

# EnergyAustralia Tallawarra

## Pollution Incident Response Management Plan

### VERSION HISTORY

| Version                                          | Date       | Author                            | Reason                                                                                                                                                                                            |
|--------------------------------------------------|------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For previous version history, refer to Objective |            |                                   |                                                                                                                                                                                                   |
| 8.0                                              | 19/05/2021 | Environment & Safety Advisor      | Update to Table on page 24 – to include latest desktop exercise.<br>Update to flow chart. Title of Safety and Environment Specialist changed to Safety and Environment Leader.<br>Update Table 3. |
| 9.0                                              | 16/06/2022 | Environment & Safety Advisor      | Update to Table 7 to include latest desktop exercise. Update to Map on page 33.                                                                                                                   |
| 10.0                                             | 07/06/2023 | Environment & Safety Advisor      | Update to Table 7 to include latest desktop exercise. Updated dates on reference documents such as Protection of the Environment Operations (General) Regulation 2022.                            |
| 11.0                                             | 15/02/2024 | Environment & Safety Advisor      | Additional items added to Table 3.                                                                                                                                                                |
| 12.0                                             | 16/07/2024 | Environment and Safety Specialist | Addition of PIRMP test 2024. New spill kit locations added. Update to spill kit location map.                                                                                                     |
| 13.0                                             | 31/07/2025 | Environment and Safety Specialist | Addition of PIRMP test 2025. New spill kit locations added, site drain map updated and chemical storage locations updated.<br>Updated Table 3                                                     |
| 14.0                                             | 10/06/2026 | Environment and Safety Specialist | Update of PIRMP in line with new emergency instructions. Update Table 3. New map of site drains added.                                                                                            |
| <b>14.1</b>                                      | 04/08/2026 | Business Operations Coordinator   | Minor update – link to Emergency Quick Reference Handbook updated                                                                                                                                 |

### FULL VERSION

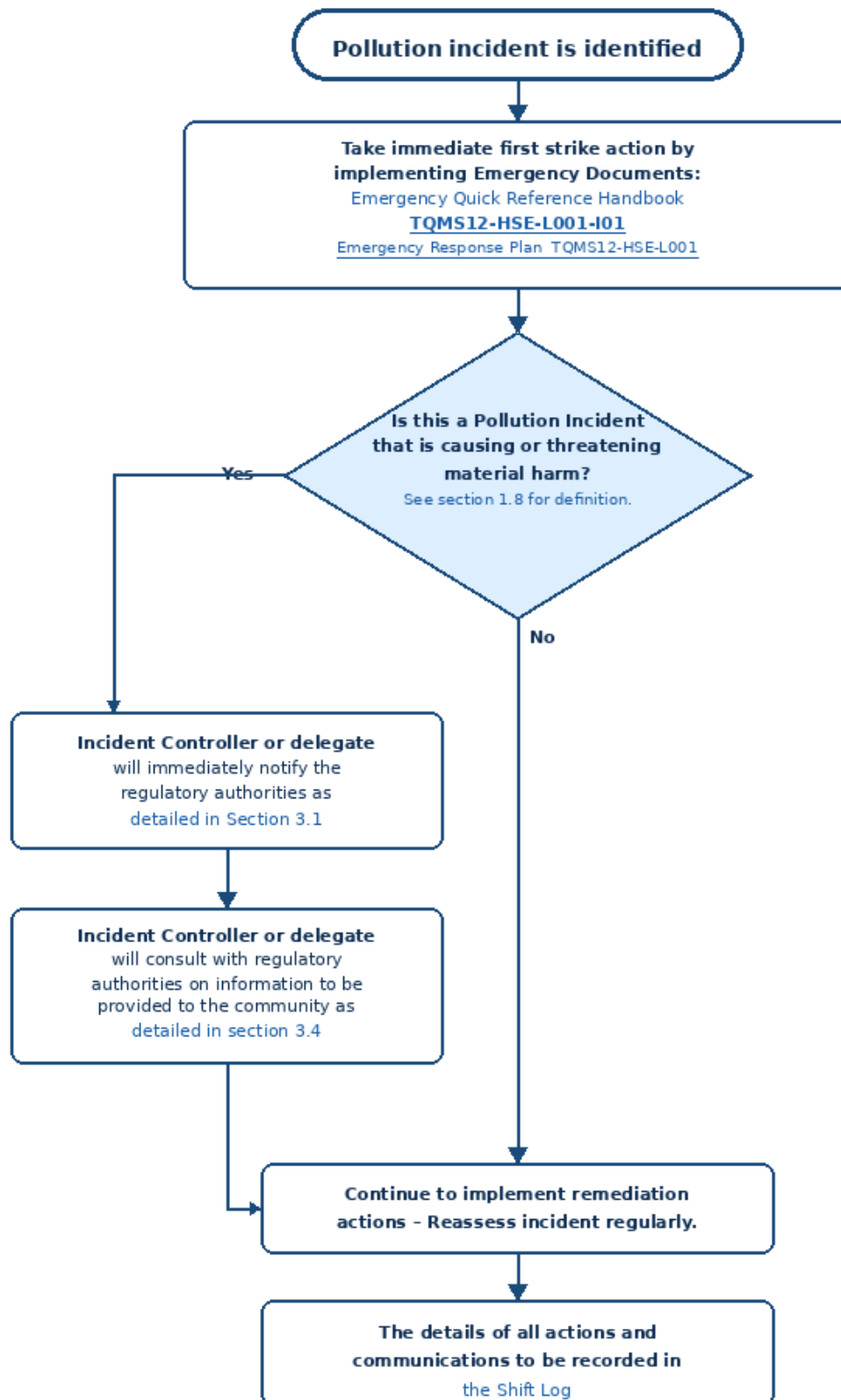
#### ATTENTION!

**In an Emergency situation, the Emergency Quick Reference Handbook (QRH) [TQMS12-HSE-L001-1001](#) and overarching Emergency Response Plan [TQMS12-HSE-L001](#) shall be implemented as a first priority.**

**This plan shall be followed at the earliest opportunity after the Emergency Response Plan has been initiated.**

**The actions outlined in this plan mirror those in the Emergency documents referenced above and have only been included in this document to satisfy regulatory requirements.**

**Figure 1 - PIRMP Implementation chart**



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# 1. Introduction

## 1.1 Title

This document is titled Pollution Incident Response Management Plan (PIRMP) for Tallawarra Power Station.

## 1.2 Full Version

This is the full version of the PIRMP and is maintained at the premises to which the relevant licence relates and is readily available to the persons responsible for implementing the plan and to an authorised officer of the EPA on request.

This version was originally developed in December 2013. Refer to the version control for the latest version. Before this the Emergency Response Plan was used as a PIRMP.

The PIRMP must be tested annually. Tests are documented and recorded in the EnergyAustralia Tallawarra document management system - Objective.

## 1.3 Tallawarra Operations

EnergyAustralia Tallawarra is located on the western shore of Lake Illawarra and is primarily used to support power generation activities, providing the location for a combined cycle gas fired power plant (Tallawarra A Power Station), an open cycle gas fired power plant (Tallawarra B Power Station), as well as lands surrounding this facility.

The EnergyAustralia Tallawarra lands are maintained as remnant vegetation, or alternatively used for grazing where local landowners agist their animals.

## 1.4 Objectives

This PIRMP sets out the requirements for the notification, response and management of pollution incidents as defined in the Protection of the Environment Operations Act 1997 (POEO Act) and the Protection of the Environment Operations (General) Regulation 2022 at Tallawarra Power Station including Tallawarra lands – EnergyAustralia staff and/or contractors to Tallawarra.

The PIRMP has been developed to meet the requirements of EnergyAustralia Tallawarra and POEO legislation and nominates the appropriate responsibilities and actions assigned to Operations staff to ensure the requirements of this procedure are strictly adhered to.

This PIRMP is a component of the broader Emergency Response Plan.

## 1.5 Scope

This PIRMP shall be applicable to ALL EnergyAustralia Tallawarra staff, visitors and contractors to EnergyAustralia Tallawarra Power Station and Tallawarra Lands.

The PIRMP sets out the responsibilities and specific requirements in relation to notifying, responding to, and managing pollution incidents as defined in the POEO Act.

A pollution incident is required to be notified to the Environmental Protection Authority (EPA) and other regulatory agencies as detailed in the Act where there is a risk of actual or potential 'material harm' to the environment. Material harm is defined in Section 1.9 of this PIRMP.

This PIRMP shall specifically list the Operations staff designated as responsible by the Asset Leader, for ensuring that actions and requirements nominated in this PIRMP are carried out as specified.

## 1.6 Document structure

This PIRMP has been prepared to address the specific requirements of the Protection of the Environment Operations (General) Regulation (clause 141).

- ▶ Chapter 2 outlines the specific pollution incident response requirements and procedures
- ▶ Chapter 3 outlines pollution incident response communications
- ▶ Chapter 4 outlines pollution incident response planning undertaken to minimise the risk of potential incidents; and
- ▶ Chapter 5 outlines the requirements for testing the PIRMP.

