2.23 Pollution Incident Response Management Plan W

This Pollution Incident Response Management Plan (PIRMP) has been prepared for the Airport East Precinct, Mascot (NSW) Project (the Project) and should be read in conjunction with the Construction Environmental Management Plan (CEMP) and the Emergency Response Plan (ERP). This plan has been prepared in accordance with Section 153C of the *POEO Act* and the *POEO (G) Regulation*.

1) Objective

The objectives of this PIRMP are to:

- Ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority, Roads and Maritime Services (RMS) (the Client) and other relevant authorities specified in the POEO Act (such as local councils, NSW Ministry for Health, WorkCover NSW, and Fire and Rescue NSW), and people outside the project who might be affected by the impacts of a pollution incident.
- Minimise and control the risk of a pollution incident associated with the construction of the project by requiring identification of risks and the development of planned actions to minimise and manage those risks.
- Ensure that the PIRMP is properly implemented by trained staff, identifying persons responsible for implementing it and ensuring that the plan is regularly tested for accuracy, currency and suitability.

2) Hazard Identification and Pre-emptive Measures

The management plans associated with the CEMP identify environmental and safety aspects associated with the construction of the Project. The plans that identify potential hazards relevant to pollution include Soil & Water Management Plan, Resources and Waste Management Plan, Air Quality Management Plan and Construction Noise and Vibration Management Plan. Table 1 lists the main potential hazards associated with the work activities and Table 2 provides a risk assessment of these hazards.

TABLE 1 Hazard Identification

Aspect	Hazards
Soil & Water	Section 2.23 of the ERP and the Soil & Water Management Plan details hazards to soil and water. Hazards include: • Storage of fuel and chemicals; • Refuelling; • Earthworks increasing the risk of erosion and sedimentation; and • Tree clearing, topsoil stripping and soil disturbance.

Resource & Waste	The Resource and Waste Management Plan details hazards associated with resources and waste. Hazards include: • Liquid waste: • Concrete slurries drilling muds, lubricants. • Liquid waste from human waste storage facilities (sewage). • Fuels, oils, greases, engine coolant. • Harzardous waste:
	• Adhesives, lubricants, cleaning agencies, water treatment chemicals and other plastic material. • General solid waste: • Non-recyclable and other putrescible general solid waste. • Spoil, concrete, metallic materials, brick, rubble, soils. • Drained and crushed oil filters, rags and other absorbent material that do not contain free liquids.
Air	Sections 2.1, 2.15 of the ERP and the Air Quality Management Plan details hazards associated with Air. Hazards include: • Air contamination (Dust); and • Gas Leaks.
Noise and Vibration	The Construction Noise and Vibration Management Plan details hazards associated with noise and vibration. Hazards include: • Undertaking works outside approved construction hours • Works exceeding noise management levels • Not work in accordance with EPL 20851 • Vibration from project activities impacting surrounding built structures
Natural Disasters	Refer to section 2 of the ERP.

TABLE 2 Risk Assessment

Hazard	Inherited Risk Level	Pre-Emptive Actions*	Residue Risk Level
Sediment laden water leaving the site, including mud tracked onto roadways	D	- Vehicle wash out/shaker grid - Hard stand at site entry/exit - Procedures for dewatering - Sediment basin - Progress earthworks in conjunction with establishment of ERSED controls	E
Pollution of land or water (stormwater) from hydrocarbon/chemical spills from plant or refuelling/fuel storage	D	- Plant hazard assessment conducted - Daily plant checklists - Site Environment Plan (SEP) identifying fuel storage and refuelling locations	E

		- SEP identifying spill kit locations	
Pollution of land or water from chemical and hazardous waste, contaminated soil, concrete waste	D	- Identify storage locations on SEP - Establish waste material management process - Establish concrete waste area and concrete washout, show location on SEP	E
Generation of dust from mobile plant/vehicles and exposed areas	C	- Traffic movements restricted to 10km/hr on site - Dust suppression on site, water carts at all times - Trucks to cover loads	D
Impacts to local receivers due to noise and vibration	C	- Comply to approved construction hours and out of hours work permits - Communicate with the local community on out of hours works and general project activity updates/notifications - Program high nice activities for standard construction hours and apply respite periods	D

*this is not an exhaustive list of pre-emptive actions. For further information refer to relevant Environmental Management Plan.

