Procedure

Environmental spill response

Environment

3/11/2022

IO-PR-EN-0003

Rev 0

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1 Purpose

This procedure provides detail on the process to ensure spills are effectively managed to minimise the potential impacts on the environment.

1.1 Background

Fortescue employees and contractors are obliged to comply with all relevant environmental Commonwealth and State legislation. Legislation directly relevant to discharges to the environment in Western Australia is provided in Appendix 1.

Definitions of terms and acronyms used throughout this procedure are provided in the *Definitions and Acronyms Guideline* (IO-GU-EN-0002).

1.2 Application

This procedure is required to be followed for any spill that occurs at all Fortescue Iron Ore (WA) Exploration, Project, and Operational Sites.

2 Procedure

The procedure below is to be followed to control, contain and clean-up spills to minimise potential impacts on the environment.

Table 1: Procedure

Responsibility	Steps (tasks)	Time frame
Reporting Person	**1. Assess the risk associated with the spill before responding:** • Identify the spilt material, approximate quantity, and the source. • Notify supervisor / line manager of the hazard. If required: • Immediately notify others working in area. • Remove any potential sources of heat or ignition and increase ventilation to the area. • Erect signage/barriers to restrict personnel in the incident area. • Ensure the area is safe to enter and remain up wind from the spilt material (e.g., hazardous chemicals, fumes and/or vapours). • Review the relevant Safety Data Sheet and obtain the required PPE. • Evacuate the area and comply with sites Emergency Response Plan (refer to Section 4.1).	As soon as spill identified.
Incident Owner	**2. Control the spill:** • Isolate the source of the spill if possible (e.g., shut of valves, plug visible holes, righting a fallen container).	As soon as practical.
Incident Owner	**3. Contain the hazard:** • Prevent the spill from reaching any ground or surface water systems and the drainage network. • Surround the spill with suitable material (e.g., earthen bund, absorbent booms) to contain the spill from spreading. • Direct any discharge onto cleared/disturbed areas if possible.	As soon as practical.
Incident Owner	4. **Notify Environment Superintendent of spill**.	If potential for environmental harm (refer to Section 4.2) – immediate report. As soon as practical, at least shift in which the spill occurred.
Environment Superintendent	**5. Provide advice and support:** • Notify if extent of spill needs to be determined. • Confirm level of impact and report as per Incident Event Management Procedure (100-PR-SA-0011).	As required.
Incident Owner	6. **Request Survey to determine extent of the spill, if required.**	As soon as practical.

Survey	**7. Determine extent of spill through drone fly-over, if required.**	As soon as practical.
Incident Owner	**8. Clean-up spill and disposal of any contaminated material:** • Use appropriate spill response equipment to absorb or recover the spilt material (refer to Section 4.3).	Clean up – within 24 hours, where possible. Disposal – within 48 hours, where possible.