## 1.7 Reference documents

The following reference documents are also available for additional information or detail:

- ▶ Emergency Response Plan [TQMS12-HSE-L001](#)
- ▶ Emergency Quick Reference Handbook (QRH) [TQMS12-HSE-L001-I01](#)
- ▶ Environmental Management Plan [TQMS04-HSE-L003](#)
- ▶ Tallawarra B Operational Environmental Management Plan [TQMS-ENV-M01-L02](#)
- ▶ Contractor HSSE Management Procedure [HSSEMS-CON-PRO-001](#)
- ▶ Technical publications (e.g., MSDS's & ChemAlert, HAZCHEM codes)
- ▶ Protection of the Environment Operations Act 1997
- ▶ Protection of the Environment Operations (General) Regulation 2022; and
- ▶ NSW EPA : The Guideline: Pollution Incident Response Management Plans (PIRMP Guideline)

## 1.8 Pollution incident definition

A Pollution Incident means an incident or set of circumstances during or because of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur.

It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

A pollution incident is required to be notified if **'material harm to the environment is caused or threatened'**, which is defined in Section 147 of the POEO Act as:

(a) harm to the environment is material if:

(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is **not trivial**, or

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$50,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

## 2. Pollution incident response

The following section details responsibilities of designated EnergyAustralia Tallawarra staff during a pollution incident. It also details management measures for minimising the risk of harm to site personnel during a pollution incident and the actions to be taken during and immediately after a pollution incident.

### 2.1 Responsibilities during a pollution incident

**The Power Plant Technician On Duty is the nominated Incident Controller, or their delegate who can be the Operations Leader or other Power Plant Technician, and is required to assess and initiate the notification process in accordance with the requirements of the POEO Act.**

**Refer to Section 3.1 of this PIRMP for the notification process.**

EnergyAustralia Tallawarra staff that discover an actual or potential pollution incident are responsible for immediately notifying the Control Room of the incident and providing the following information:

- a) the time, date, nature, duration, and location of the incident
- b) the location of the place where pollution is occurring or is likely to occur
- c) the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known
- d) the circumstances in which the incident occurred (including the cause of the incident, if known)
- e) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known; and
- f) other information prescribed by the regulations.

EnergyAustralia Tallawarra's emergency response protocols nominate the Power Plant Technician on Duty as the Incident Controller. Further details on the responsibilities of the Incident Controller and Incident Management Team are available in The Emergency Response Plan.

The Power Plant Technician on duty will assume the Incident Controller role until other arrangements are in place. The Incident Controller is to;

- 1. Assess the Situation
- 2. Activate the Response
- 3. Direct the Response

## **2.2 Management measures to minimised harm to site personnel.**

The safety of personnel involved in pollution incident response must be given the highest priority. Only properly trained personnel equipped with appropriate safety gear and protective clothing may be permitted to take part in operations where the risk of injury is evident. Any response action is to consider the requirements for support systems such as back-up personnel and equipment, first aid, showers, hoses etc.

EnergyAustralia Tallawarra also has safety mechanisms in place as part of EnergyAustralia Tallawarra Safety Management System. All site personnel and contractors are inducted when first attending the site and advised of the evacuation procedures, audible warning alarms and muster locations.

In the event of a pollution incident that has the potential to impact all site staff, an Audible 'beep' and amber flashing light is used to alert site personnel to an impending message. The Power Plant Technician will then make an announcement on what action is required. In the situation where site evacuation is required, an audible 'beep' and red flashing light with a male voice over directing people to evacuate the site will sound. In this circumstance, personnel are directed to the appropriate muster point.

## **2.3 Actions to be taken during and immediately after a pollution incident.**

### **2.3.1 First strike action**

It is imperative that first-strike action be taken quickly to contain any spill. This first strike action, determined by the Power Plant Technician and implemented by the available staff, is to be aimed at achieving isolation and containment of the spill to prevent any further leakage or spread to the surrounding environment. If the spill is minor, clean-up procedures will be implemented as required.

If the spill occurs in a day shift period, the personnel and resources of all employees' will also be available to the Power Plant Technician.

### **2.3.2 Incident response procedures**

EnergyAustralia Tallawarra has an Emergency Quick Reference Handbook which details the actions to be taken by staff after various pollution incident scenarios to reduce or control any pollution. The next five pages are excerpts from the Emergency Quick Reference Handbook related to spills and leaks, which is to be used in conjunction with the Emergency Response Plan.



### 3-1 NATURAL GAS LEAK

**Scenario:** An uncontrolled release of natural gas has been detected, posing an immediate risk of fire and explosion.

#### START

- 1 **GET AWAY!:**
  - Your primary objective is to move away from the source of the leak and to a safe, well-ventilated area.
  - Move **upwind** of the leak. Natural gas is lighter than air and will rise, but in confined spaces or calm conditions, a flammable cloud can form.
- 2 **RAISE THE ALARM & NOTIFY:**
  - Activate the nearest **Manual Call Point (MCP)**.
  - Immediately notify the Control Room** via radio or phone: "Control, this is [Your Name/Radio Call Sign]. We have a gas leak at [Specific Location, e.g. Gas Turbine 1, Gas Metering Skid]".
- 3 **DO NOT IGNITE!:**
  - STOP! DO NOT** use any electrical equipment, phones, radios, or other potential ignition sources in the immediate area.
  - Do not turn on or off any lights. This can ignite the gas.
  - Do not attempt to isolate the gas supply unless you are specifically trained and equipped to do so.
- 4 **ACCOUNT FOR ALL PERSONNEL:**
  - Once at the Muster Point, participate in a **headcount**.
  - Report any missing or injured personnel immediately** to the Emergency Controller.

#### CONTROL ROOM ACTIONS

1. **ACTIVATE EMERGENCY RESPONSE:**
  - Confirm the gas leak via **DCS alarms** or from on-site personnel.
  - Initiate a **site-wide or partial evacuation** depending on the leak's severity and location.
  - Identify who will be the **Incident Controller** and activate the **Emergency Response Plan**.
  - Prepare to coordinate with **external emergency services (000)**, via a mobile phone where possible, specifically warning them of the gas hazard.
2. **ISOLATE THE GAS SUPPLY:**
  - Remotely **shut down the main gas supply valve** to the affected area. This is the highest priority to stop the source of the fuel.
  - Log the incident time, location, and system status. .
3. **COORDINATE WITH RESPONDERS:**
  - Provide site maps, equipment schematics, and hazard data to the **Fire and Rescue teams**.
  - Direct responders to the appropriate staging area and brief them on the situation.
  - Secure the perimeter** to prevent re-entry until the area is declared safe by the Incident Controller.

#### CRITICAL ESCALATIONS

- This may constitute a **"Dangerous Incident"** requiring Safework and other regulator notification - immediately. Contact the HSE Specialist as soon as possible for them to assess the need to notify.

#### CRITICAL EQUIPMENT & RESOURCES

- Explosion-proof radios** for communication in hazardous atmospheres.
- Portable gas detectors** to verify gas levels.
- First Aid Kits** and **Trauma Packs** at Muster Points.
- Sonic Camera** in control room to detect Gas Leaks

## 3-2 HYDROGEN LEAK

**Scenario:** An uncontrolled release of hydrogen gas has been detected, posing an extreme risk of fire and explosion.

### START

- 1 **EVACUATE THE DANGER ZONE!**
  - Your absolute first priority is to move away from the source of the leak and to a safe, well-ventilated area.
  - Move **upwind** and as far away as possible. Hydrogen is lighter than air and will rise and dissipate quickly, but in a confined area, a flammable cloud can form.
- 2 **RAISE THE ALARM & NOTIFY:**
  - Activate the nearest **Manual Call Point (MCP)**.
  - Immediately notify the Control Room** via radio or phone: "Control, this is [Your Name/Radio Call Sign]. We have a hydrogen leak at [Specific Location, e.g. Generator Bay 2, Hydrogen Storage Unit]".
- 3 **DO NOT IGNITE!:**
  - STOP! DO NOT** use any electrical equipment, phones, radios, or other potential ignition sources in the immediate area.
  - Do not turn on or off any lights. Static electricity can ignite the gas.
  - Do not attempt to isolate the hydrogen supply unless you are specifically trained and equipped to do so.
- 4 **ACCOUNT FOR ALL PERSONNEL:**
  - Once at the Muster Point, participate in a **headcount**.
  - Report any missing or injured personnel immediately** to the Emergency Controller.

### CONTROL ROOM ACTIONS

1. **ACTIVATE EMERGENCY PROTOCOL:**
  - Confirm the hydrogen leak via **DCS alarms** or from on-site personnel.
  - Initiate a **site-wide or partial evacuation** depending on the leak's severity and location.
  - Identify who will be the **Incident Controller** and activate the **Emergency Response Plan**.
  - Prepare to coordinate with **external emergency services (000)**, via mobile phone where possible, specifically warning them of the hydrogen hazard.
2. **ISOLATE THE HYDROGEN SUPPLY:**
  - Remotely **close all hydrogen supply valves** to the affected area. This is the highest priority to stop the source of the fuel.
  - Log the incident time, location, and system status. .
3. **COORDIANTE WITH RESPONDERS:**
  - Secure the perimeter** to prevent re-entry until the area is declared safe by the Incident Controller.
  - The primary action is to **wait for the gas to dissipate**. Do not use a fan or other electrical device to accelerate the process unless it is explosion-proof.

### CRITICAL ESCALATIONS

- If the leak is in a confined space:** The area is extremely dangerous. Entry must not be attempted without removing the hydrogen ignition risk.
- This may constitute a **"Dangerous Incident"** requiring Safework and other regulator notification - immediately. Contact the HSE Specialist as soon as possible for them to assess the need to notify.

