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	<b>Environmental Accident Management Plan</b>		
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**Purpose:**

This Environmental Accident Management Plan (EAMP):

- Outlines the methodology for accident identification;
- Lists the accident scenarios identified;
- Provides the control measures in place to mitigate the identified accident scenarios;
- Lists the controls and related EMS documents that have relevance to the accident scenarios.

The EAMP documents will be reviewed and updated as necessary, when there have been major modifications to the facility and/or when there has been an environmental accident at the site.

**Definitions:**

Emergency incident: For this facility it has been determined that an emergency incident or situation in relation to environmental considerations is constituted by the escape off site of materials potentially hazardous to the environment. This is combined with the potential of the material to be able to impact upon an identified sensitive receptor. Furthermore, where the escape of material on site is potentially hazardous to human health, this will constitute an emergency incident situation regardless of whether it has escaped off site or not.


Incident: In contrast, where materials potentially hazardous to the environment are contained on site, this will be classed as an incident.

Near Miss: Any occurrence or potential occurrence identified that could lead to an emergency or incident occurring.

The emergency situations have been assessed related to normal and abnormal conditions:

Normal: Routine activity on site.

Abnormal: Planned deviation from normal operating procedures.

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**Key Site Information:**

- Full emergency contact list available in EMS.
- Water supply from mains, borehole and rainwater harvesting.

**Methodology:**

The potential for environmental accidents to occur has been evaluated and recorded in the H1-Assessment report referenced, P123-R02-F1. The assessment is based on a source-pathway-receptor model.

The model focuses on the key environmental risk sources and assesses the potential for them to move via a defined pathway and to impact on an identified receptor. Where the risks associated with a particular accident scenario require improvements to on site controls, this will be dealt with through the Incident and Corrective Action structure.

The potential environmental hazard sources are identified in the Environmental Accident Management Plan.

The identified receptors at risk from environmental pollution are shown on the Sensitive Receptor Plan, (ref).

**Pathways for pollutants to leave site:**

1. Drainage:- for ease of reference the drainage description is split into the sections as detailed in Table 1 below:

Table 1. Drainage Description					
Source	Area of Site Covered	Discharge Interceptors / Traps	Via	Final Discharge Location	Discharge Location Reference
Process, effluent, yard run off and foul sewerage.	All site areas.	All process effluent and yard run off passes via the effluent screen.		Severn Waste Treatment Works      Trent Water	E1



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2. Groundwater:- Any pollutants allowed to enter the underlying ground could enter groundwater and flow towards watercourses. Groundwater is anticipated to flow to the North West. Note that the yard areas on site are covered by concrete which will inhibit pollutant entry into the underlying ground.
3. Atmosphere:- Any pollutants that could be transferred via the air (odours, dusts, noise) would travel in the direction of prevailing winds and potentially impact the closest human receptors in that direction.

**Key Receptors:**

Environmental pollutants released during an accident event should be prevented from leaving site. Release from site may impact on one of the following identified receptors.

- Severn Trent Water Sewage Treatment Works;
- Surface Water (no direct link to the Surface water from site);
- Ground / groundwater (no direct link to Groundwater from site).

Further detail with regards to the location of the sensitive receptors is provided within the Sensitive Receptor Schedule Plan (ref).

**Identified major accident scenarios (relevant e.g. effluent tanks):**

The scenarios below are those identified major environmental accident scenarios that would result in a rapid response being required to deal with a situation arising on site (eg failure of the fuel tank and bund) and to prevent uncontrolled release of material leaving site and potentially causing a pollution event.

**Major environmental accident scenarios:**

Table 2: Major environmental accident scenarios					Immediate actions required - also see further details in section below
Major risk source	Location	Accident scenario	Information, State & Hazard	Pathways Receptors & of concern	
Diesel and Kerosene Fuels	Red Diesel 10,000 litre bunded tank Kerosene 2,500 litre and 1,000 litre bunded	Delivery tanker spillage Overfilling tanks Tank failure	<b>Fuel:</b> Flammable Potentially toxic to aquatic life	<u>Pathways</u> Effluent drains Cracks in hardstand to ground <u>Receptors</u> Severn Trent Water waste	Use spill kits to contain and clean up Used absorbents should be placed into a



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**Table 2: Major environmental accident scenarios**

Major risk source	Location	Accident scenario	Information, State & Hazard	Pathways & Receptors of concern	Immediate actions required - also see further details in section below
	tanks Tanks located in the service yard	Fuel supply to vehicle Damage due to vehicle collisions		treatment works Ground/groundwater Surface Water	dedicated container/drum and marked 'hazardous waste' If required, use Emergency Contact List to contact a chemical clean up contractor
Blood	Bunded blood tank located in the service yard.	Delivery pipe failure Overfilling tanks Tank failure Blood tank implosion Collection tanker spillage Failure of abatement system	<b>Blood:</b> Odourous Ground/groundwater contamination Will significantly increase oxygen demand in aquatic environments	<u>Pathways</u> Effluent drains Cracks in hardstand to ground Atmosphere <u>Receptors</u> Severn Trent Water waste water treatment works Ground/groundwater Surface water Atmosphere	Use spill kits to contain and clean up Used absorbents should be placed into a dedicated container/drum If required, use Emergency Contact List to contact an ABP clean up contractor
Cleaning chemicals/oil	Service Yard. Note chemicals stored internally, within lockable store.	Failure of containers Manual handling spills during decanting Delivery vehicle spill Damage due to vehicle	<b>Chemicals:</b> Potentially toxic to aquatic life Potentially corrosive, irritant, acid <b>Oils:</b> Flammable Potentially toxic to aquatic life <b>Most</b>	<u>Pathways</u> Effluent drains Cracks in hardstand to ground <u>Receptors</u> Severn Trent Water waste water treatment works Ground/groundwater Surface water.	Use spill kits to contain and clean up Used absorbents should be placed into a dedicated container/drum and marked 'hazardous waste'



