

Wiri Terminal Safety Case



Summary
Handbook



Contents

Our Terminal - Wiri Terminal and Specified Hazardous Substances	3
What is a Safety Case?	4
Safety Management System	5
Safety Assessment and Emergency Response Plan	6
What to do in an Emergency	7
Further Information	8

What is the purpose of this manual?

- ➔ This manual provides an easily understood summary of the Wiri Terminal Safety Case submitted in April 2018. It briefly explains why and when a Safety Case is required, what a Safety Case is and what important information it contains, and emergency response information and action requirements for onsite personnel and the local community.
- ➔ In general, the manual provides insight into how the Wiri Terminal operates safely through a well established management system, robust hazard identification and risk assessment process and detailed emergency systems that WOSL have in place.
- ➔ This summary is available publicly at www.wosl.co.nz. See the Further Information section of this handbook if you would like a copy.

Wiri Terminal

Wiri Oil Services Limited (WOSL) operates the Wiri Terminal, which is an onshore liquid transport fuel storage facility located at 149 Roscommon Road, Wiri, Auckland. WOSL operates the terminal on behalf of four major oil company shareholders (BP 28%, Z Energy 2015 16%, Z Energy 28%, and Mobil 28%).

The Wiri Terminal is the termination point of the Refinery to Auckland Pipeline down which is pumped liquid transport fuels from the Refining New Zealand (RNZ) operated Marsden Point Oil Refinery near Whangarei. The fuel handled and stored at Wiri includes premium/regular gasoline, aviation jet fuel and diesel.

The terminal comprises bulk storage of product in a series of large tanks. This bulk storage is required to act as a buffer between the supply from the refinery pipeline and the outflow into road tanker wagons, which distribute product to the retail outlets and other consumers, and the aviation fuel Wiri to Airport Pipeline to bulk storage at Auckland Airport.

Specified Hazardous Substances

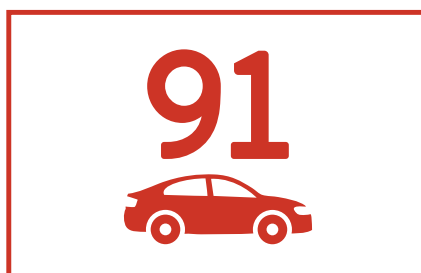
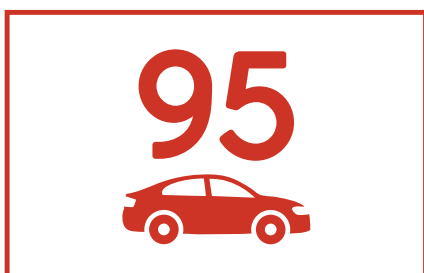
The Wiri Terminal has been identified as an upper tier Major Hazard Facility under the Health and Safety at Work (Major Hazard Facilities) Regulations 2016 (MHF Regulations). The terminal receives, stores and transports a variety of materials classified as specified hazardous substances according to Schedule 2 of the MHF Regulations.

Specified Hazardous Substances

- ➡ Premium/regular gasoline stored in specially designed external floating roof tanks
- ➡ Aviation jet fuel (Jet A-1) stored in specially designed fixed roof tanks

Quantities Onsite

- ➡ Premium Unleaded 95 Petrol (approx. 16,000 m³)
- ➡ Premium Unleaded 91 Petrol (approx. 40,000 m³)
- ➡ Jet A-1 (approx. 36,000 m³)



What is a Safety Case?

The MHF Regulations require upper tier Major Hazard Facilities to develop a 'Safety Case' that demonstrates all major incidents are identified and adequate controls will be in place to minimise the risks of these incidents so far as is reasonably practicable. A major incident is defined in the regulations as an uncontrolled event at a Major Hazard Facility that involves specified hazardous substances (e.g. gasoline, aviation fuel) and exposes multiple persons to a serious risk to their health or safety.

The Wiri Terminal Safety Case is a written demonstration that WOSL has the ability and means to operate the terminal safely through a well established management system, robust hazard identification and risk assessment process and detailed emergency systems. It provides assurance to workers, emergency services, the community and others that the potential for major incidents has been systematically assessed and that effective and suitable controls are in place.

The Safety Case comprises the following main sections:

- ➔ Facility Description
- ➔ Safety Management System Summary
- ➔ Safety Assessment Summary
- ➔ Emergency Response Plan Summary

While preparing the Safety Case, we have engaged with the workforce from different levels including our staff (engineering, operations and maintenance), specialists/contractors, WorkSafe NZ and external agencies such as Fire and Emergency New Zealand. The Safety Case is provided to WorkSafe NZ for routine review and is maintained and updated in accordance with WOSL and legislative requirements.