### CRITICAL EQUIPMENT & RESOURCES

- Explosion-proof radios** for communication in hazardous atmospheres.
- Portable gas detectors** specifically for hydrogen.
- Thermal imaging cameras** in control room to locate invisible hydrogen flames.
- Sonic Camera** in control room to detect Gas Leaks

### 3-4 AMMONIA OR OTHER TOXIC GAS LEAK

**Scenario:** An uncontrolled release of a toxic or corrosive gas, such as ammonia, chlorine, or sulfur dioxide.

#### START

- 1 **EVACUATE THE DANGER ZONE!**
  - Your primary objective is to move away from the source of the leak.
  - Move upwind** of the leak. Toxic gases can be heavier or lighter than air, but moving upwind is the safest immediate action.
- 2 **RAISE THE ALARM & NOTIFY:**
  - Activate the nearest **Manual Call Point (MCP)**.
  - Immediately notify the Control Room** via radio or phone: "Control, this is [Your Name/Radio Call Sign]. We have a toxic leak at [Specific Location, e.g. Ammonia Tank Farm, Water Treatment Plant]".
- 3 **DO NOT ENTER!:**
  - STOP! DO NOT** attempt to locate the source or rescue an injured person without appropriate PPE and breathing apparatus. You will become a casualty.
- 4 **ACCOUNT FOR PERSONNEL:**
  - Once at the Muster Point, participate in a **headcount**.
  - Report any missing or injured personnel immediately** to the Incident Controller.

#### CONTROL ROOM ACTIONS

1. **ACTIVATE EMERGENCY PROTOCOL:**
  - Confirm the gas leak via **DCS alarms** or from on-site personnel.
  - Initiate a **site-side or partial evacuation** depending on the leak's severity and location
  - Identify who will be the **Incident Controller** and activate the **Emergency Response Plan**.
  - Prepare to coordinate with **external emergency services (000)**, via mobile phone where possible, specifically warning them of the toxic gas hazard.
2. **ISOLATE SOURCE AND VENTILATE:**
  - Remotely **close all isolation valves** to the affected system to stop the source of the leak.
  - Shut down ventilation systems that could spread the gas to other areas.
  - Log the incident time, location, and system status.
3. **COORDINATE WITH RESPONDERS:**
  - Provide the **Safety Data Sheet (SDS)** for the specific chemical to the Hazmat and Fire Response teams.
  - Direct responders to the appropriate staging area and brief them on the situation.
  - Secure the perimeter** to prevent re-entry until the area is declared safe by the Incident Controller.

#### CRITICAL ESCALATIONS

- If the leak is in a confined space:** The area is extremely dangerous. Entry must only be by a fully equipped Hazmat team.
- This may constitute a **"Dangerous Incident"** requiring SafeWork and other regulator notification - immediately. Contact the HSE Specialist as soon as possible for them to assess the need to notify.

#### CRITICAL EQUIPMENT & RESOURCES

- Safety Data Sheets (SDS)** for all chemicals on site in **ChemAlert**
- Substance information Sheets** at Ammonia Storage Tanks and other significant storage locations.
- Portable gas detectors** in control room. Be aware that standard detectors will not detect some toxic gases.
- Breathing Apparatus (BA)** at control room foyer.
- First Aid Kits**

## 4-1 HAZARDOUS LIQUID SPILL

**Scenario:** Accidental release of hazardous chemicals (e.g. lubricants, solvents, acids).

### START

- 1 ASSESS AND SECURE THE SCENE:**
  - Do not approach the spill if you are untrained or lack proper PPE.
  - STOP!** Are there visible fumes, a strong odour, or a risk of fire/explosion? Is the spill large or spreading rapidly?
  - If **YES**, do not approach. Immediately raise the alarm and follow the next steps from a safe distance.
  - If **NO**, and you are trained and have the correct PPE, you may proceed with caution.
- 2 RAISE THE ALARM!**
  - Notify the Control Room immediately:** "Control, this is [Your Name / Radio Call Sign]. We have a hazardous liquid spill at [Specific Location, e.g. Maintenance Workshop, Water Treatment Plant]. Requesting Emergency response".
  - State the substance if known:** "The substance is [Substance name, e.g. sulfuric acid, diesel fuel]".
- 3 ISOLATE THE AREA:**
  - Immediately establish a **safe exclusion zone** around the spill.
  - Use warning signs or tape to prevent others from entering.
  - Move all personnel **upwind and upslope** from the spill to avoid fumes.
  - DO NOT** walk through the spill or allow it to enter drains or waterways. Use drain covers if available and safe to do so.
- 4 IDENTIFY AND CONTAIN:**
  - Identify the substance by its container label or a nearby **Substance information sheet**
  - If it is safe to do so, stop the source of the spill if possible, i.e. close valve, stop pumps, tip container back up.
  - If you are trained and equipped with correct PPE, use the site **Chemical Spill Kit** to contain the spill. Use absorbent materials, pads, or booms to stop the spread.

### CONTROL ROOM ACTIONS

- 1. ACTIVATE EMERGENCY RESPONSE:**
  - Log the incident: **time, location, and known substance**.
  - Identify who will be the **Incident Controller** and activate the **Emergency Response Plan**.
  - Provide the responding team with the **Safety Data Sheet (SDS)** for the spilled substance.
  - Initiate a **site-side or partial evacuation** depending on the leak's severity and location
- 2. ISOLATE AND MONITOR:**
  - Isolate any pumps or systems involved in the spill.
  - Check the Drainage Map (located in the back of the emergency instructions) and monitor the spill's path to prevent it from reaching drains, soil, or waterways.
  - Monitor available instrumentation for changes in air or water quality, or fire/gas alarms.
- 3. COORDINATE CLEANUP:**
  - Only authorised trained personnel with correct PPE to perform the cleanup.
  - NEVER** allow untrained staff to attempt cleanup.
  - If the spill is large or poses a significant risk, contact an **Emergency Services (000) for a HAZMAT response team**.
  - Record cleanup progress, including disposal of contaminated materials.

### CRITICAL ESCALATIONS

- This may constitute a **"Dangerous Incident"** requiring Safework and other regulator notification (e.g. EPA) - immediately. Contact the HSE Specialist as soon as possible for them to assess the need to notify.

### CRITICAL EQUIPMENT & RESOURCES

- Chemical Spill Kits:** Absorbents, booms, pads, neutralisers. Map of spill kit located in the back of the emergency instructions.
- Emergency Response Plan (ERP):** Location of spill kits in Appendix 14.
- Safety Data Sheets (SDS):** Information Cards may be at the site depending on the substance and all SDS are in ChemAlert.
- PPE:** Chemical-resistant gloves, goggles, face shields, and suits. Spares in Electrical Store.
- Portable Radios**
- Waste Disposal Bags** located in Oil Store.

## 4-2 CONTAINMENT BREACH

**Scenario:** An uncontrolled release of hazardous liquids or chemicals from a bund, tank, pipe, or containment system.

### START

- 1 **ASSESS AND SECURE THE SCENE:**
  - **STOP!** Do not approach the breach if you are untrained or lack proper PPE.
  - **Move away immediately** to a safe, upwind, and upslope location.
  - **Do not** attempt to enter a flooded bund or containment area.
- 2 **RAISE THE ALARM!**
  - **Immediately notify the Control Room:** "Control, this is [Your Name / Radio Call Sign]. We have a containment breach at [Specific Location, e.g. Diesel Fuel Bund 2, Acid Storage Tank]".
  - Provide essential details: "The substance is [Substance Name]. The breach is [location of the bund/tank]".
- 3 **ISOLATE THE AREA (IF SAFE):**
  - From a **safe distance**, if possible, **close valves or activate emergency shut-off systems** to stop the flow of the substance.
  - **DO NOT** attempt to manually stop a large, high-pressure leak.
- 4 **INITIATE CONTAINMENT (IF TRAINED & SAFE):**
  - If you are trained and have the correct PPE, use the site **Spill Containment Kit** to contain the spill.
  - Deploy **booms, absorbents, or barriers** to prevent the liquid from spreading or entering drains.

### CONTROL ROOM ACTIONS

1. **ACTIVATE EMERGENCY RESPONSE:**
  - Confirm the breach via **DCS** alarm or field reports.
  - Identify who will be the **Incident Controller** and activate the **Emergency Response Plan**.
  - Provide them with the **Safety Data Sheet (SDS)**, containment maps, and drainage schematics for the affected area.
  - Initiate a **site-side or partial evacuation** depending on the leak's severity and location
2. **ISOLATE SYSTEMS:**
  - Remotely **shut down all pumps and systems** that are feeding the breached containment.
  - **Close all relevant valves** and isolate the affected pipelines.
3. **NOTIFY AND LOG:**
  - Log the incident with the **time, location, and substance involved**.
4. **MONITOR AND SUPPORT:**
  - Monitor the spill's spread via CCTV.
  - Provide ongoing support to the Spill Response Team and coordinate with any external responders.

### CRITICAL ESCALATIONS

- This may constitute a "**Dangerous Incident**" requiring Safework and other regulator (e.g. EPA) notification - immediately. Contact the HSE Specialist as soon as possible for them to assess the need to notify.

### CRITICAL EQUIPMENT & RESOURCES

- **Chemical Spill Kits:** Absorbents, booms, pads, neutralisers. Map of spill kit located in the back of the emergency instructions.
- **Emergency Response Plan (TQMS12-HSE-L001):** Location of spill kits in Appendix 14.
- **Safety Data Sheets (SDS):** Information Cards may be at the site depending on the substance and all SDS are in **ChemAlert**.
- **PPE:** Chemical-resistant gloves, goggles, face shields, and suits. Spares in Electrical Store.
- **Portable Radios**
- **Waste Disposal Bags** located in Oil Store.

