

# Pollution Incident Response Management Plan - Liverpool Concrete

## Holcim Pollution Incident Response Management Plan (PIRMP) - Liverpool Concrete

### Revision/ Checking History

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## Appendices

**A: Emergency Contact Details**

**B: Pollution Incident Response Test Checklist**

**C: Community Notification Strategy**

**D: Maps**

## Glossary of Acronyms

**PIDS-** Pollution Information Data Sheet

**PPE-** Personnel Protective Equipment

**SDS-** Safety Data Sheets

**PEOA-** Protection of the Environment Operations Act 1997

## 1. Purpose

The purpose of this document is to detail the pollution incident response management plan for the LIVERPOOL CONCRETE plant and to meet the requirements of Section 5.7A of the Protection of the Environment Operations (POEO) Act:

### **Pollution incident response management plan PIRMP for non-licensed facilities**

Serious pollution incidents can also occur at non-licensed premises. The EPA has a regulation-making power to specify the types of non-licensed industrial premises that are required to prepare similar plans and protocols. These plans must also include community notification and communication protocols. EPA applies this requirement to higher-risk polluting facilities where ongoing regulation via an environment protection licence is not required and the risks associated with a pollution incident can be addressed by appropriate response planning

#### **Protection of the Environment Operations Act 1997 No 156**

##### ***Part 5.7A Duty to prepare and implement pollution incident response management plans***

##### ***153A Duty of licence holder to prepare pollution incident response management plan***

*The holder of an environment protection licence must prepare a pollution incident response management plan that complies with this Part in relation to the activity to which the licence relates.*

*Maximum penalty:*

- (a) in the case of a corporation—\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or*
- (b) in the case of an individual—\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.*

##### ***153B EPA may direct other persons to prepare pollution incident response management plan***

- (1) The EPA may, in accordance with the regulations, require the occupier of premises at which industry is carried out to prepare a pollution incident response management plan that complies with this Part in relation to activities at the premises.*
- (2) A person must not fail to comply with such a requirement.*

*Maximum penalty:*

- (a) in the case of a corporation—\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or*
- (b) in the case of an individual—\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.*
- (3) The regulations may make provision for or with respect to:*
  - (a) the class or classes of premises, or industries carried out at premises, that may be the subject of a requirement to prepare a pollution incident response management plan, and*

- (b) *the circumstances in which some or all premises within those classes may be the subject of a requirement to prepare a pollution incident response management plan.*

### **153C Information to be included in plan**

*A pollution incident response management plan must be in the form required by the regulations and must include the following:*

- (a) *the procedures to be followed by the holder of the relevant environment protection licence, or the occupier of the relevant premises, in notifying a pollution incident to:*
  - (i) *the owners or occupiers of premises in the vicinity of the premises to which the environment protection licence or the direction under section 153B relates, and*
  - (ii) *the local authority for the area in which the premises to which the environment protection licence or the direction under section 153B relates are located and any area affected, or potentially affected, by the pollution, and*
  - (iii) *any persons or authorities required to be notified by Part 5.7,*
- (b) *a detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant environment protection licence, or the occupier of the relevant premises, to reduce or control any pollution*
- (c) *the procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,*
- (d) *any other matter required by the regulations.*

### **153D Keeping of plan**

*A person who is required to prepare a pollution incident response management plan under this Part must ensure that it is kept at the premises to which the relevant environment protection licence relates, or where the relevant activity takes place, and is made available in accordance with the regulations.*

*Maximum penalty:*

- (a) *in the case of a corporation—\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or*
- (b) *in the case of an individual—\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.*

### **153E Testing of plan**

*A person who is required to prepare a pollution incident response management plan under this Part must ensure that it is tested in accordance with the regulations.*

*Maximum penalty:*

- (a) *in the case of a corporation—\$1,000,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or*
- (b) *in the case of an individual—\$250,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.*

### **153F Implementation of plan**

*If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147) is caused or threatened, the person carrying on the activity must immediately implement any pollution incident response management plan in relation to the activity required by this Part.*

*Maximum penalty:*

- (a) in the case of a corporation—\$2,000,000 and, in the case of a continuing offence, a further penalty of \$240,000 for each day the offence continues, or*
- (b) in the case of an individual—\$500,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues.*

## **2. Scope**

The scope of this management plan includes:

Pollution Incident Response Management Plan (PIRMP) for environmental pollution generated at the Liverpool Concrete Plant

## **3. Definitions**

*Pollution Incident -* An incident or set of circumstances during or as a consequence 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.

*Material Harm -* (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 \$10,000 (or such other amount as is prescribed by the regulations), It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs, and

*Loss -* 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.

## **4. Associated Documentation**

- Protection of the Environment Operations Act 1997
- Protection of the Environment (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012
- Appendix A: Emergency Contact Details
- Appendix B: Pollution Incident Response Test Checklist
- Appendix C: Community Notification Strategy

## **5. Responsibility**

The following personnel are responsible for the PIRMP;

- 1) Activating the plans and managing the response: Michael Tsai- Site Manager

- 2) Notifying and coordinating relevant authorities: Darrell Chapman- Production Supervisor
- 3) Implementation and management of this document: Shilpa Shashi- NSW/ACT Planning & Environment Coordinator
- 4) Annual review and testing of PIRMP - Shilpa Shashi- NSW/ACT Planning & Environment Coordinator

## **6. Record Retention**

A copy of all pollution incident response records will be retained on site in accordance with SHE guideline 1.4 – Administrative and Legal Requirements. A copy will also be saved electronically on google drive in the 'Site PIRMPs 2019 Final' folder that will be shared with the site.

Records must be made available to EPA officers and any person responsible for the PIRMP.

## **7. Procedure**

The following section outlines the management procedures for pollution incident response management. The protocol is split into three sections:

- 1) Key environmental hazards and mitigation measures
- 2) Pollutant and Safety equipment information and management of Pollution Incidents
- 3) Emergency Response Maps

### **7.1 Environmental Impact and Hazard Register**

In order to effectively plan for a potential pollution event, a register of environmental hazards has been created. Each hazard has been assessed in accordance with the Holcim SHE Risk Assessment tool (see Table 1 below).

The hazards have been grouped according to the area of environmental impact. By identifying these hazards ahead of time, mitigation measures can be identified and implemented through site procedures to minimise the risk of a pollution event occurring (table 2 below).

**Table 1: Holcim SHE Risk Score Matrix – Attachment 6.2F**

Step 1 - Consider the Consequence					
What are the consequences of the most reasonable worst case scenario considering a credible failure of existing controls?					
Consequence	Disaster	Severe	Serious	Significant	Minor
<b>Environment On Site &amp; Off Site</b>	Major event, unconfined impact, severe permanent damage with low likelihood of recovery.	Significant permanent damage; reversible damage with recovery time of years; high potential for prosecution	Minor permanent damage; temporary damage that is widespread or that has moderate impact	Damage that is near source confined, temporary and minor	No measurable damage to environment
<b>Compliance With Legal and Other Requirements</b>	Blatant or serious breach of legal requirement, leading to operation being suspended or severely reduced. Prosecution expected.	Breach of external requirement (license, legislation, regulation, contract etc) with high potential for prosecution and/or high impact.	Non-compliance with external requirement with moderate potential for impact.	Repeated non-compliance with internal procedure, non-compliance with external requirement with low potential impact	Minor non-compliance with internal procedures.
<b>Community Perception and Reputation</b>	Significant adverse media attention (state or national level), loss of reputation or work nationally or across product groups.	Prosecution, significant impacts on social license to operate, loss of reputation or ability to secure work across product groups.	Local adverse media attention, loss of reputation or ability to secure work in local area, complaints that result in changes to external requirements.	Multiple community complaints or complaints that require changes to internal operating procedures.	Community complaint resolved with no changes to existing operating procedures.

