Pollution Incident Response Management Plan

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This Pollution Incident Response Management Plan must be prepared for all Projects based in NSW that hold an Environment Protection Licence (EPL), or for any project if directed to prepare one by the EPA.

Sections 1 and 2 of this plan must be made available on the company's website no later than 14 days after being prepared and approved for issue.

1) External Notification Protocol

The following authorities must be contacted in the order below.

Copy table in section prior

	Authority	Phone Number
1	**Appropriate Regulatory Authority (ARA) – [Insert]**	**[Insert]**
2	**EPA (if not the ARA)**	**131 555**
3	**Ministry of Health – Grafton Base Hospital**	**General Enquiries: (02) 6640 2222 Emergency Dept: (02) 6641 8332**
4	**Workcover NSW**	**131 050**
5	**Local Authority (if not EPA) – Clarence Valley Council**	**02 6643 0200**
6	**Fire and Rescue NSW**	**000**

2) Community Notification and Action Protocol

The following table lists the mechanisms to be followed in the event that a pollution incident has the potential to impact the surrounding community, in order to minimise the risk of harm.

Pollution Incident Scenario	Potential Impacts	What to do	Who to Notify	When	Communication Mechanism
Large release from sediment dam	Siltation of Watercourse	Avoid entering the watercourse Cease pumping any water	Downstream users	3 hours When water has been removed	Door knock / Telephone Letter drop
Chemical spill entering drain	Exposure to chemicals	Avoid entering drain Don't drink any water originating from drain	Adjacent residents / businesses	3 hours When cleaned up	Door knock Telephone Letter drop

3) Risk Assessment

[Insert relevant section from Workplace Risk Assessment. This must provide a description of the main hazards to human health or the environment associated with the activity being undertaken at the premises, the likelihood of any such hazards occurring, including details of any circumstances or events that could, or would, increase that likelihood. Potential hazards could include the storage of chemicals, waste materials, waste water such as effluent or contaminated stormwater, the potential failure of containment tanks, the uncontrolled release of gas, and the flooding of effluent storage dams. Plans must include detailed descriptions of the pre-emptive actions to be taken to minimise or prevent any risk of harm to human health or the environment arising from the activities undertaken at the premises. Pre-emptive actions can include the provision and use of spill containment kits, the installation and operation of stormwater cut-off valves, and the installation and use of fire-containment water tanks].

4) Pollutant Inventory

Potential Pollutant	Location on Site	Type of Containment	Maximum Quantity On Site
Diesel	Civil works compound	Double skinned skinned bunded tank	50 000
Stormwater	5 x stormwater detention basin	Sediment Basins	35800m3
Oil	Civil workshop	200 litre bunded drums	1000L
Grease	Civil workshop	20 litre bunded containers	100 kg
Gas			
Effluent	18 000 litres	Base tanks in amenities block	18 000 litres

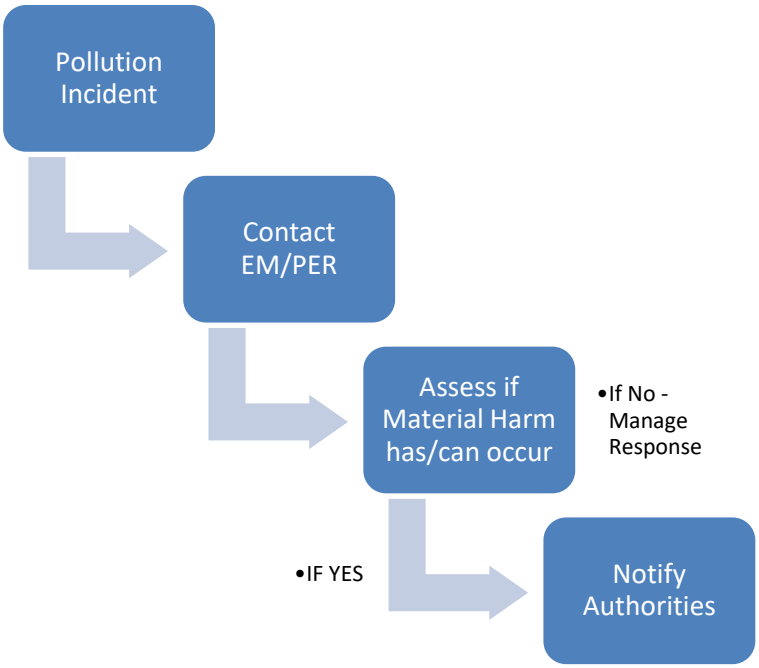
5) Site Environmental Plan

The SEP will detail the following

- Location of all potential pollutants
- Location of pollution response equipment
- The surrounding area that is likely to be affected by a pollution incident
- The location of any stormwater drains on the premises
- The discharge locations of the stormwater drains to the nearest watercourse or water body.

6) Pollution Incident Management

Internal Notification – should mirror diagram on pg. 24



External Notification

- If material harm has, – do we have to report potentials as well? then the external notification protocol must be implemented as per section 1.

Early Warning

- Communication to the surrounding community will be carried out as per section 2 if a pollution incident has the potential to cause impact.

7) 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]

Spill / Release	X

NOTE
Ensure the safety of our self and others prior to or when carrying our spillage/release recovery

Actions during the Emergency

PERSON ENCOUNTERING THE SPILL OR RELEASE

1. Identify type of spill/release	Is it contained (e.g. bunded) or uncontained (going to drain)? Damaged/leaking containers should be addressed using the same process.
2. Identify the material	Is it flammable, toxic, corrosive, etc.? Refer to label, signage, MSDS, etc.
3. Conduct risk assessment	Is the area safe, have you been trained, is it going to drain? **NOTE: If the spill is beyond your control at this point contact the Chief Warden**
4. Wear appropriate PPE	Gloves, goggles, apron, respirator, etc. in accordance with the MSDS.
5. Eliminate ignition sources	For flammable substances (or assumed flammable substances) remove energy supply to nearby switchboards, electrical equipment, power points and flames, static or sparks.
6. Take precautions	Avoid slipping, creating sparks, or breathing in vapors
7. Contain the spill/release	Use containment booms or rubber drain seal mats to prevent runoff to storm water drains
8. Clean up	Use pads, pillows, and other absorbent material to soak up spill and then bag in labeled containers. Flush any residue off surfaces
9. Notify	Report spill to area supervisor, complete the Incident Notification and Investigation Report JH-FRM-SQE-010-02 through the JHET system.

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

Actions during the Emergency continued

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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 Materials Safety Data Sheet (MSDS) or by the manufacturer/supplier of the substance
- 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.

Turbid/ Sediment Laden Water

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- Inform Supervisor of problem, /exact location and the estimated volume magnitude
- 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 turbid/sediment laden divert 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 cleanup 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 labeled 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

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Dangerous Goods

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

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-010-02 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