### **2.3.3 Pollution incident clean-up**

Procedures for the clean-up of pollution incidents will largely depend on the type and extent of the pollution incident.

Clean-up procedures will take into account the following:

- ▶ Type of pollutant
- ▶ Extent/Area of pollution
- ▶ Medium in which pollution has occurred (land, air, water)
- ▶ Requirements for specialist advice in relation to the removal and remediation of the pollution
- ▶ Potential additional environmental impacts by the proposed clean-up processes; and
- ▶ Costs to remove the polluted material to a waste facility licensed to accept the waste.

The Power Plant Technician is responsible for determining the method of clean-up, in consultation with the Environment and Safety Specialist, Asset Leader and consultants (where required). Funding of clean-up procedures will be determined by the Asset Leader.

## 3. Pollution Incident Communications and Training

The following section provides the contact details and requirements for EnergyAustralia Tallawarra staff, Regulators and other stakeholders during a pollution incident. The section also details how neighbours and in what circumstances neighbours will be advised of an incident.

For additional detail on emergency communications and procedures, refer to the EnergyAustralia Tallawarra Business Continuity Plan – Part A [TQMS12-BMG-L001](#) and Tallawarra Business Continuity Plan – Part B [TQMS12-BMG-L002](#).

### 3.1 Immediate Notifications of Incident to Relevant Authorities

EnergyAustralia Tallawarra is required to immediately notify the following regulatory authorities in accordance with the POEO Act s148 where a pollution incident has occurred **that is causing or threatening material harm to the environment**:

**Table 1: Regulatory Authorities Contact Details**

| Contact Authority                       | Contact Person                    | Contact Details                       |
|-----------------------------------------|-----------------------------------|---------------------------------------|
| Environmental Protection Authority      | Environmental Line<br>Greg Newman | <b>131 555</b><br><b>0408 206 035</b> |
| SafeWork NSW                            |                                   | <b>13 10 50</b>                       |
| Local Council – Wollongong City Council |                                   | <b>02 4227 7111</b>                   |
| Fire and Rescue NSW                     |                                   | <b>000</b>                            |

‘Immediately’ has its ordinary dictionary meaning of promptly and without delay.

The Power Plant Technician is required to report all pollution incidents and all relevant information about it to the Asset Leader, Operations Leader or Safety and Environment Leader immediately after becoming aware of the incident.

Using the relevant information of the incident and/or EnergyAustralia Tallawarra’s environmental aspects register and/or internal Emergency Response procedures, the Asset Leader, Operations Leader or Safety and Environment Leader will promptly and without delay assess if the incident is causing or threatening material harm to the environment. If it is deemed so, or it is uncertain, then they will immediately notify the relevant authorities.

If the Asset Leader, Operations Leader or Safety and Environment Leader cannot be contacted within 30 minutes, the Power Plant Technician is required to notify each relevant authority.

The Shift Log should be used to document the agency notification.

The information required to be provided as part of the notification process includes:

- the time, date, nature, duration and location of the incident
- the location of the place where pollution is occurring or is likely to occur
- the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known

- d) the circumstances in which the incident occurred (including the cause of the incident, if known)
- e) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known; and
- f) other information prescribed by the regulations.

Lack of any of the above information should not prevent the responsible person from making an immediate notification in the case where the incident has been deemed to be causing or threatening material harm to the environment. As additional information becomes available, it should be communicated with all the relevant agencies immediately.

The Shift Log should be updated as required and used to document any information updates made to the relevant agencies.

### 3.2 Contact details

Details of the key personnel within EnergyAustralia Tallawarra and details of regulatory agencies and other stakeholders that require notification in the event of a pollution incident are listed below and in Emergency Contact List –contained within the Emergency Response Plan [TQMS12-HSE-L001](#).

| Designation                               | Phone / Ext                | Alternate           |
|-------------------------------------------|----------------------------|---------------------|
| <b>EnergyAustralia Emergency Contacts</b> |                            |                     |
| <b>Operations Control Room</b>            | <b>02 4231 0810 / 0821</b> | <b>0432 751 617</b> |
| <b>Tallawarra Site Leader</b>             | <b>02 4231 0815</b>        | <b>0435 964 370</b> |
| <b>Engineering Leader</b>                 | <b>02 4231 0873</b>        | <b>0404 929 891</b> |
| <b>Operations Leader</b>                  | <b>02 4231 0855</b>        | <b>0437 606 156</b> |
| <b>Maintenance Leader</b>                 | <b>02 4231 0843</b>        | <b>0418 206 643</b> |
| <b>Tallawarra Site Security Office</b>    | <b>02 4231 0847</b>        | <b>0481 901 693</b> |
| <b>Safety and Environment Specialist</b>  | <b>02 4231 0829</b>        | <b>0403 300 510</b> |
| <b>Administration</b>                     | <b>02 4231 0800</b>        |                     |

### 3.3 Communicating with neighbours and the local community

In the event of an incident, subject to advice from the regulatory authorities, the following methods of communication are able to be used to communicate with the local community.

#### 3.3.1 Communication modes

The following communication modes may be implemented:

- ▶ Updating web page
- ▶ Newsletter drop
- ▶ Doorknocking
- ▶ Advertisements; and
- ▶ Signage.



### 3.4 Information to be provided to the community

Decisions to notify neighbours and the local community will be made in consultation with regulatory authorities based on an initial risk assessment (for example, considering the type of pollutant, concentration of emission, prevailing wind, and height of the emission).

Advice provided to the community will depend on the type and extent of the pollution incident and guidance from the regulatory authorities. The following examples are provided as a guide:

- ▶ Uncontrolled emission of air pollutant – Community advised through applicable media outlets to close windows and doors, turn off air conditioning equipment and stay indoors.
- ▶ Uncontrolled release of contaminated water into a waterway – Advise local community to avoid fishing in affected waterways, to restrain pets from entering affected waterways or utilising the waterway for recreation (e.g. swimming, skiing) until the waterway is deemed safe to use following sampling and monitoring.

The EnergyAustralia Tallawarra Communications Coordinator will be responsible for co-ordinating the notification and update of information to neighbours, the local community, and regulatory authorities.

Notification of the Community and Media is to be undertaken in accordance with the EnergyAustralia Tallawarra Emergency Response Plan.

### 3.5 Staff training

Environmental awareness training is delivered to all staff regularly during HSE discussions, and within three months of employment at operational sites. Training records are maintained by the Business Operations Coordinator.

The Environmental Awareness Training Package is designed to provide our employees with an awareness of the importance of:

- ▶ their roles and responsibilities in achieving conformance with our Environment Policy and procedures
- ▶ the requirements of our EMS
- ▶ our significant environmental aspects and impacts (actual or potential) of their work activities
- ▶ the environmental benefits of improved personal performance
- ▶ the potential consequences of departure from specified operating procedures
- ▶ performing duties in an efficient and competent fashion
- ▶ reporting environmental incidents and “near-miss” events
- ▶ active participation in EnergyAustralia Tallawarra’s environmental management process; and
- ▶ knowledge of regulatory requirements.

The Environment and Safety Specialist is responsible for ensuring that PIRMP environmental emergency response exercises are conducted at least yearly at each power station site as required by section 75 in the POEO (General) Regulation 2022. Where possible these are incorporated into site general emergency response exercises.

Full documentation is to be maintained of the exercise, with lessons learnt and steps taken to improve future response.

### **3.6 Public Availability**

The EPA NSW Guideline: Pollution Incident Response Manage Plans (s.2.2.2) requires parts of the PIRMP to be made publicly available with 14 days after it has been prepared. This PIRMP is accessible on the Tallawarra website: [Tallawarra EPA reports | EnergyAustralia](#).

## 4. Pollution incident response planning

The following section details the main hazards at Tallawarra, including an inventory of pollutants and associated safety equipment. Pre-emptive measures for minimising risks associated with hazards and pollutants are also detailed below.

### 4.1 Pollution incident response maps

Pollution incident response maps have been prepared to facilitate planning for incident response and provide readily accessible and accurate information to support the assessment of an incident and assist in the implementation of incident response procedures and clean-up.

The maps will be reviewed on an ongoing basis in order to present accurate information.

The following maps are provided in **Appendix A**:

- ▶ Locality map - showing the location of the premises, the surrounding area including sensitive receivers
- ▶ Main hazard map – showing main potential pollutants on the site
- ▶ Safety equipment maps – showing the location of safety equipment; and
- ▶ Drainage maps – showing the main drainage lines and direction of drainage within the site.

### 4.2 Main hazards at Tallawarra

A site-wide hazard risk assessment was undertaken at Tallawarra to identify the main hazards on each site that pose a risk of causing actual or potential material harm to the environment (human beings and ecosystems). The main hazards identified in this risk assessment are detailed in Table 2 and Table 3.

