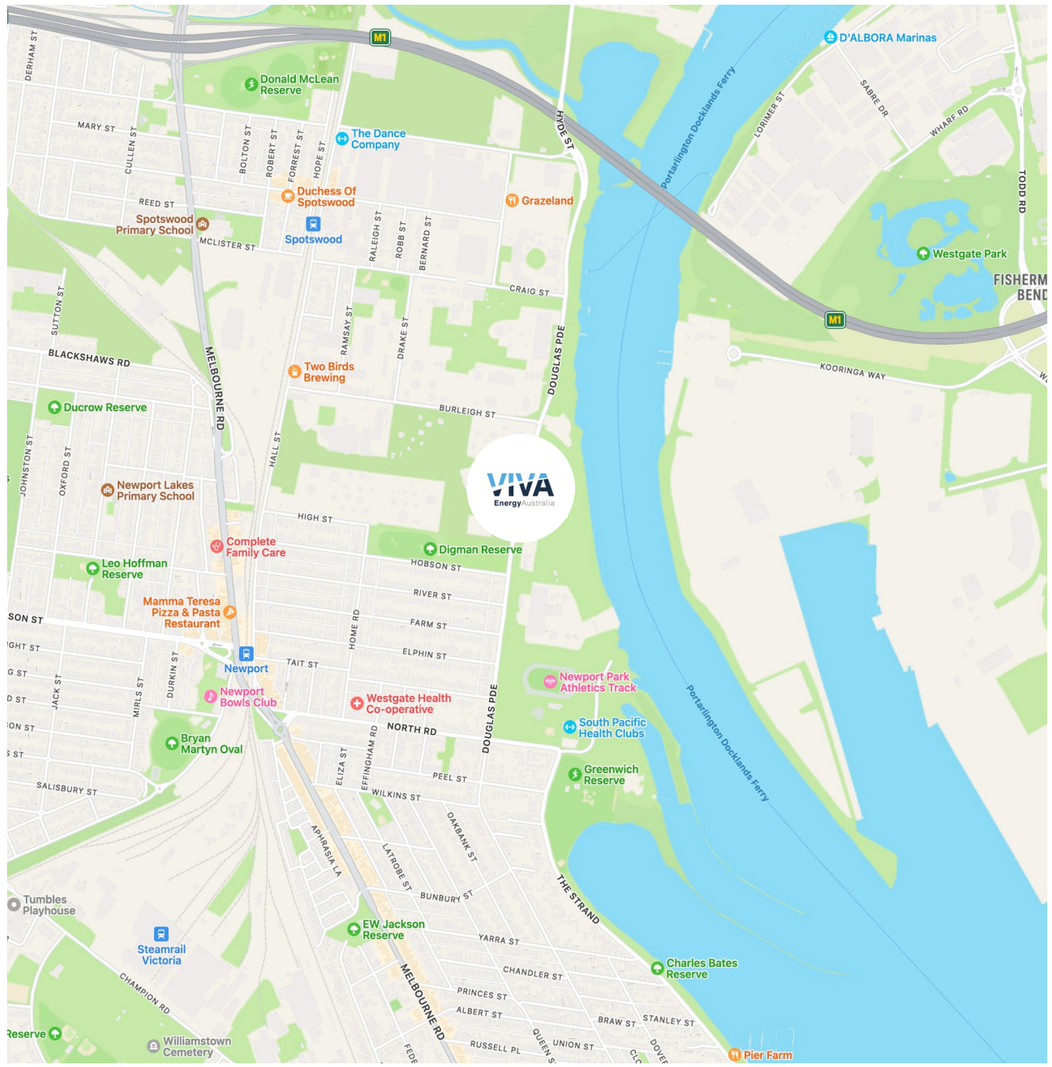
Viva Energy Australia Pty Ltd,
Level 16, 720 Bourke Street
Docklands VIC 3008
Tel: (03) 8823 4444



Viva Energy Australia Pty Ltd
Newport Terminal Administration Building
39-81 Burleigh Street Spotswood,
Gantry entry via 39-81 Burleigh Street
Spotswood, Vic 3015

More information regarding the requirements for Major Hazard Facilities is available from the WorkSafe Victoria website:
www.safework.nsw.gov.au

VIVA EnergyAustralia