Likelihood rating						
	Almost Certain	D	C	B	A	A
	Likely	D	D	C	B	A
	Possible	E	D	C	C	B
	Unlikely	E	E	D	C	B
	Rare	E	E	D	D	C
		1	***2***	***3***	***4***	***5***
		Consequence rating				

Likelihood Rating

Rating	Criteria
Almost Certain	>99% probability, or Expectd to occur in most circumstances, or Could occur within “days to weeks”, or Will occure repeatedly without corrective action being taken
Likely	50-99% proability, or Will probably occur in most circumstances, or Could occur within “weeks to months”
Possible	20-50% probability, or Might occur sometime, or Could occur within “months to years”
Unlikely	1-20% probability, or Could occur but would not be expected, or Could occur in “years to decades”
Rare	<1% probability, or Occurrence requires excpetional circumstances, or Only occur as a “100 year event”

A list of pre-emptive actions (also referred to as mitigation measures) is listed in Section 2 (Action Plans) of the ERP. Additionally, other EMS documents have been developed (e.g. Soil and Water Management Plan) and can be used to identify potential pre-emptive actions.

3) Inventory of Pollutants

The Work, Health and Safety (WHS) Management Plan requires that that a Safety Data Sheet (SDS) and a Hazardous and Dangerous Substances Register be kept at all chemical storage and handling locations and which will provide an inventory of the pollutants on site. The location of pollutants to be stored/held on site shall be identified in the SEP, including storage methods.

4) Safety Equipment

A list of pre-emptive actions (or mitigation measures) to be implemented during construction of the Project to minimise or prevent the risks to human health and the environment is outlined within Section 2 (Action Plans) of the ERP, WHS Management Plan and EMS Documentation. These documents include a description of safety equipment and activity-specific equipment required to address hazard, risk and safety issues. Spill kits will also be available on site for all personnel to use with locations identified within the SEP.

5) Maps

A set of maps showing the location of the premises, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises, the location of any stormwater drains on the premises, and the discharge locations of the stormwater drains to the nearest watercourse or water body have been developed within the CEMP and associated Management Plans, Sub Plans and SEP.

6) Emergency Contact Details

The following authorities Contact details are listed in Section 1 (Emergency Resources) of the ERP. Key individuals who are responsible for activating the plan and notifying relevant authorities;

- Appropriate Regulatory Authority;
- RMS;
- ARTC;
- SACL;
- ABC;
- EPA;
- Local council;
- NSW Ministry of Health;
- WorkCover NSW;
- Fire and Rescue NSW.

7) Notification

Notification Protocol shall be initiated in accordance with Section 1 (Notification Protocol for Pollution Incidents NSW) of the ERP. Local community stakeholders that may be potentially affected by a pollution incident will be managed in accordance with Sections 1 and 2 of the ERP.

Mechanisms used to communicate with the public following a pollution event that has the potential to impact the surrounding community can be found in the project Community Liaison Plan, specifically sections 6. Communications and engagement activities, tools and implementation, and 8. Enquiries and complaints management. Section 7. Identified risks and mitigation strategies provides key risks/issues that have been identified for the project and mitigation measures, including communication mechanism, to manage and address said risks/issues.

8) Pollution Incident Response Scenarios

- Air Supply Contamination – Refer to Section [A]
- Bio-Hazard Spill – Refer to Section [B]
- Fire – Refer to Section [M]
- Gas Leak – Refer to Section [O]
- Spills or Releases – Refer to Section [X]

9) Training

Details regarding the nature and objectives of any staff competence, training and awareness are outlined in Section 1 (Strategy) of the ERP. Several forms of environmental training will be provided. Examples include:

- A project site induction, including environmental roles and responsibilities;
- Toolbox talks;
- Environmental Work Method Statements; and
- Environmental awareness training for specific issues.

The Environment Manager will undertake training and maintain a register of all project site inductions and environmental training carried out.

10) Testing and Review

The testing of this plan shall to be carried out in such a manner as to ensure that the information included in this plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner. Any such test is to be carried out:

- Routinely at least once every 12 months, and
- Within 1 month of any pollution incident occurring in the course of an activity to which the licence relates so as to assess, in the light of that incident, whether the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

In accordance with the Regulation, testing of this PIRMP will occur:

- Initially within three months after commencement of construction of the Project;
- Every 12 months thereafter, while construction continues; and
- Within 1 month of any Category One pollution incident during the construction of the Project.