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**Table 2: Major environmental accident scenarios**

Major risk source	Location	Accident scenario	Information, State & Hazard	Pathways Receptors & of concern	Immediate actions required - also see further details in section below
		collisions	<b>chemicals/oils stored in small containers &lt;50 litres</b>		If required, use Emergency Contact List to contact a chemical clean up contractor
Animal by-products	ABP trailers	Failure of containers Overfilling of ABP trailers Manual handling spill during filling Collection vehicle spill	<b>ABP:</b> Odourous Potentially pathogenic Will increase oxygen demand in aquatic environments	<u>Pathways</u> Effluent drains Cracks in hardstand to ground Atmosphere <u>Receptors</u> Severn Trent Water waste water treatment works Ground/groundwater Surface water. Atmosphere	Use spill kits to contain and clean up
Effluent treatment screen	Drainage system	Screen failure Build-up of solids on screens	<b>Process effluent:</b> Odourous Potentially pathogenic Will increase oxygen demand in aquatic environments	<u>Pathways</u> Effluent drains Cracks in hardstand to ground Atmosphere <u>Receptors</u> Severn Trent Water waste water treatment works Ground/groundwater Surface water. Atmosphere	Use spill kits to contain and clean up Used absorbents should be placed into a dedicated container/drum and marked 'hazardous waste' If required, use Emergency Contact List to contact a chemical clean up contractor
Site process	Drainage	Drain	<b>Process effluent:</b>	<u>Pathways</u>	Use spill kits to



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**Table 2: Major environmental accident scenarios**

Major risk source	Location	Accident scenario	Information, State & Hazard	Pathways & Receptors of concern	Immediate actions required - also see further details in section below
drains	system	blockages Drain failure	Odourous Potentially toxic to aquatic life	Effluent drains Cracks in hardstand to ground Atmosphere <u>Receptors</u> Severn Trent Water waste water treatment works Ground/groundwater Surface water. Atmosphere	contain and clean up Used absorbents should be placed into a dedicated container/drum and marked 'hazardous waste' If required, use Emergency Contact List to contact a chemical clean up contractor
Refrigeration gas	Refrigeration system	Component leak Unit breakdown	<b>Refrigerant gas:</b> GWP Potentially toxic <b>Spoiled material:</b> Odourous	<u>Pathways</u> Atmosphere <u>Receptors</u> Atmosphere	Attempt to seal of leak using valves Notify refrigeration engineer

**Notes:-**

Location references are shown on the drawing in plan (ref)

For more detail of the environmental fate and behaviour characteristics of individual substances please see Raw Material Inventory, in P123-R01-F1.

**Pollution prevention site specifics:**

- All process related areas are covered by hardstand;
- Internal floors are acid resistant;
- Spill kits provided on site only capable of handling minor spills;
- Site has dedicated secondary containment for bulk storage facilities.

The following documents are to be used to following an accident:-



- Emergency Procedure;
- Emergency Contact List;
- Spill Control Procedures;
- Plan showing location of spill kits.

**Key Actions in the event of an accident /emergency scenario:**

Relevant Information:-

- Electric cut off details available in manager's office;
- Gas cut off details available in manager's office;
- Water supply cut off details available in manager's office;
- Surface water exits: Refer to site drainage plans.

Actions:-

- Contact Senior Management.
- When required, inform Emergency Services.
- Where safe to do so:-
  - Prevent liquids, including fire water, from entering the drainage system by covering gulleys using suitable spill kit equipment.
  - Prevent liquids, including fire water, from escaping over the installation boundary using spill kits.
  - Contain liquids, including fire water, within process effluent drains and impermeable surface areas.
- Contact Severn Trent Water Sewage Treatment Works to see if they can accept discharge via the process effluent drains.
- Complete Incident Report Form and, where relevant and known, detail type, quantity, hazardous properties of materials that have caused the incident;
- Dispose of any waste materials created as a result of the accident in accordance with relevant legislation;
- Where relevant, provide for contingency measures for interim period whilst repairs are made;
- Where relevant, contact Environment Agency and complete relevant permit notification form.

**Follow up actions:**

Following any on site emergency, accident or significant near miss, the following will be undertaken:

- Replenish spill kits as required;



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- Undertake site inspection of areas of the site affected (storage locations, hardstanding, drainage systems) and arrange for necessary repairs;
- Investigation into cause and how to prevent re-occurrence;;
- Review of EAMP;
- Update any related documents as required.