The degree to which an incident has the potential to threaten or cause material harm will depend on the extent and nature of the incident. **In most cases, the threat of environmental harm should be low (trivial) if the incidents are quickly identified and effectively managed in accordance with the management measures identified in Table 2.**

**Table 2 Tallawarra Main Hazards & Environmental Risk**

| Item                                                      | Hazard                                                                                     | Description                                                                                                                                                      | Likelihood of causing or threatening material environmental harm | Consequence                                                                                      | Management Measure                                                                                                                                                                                              | Circumstances that may increase likelihood of causing or threatening material environmental harm                                       |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gas Turbine Operation</b>                              |                                                                                            |                                                                                                                                                                  |                                                                  |                                                                                                  |                                                                                                                                                                                                                 |                                                                                                                                        |
| 1                                                         | Uncontrolled emission from stacks                                                          | Discharge of NOx above the EPL permitted limit                                                                                                                   | Low                                                              | Localised & regional air pollution<br>Non-compliance with EPL.                                   | Air emissions are constantly monitored and alarmed to notify operators of emissions outside of EPL limits.<br><br>Alarms are set at a lower limit to the EPL limit to allow for rectification of the emissions. | Prolonged Continuous Emissions Monitoring failure with unit still in service and corrective action not taken                           |
| <b>Natural Gas Transport and Handling</b>                 |                                                                                            |                                                                                                                                                                  |                                                                  |                                                                                                  |                                                                                                                                                                                                                 |                                                                                                                                        |
| 2                                                         | Discharge of Natural Gas to atmosphere due to leak in pipeline                             | The Natural Gas pipeline supplying fuel to site may rupture or leak at a flange, causing uncontrolled release of Natural Gas.                                    | Low                                                              | Localised & regional air pollution<br><br>Potential for ignition of gas causing fire in vicinity | Camera's and instruments positioned along pipeline to identify rupture or leak.<br><br>Weekly pipeline inspection performed to identify defects.<br><br>Jemena control room can remotely shutoff gas supply.    | Digging or excavation works occurring on or near pipeline.<br><br>Cathodic protection of pipeline ineffective, or incorrectly applied. |
| <b>Tallawarra Land Management</b>                         |                                                                                            |                                                                                                                                                                  |                                                                  |                                                                                                  |                                                                                                                                                                                                                 |                                                                                                                                        |
| 6                                                         | Bushfire within Tallawarra Lands boundary                                                  | Bushfire within Tallawarra Lands boundary.                                                                                                                       | Low                                                              | Localised air pollution                                                                          | Firefighting equipment kept on-site for RFS use<br><br>RFS access to lands                                                                                                                                      | Adverse weather conditions.<br><br>Lack of routine maintenance in clearing access roads.                                               |
| 7                                                         | Erosion from site entering waterways                                                       | Erosion of soils within the site leading to discharge of sediment-laden water into settling ponds and/or Final Holding Pond                                      | Low                                                              | Discharge of sediment-laden water.<br><br>Non-compliance with EPL                                | Tallawarra Lands Inspections.<br><br>Maintenance of fire trails, roads, access tracks and boundaries<br><br>Sediment control ponds and traps                                                                    | Major storms during earthwork projects with poor sediment control systems in place                                                     |
| <b>Emergency Diesel Generator Operations</b>              |                                                                                            |                                                                                                                                                                  |                                                                  |                                                                                                  |                                                                                                                                                                                                                 |                                                                                                                                        |
| 8                                                         | Diesel generator and/or storage tank failure/spill onto soil and/or into stormwater drains | Diesel tank and/or pipe failure/overflow leading to spill outside of bund walls and/or contaminated water drains.<br><br>Spill during refuelling of diesel tank. | Low                                                              | Contamination of Stormwater Holding Pond with hydrocarbons.                                      | Stormwater retention pond pumped to oily drains pit.<br><br>Emergency spill equipment kept on-site.<br><br>Stormwater pump isolated.                                                                            | Alarm failure leading to uncontrolled spill to the environment (waterways or land)                                                     |
| 9                                                         | Emergency Diesel generator fire                                                            | Diesel generator fire                                                                                                                                            | Low                                                              | Localised air pollution                                                                          | Firefighting equipment kept on-site for RFS use                                                                                                                                                                 | Plant failure leading to uncontrolled spill to the environment (waterways or land)                                                     |
| <b>Turbine Systems Operations/ Transformer Operations</b> |                                                                                            |                                                                                                                                                                  |                                                                  |                                                                                                  |                                                                                                                                                                                                                 |                                                                                                                                        |
| 10                                                        | Oil spills from storage tanks into stormwater drains                                       | Turbine/ Transformer/ Lubricant/ Waste oil tank/drum and/or pipe failure leading to spill outside of bund                                                        | Low                                                              | Contamination of Stormwater Retention Pond with hydrocarbons.                                    | Stormwater retention pond pumped to oily drains pit.<br><br>Emergency spill equipment kept on-site.                                                                                                             | Plant and/or alarm failure leading to uncontrolled discharge to the environment (waterways or land)                                    |

| Item | Hazard                                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Likelihood of causing or threatening material environmental harm | Consequence                                                                                                                                                                                                  | Management Measure                                                                                                                                                                                                                                                                                                                                                                                                       | Circumstances that may increase likelihood of causing or threatening material environmental harm                                                                                                                                                                                                                                                                                          |
|------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                                                         | walls and beyond contaminated water drains.<br>Spill during refuelling of storage tanks.                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                  |                                                                                                                                                                                                              | Stormwater pump isolated.                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                           |
|      | <b>Chemical Plant Operations</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |
| 11   | Chemical storage tank failure/spills                    | Storage tank/pipe failure leading to spill outside of bund walls and contaminated clean water drains.<br><br>Overflow from storage tank bund into stormwater.<br><br>Spill during refuelling of storage tanks.                                                                                                                                                                                                                                                                                           | Low                                                              | Contamination of Stormwater Retention Pond with Ammonia<br><br>Non-compliance with EPL.                                                                                                                      | Stormwater retention pond pumped to Clean drains pit. Clean drains pit isolated for Neutralisation/treatment.<br><br>Emergency spill equipment kept on-site.<br><br>Stormwater pump isolated.                                                                                                                                                                                                                            | Plant and/or alarm failure leading to uncontrolled discharge to the environment (waterways or land)                                                                                                                                                                                                                                                                                       |
|      | <b>Water Recovery</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |
| 12   | Wastewater Pipeline failure                             | Failure of wastewater effluent pipes between the Clean Drains Pit and Wetlands.                                                                                                                                                                                                                                                                                                                                                                                                                          | Low                                                              | Tallawarra Lands with low concentrations of Phosphate and Ammonia.<br><br>Non-compliance with EPL.                                                                                                           | Weekly Tallawarra Lands inspections.                                                                                                                                                                                                                                                                                                                                                                                     | Plant and/or alarm failure leading to prolonged uncontrolled discharge to the environment (waterways or land)                                                                                                                                                                                                                                                                             |
|      | <b>Water Utilisation and Management</b>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |
| 17   | Contaminated discharge from Wetlands                    | The Wetlands collects water from the stormwater retention pond and the Clean Drains Pit. If either of these are contaminated, this would affect the water quality in the Wetlands. The Wetlands discharge to Lake Illawarra                                                                                                                                                                                                                                                                              | Low                                                              | Contamination of Lake Illawarra<br><br>Non-compliance with EPL.                                                                                                                                              | The Wetlands contains reeds and natural grasses as a tertiary treatment.                                                                                                                                                                                                                                                                                                                                                 | Storm events leading to prolonged contaminated discharge to the environment (waterways).                                                                                                                                                                                                                                                                                                  |
| 18   | Stagnant Water in Cooling Water Canals                  | The cooling water canals are enclosed waterways that contain flowing water during normal operations. During abnormal operations the flow can stop, resulting in changes to water quality e.g. reduced dissolved oxygen                                                                                                                                                                                                                                                                                   | Medium                                                           | Fish mortality event and subsequent pollution of lake with dead fish.                                                                                                                                        | The instruction "TCD10-OPS-M003-I011 - Operation of Main Cooling Water System when CCGT is shutdown" details a measurement driven instruction for maintaining water quality during abnormal operations.                                                                                                                                                                                                                  | Maintenance on the Attemperation system would remove the main system for pumping water during abnormal operations, limiting the ability flow sufficient water to maintain water quality.                                                                                                                                                                                                  |
|      | <b>Climate Change</b>                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |
|      | Extreme Weather Events and Sea Level / Flooding Impacts | Extreme weather events driven or intensified by climate change (including severe storms, flooding, heatwaves, and sea level rise) may cause or aggravate a pollution incident at Tallawarra. Specific pathways include: (1) Storm surge or flooding from Lake Illawarra inundating bunded chemical/fuel storage areas or the stormwater retention pond, causing uncontrolled discharge of contaminants to the lake; (2) Extreme heat events increasing the risk of bushfire on Tallawarra Lands, leading | Medium                                                           | Contamination of Lake Illawarra from floodwater-mobilised hydrocarbons, chemicals or sediment; uncontrolled air emissions from fire; localised land contamination. Non-compliance with EPL discharge limits. | Bunding of all chemical, fuel, oil and lubricant storage.<br><br>Stormwater retention pond with isolation valves.<br><br>Tallawarra Lands inspections and sediment controls.<br><br>Firefighting equipment on site.<br><br>Alarm systems on key infrastructure. Emergency backup generator.<br><br>Monitoring of discharge points (air and water).<br><br>Regular condition assessments of above-ground tanks and bunds. | Increased frequency and intensity of storm events and heatwaves projected under climate change scenarios for the Illawarra region. Proximity to Lake Illawarra and coastal low-lying areas increases flood and storm surge exposure. Concurrent failure of multiple controls during a major weather event (e.g. bund overtopping combined with stormwater pump outage and alarm failure). |

| Item | Hazard | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Likelihood of causing or threatening material environmental harm | Consequence | Management Measure                                                                     | Circumstances that may increase likelihood of causing or threatening material environmental harm |
|------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
|      |        | to air pollution and potential runoff contamination; (3) High-intensity rainfall events overwhelming sediment controls and the stormwater system, causing sediment-laden water or pollutants to discharge to Lake Illawarra or surrounding waterways; (4) Physical damage to above-ground infrastructure (pipelines, tanks, bunds) from high-wind or flood events, releasing stored hydrocarbons or chemicals; (5) Power outages during extreme events disabling monitoring alarms and stormwater pump isolation systems. |                                                                  |             | Review of AdaptNSW projections for Illawarra region to inform risk assessment updates. |                                                                                                  |

### 4.3 Inventory of pollutants

A number of potential pollutants are stored, used and disposed of at Tallawarra. These include fuels, chemicals, oils, lubricants, wastewater, sewerage water and waste materials. A list of potential pollutants is detailed in **Error! Reference source not found.** below.