Testing of the PRIMP will involve:

- Desk top simulation; or
- Practical exercise or drill.

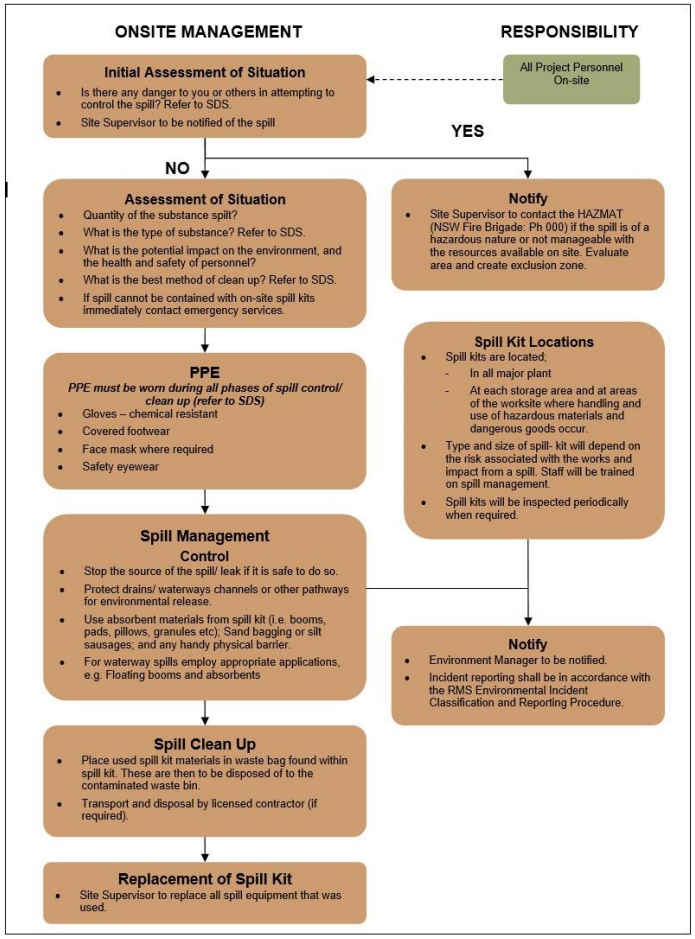
Records will be kept in accordance with the CEMP and Section 1 of the ERP.

2.24 Spill / Release

X

Spill Management Procedure

See the Emergency Spill Sub Plan for spill mitigation methods, recording and notification requirements. Below is the Spill Management Procedure which shall be adhered to on the Project.



Spill Clean Up/ Spill Kit Application

Material	Application	Use the correct materials
Booms	Deploy booms first to contain spill. Floating booms to be used for spills in waterways to prevent spreading	Deploy first to contain or divert spill away from waterway
Granules/ Particulate	If the booms alone cannot absorb the spill/ leak, then use absorbent granules to soak up spilled liquid. Absorbent granules are best for small spills/ leaks	Quick and absorbent, good for large spills
Pillows	Lay down pads or pillows	Best for thickly spread liquids
Pads	Reduce the size of the spill/ leak by gently pushing the booms towards the centre of the spill.	Best for thinly spread liquids
Sorbents	Sorbents are materials that soak up the spill. Once the absorbent material has been applied to the spill material, the mixture is recovered with the aid of nets, rakes, forks or pike poles.	Used in water way spills where spill material will float on the water
Manual Recovery.	Manual recovery is another common method especially for areas with a high concentration of oil.	Buckets and shovels are used to remove the oil

Disposal of Material Used and Spilled Waste

- Booms, pads, pillows, gloves & absorbent granules to be placed in waste bag found within spill kit. These are then to be disposed appropriately.
- Spilled liquid waste to be placed into a labelled sealed container. The container is to comply with Australian/ New Zealand Standards.

Oil Spill Boom

General Spill Kit

Chemical Lay Down Pad

Use granular absorbents if booms alone cannot absorb spill and dispose in Waste Bag in Spill Kit

CHIEF WARDEN

- The spill/release should be contained as soon as possible, using appropriate absorbents (booms, absorbent granules, pads) if it is believed safe to do so, based on information at hand. Particular attention should be paid to drains/water courses and these may need to be dammed using appropriate bunding.