**Note:** Temporary environmental damage has a duration of up to approximately one week to rectify

Step 2 - Consider the Likelihood					
What is the likelihood that the proposed consequence will occur with a credible failure of existing controls?					
Likelihood	Certain	Likely	Possible	Unlikely	Rare
Description	Event that is expected to occur on multiple occasions	Event that is likely to occur at least once	Event that may occur	Event that is unlikely to occur	Event that may occur only in exceptional circumstances
Frequency	Event is likely to occur more than twice a year.	Event is likely to occur once or twice a year.	Event is likely to occur more than once or twice in a 10 year period	Event is likely to occur once or twice in a 10 year period	Event is likely to occur once or twice in a 100 year period



Step 3 - Determine Risk Rating from the Risk Matrix

Likelihood	Consequences				
	Disaster	Severe	Serious	Significant	Minor
Certain	High	High	High	Medium	Medium
Likely	High	High	Medium	Medium	Low
Possible	High	Medium	Medium	Low	Low
Unlikely	Medium	Medium	Low	Low	Low
Rare	Medium	Low	Low	Low	Low

**Table 2: Holcim Concrete Environmental Impact and Hazard Register - LIVERPOOL CONCRETE**

Hazard / Aspect	Potential Impact	Current Controls	Risk Rating With Current Controls		
			Consequence	Likelihood	Risk Rating
<b>Incoming Cement and Flyash</b>					
Material delivery	Air emissions due to truck movements	Roadways are maintained to minimise dust resulting from vehicle movements.	Minor	Unlikely	Low
Material delivery	Vehicle exhaust emissions	Exhaust emissions of mobile equipment are not excessively smoky, and are in compliance with emission standards (based on 10 second rule).	Minor	Unlikely	Low
Material delivery	Consumption of fuel by delivery vehicles	Management systems in place to reduce fuel used by driver e.g. fuel efficient driving training	Minor	Unlikely	Low
Material delivery	Noise from truck and truck compressors in event of early morning and late night deliveries	Noise complaints are documented, investigated and corrective actions executed where required.	Minor	Unlikely	Low
Material delivery	Noise from truck and truck compressors in event of early morning and late night deliveries	In noise sensitive areas, operational hours at the quarry are limited to minimise potential impact on neighbours.	Minor	Unlikely	Low
Material delivery	Noise from truck and truck compressors in event of early morning and late night deliveries	Compressors, noisy engines, generators and exhausts are fitted with silencers.	Minor	Unlikely	Low
Unloading material	Impact on storm water quality if there is a cement or fly ash spill	Any spills of cement, fly ash or liquids are cleaned up immediately.	Minor	Unlikely	Low
Unloading material	Impact on storm water quality if there is a cement or fly ash spill	During product unloading and re-fuelling activities, nearby stormwater drain entry points are isolated to prevent spilt substances entering the drain.	Serious	Possible	Medium
Unloading material	Impact on storm water quality if there is a cement or fly ash spill	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Minor	Unlikely	Low

Unloading material	Consumption of electricity by machinery	Management systems in place to reduce amount of electricity used by machines e.g. not running machinery at maximum velocity	Minor	Unlikely	<b>Low</b>
Unloading material	Generation of waste from cement or fly ash spills	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Possible	<b>Low</b>
Unloading material	Release of cement or fly ash from hose/piping connection during unloading	Delivery pipes are clearly labelled with the silo identification and material stored inside the silo. This is usually achieved by colour coding the delivery pipes.	Minor	Unlikely	<b>Low</b>
Unloading material	Release of fly ash or cement due to malfunction of overfill protection, failure of silo filters or poorly sealed inspection covers.	An emergency shut down valve is installed to ensure the flow of cement can be stopped in an emergency	Minor	Unlikely	<b>Low</b>
<b>Incoming Aggregate and Sand</b>					
Material delivery	Dust from truck movements	Paved roadways are maintained in a clean and dust free state to minimise dust from vehicle movements.	Minor	Unlikely	<b>Low</b>
Material delivery	Vehicles exhaust emissions.	Exhaust emissions of trucks are not excessively smoky, and are in compliance with emission standards.	Minor	Unlikely	<b>Low</b>
Material delivery	Consumption of fuel by delivery vehicles.	Management systems in place to reduce fuel used by driver e.g. fuel efficient driving training	Minor	Unlikely	<b>Low</b>
Unloading materials	Noise from truck movements and tipping	Compressors, noisy engines, generators and exhausts are fitted with silencers.	Minor	Unlikely	<b>Low</b>
Unloading materials	Noise from truck movements and tipping	Access tracks and haul roads are well maintained to prevent corrugation that contributes to truck noise.	Minor	Unlikely	<b>Low</b>
Unloading materials	Noise from truck movements and tipping	Management of loads to ensure a protective lining of rock is present to ensure rock is not dumped straight onto steel.	Minor	Unlikely	<b>Low</b>
Unloading materials	Release of dust during transport and unloading of sand and aggregate	Sand and aggregates are delivered in dampened state or in covered trucks to minimise potential for dust.	Minor	Unlikely	<b>Low</b>
<b>Incoming Admixture and Bagged product</b>					

Material delivery	Dust from truck movements	Paved roadways are maintained in a clean and dust free state to minimise dust from vehicle movements.	Minor	Unlikely	Low
Material delivery	Vehicle exhaust emissions	Exhaust emissions of trucks are not excessively smoky, and are in compliance with emission standards.	Minor	Unlikely	Low
Material delivery	Consumption of fuel by delivery vehicles	Management processes are in place to reduce fuel consumption	Minor	Unlikely	Low
Material delivery	Noise from delivery vehicles	Access tracks and haul roads are well maintained to prevent corrugation that contributes to truck noise.	Minor	Unlikely	Low
Material delivery	Noise from delivery vehicles	In noise sensitive areas, deliveries are limited to minimise potential impact on neighbours	Minor	Unlikely	Low
Unloading material	Accidental release of admixture or bagged oxide impacting soil	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Possible	Low
Unloading material	Accidental release of admixture or bagged oxide impacting soil	Any spills are promptly cleaned up.	Minor	Unlikely	Low
Unloading material	Accidental release of admixture or bagged oxide impacting soil	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Minor	Unlikely	Low
Unloading material	Accidental release of admixture or bagged oxide impacting soil	A documented spill response procedure is in place and employees have been trained in its use	Minor	Unlikely	Low
Unloading material	Spill during unloading of admixture impacting water quality	Controls are in place for admixture storage and delivery near water bodies	Minor	Unlikely	Low
Unloading material	Spill during unloading of admixture impacting water quality	During unloading of admixture, nearby stormwater drain entry points are isolated to prevent any spilt substance entering the drain.	Serious	Possible	Medium
Unloading material	Bag splitting releasing oxide into water	Any spills are promptly cleaned up.	Minor	Unlikely	Low
Unloading material	Bag splitting releasing oxide into water	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Minor	Unlikely	Low
Unloading material	Bag splitting releasing oxide into water	A documented spill response procedure is in place and employees have been trained in its use.	Minor	Unlikely	Low
Unloading material	Generation of waste from spills	In event of a spill of admixture, the supplier company is contacted to provide details on best method for disposal.	Minor	Unlikely	Low