3 Flow chart

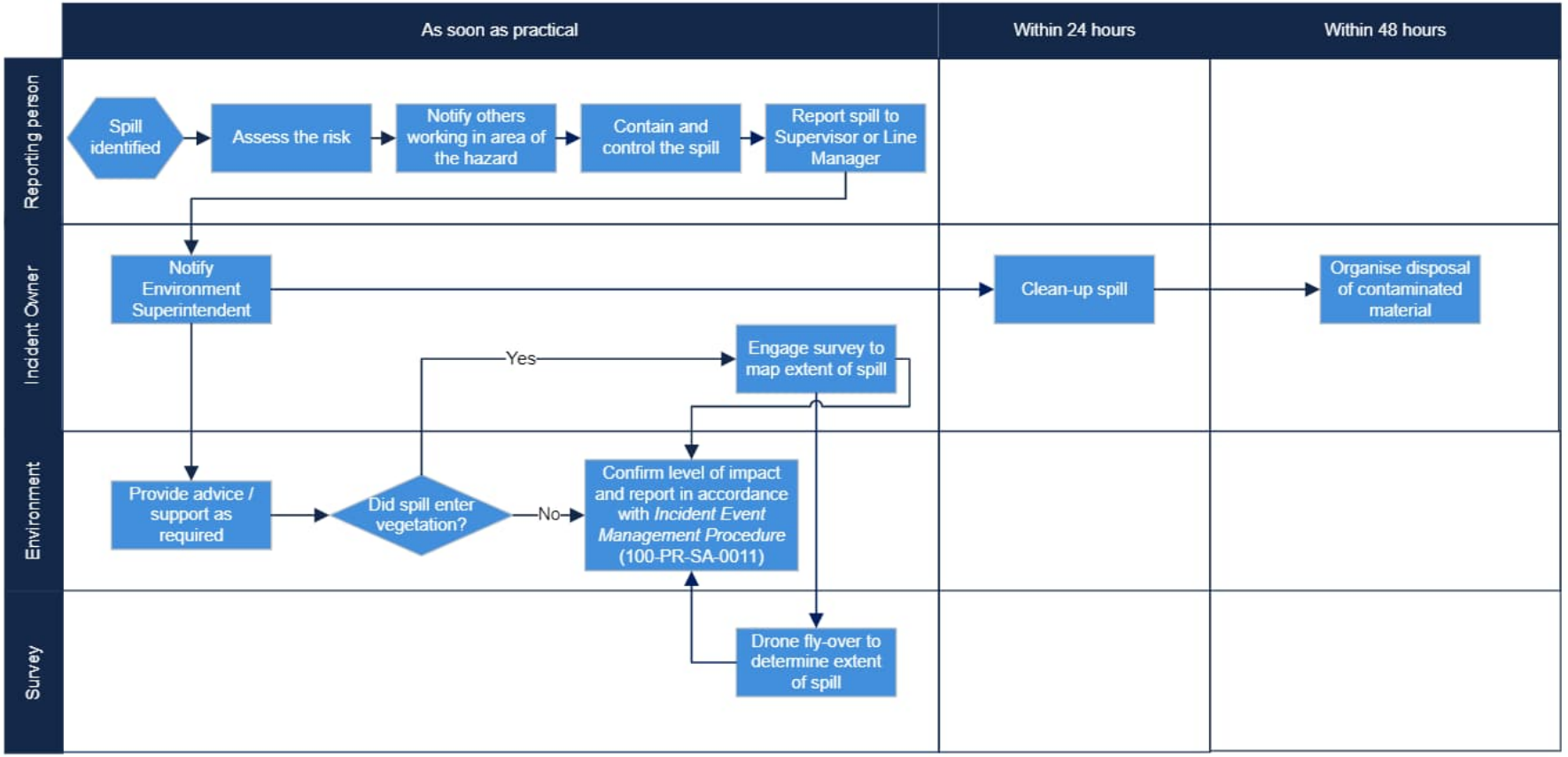

Figure 1: Spill response flow chart

4 Guidelines

4.1 Site emergency response plans

Site emergency response are outlined in Table 2.

Table 2: Site emergency response plans

Document ID	Title of Document
CB-PL-EM-0003	Cloudbreak Emergency Response Plan
CC-PL-EM-0001	Christmas Creek Emergency Response Plan
SO-PL-SA-0009	Solomon Emergency Response Plan
750EW-0000-PL-EM-0001	Eliwana Emergency Management Plan
E-PL-EM-0001	Exploration Emergency Response Plan
P-PL-EM-0002	Port Hedland Operations Emergency Response Plan
R-PL-EM-0001	Rail Operations Emergency Response Plan
662NS-0000-PL-EM-0001	Iron Bridge Emergency Management Plan

4.2 Potential reportable spills

Examples of potential externally reportable incidents include, but not limited to:

- Saline water beyond disturbed areas (e.g. entering vegetation).
- Hydrocarbons being spilled in areas which cannot be immediately recovered and have the potential to cause environmental impact.
- Hydrocarbon or chemical spills that have occurred in the Port Hedland Harbour.
- Tailings lines or return water line failures / leaks beyond disturbed areas.
- Sewage spills beyond disturbed areas.
- Incidents in an area of high conservation value or special significance (e.g., heritage areas, creeks, rivers, Fortescue Marsh).
- Spills that are likely to cause environmental harm.

4.3 Spill clean-up and disposal

Clean-up and disposal of spilt materials are outlined in Table 3.