PERSON DISCOVERING OR RESPONSIBLE FOR THE SPILL/RELEASE OR FOR THE CLEAN UP

- The person responsible for the substance should manage the spill/release as specified on the Safety Data Sheet (SDS) or by the manufacturer/supplier directions.
- On arrival at the scene, if the spill/release is significantly large, adversely uncontained or in any other way deemed unsafe ensure that the affected area has been evacuated

- **IMPORTANT – NOTIFYING FIRE BRIGADE**
- The Fire Brigade HAZMAT Team is to be notified immediately for any hazardous substance spill beyond our control. This call should be made via '000'.
- The Fire Brigade should also be informed via a '000' call if the spillage has caused evacuation, entered drainage systems or is a size or nature that Site personnel have insufficient resources or training to safely and effectively manage.
- All information regarding the spill should be reported to the Officer-In-Charge of the Fire Brigade on arrival at the scene.

- Prevent unauthorised access to the area
- Consideration should be given to site environmental conditions and a decision made as to whether further evacuation of the area is required
- Ensure that persons assemble in a well-ventilated, safe area, upwind from the spill/release
- Considerations, instructions and advice relating to specific spill types must be followed for the safety of colleagues, other persons and the environment

Oil and Grease Considerations:

- Stop the leak at the source
- Determine the type and size of the spill
- Protect storm water drains by forming barriers or blocking them
- Prevent any runoff into storm water drains - use the containment booms, located in the spill prevention kits, to confine small spillages (up to 200L).
- Spills that cause or potentially threaten material harm must be notified to the relevant authorities
- Spills of 1000 litres or more must be reported to the Regional HSEQ Manager
- Wear personnel protective equipment (PPE) located in the spill prevention kits to prevent skin and eye contamination and to avoid breathing any vapor. PPE includes overalls, splash apron, eye goggles, gloves (PVC or neoprene), footwear, and appropriate breathing apparatus.

- Clean up method will be dictated by the quantity spilled
- Emergency (Teflon pneumatic) pump for pumping out drains and holding pits. Spilled material must be pumped into approved (degassed), sealed, and labelled 200L steel drums
- Cleaning equipment (mops, squeegees etc.) for directing liquid spills into the bund or holding pits
- Spill response kits for absorbing minor spills
- Ensure that the spill area has been appropriately cleaned, and is no longer a hazard.
- Inform Supervisor of problem, /exact location and the estimated volume magnitude

Turbid/ Sediment Laden Water:

- If uncontrollable, notify Project Environment Manager / PER
- Divert flow away from existing waterways
- Create barriers and block any storm water drains
- Contain the spill by forming a barrier around the affected area. Establish emergency berm (earth or sandbags) to contain trap storm water/sediment laden water or reduce flow. Where possible divert turbid/sediment laden dirty water to suitably sized operational sediment control point or basin device.
- Work on the source control / restoration of original control device e.g. tank, embankment. basin
- Assess impact and devise remedial action for affected waterway and embankment
- Apply buffering solutions/agents or pump out if necessary
- Remove sediment build-up deposit

Powder and Dust Considerations:

CAUTION
SLIP HAZARDS – AVOID SPILL ZONE & STOP AREA ACCESS / TRAFFIC FLOW TOXIC VAPOURS – MAXIMISE VENTILATION & WEAR BREATHING APPARATUS FIRE HAZARDS - ELIMINATE IGNITION SOURCES & HAVE FIRE EXTINGUISHER READY

- Identify any outside area where the powder could be dispersed to the environment.
- Wear personnel protective equipment, located in the spill prevention kits, to prevent skin and eye contamination. i.e. overalls, splash apron, eye goggles, gloves and rubber boots
- Wear a breathing mask or face mask to prevent inhalation of the powder.
- PREVENT ANY EMMISSION TO THE ENVIRONMENT. Where possible close doors and windows in the vicinity of the spill. If a large amount of powder is spilled in an external area, organise cover sheets to be placed over the spill to prevent dispersion from wind etc. during the clean-up time.
- Collect all of the material, by using one of the following methods:
  - Vacuum Cleaner (check that the material is not explosive under pressure) ○ Bulk tanker removal (vacuum pump) ○ Emergency (Teflon pneumatic) pump
  - Cleaning equipment (mops, squeegee, buckets, etc.)
  - All materials must be contained in appropriate, sealed and labelled containers ○ Flush the remaining residue with copious amounts of water
  - Contact the Waste Management colleagues, who will be responsible for the correct disposal of all containers according to the corresponding waste disposal procedures

- All materials used in the cleanup of hazardous powder materials (e.g. vacuum filters, mop heads, tarpaulins, etc.) shall be considered contaminated with the hazardous substance(s) and must be managed as hazardous wastes unless deemed otherwise by the Environmental Group.