Safety Management System

Our Health, Safety and Environmental Management System is in place for the management of major incident hazards identified at the terminal. It provides a comprehensive and integrated system for the safe operation of the facility and the management of all aspects of risk control to ensure the safety of our staff, contractors, visitors and the general public. The Health, Safety and Environmental Management System is WOSL's primary means of ensuring the safe operation of the facility and states our safety objectives and describes the systems, processes and procedures that are used to achieve these objectives.

Performance of these various systems and control measures against Business Key Performance Indicators is tracked monthly, published quarterly to the Board and shareholders and reported in the quarterly WOSL Health Safety and Environmental Assurance and Quality Management System Report. A zero-tolerance target has been set for Critical Safety Devices (including Safety Critical Elements).



'Health, Safety and Environment: it's how we do business'



WOSL is committed to major incident prevention and management as a primary company objective and providing, so far as is reasonably practicable, a working environment that is safe for its workers and everyone associated with our business.

WOSL's goal is to deliver the highest possible level of operational safety and reliability, delivering Zero Harm, Zero Disruption and Zero Product to Ground.

Safety Assessment

WOSL conducted a Safety Assessment for the Wiri Terminal which is a documented, comprehensive and systematic investigation and analysis of all health and safety risks associated with major incident hazards.

The Safety Assessment is a combination of safety studies and risk assessments covering the overall process of identifying major incident hazards, analysing the hazards, evaluating their risks and demonstrating suitable risk reduction measures are in place such that the major incident risks are minimised so far as is reasonably practicable (SFAIRP).

We have conducted a range of Safety Assessments including a Major Incident Hazard Identification Workshop, BowTie development for each major incident, SFAIRP Demonstration Workshop, Quantitative Risk Assessment, and Hazard and Operability Study etc.

Major Incident Control Measures

Major incident control measures have been identified for each major incident hazard that are in place to either prevent the incident from occurring or limit the consequence effect of the incident.

Major incident control measures are tested and maintained through WOSL's preventative maintenance system (CMMS).

Emergency Response Plan

For the Wiri Terminal the specified hazardous substances are gasoline and aviation fuel, which are flammable liquids that are stored and processed on site. In addition to the onsite impact, the identified major incidents that have a potential offsite consequence that could possibly affect the local community are events that cause a loss of containment of gasoline or aviation fuel from storage tanks or process equipment that, if ignited, could result in a fire or explosion.

Most accidental releases of hydrocarbons do not result in a fire or explosion as they are easily and quickly dealt with on site to prevent harm or environmental damage.

Potential major incidents at the Wiri Terminal are highly unlikely to have a direct impact beyond the site boundary and affect the public

WOSL's Emergency Procedures Manual details all emergency response related information including emergency systems, processes, procedures, equipment, resources and actions that should be taken in the event of a major incident. The Emergency Procedures Manual has been developed in collaboration with Fire and Emergency New Zealand. The actions that members of the local community should take if a major incident occurs are detailed in the Emergency Procedures Manual and the following sections of this manual.

What to do in an Emergency

Onsite Emergency Response Actions



A site siren is sounded to alert on-site personnel of a major incident and will activate the Emergency Procedures Manual. In the event of a major incident, immediately evacuate the terminal by following the directions of the Fire Wardens to the assembly area. Personnel shall then wait in the assembly area until further instructions are given.



Fire and Emergency New Zealand will assume control of any major incident emergency on arrival at the terminal in collaboration with WOSL, local authorities and other emergency service organisations (e.g. New Zealand Police, Civil Defence).



Follow any emergency action instructions provided by WOSL emergency employees and emergency service organisations. The emergency declaration remains in effect until the all-clear has been given by the WOSL on-scene commander or duty controller.

Local Community Notification and Emergency Response Actions

The site siren, which is audible offsite, is sounded to alert on-site personnel only and does not require any immediate community action. If there is a possibility of the public being affected in the event of a major incident related fire or explosion at the Wiri Terminal, WOSL will send an eText to each of its neighbours and surrounding facilities to inform them.

The local community will be updated during a major incident emergency as required and WOSL asks that you please follow any emergency action instructions provided via eText and communication with local authorities or emergency service organisations (e.g. Fire and Emergency New Zealand, New Zealand Police) until you are informed of termination of the emergency.

Following a major incident emergency, the local community, neighbours and surrounding facilities will be provided with information about the major incident and actions being taken via eText.

General Advice

1. Remain indoors, close windows and doors
2. Search social media and local radio for information
3. Please do not call the terminal
4. Stay away from the terminal
5. Adhere to road closures/diversions
6. Self-evacuate out of the area if you feel more comfortable
7. Seek medical attention if you feel impacted

Further Information

The information provided in this manual will be reviewed and revised as required if a change is made to the Wiri Terminal Safety Case and the major incident risks at the terminal.



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www.wosl.co.nz

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Information about major hazard facilities: <https://worksafe.govt.nz/topic-and-industry/major-hazard-facilities/>