Table 3: Clean-up and disposal

Spilt material	Location spilt	Clean-up	Disposal
Hydrocarbon (small spill)	Soil	Bag contaminated soil	Dispose soil in designated hydrocarbon bin. Material to be removed offsite by an appropriately licensed controlled waste contractor.
Hydrocarbon (large spill)	Soil	Remove with earthmoving equipment.	Disposed at the site bioremediation facility. Where bioremediation facilities are not available, contact the Environment Superintendent (or delegate) for advice on appropriate disposal methods.
Hydrocarbon (small spill)	Bitumen or concrete	Absorb and recover the spill using spill kit material. If area is in a workshop, use appropriate cleaning products to remove any residue that remains after the spill has been cleaned up.	Dispose hydrocarbon contaminated absorbent material into designated hydrocarbon bins. Material to be removed offsite by an appropriately licensed controlled waste contractor.
Hydrocarbon (large spill)	Bitumen or concrete	Absorb and recover the spill using readily available non-combustible material (e.g., soil, sand). If area is in a workshop, use appropriate cleaning products to remove any residue that remains after the spill has been cleaned up.	Remove non-combustible material and dispose in designated hydrocarbon bin.
Hydrocarbon	Bunded area, serviced by oily water separator	Spill should be processed through oily water system Recover remaining spilt material with a suitable spill kit or readily available non-combustible material (e.g., soil, sand).	Arrange for oily water separator to be emptied where necessary. Remove non-combustible material and dispose in designated hydrocarbon bin.
Hydrocarbon	Bunded area, not serviced by	If water present, arrange for the bund to be pumped out.	Dispose of oily water through available oily water separator. If oily water separator not available material to be

	oily water separator		removed offsite by an appropriately licensed controlled waste contractor.
Hydrocarbon	Body of water	Oil spill containment booms to contain and oil skimmers to remove	Dispose of oily water through available oily water separator. If oily water separator not available material to be removed offsite by an appropriately licensed controlled waste contractor.
Corrosive Material	Laboratory area	Sodium carbonate spill kit.	
Non-corrosive material	Laboratory area	Hydrocarbon/non-corrosive spill kit.	Dispose hydrocarbon/non-corrosive contaminated absorbent material into designated hydrocarbon bins. Material to be removed offsite by an appropriately licensed controlled waste contractor.
Liquid wastewater / Sewage	Bunded / concrete area	Any pooling areas of wastewater where considerable quantities have overflowed shall be vacuumed into a controlled waste vehicle.	Disposal back into the wastewater reticulation system. If waste is to be transported offsite and on a public road, a licenced controlled waste contractor must be utilised.
Solid wastewater material <200kg	Soil or Bunded / concrete area	Remove and package.	Dispose in landfill.
Solid wastewater material >200kg	Soil or Bunded / concrete area	In accordance with the *Environmental Protection (Controlled Waste) Regulations* 2004 as administered by Department of Water and Environment Regulation.	In accordance with the *Environmental Protection (Controlled Waste) Regulations* 2004 as administered by Department of Water and Environment Regulation.
Saline spills	Undisturbed area	Area may not be remediated where treatment would cause greater impact than the discharge (i.e., damage and / or clearing native vegetation).	

5 Monitoring and review

Table 4: Programmes and Schedules

Monitor (Audit) and Review	Frequency	Responsibility
Procedure Review	Triennially (or as and when required)	Manager Environment Governance

Document control

Environmental spill response		
Status	IFU - Issued for Use	2/11/2022
Summary of Changes	Supersedes *Environmental Spills* (100-PR-EN-1069)	
Author	Jane Humphrey	Signature
Checked or Squad Review# (if applicable)	IR-00199592	Signature
Approved	Todd Edwards	Signature
Next Review Date (if applicable)	1/11/2022	

Appendix A Legislative Context

Table 5: Legislation

Act / Regulation / Standards	Application
Environmental Protection Act 1986	Prevention, control and abatement of pollution, conservation protection and enhancement of the environment. Fortescue is required to obtain a licence under Part V to discharge to the environment at sites defined as prescribed premises under the Act.
Environmental Protection (Controlled Waste) Regulations 2004	Obligations relating to the transportation and disposal of 'controlled' wastes. Controlled wastes are listed in Schedule 1 of the Regulations.
Environmental Protection Regulations 1987	Definition and licencing of prescribed premises and control of pollution generally.
Environmental Protection (Unauthorised Discharges) Regulations 2004	Prevention of direct discharge of pollutants to the surrounding environment.
Mining Act 1978	The principal statute governing mining in Western Australia, including assessment of environmental approval documents and tenement conditions.
Pollution of Water by Oil and Noxious Substances Act 1987	Empowers the Port Hedland Port Authority to manage oil pollution within its area of responsibility.
Road Traffic Act 1974	Covers licensing requirements for transport vehicles.