**Table 3 Tallawarra potential pollutants**

| Storage location               | Storage ID | UN # | Product Name                     | Storage type    | Class/Division | Packing Group | Typical quantity |          | Maximum quantity |          |
|--------------------------------|------------|------|----------------------------------|-----------------|----------------|---------------|------------------|----------|------------------|----------|
| Stormwater pond                | 1          | NA   | Sediment Contaminated Stormwater | Stormwater Pond | NA             | NA            | 1230000          | Litres   | 2,460,000        | Litres   |
| Waste water pit                | 2          | NA   | Wastewater                       | Wastewater pit  | NA             | NA            | 108000           | Litres   | 216,000          | Litres   |
| lube oil tank                  | 3          | NA   | Lube oil - Turbotect 2020        | Bulk tank       | NA             | NA            | 20,000           | Litres   | 20,000           | Litres   |
| CO2 Bullet                     | 4          | 1013 | Carbon Dioxide Bulk              | Bulk tank       | Class 2.2      | NA            | 4,000            | Kilogram | 4,000            | Kilogram |
| E Modules                      | 5          | 1006 | Argon, Compressed                | Cylinders       | Class 2.2      | NA            | 505              | Kilogram | 505              | Kilogram |
| Fuel gas yard                  | 6          | 1954 | C9+ Calibration Gas              | Cylinders       | Class 2.1      | NA            | 216              | Kilogram | 216              | Kilogram |
| Fuel gas yard                  | 6          | 1046 | Helium Compressed                | Cylinders       | Class 2.2      | NA            | 100              | Litres   | 100              | Litres   |
| Carbon Dioxide Storage         | 7          | 1013 | Carbon Dioxide Compressed        | Cylinders       | Class 2.2      | NA            | 2,100            | Litres   | 2,100            | Litres   |
| Control Room Argon fire system | 8          | 1006 | Argon, Compressed                | Cylinders       | Class 2.2      | NA            | 1,040            | Litres   | 1,040            | Litres   |
| Gas cylinder storage area      | 9          | 1075 | LPG                              | Cylinders       | Class 2.1      | NA            | 252              | Litres   | 252              | Litres   |
| Gas cylinder storage area      | 9          | 1046 | Helium, Compressed               | Cylinders       | Class 2.2      | NA            | 250              | Litres   | 250              | Litres   |
| Gas cylinder storage area      | 9          | 1075 | LPG                              | Cylinders       | Class 2.1      | NA            | 150              | Litres   | 150              | Litres   |
| Gas cylinder storage area      | 9          | ###  | Oxygen, Compressed               | Cylinders       | Class 2.2 &    | NA            | 72               | Litres   | 150              | Litres   |
| Gas cylinder storage area      |            |      |                                  |                 | Class 5.1      |               |                  |          |                  |          |
| Gas cylinder storage area      | 9          | 1954 | C9+ Calibration Gas              | Cylinders       | Class 2.1      | NA            | 216              | Litres   | 304              | Litres   |
| Hydrogen storage               | 10         | 1049 | Hydrogen                         | Bulk tank       | Class 2.1      | NA            | 4,200            | Litres   | 5,000            | Litres   |
| Nitrogen capping               | 11         | 1066 | Nitrogen, Compressed             | Cylinders       | Class 2.2      | NA            | 600              | Litres   | 600              | Litres   |
| Maintenance building           | 12         | NA   | Multipurpose Degreaser           | Packages        | NA             | NA            | 200              | Litres   | 200              | Litres   |
| Oil storage shed               | 13         | NA   | Waste Oil                        | Packages        | NA             | NA            | 1,000            | Litres   | 1,000            | Litres   |
| Oil storage shed               | 13         | NA   | Perfecto T 46                    | Packages        | NA             | NA            | 4,715            | Litres   | 4,715            | Litres   |
| Oil storage shed               | 13         | NA   | Spheerol Epl 00                  | Packages        | NA             | NA            | 920              | Kilogram | 920              | Kilogram |
| Oil storage shed               | 13         | NA   | Nytro 10gbx                      | Packages        | NA             | NA            | 820              | Litres   | 820              | Litres   |
| Oil storage shed               | 13         | NA   | Turbotect 2020                   | Packages        | NA             | NA            | 624              | Litres   | 624              | Litres   |



| Storage location               | Storage ID | UN # | Product Name                                                               | Storage type    | Class/Division | Packing Group | Typical quantity |          | Maximum quantity |          |
|--------------------------------|------------|------|----------------------------------------------------------------------------|-----------------|----------------|---------------|------------------|----------|------------------|----------|
| Oil storage shed               | 13         | NA   | Hyspin Awh-M 46 (Uk)                                                       | Packages        | NA             | NA            | 615              | Litres   | 615              | Litres   |
| Oil storage shed               | 13         | NA   | Turbotect 2020                                                             | Packages        | NA             | NA            | 615              | Litres   | 615              | Litres   |
| Oil storage shed               | 13         | NA   | Multipurpose Degreaser                                                     | Packages        | NA             | NA            | 205              | Litres   | 205              | Litres   |
| Oil storage shed               | 13         | NA   | Perfecto T 46                                                              | Packages        | NA             | NA            | 140              | Litres   | 140              | Litres   |
| Oil storage shed               | 13         | NA   | Atlas Copco Roto Inject Fluid                                              | Packages        | NA             | NA            | 120              | Litres   | 120              | Litres   |
| Oil storage shed               | 13         | NA   | Alpha Sp 220                                                               | Packages        | NA             | NA            | 100              | Litres   | 100              | Litres   |
| Turbine hall                   | 14         | NA   | Turbotect 2020                                                             | Packages        | NA             | NA            | 1,000            | Litres   | 1,000            | Litres   |
| Ammonia dosing skid            | 15         | 2672 | Ammonia 25% Solution                                                       | Packages        | Class 8        | PGIII         | 125              | Kilogram | 1410             | Kilogram |
| Ammonia dosing skid            | 15         | NA   | Odacon SF                                                                  | Containers      | NA             | NA            | 0                | Litres   | 0                | Litres   |
| Warehouse                      | 16         | NA   | Turbotect 2020                                                             | Packages        | NA             | NA            | 200              | Litres   | 200              | Litres   |
| Warehouse                      | 16         | NA   | Amerlock 400 Mio Nsg Part A                                                | Packages        | NA             | NA            | 100              | Litres   | 100              | Litres   |
| Water Treatment building       | 17         | 2672 | Ammonia 25% Solution                                                       | Packages        | Class 8        | PG III        | 190              | Kilogram | 380              | Kilogram |
| Water Treatment building       | 17         | NA   | Osmoflo Osmo-Dechlor                                                       | Packages        | NA             | NA            | 200              | Litres   | 200              | Litres   |
| Water Treatment building       | 17         | NA   | Odacon SF                                                                  | Containers      | NA             | NA            | 0                | Litres   | 1000             | Litres   |
| TWB Sediment pond              | 18         | NA   | Sediment Pond                                                              | Stormwater Pond | NA             | NA            | 1,000            | Litres   | 90,000           | Litres   |
| TWB Oil water separator        | 19         | NA   | Oil water separator tank                                                   | Bulk tank       | NA             | NA            | 1,000            | Litres   | 5,000            | Litres   |
| TWB Emergency diesel generator | 31         | 1202 | Diesel                                                                     | Bulk tank       | Class 3        | III           | 10,000 L         | Litres   | 10,000           | Litres   |
| Fuel gas yard                  | 6          | 1954 | Chromatograph - Calibration Gas                                            | Bottles         | Class 2.1      | NA            | 108              | Kilogram | 108              | Kilogram |
| Fuel gas yard                  | 6          | 1046 | Chromatograph - Carrier Gas                                                | Bottles         | Class 2.2      | NA            | 100              | Litres   | 100              | Litres   |
| Fuel gas yard                  | 6          | NA   | Hydrocid 339 Microbiocide                                                  | Containers      | NA             | NA            | 4.4              | Litres   | 4.4              | Litres   |
| Fuel gas yard                  | 6          | NA   | Hydro 428 Corrosion Inhibitor                                              | Containers      | NA             | NA            | 66               | Litres   | 66               | Litres   |
| TWB CEMS Hut                   | 20         | 1956 | Calibration Gas for CEMS CO<br>80mg/m3 NO 80mg/m3 CO2 20%<br>Balance in N2 | Bottles         | 2.2            | NA            | 20               | Litres   | 20               | Litres   |