Unloading material	Generation of waste from spills	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Possible	Low
Unloading material	Generation of waste from spills	Wastes are appropriately segregated (e.g.. contaminated spill absorbent materials separated from general refuse).	Minor	Unlikely	Low
Unloading material	Generation of waste from spills	Waste is stored in an area that will not contaminate any watercourse, waterway, groundwater, wetland or lake and soil.	Minor	Unlikely	Low
<b>Cement and Fly Ash Storage</b>					
Loading/unloading cement or flyash	Release of fly ash or cement due to malfunction of overfill protection, failure of silo filters or poorly sealed inspection covers.	Filter function is checked when tanker is blowing in - check for dust leaking from filter bag house	Minor	Unlikely	Low
Loading/unloading cement or flyash	Release of fly ash or cement due to malfunction of overfill protection, failure of silo filters or poorly sealed inspection covers.	The silo hatches are air tight. The dipping points are air tight	Minor	Unlikely	Low
Silo maintenance	Release of dust from silo filters due to inadequate capacity or lack of maintenance.	Inspection plan is in place to inspect, service and clean reverse pulse filters.	Minor	Unlikely	Low
Silo maintenance	Release of dust from silo filters due to inadequate capacity or lack of maintenance.	Is an inspection plan in place to inspect the wear of the keystone valves and associated pipe work (Six month inspection is recommended).	Minor	Unlikely	Low
Operation of process equipment	Consumption of electricity by process equipment (e.g. alarms and monitoring devices)	Systems in place to reduce energy consumption	Minor	Unlikely	Low
Loading/unloading cement or flyash	Impact on water quality due to cement or fly ash spill.	Any spills of cement, fly ash or liquids are cleaned up immediately.	Minor	Unlikely	Low
Loading/unloading cement or flyash	Impact on water quality due to cement or fly ash spill.	Regular cleaning of the loading area is undertaken to minimise tracking of concrete slurry and contaminated water into the designated 'clean area'.	Minor	Unlikely	Low
Loading/unloading cement or flyash	Impact on water quality due to cement or fly ash spill.	All trafficable areas are sealed to prevent leaching into groundwater. The only exception to this is concrete plants that are located on a quarry area.	Minor	Unlikely	Low

Loading/unloading cement or flyash	Impact on water quality due to cement or fly ash spill.	Trucks are hosed down in designated 'contaminated area' to prevent tracking concrete slurry into clean areas.	Minor	Unlikely	Low
Loading/unloading cement or flyash	Impact on water quality due to cement or fly ash spill.	The area of the site that generates contaminated stormwater is minimised (clean, dirty and contaminated areas can often be segregated by the use of speed humps and bunds which divert runoff to appropriate locations.)	Minor	Unlikely	Low
Loading/unloading cement or flyash	Impact on water quality due to cement or fly ash spill.	During a rain event, the first 20mm (i.e.. first flush volume) that falls in the 'contaminated area' of the plant is captured and stored for reuse. When rainfall ceases, this first flush water is used at the earliest opportunity.	Minor	Unlikely	Low
Loading/unloading cement or flyash	Impact on water quality due to cement or fly ash spill.	Slumping is carried out within contaminated area of the plant.	Minor	Unlikely	Low
Operation of overflow alarms and air filters	Noise from overflow protection alarms sounding or pulses from air filters.	Sirens face away from residences.	Minor	Unlikely	Low
Operation of overflow alarms and air filters	Noise from overflow protection alarms sounding or pulses from air filters.	Visual alarms are used in preference to audible alarms.	Serious	Possible	Medium
Operation of overflow alarms and air filters	Noise from overflow protection alarms sounding or pulses from air filters.	Where possible noisy equipment is located behind physical barriers, e.g. stockpile areas and buildings and away from potential sources of conflict, e.g. Residential neighbours.	Significant	Possible	Low
Operation of air valves and silo filters	Noise from air valves and silo filters.	Compressors and pumps are enclosed.	Minor	Unlikely	Low
Operation of air valves and silo filters	Noise from air valves and silo filters.	Silencing devices are fitted to all pressure operated equipment.	Minor	Unlikely	Low
Storage of waste from spills	Generation of waste from spills	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Possible	Low
Storage of waste from spills	Generation of waste from spills	Wastes are appropriately segregated (e.g.. contaminated spill absorbent materials separated from general refuse).	Significant	Possible	Low
Storage of waste from spills	Generation of waste from spills	Waste is stored in an area that will not contaminate any watercourse, waterway, groundwater, wetland or lake and soil.	Minor	Unlikely	Low

## Admixture and Bagged Product Storage

Admixture storage	Admixture tracked into clean areas	Admixture and bagged product appropriately stored in accordance with state requirements.	Minor	Unlikely	Low
Admixture storage	Admixture tracked into clean areas	Trucks are hosed down in designated 'contaminated area' to prevent tracking concrete slurry into clean areas.	Minor	Unlikely	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting soil.	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Possible	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting soil.	Any spills are promptly cleaned up.	Minor	Unlikely	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting soil.	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Minor	Unlikely	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting soil.	A documented spill response procedure is in place and employees have been trained in its use	Minor	Unlikely	Low
Spills of admixture or mould oil	Accidental release of admixture impacting soil.	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Possible	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting water quality.	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Possible	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting water quality.	Any spills are promptly cleaned up.	Minor	Unlikely	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting water quality.	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Minor	Unlikely	Low
Spills of admixture or mould oil	Accidental release of admixture or mould oil impacting water quality.	A documented spill response procedure is in place and employees have been trained in its use	Minor	Unlikely	Low
Spill waste from admixture and mould oil	Generation and disposal of waste admixture or mould oil.	Any leakage from empty drums is contained and not permitted to enter waterways or come into contact with soil.	Minor	Unlikely	Low
Spill waste from admixture and mould oil	Generation and disposal of waste mould oil drums.	Empty drums are stored in a designated bunded area until collected for recycling.	Minor	Unlikely	Low

Spill waste from admixture and mould oil	Generation and disposal of waste mould oil drums.	All transport and disposal practices meet state regulations including waste tracking where required.	Significant	Possible	Low
Spill waste from admixture and mould oil	Generation and disposal of waste mould oil drums.	Waste mould oil drums are in an area that will not contaminate any watercourse, waterway, groundwater, wetland or lake and soil.	Minor	Unlikely	Low
<b>Transfer of Raw materials</b>					
Raw material storage	Wind blown dust from materials stored in overhead bins/hoppers, from conveying raw materials and from front end-loaders.	The following areas are enclosed to minimise dust; Overhead bins, the swivel chute area, transfer point from the conveyors, conveyor belts which are exposed to the wind, and hopper discharge areas.	Serious	Possible	Medium
Raw material storage	Wind blown dust from materials stored in overhead bins/hoppers, from conveying raw materials and from front end-loaders.	Flexible joints, flexible sleeves, fabric filters, high level alarms and other control equipment that minimises dust and other releases in the concrete batching process are included in the site's maintenance schedule to identify wear, tear and ensure effective operation	Minor	Unlikely	Low
Operation of front end loaders	Consumption of fuel by front end loaders	Fuel consumption by front end loaders is controls and management systems are in place.	Minor	Unlikely	Low
Operation of plant equipment	Consumption of electricity in plant equipment.	Management systems are in place to reduce energy emissions	Minor	Unlikely	Low
Operation of material transfer equipment	Noise from material transfer equipment e.g.. conveyors and bin vibrators.	Hoppers are lined with a sound absorbing material such as rubber.	Minor	Unlikely	Low
Operation of material transfer equipment	Noise from material transfer equipment e.g.. conveyors and bin vibrators.	Consideration of limiting noisy activity to daytime hours if located near a noise sensitive area.	Minor	Unlikely	Low
Operation of front end loaders	Noise from front end loader operating in yard.	Roads and plant site are sealed with concrete or bitumen.	Minor	Unlikely	Low
Operation of front end loaders	Noise from front end loader operating in yard.	Residential grade mufflers are fitted to engines. Visual alarms are used in preference to audible alarms.	Minor	Unlikely	Low



