

# Appendix L

## Accident management plan - Action Plan

SITE LOCATION DETAILS -	
Site phone no.	TBC
Mobile contact	TBC
Grid Reference of Site	SH42035 75575

<b><i>EMERGENCY CONTACT DETAILS</i></b>		
Emergency services:	999	
Local police:	TBC	
Doctor:	TBC	
Natural Resources Wales	0800 80 70 60 (24 hour emergency hotline)	
Contact/Environment Officer:	0300 065 3000 <i>tbc</i>	
	Office hours	Out of hours
Electricity supplier:	TBC	
Gas supplier:	TBC	
Local authority:	Yns Mon County Council Tel 01248 750057	
Maintenance contractor:	TBC	
Sewage undertaker:	Dwr Cymru (DCWW)	0800 085 3968
Specialist advice:	Oaktree Environmental Ltd 01606 558833	
Water undertaker:	Dwr Cymru (DCWW)	0800 085 3968
Waste disposal contractor:	TBC	

COMPANY CONTACTS (Out of hours) / Contact Phone numbers	
Operator:	TBC/ TBC
Unit Manager:	TBC/ TBC
Head Office Contact:	TBC/ TBC

	<b>Date</b>	<b>Signature</b>
Date of Plan:	February 2016	
Date of subsequent review:	February 2020	

## Accident Management Site Plan

This accident management plan will contain or refer to the following information:

- plan references.
- Inventory of tanks and stores
- Inventory of raw materials
- Emergency procedures:
  1. Immediate actions
  2. Secondary actions – depending on type of accident.
  3. Firewater action plan

## Accident Management Site Plan

The Accident Management Site Plan includes information of relevance for dealing with accidents that may pose a risk of environmental pollution and identifies the location of key equipment.

This includes;

- |   |   |
|---|---|
| • Site drainage details                     | • Drain inlets vulnerable to contamination                |
| • Mains water stop tap                      | • Spill kits or emergency materials e.g. sand bags        |
| • Fire hydrant                              | • Vulnerable locations                                    |
| • Main electrical supply isolator           | • Potentially sensitive areas of porous or unmade ground. |
| • Inspection points for detecting pollution | • Streams, tanks etc containing water for fire fighting   |

## **Inventory of Tanks, Stores and their contents.**

Refer to Environmental Management System and associated Appendices

## **Inventory of Raw Materials**

Refer to Environmental Management System and associated Appendices

## **Recording Incidents**

All incidents that have caused or could result in environmental pollution are recorded immediately following the event on the Site Condition Report (3407/819/H).

## **Emergency Procedures**

TBC\*\*\*\*\*are the responsible persons for co-ordinating actions during incidents requiring an emergency response. In their absence a designated deputy emergency co-ordinator has this responsibility.

The Accident Management Plan Risk Assessment has created a hierarchy of scenarios for which plans need to be in place. Whilst the risk of fire is small the potential severity of the results of such incidents prompts their inclusion of these within the management plan.

### **Immediate Actions:**

- Raise alarm where human safety is at risk.
- .
- Contact office or Duty Manager
- If necessary contact emergency services and the Environment Agency
- Extinguish all naked flames
- Obtain help from other members of staff nearby.
- In all cases wear and use appropriate Personal Protective Equipment.
- Do not enter tanks or confined spaces unless trained in correct procedures and not before all procedures have been satisfied.

### **Secondary Actions:**

Follow appropriate procedures for type of accident as described in the following tables.

### **Accident scenarios**

The risk analysis clearly identified waste oil and condensate and fires as the highest risk factors. The fact that the site effectively enjoys tertiary containment as almost all operations are sited within a building which drains to foul sewer reduces the potential severity of any incident quite considerably.

Accident Type	Anticipated Consequences	Action to be taken (listed in order of priority)
Spillage of waste oil	Potentially polluting liquids flow over floor to; foul drain inlet	<ul style="list-style-type: none"> <li>• If safe to do so and possible quickly stem source of release</li> <li>• Obtain help from other members of staff nearby</li> <li>• Use spill kits sited TBC</li> <li>• Assess route of discharge and identify easiest method and location to prevent further discharge.</li> <li>• Use booms and granules to contain spillage.</li> <li>• Make temporary repairs if appropriate</li> <li>• Clean up any contaminated yard areas.</li> <li>• Dispose of contaminated materials safely</li> <li>• Assess cause and take action to prevent repeat.</li> <li>• Record incident, measures taken and still to be taken.</li> </ul>
Accident Type	Anticipated Consequences	Action to be taken (listed in order of priority)
Surface water flooding	Wastes washed out of containment contaminating flood waters	<ul style="list-style-type: none"> <li>• Follow flooding emergency plan to minimise risks posed by inundation</li> <li>• Maintain membership of early warning schemes if available.</li> <li>• Assess route of flood flow and identify easiest method and location to minimise risk to bunds and storage tanks.</li> </ul>