| Storage location                       | Storage ID | UN # | Product Name                                 | Storage type            | Class/Division | Packing Group | Typical quantity |          | Maximum quantity |          |
|----------------------------------------|------------|------|----------------------------------------------|-------------------------|----------------|---------------|------------------|----------|------------------|----------|
| TWB CEMS Hut                           | 20         | 1956 | Calibration Gas for CEMS O2 2% balance in N2 | Bottles                 | 2.2            | NA            | 20               | Litres   | 20               | Litres   |
| TWB LCI Excitation compartment         | 21         | 3296 | FM200 Fire Fighting                          | Cylinders               | Class 2.2      | III           | 312              | Kilogram | 312              | Kilogram |
| TWB Lube oil module                    | 22         | NA   | Lubricating Oil- Gas Turbine / Generator     | Bulk Tank               | NA             | NA            | 40,000           | Litres   | 70,000           | Litres   |
| TWB Compressed air plant               | 23         | NA   | Lubricating Oil- Air Compressor              | Drums                   | NA             | NA            | 126              | Litres   | 126              | Litres   |
| TWB Wet Surface Air Cooler             | 24         | 3266 | Corrosion Inhibitor                          | Containers              | Class 8        | III           | 50               | Litres   | 100              | Litres   |
| TWB Wet Surface Air Cooler             | 24         |      | Corrosion Inhibitor (Trac104)                | Containers              | Class 8        | III           | 30               | Litres   | 60               | Litres   |
| TWB Wet Surface Air Cooler             | 24         | 3265 | Biocide                                      | Containers              | Class 8        | II            | 60               | Litres   | 90               | Litres   |
| TWB Water wash skid                    | 25         | NA   | Compressor Washing Fluid                     | Containers              | NA             | NA            | 473              | Litres   | 473              | Litres   |
| TWB Main Generator step up transformer | 26         | NA   | Oil - Main Generator Step Up Transformer     | Integral to Transformer | NA             | NA            | 95000            | Litres   | 82,600           | Kilogram |
| TWB Excitation transformer             | 29         | NA   | Oil - Excitation Transformer                 | Integral to Transformer | NA             | NA            | 4500             | Litres   | 4500             | Litres   |
| TWB Isolation transformer              | 28         | NA   | Oil - Static frequency Transformer           | Integral to Transformer | NA             | NA            | 1600             | Litres   | 1600             | Litres   |
| TWB Unit auxiliary transformer         | 27         | NA   | Oil - Unit Auxiliary Transformer             | Integral to Transformer | NA             | NA            | 6600             | Litres   | 5700             | Kilogram |

#### **4.4 Pre-emptive actions to minimise risks.**

The following general pre-emptive actions are undertaken by EnergyAustralia Tallawarra in order to minimise risks to human health and/or the environment arising from the activities undertaken at the power station.

- ▶ Provision, training, and use of spill containment kits
- ▶ Installation of monitoring equipment on discharge points (air and water)
- ▶ Installation of alarms on key infrastructure
- ▶ Bunding of bulk chemical, fuel, oil, and lubricant storage containers
- ▶ Isolation valves on bunded storage areas
- ▶ Installation and use of fire-containment infrastructure and water tanks
- ▶ Labelling of drains according to their discharge point (stormwater, oily water separator etc)
- ▶ Maximisation of the capacity of storage ponds
- ▶ Regular and routine condition assessments of key infrastructure
- ▶ Regular and routine environmental inspections across the sites
- ▶ External audits assessing environmental compliance of the sites with Conditions of Approvals, Environmental Management Plans and general environmental performance; and
- ▶ Training of staff in the safe handling and use of chemicals, fuels, oils, and lubricants.

#### **4.5 Emergency equipment at Tallawarra**

A wide variety of safety and emergency equipment is stored at Tallawarra for use during emergencies and Section 4.5.1 detail this equipment.

#### 4.5.1 Equipment at Tallawarra

**Table 4 Pollution Control Equipment Locations**

| Locations                                                        |                             |
|------------------------------------------------------------------|-----------------------------|
| Area                                                             | Equipment                   |
| Workshop near Electrical Store entrance door                     | Oil Spill Kit 1             |
| Oil Store                                                        | Oil Spill Kit 2             |
| Turbine Hall South/West side Ground Floor                        | Oil Spill Kit 3             |
| Turbine Hall South side base of generator ground floor           | Oil Spill Kit 4             |
| Turbine Hall South/East side Ground Floor                        | Oil Spill Kit 5             |
| Turbine Hall North Side near Ammonia Skid ground floor           | Oil Spill Kit 6             |
| Turbine Hall North side near Seal Oil Unit Ground Floor          | Oil Spill Kit 7             |
| Turbine Hall North Side near Auxiliary Oil Unit ground floor     | Oil Spill Kit 8             |
| Water Treatment Plant back of Electrical Room                    | Oil Spill Kit 9             |
| Workshop near Electrical Store entrance door (spare if required) | Oil Spill Kit 10            |
| Warehouse near front entrance                                    | Oil Spill Kit 11            |
| TWB Oily Water Treatment Area                                    | Oil Spill Kit 12            |
| TWB North Side Turbine Hall                                      | Oil Spill Kit 13            |
| TWB South Side Turbine Hall / Lube Oil Module                    | Oil Spill Kit 14            |
| TWB Water Storage Tanks                                          | Oil Spill Kit 15            |
| New Warehouse                                                    | Oil Spill Kit 16            |
| Turbine Hall North Side near Ammonia skid ground floor           | Chemical Spill Kit 1        |
| Water Treatment Plant outside Laboratory                         | Chemical Spill Kit 2        |
| E-modules                                                        | Chemical Spill Kit 3        |
| TWB Wet Surface Air Cooler                                       | Chemical Spill Kit 4        |
| TWB Battery Storage Compartment                                  | Chemical Spill Kit 5        |
| Main cooling pit outfall                                         | Marine Spill Kit 660L Kit 1 |
| Main cooling water inlet chamber                                 | Marine Spill Kit 120L Kit 2 |
| TWB Sediment Pond                                                | Marine Spill Kit 660L Kit 3 |

**Table 5 Chemical Spill Kits**

| Chemical Spill Kits                   |                            |
|---------------------------------------|----------------------------|
| Contents                              | Estimated Quantity per Kit |
| Absorbent Mini Booms 2.4mx75mm        | 7                          |
| Absorbent Pillows 50x40cm             | 5                          |
| Absorbent Pads 400x500mm              | 100                        |
| Floorsorb 7kg bag                     | 1                          |
| Pair of Gloves 45cm                   | 2 pairs                    |
| Hazardous Waste/Salvage Bags 1.4X0.5m | 8                          |

**Table 6 Oil Spill Kits**

| Oil Spill Kits                        |                            |
|---------------------------------------|----------------------------|
| Contents                              | Estimated Quantity per Kit |
| Absorbent Mini Booms 2.4mx75mm        | 7                          |
| Absorbent Pillows 50x40cm             | 5                          |
| Absorbent Pads 400x500mm              | 100                        |
| Floorsorb 7kg bag                     | 1                          |
| Pair of Gloves 45cm                   | 2 pairs                    |
| Hazardous Waste/Salvage Bags 1.4X0.5m | 8                          |

**Table 7 Marine Spill Kits**

| Marine Spill Kit – 660L           |                            |
|-----------------------------------|----------------------------|
| Contents                          | Estimated Quantity per Kit |
| Oil only pads                     | 300                        |
| 125mm x 3m Marine Booms           | 10                         |
| 500mm x 40m oil only roll         | 1                          |
| Large oil only pillows            | 6                          |
| 12mm x 30m Poly Rope – 1.4 x 0.5m | 1                          |

| Marine Spill Kit – 660L |                            |
|-------------------------|----------------------------|
| Contents                | Estimated Quantity per Kit |
| Pair of gloves 45cm     | 2                          |
| 30L Organic Absorbent   | 2                          |
| Brush and shovel set    | 1                          |
| Coverall suit           | 1                          |
| Disposal bags           | 10                         |
| Cable Ties              | 10                         |
| Security tag            | 1                          |
| Utility Knife           | 1                          |
| Laminated Instructions  | 1                          |

| Marine Spill Kit – 120L                           |                    |
|---------------------------------------------------|--------------------|
| Contents                                          | Estimated Quantity |
| Oil and fuel lightweight meltblown pads           | 50                 |
| SpillBoss small Oil and Fuel pillow               | 2                  |
| SpillBoss Oil and Fuel Mini-Boom                  | 6                  |
| SpillBoss P85 Premium Organic Absorbent – 30L bag | 1                  |
| Nitrile Gloves                                    | 1                  |
| Hazardous Waste Disposal Bags                     | 4                  |
| Black Cable Ties                                  | 4                  |
| Red Security Tag                                  | 1                  |
| Heavy Duty Dustpan and Brush                      | 1                  |
| Laminated Instruction Card                        | 1                  |

## 5. Testing of the PIRMP

EnergyAustralia Tallawarra will test the PIRMP on a routine basis at least once every 12 months and within one month of a notifiable incident.

Testing of the PIRMP will generally be run in conjunction with testing of the overall Emergency Response Plan. The program for testing is provided below:

- Testing of the PIRMP will either be in the form of a simulation, or a practical exercise organised in conjunction with the environmental emergency response exercises.
- PIRMP test exercises will be scheduled and recorded in the Maximo.
- EnergyAustralia Tallawarra will maintain records in Objective pertaining to the exercise, lessons learnt, steps taken to improve responses.
- Documented records of the PIRMP tests will be kept on the EnergyAustralia Tallawarra Intranet and reported at the Management Review.
- Due to a high risk ranking the PIRMP will be reviewed and updated yearly by following EnergyAustralia Tallawarra standard operation procedure for Document creation, modification and approval [TQMS09-IDR-P001](#).