Raw material waste	Generation of waste resulting from raw materials transfer e.g. admixtures, conveyor spillage, cement spillage.	Waste associated raw materials transfer is disposed of in accordance to State requirements.	Significant	Possible	Low
Raw material waste	Generation of waste resulting from raw materials transfer e.g. admixtures, conveyor spillage, cement spillage.	Wastes are appropriately segregated (e.g. oils separated from general refuse.)	Minor	Unlikely	Low
Raw material waste	Generation of waste resulting from raw materials transfer e.g. admixtures, conveyor spillage, cement spillage.	All transport and disposal practices meet state regulations including waste tracking where required.	Minor	Unlikely	Low
<b>Loading Agitator</b>					
Transportation of cement	Generation of dust from loading concrete into agitators	Dust suppression sprays or dust extraction is fitted to the loading bay and operates during loading.	Minor	Unlikely	Low
Transportation of cement	Noise from mixing operation or agitators.	Roads and plant pavements are sealed with concrete or bitumen.	Minor	Unlikely	Low
Transportation of cement	Noise from mixing operation or agitators.	Residential grade mufflers are fitted to engines. Visual alarms are used in preference to audible alarms.	Serious	Possible	Medium
Loading/unloading of agitators	Generation and release of dust from the mixing process.	Loading bay is roofed and enclosed on at least three sides	Minor	Unlikely	Low
Loading/unloading of agitators	Generation and release of dust from the mixing process.	Flexible curtains are fitted to the open sides of the loading bay where required to minimise dust emissions	Minor	Unlikely	Low
Concrete batching	Water drawn from public main water system	Reclaimed water used in batching process	Minor	Unlikely	Low
Loading/unloading of agitators	Noise from mixing operation or agitators.	Consideration of limiting noisy activity to daytime hours if located near a noise sensitive area.	Minor	Unlikely	Low
Concrete waste	Generation of waste from the mixing process or reject batches.	Reject batches are recycled or disposed of in accordance to state based waste management guidelines.	Minor	Unlikely	Low
Management of truck wash	Generation of wastewater from washing the mixer.	Trucks are washed in designated area at the plant where wastewater is captured and retained on site.	Minor	Unlikely	Low

Management of truck wash	Washing out of the mixer.	Trucks are washed in a designated area at the plant where wastewater is captured and retained on site.	Minor	Unlikely	<b>Low</b>
Management of truck wash	Washing out of the mixer.	Any runoff from waste storage areas is directed to waste settling pits. Water levels in settling pits is controlled to ensure that contaminated wastewater does not enter the stormwater system.	Minor	Unlikely	<b>Low</b>
Management of truck wash	Washing out of the mixer.	Washout and slurry waste is transported and disposed on in accordance with state based waste management guidelines.	Significant	Possible	<b>Low</b>
<b>Concrete Delivery</b>					
Transportation of cement	Vehicle exhaust emissions	Exhaust emissions of mobile equipment are not excessively smoky, and are in compliance with emission standards.	Minor	Possible	<b>Low</b>
Loading/unloading of agitators	Spillage of concrete during transport	All drivers have been made aware of their environmental responsibilities (via formal training that includes delivery site waste management, truck wash-down and tracking material onto roadways, concrete spills on roadways and noise minimisation measures.	Minor	Possible	<b>Low</b>
Loading/unloading of agitators	Spillage of concrete during transport	At customer sites spill/sediment controls are in place before pouring commences if concrete is delivered from the street.	Significant	Rare	<b>Low</b>
Loading/unloading of agitators	Spillage of concrete during transport	Concrete spillage is prevented from entering stormwater drains or gutters.	Significant	Rare	<b>Low</b>
Transport of cement	Consumption of fuel by delivery vehicles	Management of deliveries to reduce fuel usage e.g. fuel efficiency driving training for agitator drivers	Minor	Possible	<b>Low</b>
Transport of cement	Noise from trucks delivering concrete.	Residential grade mufflers are fitted to engines. Visual alarms are used in preference to audible alarms.	Significant	Possible	<b>Low</b>
Transport of cement	Noise from trucks delivering concrete.	Consideration of limiting driving through noise sensitive areas during early mornings and evenings	Minor	Unlikely	<b>Low</b>
Transport of cement	Spillage of concrete during transport.	All drivers have been made aware of their environmental responsibilities (via formal training that includes delivery site waste management, truck wash-down and tracking material onto roadways, concrete spills on roadways and noise minimisation measures.	Minor	Unlikely	<b>Low</b>
Transport of cement	Spillage of concrete during transport.	At customer sites spill/sediment controls are in place before pouring commences if concrete is delivered from the street.	Minor	Rare	<b>Low</b>

Transport of cement	Spillage of concrete during transport.	Concrete spillage is prevented from entering stormwater drains or gutters.	Minor	Rare	Low
Concrete waste	Disposal of any waste concrete generated in event of a spill or if excess concrete ordered.	Return concrete is re-sold, used for block making or disposed of in accordance to state based waste management guidelines.	Minor	Unlikely	Low
<b>Truck Washout</b>					
Dust from washout bins	Release of dust during dry windy weather from concrete drying bin.	Effective management systems are in place to ensure that concrete bins are not overfilled.	Significant	Unlikely	Low
Dust from washout bins	Release of dust during dry windy weather from concrete drying bin.	Concrete drying bins are fitted with windshields.	Serious	Possible	Medium
Concrete waste	Unauthorised burial of concrete waste on / near property.	Concrete waste is transported and disposed of in accordance with state based waste management guidelines.	Significant	Unlikely	Low
Concrete waste	Generation of concrete waste water resulting from runoff from washout enclosures..	Any runoff from waste storage areas is directed to waste settling pits. Water levels in settling pits is controlled to ensure that contaminated wastewater does not enter the stormwater system.	Significant	Unlikely	Low
Concrete waste	Generation of concrete waste resulting from excess concrete	Washout waste and return concrete is stored in above ground washout enclosures. There is a minimum of two (2) washout pits per site.	Significant	Unlikely	Low
Concrete waste	Generation of concrete waste resulting from excess concrete	Washout and slurry waste is transported and disposed on in accordance with state based waste management guidelines.	Significant	Unlikely	Low
Concrete waste	Generation of concrete waste resulting from excess concrete	Solids that accumulate in in-ground pits are regularly cleaned out.	Minor	Unlikely	Low
Housekeeping of washout enclosures	Spillage of concrete and/ or poor housekeeping of washout enclosures impacting water quality.	Washout enclosures are regularly cleaned out to ensure they are not overfilled.	Significant	Unlikely	Low
Housekeeping of washout enclosures	Spillage of concrete and/ or poor housekeeping of washout enclosures impacting water quality.	Any spills of cement, fly ash or liquids are cleaned up immediately.	Significant	Unlikely	Low
Housekeeping of washout enclosures	Spillage of concrete and/ or poor housekeeping of washout enclosures impacting water quality.	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Significant	Unlikely	Low