Dangerous Goods

CAUTION
IDENTIFY THE CLASS OF DANGEROUS GOOD (AS DESCRIBED BELOW) AND THE INHERENT DANGEROUS PHYSICAL PROPERTY OF THAT CLASS (SEE PRODUCT SDS)

CONTROL THE IDENTIFIED DANGER OR ANYTHING THAT MIGHT INCREASE THE EXPOSURE TO THAT DANGER

RESPOND TO THE SPILL AS PER ACTION STEPS OUTLINED FOR THE "PERSON ENCOUNTERING THE SPILL/RELEASE" AT THE START OF THIS SECTION

Compressed Gases (Class 2)
See also Gas Leak Action Plan

Flammable Compressed Gases (Class 2.1) – may be ignited by heat, sparks or flames. Vapors may travel to a source of ignition and flash back to cylinder. Gases present a vapor explosion hazard indoors, outdoors, and in sewers. Vapors may cause dizziness or suffocation. Contact of gas on skin will cause severe frostbite. Fire may produce irritating or poisonous gases.

Non-Flammable, Non-Toxic Compressed Gases (Class 2.2) – cylinders may explode in a fire. Vapours may cause dizziness or suffocation. Contact of gas on skin will cause severe frostbite.

- Verify the leak source and identify the type of gas leaking
- Eliminate any hazards such as incompatible substances or ignition sources
- Take precautions - including the alerting of others in the area and isolating the situation
- Ensure appropriate personal protective equipment is utilised, this includes positive pressure self-contained breathing apparatus and thermal gloves
- Control the leak and extinguish any fires

Flammables (Class 3)

- Eliminate all sources of ignition
- Prevent any runoff into stormwater drains - use the containment blocks (booms), located in the Hazchem spill kits, to confine the spillage
- Wear personal protective equipment (i.e. overalls, splash apron, eye goggles, gloves, rubber boots), located in the spill prevention kits, to prevent skin and eye contamination
- Identify any fire risk
- Ensure ventilation systems are in full operation (adjust to suit where possible) and remain operational until such time as the hazardous atmosphere dissipates

Oxidizing Substances; Organic Peroxides (Class 5)

- Class 5 substances will generate large amounts of oxygen when exposed to heat, metals and many chemicals. High concentrations of oxygen can result in the initiation of severe fires in any combustible material.
- All Class 5 substances shall be kept separate from other dangerous goods classes and any combustible material by at least 5 metres in a well-ventilated area, or in an approved Class 5 storage cabinet.

Toxic and Infectious Substances (Class 6)

- All class 6 poisons shall be stored in areas complying with the Dangerous Goods Regulations.
- Class 6 goods shall be kept at least 5 metres away from foodstuffs and dangerous goods of other classes, or alternatively be separated by a liquid tight wall.

Corrosive Substances (Class 8) Neutralise using soda ash - NEVER add water to corrosive substances

Hypochlorite Solution and Peroxide Acids - use glass or plastic equipment for storage for disposal. Avoid use of all metals

Ammonia - volatile, containers can develop pressure with an increase in temperature. Do not store near heat. Exercise extreme care when opening containers as they may be pressurised

Ammonia, Hydrochloric Acid, Acid Phosphoric, Acid Thioglycolic and Acid Sulphuric 98% use full face respirator with appropriate approved canister.

- Prevent any runoff into stormwater drains - use the containment blocks (booms), located in the Hazchem spill kits, to confine the spillage.
- Wear personnel protective equipment (i.e. overalls, splash apron, eye goggles, gloves, rubber boots and appropriate protective full face respirator), located in the spill prevention kits, to prevent skin and eye contamination.

Actions after the Emergency
PERSON RESPONSIBLE FOR THE SPILL/RELEASE OR FOR THE CLEAN UP

- All waste should be removed consistent with regulatory requirements and local waste disposal procedures
- Complete an Incident Notification and Investigation Report Form JH-FRM-SQE-010-01 through JHET System.

Internal Notifications:

- Appropriate senior management
- Regional HSEQ Manager

External Notifications:

- EPA if a pollution incident causes or threatens material harm to the environment, including a spill, leak or escape of a substance.