**Table 8 PIRMP Test Date**

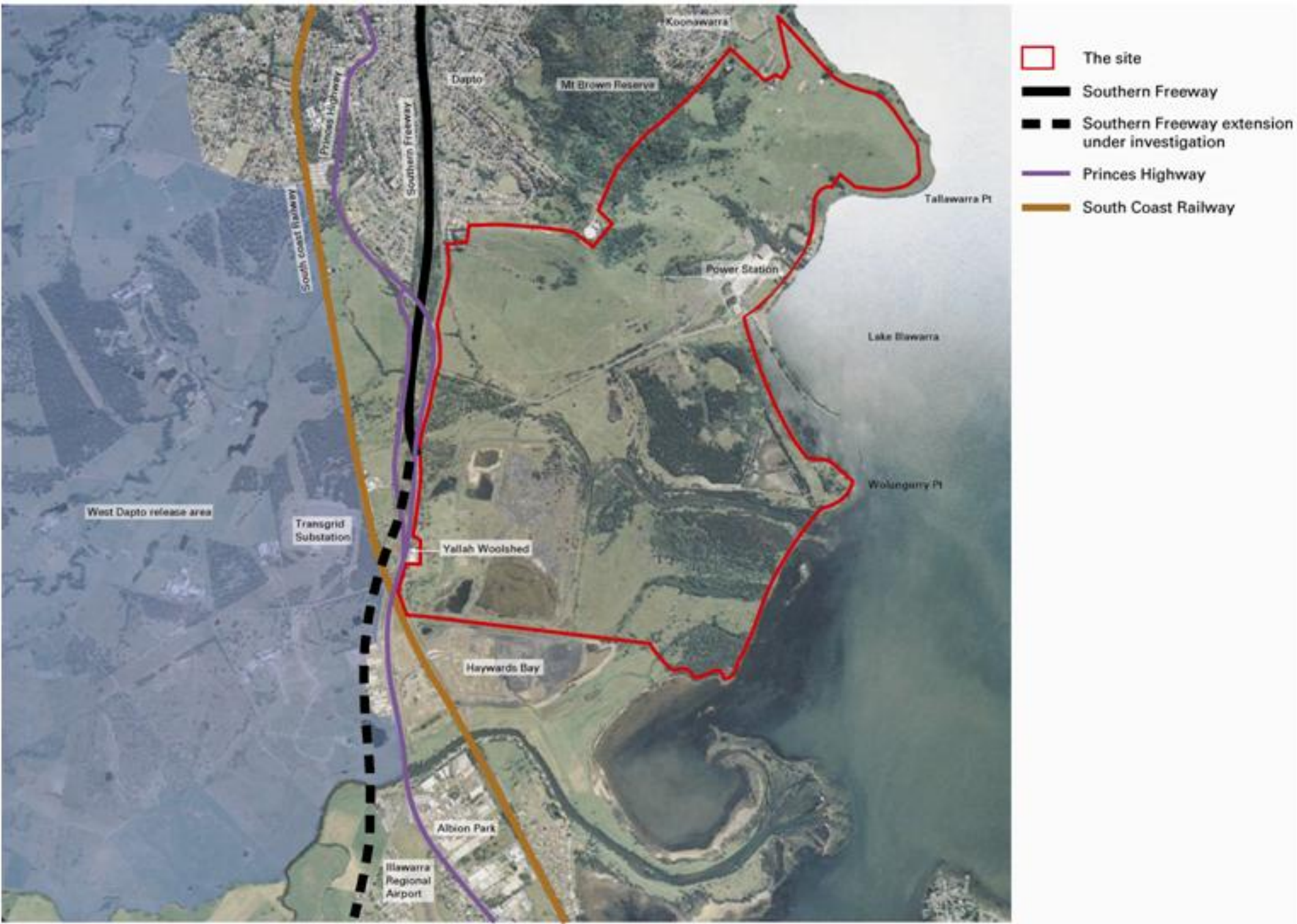
| Reason for Testing | Type of Test | Date of Test | Person Present                                       |
|--------------------|--------------|--------------|------------------------------------------------------|
| Annual Test        | Desktop      | 25/02/2015   | Robin Barclay, Steve Boscoscuro, Ivan Currie         |
| Annual Test        | Desktop      | 23/06/2016   | Steve Boscoscuro, Ivan Currie                        |
| Annual Test        | Desktop      | 23/06/2017   | Kristen Lee, Ivan Currie                             |
| Annual Test        | Desktop      | 29/6/2018    | Kristen Lee, Evan Corbett, Justine Ruckert           |
| Annual Test        | Practical    | 1/5/2019     | Kristen Lee, Ivan Currie, Warren Smith, Ian Kershaw  |
| Annual Test        | Practical    | 12/6/2020    | Kristen Lee, Evan Corbett, Matthew Naylor            |
| Annual Test        | Practical    | 15/04/2021   | Kristen Lee, Stephanie Wilmott, Simon Pilkington     |
| Annual Test        | Desktop      | 16/06/2022   | Stephanie Wilmott, Kristen Lee                       |
| Annual Test        | Desktop      | 07/06/2023   | Kane Hoskins, Brian Sibanda                          |
| Annual Test        | Desktop      | 28/06/2024   | Stephanie Wilmott, Ian Kershaw                       |
| Annual Test        | Desktop      | 11/06/2025   | Kyle Brown, Steve Dole, Mark Larsson, Mitch Donnelly |
| Annual Test        | Practical    | 4/06/2026    | Stephanie Wilmott, Kyle Brown, Mitch Donnelly        |

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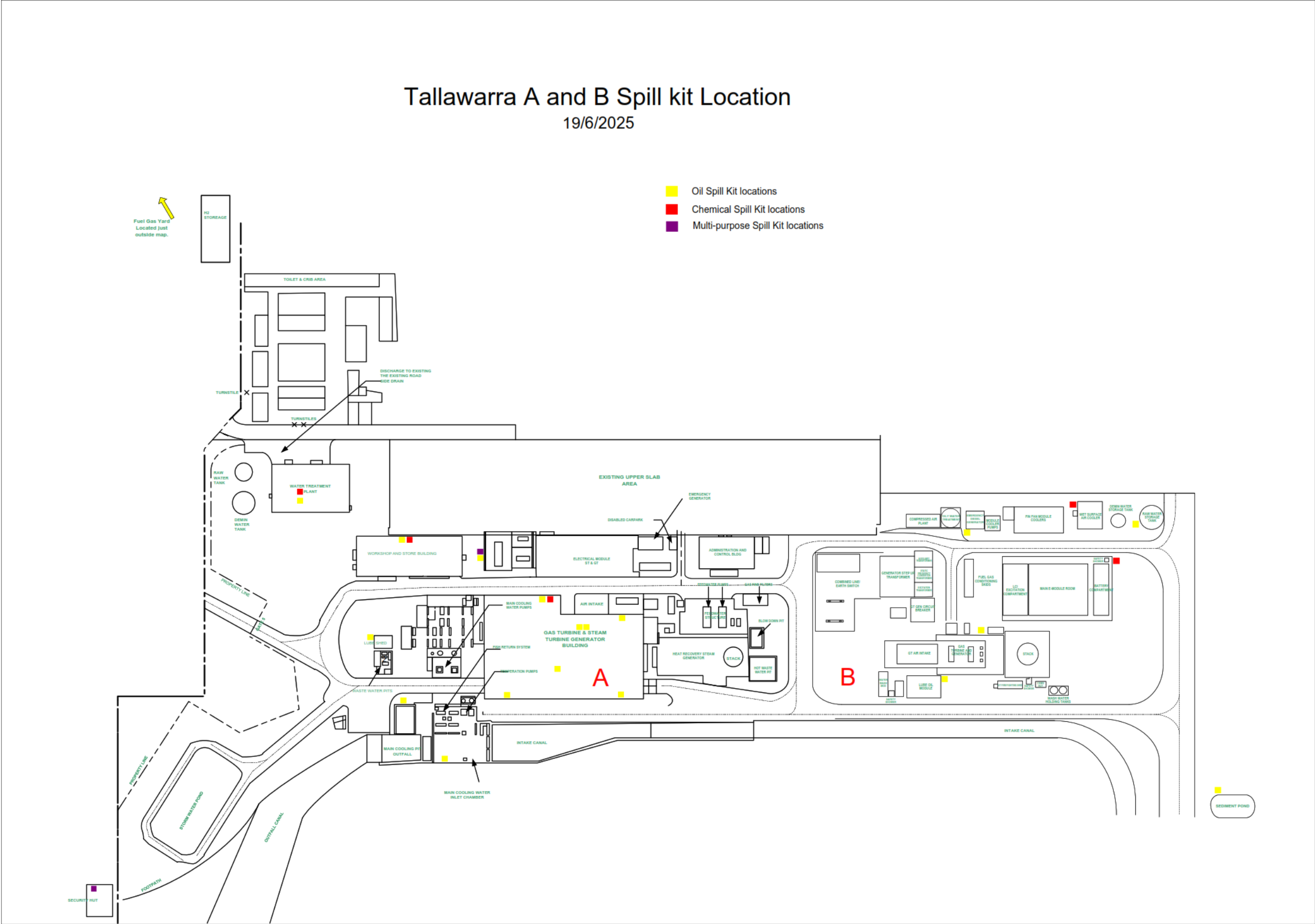
## Appendix A



Locality Map







Unit-level Coordinates (WGS84):  
A/B: -34.522525, 150.806011

Unit-level Coordinates (WGS84):  
A/B: -34.522525, 150.806011