## Truck Washing

Storage of truck washing chemicals	Potential to impact soil if acid substance not suitably stored in a bunded area.	All liquid fuels and chemicals are stored in a bunded area. Liquid fuels and chemicals can include admixtures, truck wash acids and chemicals, fuels and oils. All liquid fuels and chemicals are to be managed in accordance with the bunding guidelines.	Serious	Possible	Medium
Storage of truck washing chemicals	Potential to impact soil if acid substance not suitably stored in a bunded area.	Above ground recycled water storage tanks are managed such that any spills/leaks are contained on site. E.g.. Capacity in in-ground pits is maintained to allow for spills/leaks from recycled water tanks or tanks are bunded.	Significant	Unlikely	Low
Storage of truck washing chemicals	Potential to impact soil if acid substance not suitably stored in a bunded area.	Bunded areas are regularly maintained. This includes: Checking and inspecting integrity of bund., minimising ponding of stormwater by regular clean out of the bund, acting upon spills as soon as they are identified., and checking that any valves are sealed and kept in the close position	Significant	Unlikely	Low
Storage of truck washing chemicals	Potential to impact soil if acid substance not suitably stored in a bunded area.	Corrosives are stored in a dedicated, well ventilated and secured bunded area.	Significant	Unlikely	Low
Storage of truck washing chemicals	Potential to impact soil if acid substance not suitably stored in a bunded area.	A compliance review against dangerous goods storage requirements has been conducted.	Serious	Possible	Medium
Designated truck wash areas	Impacting water quality should any wash water enter stormwater drains (e.g.. washing vehicles in non designated wash areas).	The area of the site that generates contaminated stormwater is minimised (clean, dirty and contaminated areas can often be segregated by the use of speed humps and bunds which divert runoff to appropriate locations.)	Significant	Unlikely	Low
Designated truck wash areas	Impacting water quality should any wash water enter stormwater drains (e.g.. washing vehicles in non designated wash areas).	During a rain event, the first 20mm (i.e.. first flush volume) that falls in the 'contaminated area' of the plant is captured and stored for reuse. When rainfall ceases, this first flush water is used at the earliest opportunity.	Significant	Unlikely	Low
Designated truck wash areas	Impacting water quality should any wash water enter stormwater drains (e.g.. washing vehicles in non designated wash areas).	Trucks are washed in designated area at the plant where wastewater is captured and retained on site.	Significant	Unlikely	Low

Truck wash waste	Generation and disposal of wash water containing dilute acid.	Trucks are washed in designated vehicle wash stations with wastewater capture, treatment and re-use.	Significant	Unlikely	Low
Truck wash waste	Generation and disposal of wash water containing dilute acid.	Water captured in the designated dirty area drains to the sites wastewater management system.	Significant	Unlikely	Low
Truck wash waste	Generation and disposal of wash water containing dilute acid.	The area of the site that generates contaminated stormwater is minimised (clean, dirty and contaminated areas can often be segregated by the use of speed humps and bunds which divert runoff to appropriate locations.)	Significant	Unlikely	Low
Truck wash waste	Disposal of acid containers.	Wastes are appropriately segregated (e.g. oils separated from general refuse.)	Significant	Unlikely	Low
Truck wash waste	Disposal of acid containers.	All transport and disposal practices meet state regulations including waste tracking where required.	Serious	Possible	Medium
<b>Plant and vehicle maintenance</b>					
Routine maintenance activities	Minimising exhaust emissions through regular maintenance of vehicles.	Scheduled maintenance checks of trucks, loaders and other machinery is conducted and recorded in vehicle logbook.	Serious	Possible	Medium
Routine maintenance activities	Minimising exhaust emissions through regular maintenance of vehicles.	Exhaust emissions of mobile equipment are not excessively smoky, and are in compliance with emission standards	Significant	Unlikely	Low
Routine maintenance activities	Noise from maintenance activities.	Noise complaints are documented, investigated and corrective actions executed where required.	Significant	Unlikely	Low
Routine maintenance activities	Noise from maintenance activities.	Maintenance activities that occur outside normal operating hours need to ensure that noise impacts on neighbours are minimised.	Significant	Unlikely	Low
Routine maintenance activities	Noise from maintenance activities.	Maintenance is conducted only during day time hours unless permitted by site approval. Licence conditions.	Significant	Unlikely	Low
Truck servicing	CFC emissions from truck air conditioners	Servicing air conditioners in vehicles for CFC management.	Significant	Unlikely	Low

Waste from maintenance activities	Impacting water should there be a spill of waste oil during maintenance or storage of maintenance associated waste.	Fluids released during machinery maintenance operations are collected and removed to an approved disposal site or are recycled.	Significant	Unlikely	Low
Waste from maintenance activities	Impacting water should there be a spill of waste oil during maintenance or storage of maintenance associated waste.	Wastes including waste oil, batteries, filters, coolants and tyres are suitably stored, labelled and disposed of at appropriately licensed facilities.	Significant	Unlikely	Low
Waste from maintenance activities	Impacting water should there be a spill of waste oil during maintenance or storage of maintenance associated waste.	Good housekeeping ensures that there is no spillage of oils or lubricants.	Significant	Unlikely	Low
Waste from maintenance activities	Impacting water should there be a spill of waste oil during maintenance or storage of maintenance associated waste.	All refuelling and routine maintenance on vehicles is undertaken within designated service areas.	Significant	Unlikely	Low
Waste from maintenance activities	Generation and disposal of waste oil, used tyres, oil filters, parts, batteries and steel	Wastes are appropriately segregated (e.g. oils separated from general refuse.)	Significant	Unlikely	Low
Waste from maintenance activities	Generation and disposal of waste oil, used tyres, oil filters, parts, batteries and steel	Waste associated with any spills is disposed of in accordance to State requirements	Significant	Unlikely	Low
Waste from maintenance activities	Generation and disposal of waste oil, used tyres, oil filters, parts, batteries and steel	Wastes including waste oil, batteries, filters, coolant, tyres and scrap steel are suitably stored, labelled and disposed of or recycled at appropriately licensed facilities.	Significant	Unlikely	Low
<b>Water Management System</b>					
Operation of water management equipment	Consumption of fuel by equipment.	Management systems are in place to reduce fuel emissions of equipment	Significant	Unlikely	Low

Operation of water management equipment	Consumption of electricity by equipment.	Management systems are in place to reduce energy emissions of equipment	Significant	Unlikely	Low
Operation of water management equipment	Noise impact from pumps and motors linked to water management system.	Compressors and pumps are enclosed.	Significant	Unlikely	Low
Operation of water management equipment	Noise impact from pumps and motors linked to water management system.	Silencing devices are fitted to all pressure operated equipment.	Significant	Unlikely	Low
Operation of water management equipment	Noise impact from pumps and motors linked to water management system.	Where possible noisy equipment is located behind physical barriers, e.g.. Stockpile areas and buildings and away from potential sources of conflict e.g.. Residential neighbours.	Significant	Unlikely	Low
Water storage	Impact water quality if dirty water enters stormwater system (e.g.. leak from recycled water tank).	A separate drainage system to discharge clean stormwater from the site is available (e.g.. Stormwater from car parks and office building roofs)	Significant	Unlikely	Low
Water storage	Impact water quality if dirty water enters stormwater system (e.g.. leak from recycled water tank).	There are no dry weather discharges to the off-site stormwater system.	Significant	Unlikely	Low
Water storage	Impact water quality if dirty water enters stormwater system (e.g.. leak from recycled water tank).	The area of the site that generates contaminated stormwater is minimised (clean, dirty and contaminated areas can often be segregated by the use of speed humps and bunds which divert runoff to appropriate locations.)	Significant	Unlikely	Low
Water storage	Impact water quality if dirty water enters stormwater system (e.g.. leak from recycled water tank).	Any excess wastewater (with high pH and/or with high solids content) is disposed of via an appropriately licensed waste contractor.	Serious	Possible	Medium
First flush system	Rainwater flushing out water management system resulting in dirty water overflows.	During a rain event, the first 20mm (i.e.. first flush volume) that falls in the 'contaminated area' of the plant is captured and stored for reuse. When rainfall ceases, this first flush water is used at the earliest opportunity	Significant	Unlikely	Low
First flush system	Rainwater flushing out water management system resulting in dirty water overflows.	To enable the containment of the 20mm of contaminated rainwater, the first flush pit is maintained in an empty state during dry weather, or alternatively, appropriate freeboard is maintained in pits.	Significant	Unlikely	Low