Accident Type	Anticipated Consequences	Action to be taken (listed in order of priority)
<p>Fire/Fumes</p> <ul style="list-style-type: none"> <li>• solid wastes</li> <li>• stored oils</li> <li>• producer gas</li> </ul>	<p>Spreading between waste storage containers and waste oil tank.</p> <p>Toxic and polluting smoke.</p> <p>Wind dispersion of pollutants.</p> <p>Surface run-off from fire fighting water.</p> <p>Surface run-off from failed tanks, stores or pipework.</p> <p>Exploding gas and fuel canisters/containers.</p>	<ul style="list-style-type: none"> <li>• Raise alarm on site.</li> <li>• Ensure all persons are evacuated from danger area.</li> <li>• If safe to do so, turn off electricity/fuel supplies instigate shut down of gasifiers.</li> <li>• Ensure all staff are alerted.</li> <li>• Call fire brigade and other emergency services as necessary.</li> <li>• Contact office or Duty Manager.</li> <li>• Post member of staff at site entrance gate to direct emergency services.</li> <li>• Liaise with and follow instructions of emergency services making them aware of risks and hazards, provide copy of Accident Management Plan.</li> <li>• Do not enter or permit others to enter affected area unless it is safe to do so.</li> <li>• Instigate Fire water action plan..</li> </ul> <p>When incident is over:</p> <ul style="list-style-type: none"> <li>• Make temporary repairs if appropriate.</li> <li>• Clean up any materials that may be a hazard to the environment – where materials identified as containing asbestos are present specialist services must be employed.</li> <li>• Dispose of contaminated materials safely.</li> <li>• Assess cause and take action to prevent repeat.</li> <li>• Record incident, measures taken and still to be taken.</li> </ul>
<p>Contaminated surface water from fire fighting or other emergency activity.</p>	<p>Firewater escaping from building</p>	<ul style="list-style-type: none"> <li>• Follow fire water action plan to minimise risks posed by inundation</li> <li>• Assess route of discharge and identify easiest method and location to prevent further discharge.</li> <li>• Use vacuum tanker or pump to clean up spillage and transfer to another appropriate storage vessel.</li> </ul>

Accident Type	Anticipated Consequences	Action to be taken (listed in order of priority)
Power outage	During start up lead to uncontrolled shut down	<ul style="list-style-type: none"> <li>• Plant designed to discharge gasses via thermal oxidiser during shut down without power.</li> </ul>
Release of producer gas	Risk of fire asphyxiation or explosion	<ul style="list-style-type: none"> <li>• Raise alarm on site.</li> <li>• Ensure all persons are evacuated from danger area.</li> <li>• If safe to do so, turn off electricity/fuel supplies instigate shut down of gasifiers.</li> <li>• Ensure all staff are alerted.</li> <li>• Call fire brigade and other emergency services as necessary.</li> <li>• Contact office or Duty Manager.</li> <li>• Post member of staff at site entrance gate to direct emergency services.</li> <li>• Liaise with and follow instructions of emergency services making them aware of risks and hazards, provide copy of Accident Management Plan.</li> <li>• Do not enter or permit others to enter affected area unless it is safe to do so.</li> <li>• Instigate Fire water action plan.</li> </ul> <p><b>When incident is over:</b></p> <ul style="list-style-type: none"> <li>• Make temporary repairs if appropriate.</li> <li>• Clean up any materials that may be a hazard to the environment – where materials identified as containing asbestos are present specialist services must be employed.</li> <li>• Dispose of contaminated materials safely.</li> <li>• Assess cause and take action to prevent repeat.</li> <li>• Record incident, measures taken and still to be taken</li> </ul>

Spillage of Digestate	Potentially polluting liquids flow over floor to; foul drain inlet	<ul style="list-style-type: none"> <li>• If safe to do so and possible quickly stem source of release</li> <li>• Obtain help from other members of staff nearby</li> <li>• Use spill kits sited TBC</li> <li>• Assess route of discharge and identify easiest method and location to prevent further discharge.</li> <li>• Use booms and granules to contain spillage.</li> <li>• Make temporary repairs if appropriate</li> <li>• Clean up any contaminated yard areas.</li> <li>• Dispose of contaminated materials safely</li> <li>• Assess cause and take action to prevent repeat.</li> <li>• Record incident, measures taken and still to be t</li> </ul>
Failure of stack abatement measures Indication that stack emissions exceeding permitted limits.	Release of pollutants in excess of permitted levels at levels likely to cause a nuisance at levels that pose a risk to human health	<ul style="list-style-type: none"> <li>• If an individual engine/production line the cause instigate phased temporary shutdown to identify offending line/engine</li> <li>• Fully shutdown offending line and investigate problems</li> <li>• If stack abatement or monitoring equipment failure instigate full shut down</li> <li>• Instigate repairs when it is safe to do so</li> </ul>