First flush system	Rainwater flushing out water management system resulting in dirty water overflows.	Following the capture of first flush, subsequent rainfall bypasses the first flush pit system and drains to stormwater as clean runoff	Serious	Possible	Medium
First flush system	Rainwater flushing out water management system resulting in dirty water overflows.	Where the first flush system relies on pumps to maintain control of overflows, backup pumps are available.	Significant	Unlikely	Low
Water contamination	Spill of high pH (alkaline) wastewater causing dirty water to enter stormwater system.	Slumping is carried out within contaminated area of the plant.	Significant	Unlikely	Low
Water contamination	Spill of high pH (alkaline) wastewater causing dirty water to enter stormwater system.	All concrete waste is stored in the contaminated area of the yard. It is not placed in a position where contaminated runoff or the waste itself can enter the stormwater system.	Significant	Unlikely	Low
Water contamination	Spill of high pH (alkaline) wastewater causing dirty water to enter stormwater system.	Any material spills during the loading process are cleaned up daily	Significant	Unlikely	Low
Water contamination	Seepage of high pH water into water table.	Sites are fully sealed, or additional sediment controls are in place for unsealed areas of the site.	Serious	Possible	Medium
<b>Storage and handling of liquid fuels and chemicals</b>					
Soil contamination	Impacting soil from spills of liquid fuel and chemicals e.g.. oils, acids.	Waste associated with any spills is disposed of in accordance to State requirements.	Significant	Unlikely	Low
Soil contamination	Impacting soil from spills of liquid fuel and chemicals e.g.. oils, acids.	Any spills are promptly cleaned up.	Significant	Unlikely	Low
Soil contamination	Impacting soil from spills of liquid fuel and chemicals e.g.. oils, acids.	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Significant	Unlikely	Low
Soil contamination	Impacting soil from spills of liquid fuel and chemicals e.g.. oils, acids.	A documented spill response procedure is in place and employees have been trained in its use	Serious	Possible	Medium
Soil contamination	Soil contamination resulting from storing liquids in unbunded areas.	All liquid fuels and chemicals are stored in a banded area. These substances can include fuels, lubricants, oils, coolant and other chemicals.	Significant	Unlikely	Low



Soil contamination	Soil contamination resulting from storing liquids in unbunded areas.	All liquid fuels and chemicals are stored in a bunded area. These substances can include fuels, lubricants, oils, coolant and other chemicals.	Significant	Unlikely	Low
Water contamination	Impacting water quality from spills of liquid fuel and chemicals e.g. oils, acids.	Wastes associated with liquid fuels and chemicals are disposed of in accordance with state requirements.	Significant	Unlikely	Low
Water contamination	Impacting water quality from spills of liquid fuel and chemicals e.g. oils, acids.	Emergency spill kits are in place in high risk-areas	Significant	Unlikely	Low
Water contamination	Water contamination resulting from storing liquids in unbunded areas.	Emergency spill kits contain materials appropriate for cleaning up and containing most likely spills e.g.. Floating booms to contain liquid fuel spills into nearby water bodies.	Significant	Unlikely	Low
Water contamination	Water contamination resulting from storing liquids in unbunded areas.	Waste is stored in an area that will not contaminate any watercourse, waterway, groundwater, wetland or lake and soil.	Significant	Unlikely	Low
Water contamination	Water contamination resulting from storing liquids in unbunded areas.	Liquid wastes are stored in accordance with state bunding requirements.	Significant	Unlikely	Low
Waste from spillage	Generation of waste in the event of a spill (e.g.. spill response material such as absorbent socks).	Spill response equipment is available and readily accessible in high-risk areas. E.g. fuel storage areas	Significant	Unlikely	Low
Waste from spillage	Generation of waste in the event of a spill (e.g.. spill response material such as absorbent socks).	Operators remain with their vehicle at all times during the delivery of fuel and chemicals to permit immediate response in the event of any spill or leakage.	Significant	Unlikely	Low
Waste from spillage	Generation of waste in the event of a spill (e.g.. spill response material such as absorbent socks).	A documented spill response procedure is in place and employees have been trained in its use.	Serious	Possible	Medium
Waste from spillage	Generation of waste in the event of a spill (e.g.. spill response material such as absorbent socks).	Any spills are appropriately reported and investigated based on potential risk, including the generation of corrective actions.	Significant	Unlikely	Low
Waste from spillage	Generation of waste in the event of a spill (e.g.. spill response material such as absorbent socks).	Spill response equipment is regularly maintained including replacement of used equipment.	Significant	Unlikely	Low

Waste from spillage	Generation of waste in the event of a spill (e.g.. spill response material such as absorbent socks).	Any spills are promptly cleaned up.	Significant	Unlikely	Low
<b>Other Aspects</b>					
					#N/A

## **7.2 Pollutant and Safety Equipment Information**

Legislative requirements under the Protection of the Environment Operations (POEO) Act dictate that the site is to provide information for all pollutants that are used and stored on the site. This information is required as it assists personnel responsible for coordinating spill responses to more effectively manage spills.

This information must be presented as a manifest detailing the pollutants stored at the site, the location of these storage areas, and the safety equipment to be made available at these areas. A Pollution Information Data Sheet (PIDS) has been prepared that includes the following information for each pollutant. Refer to table 3 below

- The intended use for the pollutant
- How the pollutant is stored
- SDS information
- Safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident
- PPE needed to safely manage a spill of the pollutant
- Procedure for cleaning up a spill of the pollutant.

In order to ensure the currency and reliability of the information in the PIDS, the information should be reviewed and updated on a monthly basis.

Table 3: Pollutant Information Data Sheet and clean-up methods

Pollutant	Storage Location	Current SDS Held Yes/No	Emission control equipment <sup>(1)</sup>	PPE <sup>(1)</sup>	Spill Clean Up Method <sup>(1)</sup>
Ad mixtures and Cleaning Chemicals	Undercover Fuel Bay	Yes	Sand, earth, vermiculite	PVS gloves, safety glasses, goggles	<p><b><u>Large Spill</u></b></p> <p><b><u>Assess</u></b></p> <p>Quickly assess the spill:</p> <ul style="list-style-type: none"> <li>Decide whether to handle the situation by yourself or if you require help.</li> <li>Advise your team of the hazard</li> <li>Post a guard or barricade</li> <li>Can you stop the source of the spill?</li> </ul> <p><b><u>Ensure Personal Safety</u></b></p> <p>First priority is to ensure safety of yourself and others in the area</p> <ul style="list-style-type: none"> <li>Consider evacuation and isolation.</li> <li>Do you or others require PPE</li> <li>Check Safety Data Sheet</li> </ul> <p><b><u>Secure</u></b></p> <p>Secure the spill</p> <ul style="list-style-type: none"> <li>If hazardous to public or other staff exists</li> <li>Post a guard immediately</li> <li>Enter barricades to prevent unintended access</li> </ul> <p><b><u>Contain</u></b></p> <p>Contain the spill quickly by surrounding with the booms which should be firmly secured in place.</p> <ul style="list-style-type: none"> <li>Find the source of the leak and stop it</li> <li>Emergency stop, cap, plug, move, adjust</li> <li>Move other containers from that area to a bunded area</li> <li>In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment.</li> </ul>

Pollutant	Storage Location	Current SDS Held Yes/No	Emission control equipment <sup>(1)</sup>	PPE <sup>(1)</sup>	Spill Clean Up Method <sup>(1)</sup>
					<p><b><u>Prevent</u></b></p> <p>Prevent spillage to stormwater drains and entry into sewer, water courses, basements or confined areas.</p> <p><b><u>Absorb</u></b></p> <p>Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation.</p> <p>Recover product from the surface.</p> <p>Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor</p> <p><b><u>Disposal</u></b></p> <p>Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation.</p> <p>Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor.</p> <p>Contaminated absorbent material may pose the same hazard as the spilt product. Monitor its disposal. The spill soiled bags need to be labelled and ear marked and placed in a leak proof container which is locked. SDS should be made available.</p> <p><b><u>Reporting</u></b></p> <p>Incident and Corrective and Preventative action should be captured on the INX.</p> <p><b><u>Small Spill</u></b></p>

Pollutant	Storage Location	Current SDS Held Yes/No	Emission control equipment <sup>(1)</sup>	PPE <sup>(1)</sup>	Spill Clean Up Method <sup>(1)</sup>
					<p>Stop leak without risk.</p> <p>Move containers from spill area</p> <p>Absorb with an inert material and place in appropriate waste disposal container.</p> <p>Use spark-proof tools and explosion-proof equipment.</p> <p>Dispose of via a licensed waste disposal contractor.</p>
<b>Vehicle fluids and Lubricants</b>	Lubricants Container	Yes	Sand, earth, vermiculite, barrier equipment (booms, floats etc.)	PVC Gloves, safety glasses, goggles	<p><b><u>Large Spill</u></b></p> <p><b><u>Assess</u></b></p> <p>Quickly assess the spill:</p> <ul style="list-style-type: none"> <li>Decide whether to handle the situation by yourself or if you require help.</li> <li>Advise your team of the hazard</li> <li>Post a guard or barricade</li> <li>Can you stop the source of the spill?</li> </ul> <p><b><u>Ensure Personal Safety</u></b></p> <p>First priority is to ensure safety of yourself and others in the area</p> <ul style="list-style-type: none"> <li>Consider evacuation and isolation.</li> <li>Do you or others require PPE</li> <li>Check Safety Data Sheet</li> </ul> <p><b><u>Secure</u></b></p> <p>Secure the spill</p> <ul style="list-style-type: none"> <li>If hazardous to public or other staff exists</li> <li>Post a guard immediately</li> <li>Enter barricades to prevent unintended access</li> </ul>

Pollutant	Storage Location	Current SDS Held Yes/No	Emission control equipment <sup>(1)</sup>	PPE <sup>(1)</sup>	Spill Clean Up Method <sup>(1)</sup>
					<p><b><u>Contain</u></b></p> <p>Contain the spill quickly by surrounding with the booms which should be firmly secured in place.  Find the source of the leak and stop it  Emergency stop, cap, plug, move, adjust  Move other containers from that area to a bunded area  In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment.</p> <p><b><u>Prevent</u></b></p> <p>Prevent spillage to stormwater drains and entry into sewer, water courses, basements or confined areas.</p> <p><b><u>Absorb</u></b></p> <p>Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation.</p> <p>Recover product from the surface.</p> <p>Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor</p> <p><b><u>Disposal</u></b></p> <p>Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation.</p> <p>Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor.</p> <p>Contaminated absorbent material may pose the same hazard as the spilt</p>

Pollutant	Storage Location	Current SDS Held Yes/No	Emission control equipment <sup>(1)</sup>	PPE <sup>(1)</sup>	Spill Clean Up Method <sup>(1)</sup>
					<p>product. Monitor its disposal. The spill soiled bags need to be labelled and ear marked and placed in a leak proof container which is locked. SDS should be made available.</p> <p><b><u>Reporting</u></b></p> <p>Incident and Corrective and Preventative action should be captured on the INX.</p> <p><b><u>Small Spill</u></b></p> <p>Stop leak without risk.</p> <p>Move containers from spill area</p> <p>Absorb with an inert material and place in appropriate waste disposal container.</p> <p>Use spark-proof tools and explosion-proof equipment.</p> <p>Dispose of via a licensed waste disposal contractor.</p>
Truck wash	Undercover Bunded Fuelling Area	Yes	Sand, spill kits	PVC Gloves, safety glasses	<p><b><u>Large Spill</u></b></p> <p><b><u>Assess</u></b></p> <p>Quickly assess the spill:</p> <ul style="list-style-type: none"> <li>Decide whether to handle the situation by yourself or if you require help.</li> <li>Advise your team of the hazard</li> <li>Post a guard or barricade</li> <li>Can you stop the source of the spill?</li> </ul> <p><b><u>Ensure Personal Safety</u></b></p>



Pollutant	Storage Location	Current SDS Held Yes/No	Emission control equipment <sup>(1)</sup>	PPE <sup>(1)</sup>	Spill Clean Up Method <sup>(1)</sup>
					<p>First priority is to ensure safety of yourself and others in the area            Consider evacuation and isolation.            Do you or others require PPE            Check Safety Data Sheet</p> <p><b><u>Secure</u></b></p> <p>Secure the spill            If hazardous to public or other staff exists            Post a guard immediately            Enter barricades to prevent unintended access</p> <p><b><u>Contain</u></b></p> <p>Contain the spill quickly by surrounding with the booms which should be firmly secured in place.            Find the source of the leak and stop it            Emergency stop, cap, plug, move, adjust            Move other containers from that area to a bunded area            In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment.</p> <p><b><u>Prevent</u></b></p> <p>Prevent spillage to stormwater drains and entry into sewer, water courses, basements or confined areas.</p> <p><b><u>Absorb</u></b></p> <p>Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation.</p> <p>Recover product from the surface.</p> <p>Use spark-proof tools and explosive proof equipment. Dispose of via a</p>

Pollutant	Storage Location	Current SDS Held Yes/No	Emission control equipment <sup>(1)</sup>	PPE <sup>(1)</sup>	Spill Clean Up Method <sup>(1)</sup>
					<p>licensed waste disposal contractor</p> <p><b><u>Disposal</u></b></p> <p>Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation.</p> <p>Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor.</p> <p>Contaminated absorbent material may pose the same hazard as the spilt product. Monitor its disposal. The spill soiled bags need to be labelled and ear marked and placed in a leak proof container which is locked. SDS should be made available.</p> <p><b><u>Reporting</u></b></p> <p>Incident and Corrective and Preventative action should be captured on the INX.</p> <p><b><u>Small Spill</u></b></p> <p>Stop leak without risk.</p> <p>Move containers from spill area</p> <p>Dilute with water and mop up, or absorb with an inert dry material and place in appropriate waste disposal container</p> <p>Dispose of via a licensed waste disposal contractor.</p>

<sup>(1)</sup> This information should be drawn from a review of the SDS or Manufacturer / Supplier Technical Information

### 7.3 Emergency Response Map

In addition to the PIDS the site needs to prepare an emergency response map that provides the following information;

- address of site
- location of pollutant storage
- location of safety equipment
- emergency evacuation / muster points
- stormwater drains / flow paths
- sensitive receivers
- sediment dam overflow locations
- location of SDS
- surrounding area that is likely to be affected by a pollution incident
- discharge location of stormwater drains to nearest water course or water body

Existing site maps that have been developed to comply with Holcim SHE system requirement 1.84 may be used if all the required items have been included. If an existing map is not available it should be created.

It is important to clearly identify these items so as to be able to respond in an emergency situation.





## **7.4 PIRMP Review**

Review of PIRMP will be undertaken to check that the information is accurate and current and that the plan is capable of being implemented in a workable and effective manner. Reviewing shall be undertaken in the following ways:

- The PIRMP will be tested annually and any identified updates or changes will be made
- The PIRMP will be tested and reviewed within one month from the date of any pollution event that triggers this PIRMP
- The review will also consist of assessment of any additional hazards and control measures
- In addition to site evacuation drills, a mock environmental incident will be done once a year to ensure all site personnel are following training and correct procedures. The mock scenario will be set and all the actions will be captured on the check sheet. Based on these mock incidents, the Site manager and the Environmental Coordinator will review the site personnel preparedness and site procedures to identify gaps or areas for improvement. Records of the drill will be maintained, including follow up of opportunities for improvement identified during emergency drills.

## **7.5 Typical Holcim Response process**

If it is suspected that an incident may cause material environmental harm the Pollution Incident Management Response Plan will be executed. This plan is based on seven phases:

- 1) Assess
- 2) Stop
- 3) Notify
- 4) Contain
- 5) Mitigate
- 6) Clean up
- 7) Review

Details of the requirements and responsibilities for each phase are explained below.