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Spillages			
Spillage during transfer, compaction of wastes.	Contamination of land, drains, groundwater and watercourses.	Inspect and validate all incoming wastes. Train the staff	Follow the spill response procedure.  It describes what to do in the event of a spill and where the kit is kept.
Spillage during delivery of oil or fuel.		Supervise fuel deliveries. Use drip trays and spill materials.	
Spillages during refuelling of plant and equipment.		Plant and equipment will be refuelled in designated areas with impervious surface and will use drip trays and spill materials.	
Slow seepage of liquids from imported materials.  Slow seepage can be less noticeable than 'spills'.		Incoming materials that will only be stored on impervious surfaces with sealed drainage	
(Others: Please specify)			
Overfilling			
Overfilling of storage or processing tanks, eg liquid feedstock, digestate, oil tanks during delivery or export.	Contamination of land, drains, groundwater and watercourses.	Stock level control checks, supervised delivery and high level alarms.	Spill response procedure as described above.
(Others: Please specify)			
Failure of Plant or Equipment			
Leakages; due to faulty pipe work, valves, over-pressure, blockages, corrosion, severe weather, ground movement etc.		Daily visual inspection and completion of weekly inspection checklist record.  Preventative maintenance regime.  Any underground pipes and tanks will be tested for integrity.	

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Puncture; of vessels and tanks etc due to impact – such as fork lift trucks.	Contamination of land, drains, groundwater and watercourses.	<p>Insulation and protection of pipe work.</p> <p>Tanks and vessels located within / on secondary containment facilities.</p> <p>Storage locations of drums and non-permanent vessels protected by use of barriers or fencing.</p> <p>Movement of drums and containers using safe techniques.</p>	Spill response procedure as described above.
(Others: Please specify)			
<b>Fire</b>			
Fire	<p>Smoke and pollution,</p> <p>Firewater causes contamination of land, groundwater and watercourses.</p>	<p>Separation of incompatible materials and of combustible materials and ignition sources.</p> <p>Incorporation of fire breaks into site layout and containment of fire water.</p> <p>No smoking policy.</p> <p>Maintain tidy site and minimize stockpile of combustible materials.</p> <p>Fire training and emergency drills.</p>	Fire procedure describing what to do in the event of a fire, including details about fire alarms, exit routes and muster points, responsible personnel such as a fire warden and the location and use of emergency fire equipment such as extinguishers, hoses, sand bags and drain covers. Fire Prevention & Risk Plan
<b>Cross contamination</b>			
Due to transfer and mixing of incompatible materials, drainage cross connections etc.	<p>Explosion, smoke and pollution of air,</p> <p>Contamination of land, drains, groundwater and watercourses.</p>	<p>Maintenance of up to date drainage plan.</p> <p>Maintenance of inventory of substances with material property details.</p> <p>Procedure for contractors to work on site including induction training and permit to work.</p> <p>Fail-safe filling systems.</p>	Procedure as described above.

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
<i>(Others: Please specify)</i>			
<b>Flood</b>			
Due to ingress of watercourse floodwater, blocked drains, burst water main, use of fire water.	Contamination of raw materials, buildings, land, drainage system, groundwater and watercourses with fire and flood water.	Maintenance of drains. Fitting of flap / non return valves on drains.  Safe location for storage of hazardous materials.	Flood procedure describing what to do in the event of a flood warning such as installation of barge boards, use of sand bags, movement or protection of sensitive materials.
<i>(Others: Please specify)</i>			
<b>Failure of Services</b>			
Due to failure of supply; water, electricity, gas supply and of sewerage system.  Due to utility supply being struck and broken / cut.	Flooding,  Explosion with subsequent contamination of land, drains, groundwater and watercourses.	Provision of standby facilities.  Maintenance of up to date plans showing location of utility services.  Procedure for contractors to work on site including induction training and permit to work.	Utility supply failure procedure describing what to in the event of services supply failure such as manual shut down of process valves, start up of emergency generator, use of standby power supply system on site to allow critical parts of the plant to continue to operate etc.  Flood and fire procedure as described above.
<i>(Others: Please specify)</i>			
<b>Failure of Containment</b>			
Failure of containment facilities due to land movement, impact, corrosion etc.	Contamination of land, drains, groundwater and watercourses.	Provision of secondary containment for potentially contaminated run-off.  Inspection of primary and secondary containment	Spill response procedure as described above.

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
		facilities. Integrity testing of tanks and bunds & pressure loss alarms.	
<i>(Others: Please specify)</i>			
<b>Vandalism</b>			
Unauthorised entry and tampering or malicious damage to property, plant and equipment.	Contamination of land, drains, groundwater and watercourses.	Secure gate and perimeter fence. Site locked when un-manned, tanks and valves locked when not in use out of hours. Mobile Plant and equipment locked in secure state out of hours. Security system installed including camera and recording facilities CCTV.	Spill response procedure as described above.