## Assess

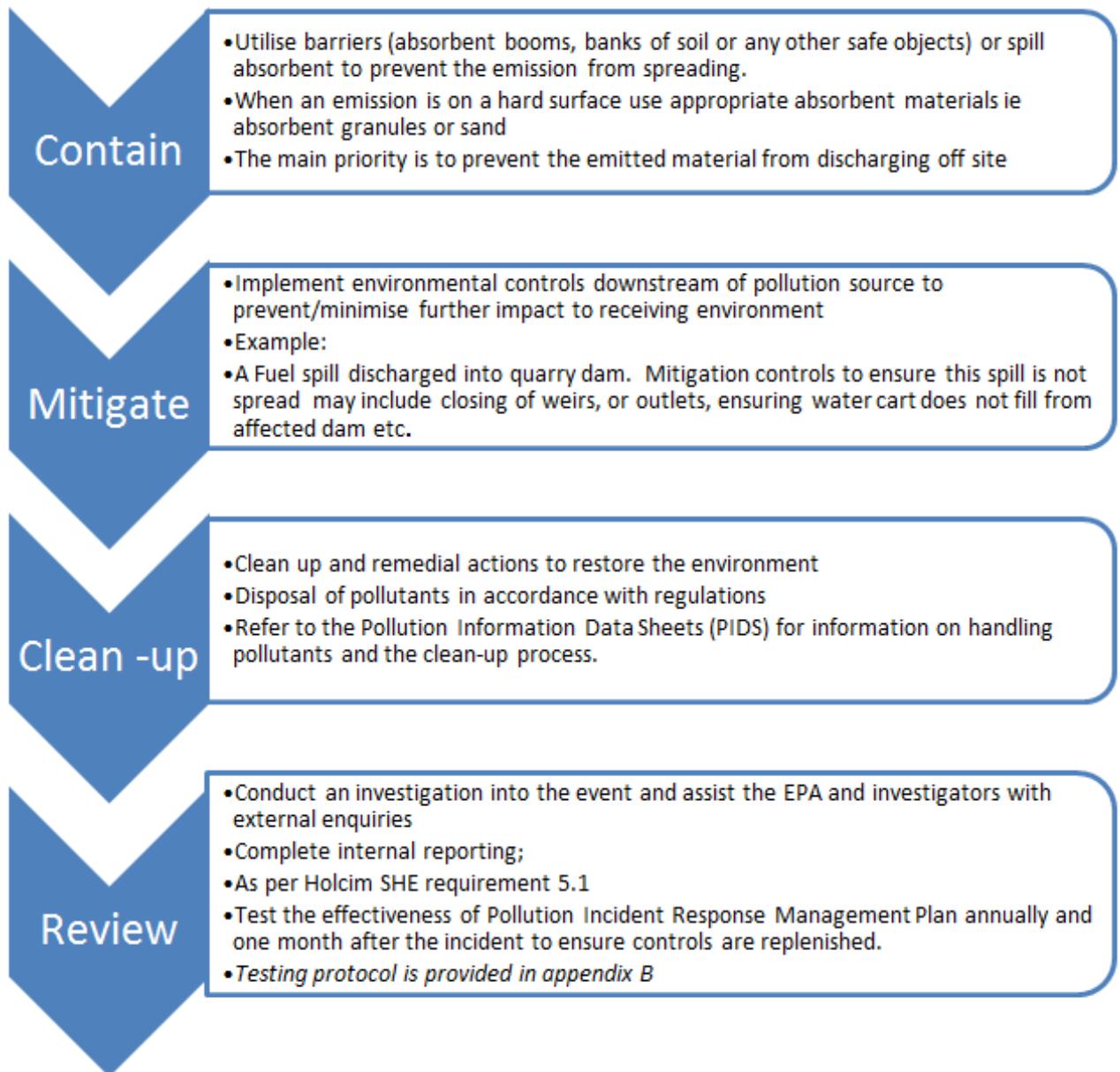
- **Assess the severity, risks, and extent of the incident:**
  - What is the substance emitted?
  - What are its properties?
  - Is there a risk to health and safety?
  - Do you have the necessary PPE to manage the emission?
  - What is the nature of the surrounding area?
  - What is the volume of the emission?
- **If the emission has the potential to cause material harm, execute the next phase of the plan (Notify)**

## Stop

- **Stop the source of the emission**
- **Ensure that necessary emergency materials are on hand to control larger emissions**
- **Examples:**
  - Restore drums to upright position
  - Close open valve causing spill
  - Isolate feed line
  - Plug the leak
  - Construct an earthen bund

## Notify

- **Contact key individuals**
  - Individuals responsible for activating and managing plans (nominated site representatives)
  - Individuals authorised to notify and coordinate relevant authorities (nominated site representatives)
- **Contact Relevant Authorities**
  - Firstly, call 000 if the incident presents an immediate threat to human health or property.
  - If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:
    - the Appropriate Regulatory Authority
    - EPA
    - Ministry of Health via the local Public Health Unit
    - WorkCover Authority
    - the local authority if this is not the ARA
    - Fire and Rescue NSW
- **Specific contact details are provided in appendix A**



## **7.6 Communication Strategy**

It is a legal requirement of the Protection of the Environment Operations (POEO) Act, to notify key stakeholders in neighbouring properties that may be affected by an incident.

Communicating with neighbours and the community in the event of an environmental incident is vital as they have a right to know about any spill that can potentially lead to material harm to their properties or themselves. The communication strategy in the PIRMP provides sites with a method of communicating with key stakeholders.

Key stakeholders include neighbouring residential and/or commercial properties, sensitive receivers ie farms, hospitals schools within the area of impact. Consideration must be given to sensitive receivers that may be affected if the emission reaches a water body. For example a farmer that is cultivating crops down river from your site will need to be informed of a spill to prevent him spraying his crops with polluted irrigation water.

The PIRMP must include details of the mechanisms that will be used for providing early warnings and regular updates to the owners and occupiers of premises who may be affected by an incident occurring at the premises.

The communication strategy should also make reference to any actions or arrangements that will be in place to minimise the risk of harm to any persons who will be on the premises or who are likely to be on the premises at the time of an incident. This is a legislative requirement that needs to be included in the PIRMP.

For a table detailing the communication strategy for this site:

**Refer to Appendix C – Community Notification Strategy**



## **8 Staff Training**

Sites need to develop a toolbox talk based on the PIRMP. This training should be delivered to all appropriate personnel on site and be conducted to include potential scenarios that may require implementation of the plan.

### ***Frequency of training***

Training for site staff should be repeated annually, and after each update to the plan. In the event of an incident requiring the PIRMP to be activated a training drill should be carried within one month of the incident occurring.

### ***How Records of training are kept***

Training records should be stored on site and in the Chris 21 data base. This data base is the primary online tool for tracking individual staff training records and frequency for training and refresh courses. These records are to be made available to relevant authorities on request.

## **9 Continual Improvement**

It is a legislative requirement for this plan to be tested and updated on an annual basis and within one month of an incident.

To complete this requirement a Pollution Incident Response Test Checklist has been prepared and provided as Appendix B. The checklist includes the major elements of the plan that require testing:

- Contact numbers
- Evacuation drills
- Desktop assessment
- Staff training and awareness
- Environmental controls & PPE

Desktop assessments require site personnel, responsible for testing the plan, to select a scenario from the hazard and impact register (table 2) and ensure that all the required controls for the scenario are in place. During the desktop assessment environmental control and PPE equipment supplies should be inspected to ensure that they are functional and that there are enough materials to ensure that emissions relating to the scenario can be controlled effectively and safely.