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20001

Nine Mile Point Waste Processing Facility

Accident Management Plan

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Report

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Accident Management Plan

1 Introduction

- 1.1 This Accident Management Plan (hereinafter referred to as the 'Plan') has been prepared on behalf of Drumcastle Limited for the Nine Mile Point Waste Processing Facility.
- 1.2 This Plan has been completed in compliance with guidance on How to Comply with your Environmental Permit. Pollution Prevention Guidance note (PPG) 21 Pollution Incident Response Planning and H1 Environmental risk assessment guidance were reviewed when identifying the potential risks of the site.
- 1.3 This Plan will be used as a reference document for facility personnel in the identification of hazards, the severity of their potential impact and the appropriate measures to be employed if they should arise.
- 1.4 This Accident Management Plan will identify;
 - The potential accidents that could occur onsite and the prevention measures in place;
 - Events or equipment failures that could damage the environment and the consequences associated with such events/failures and the measures in place to minimise such events/failures; and
 - The recording and investigating of complaints, pollution incidents or breaches of the permit and the actions taken.
- 1.5 The Plan will be communicated to all employees, managers and contractors who work at the site. Regular drills will be implemented onsite to ensure the plan is fully understood by all staff with changes made if required.

2 Identification of Hazards

- 2.1 The following hazards have been identified as having the potential to generate accidents during the operation of the facility;
- Non permitted wastes received;
 - Mixing of incompatible waste;
 - Waste reception area storage capacity exceeded;
 - Processed waste storage area capacity exceeded;
 - Contaminated run off from waste;
 - Transfer of waste leading to spillage;
 - Failure of odour containment;
 - Failure of grab;
 - Failure of shredder;
 - Failure of screen;
 - Failure of baler;
 - Failure of wrapper;
 - Integrity of surfaces compromised by noncompliance with normal operating procedures;
 - Flooding;
 - Vandalism;
 - Fire;
 - Restricted staff availability; and
 - Extreme meteorological conditions.

3 Assessment of Risks

3.1 In undertaking a risk assessment and likelihood of an accident, the following risk assessment has been utilised as set out in Table 1.1 below.

Table 1.1 Likelihood Categories

	Category	Range
1	Extremely unlikely	Incident occurs less than once in a million years
2	Very unlikely	Incident occurs between once per million and once every 10,000 years
3	Unlikely	Incident occurs between once per 10,000 years and once every 100 years
4	Somewhat unlikely	Incident occurs between once per 100 years and once every 10 years
5	Fairly probable	Incident occurs between once per 10 years and once per year
6	Probable	Incident occurs at least once per year

3.2 As identified in section 2.1, a number of potential risks have been identified. The potential of these accidents to occur and their impact on the environment has been assessed utilising the following risk table.

Table 1.2 Severity Categories

	Category	Definition
1	Minor	<ul style="list-style-type: none"> ▪ Nuisance on site only (no off-site effects). ▪ No outside complaint.
2	Noticeable	<ul style="list-style-type: none"> ▪ Noticeable nuisance of site e.g., discernible odours ▪ Minor breach of permitted emissions limits, but no environmental harm. ▪ One or two complaints from the public.
3	Significant	<ul style="list-style-type: none"> ▪ Severe and sustained nuisance, e.g., strong offensive odours or noise disturbance. ▪ Major breach of Permitted emissions limits with possibility of prosecution. ▪ Numerous public complaints.
4	Severe	<ul style="list-style-type: none"> ▪ Hospital treatment required. ▪ Public warning and off-site emergency plan invoked.

	Category	Definition
		<ul style="list-style-type: none"> Hazardous substance releases into water course with ½ mile effect.
5	Major	<ul style="list-style-type: none"> Evacuation of local population. Temporary disabling and hospitalisation. Serious toxic effect on beneficial or protected species. Widespread but not persistent damage to the land. Significant fish kill over 5-mile range.
6	Catastrophic	<ul style="list-style-type: none"> Major airborne release with serious off-site effects. Site shutdown. Serious contamination of groundwater or watercourse with extensive loss of aquatic life.

3.3 Following an assessment of each accident against likelihood and severity, a Risk Matrix has been developed. This Risk Matrix is provided in Table 1.3. The Risk matrix will inform the potential magnitude of each environmental accident. The outcome of the risk evaluation will assist in the provision of mitigation measures required to limit the impact on the environment in the event of an environmental accident at the proposed Waste Processing Facility.

Table 1.3 Risk Matrix

Event	Likelihood	Severity	Risk Score (LxS)
Non permitted wastes received	5	1	5
Transfer and/or mixing of incompatible waste	5	1	5
Waste reception area storage capacity exceeded	5	1	5
Processed waste storage area capacity exceeded	5	1	5
Contaminated runoff from waste	5	1	5
Transfer of waste leading to spillage	5	1	5
Failure of impermeable surfacing	5	1	5
Failure of odour containment	4	2	8
Failure of grab	5	1	5
Failure of shredder	5	1	5
Failure of screen	5	1	5
Failure of baler	5	1	5
Failure of wrapper	5	1	5

Event	Likelihood	Severity	Risk Score (LxS)
Flooding	3	3	9
Vandalism	5	2	10
Fire	3	3	9
Restricted staff availability	5	1	5
Extreme meteorological conditions	4	1	4

Table 1.4 Risk Evaluation

Magnitude of Risk	Score
Insignificant	6 or less
Acceptable	8 to 12
Unacceptable	15 or more

3.4 Table 1.4 identifies the magnitude of an accident if it were to occur at the proposed facility. Following the risk assessment, many accidents are classified as insignificant with other accidents classified as acceptable.

3.5 Following the risk assessment, the severity of the following events has been rated as insignificant:

- Non permitted wastes received;
- Mixing of incompatible waste;
- Waste reception area storage capacity exceeded;
- Processed waste storage area capacity exceeded;
- Contaminated run off from waste;
- Transfer of waste leading to spillage;
- Failure of impermeable surfacing;
- Failure of grab;
- Failure of shredder;
- Failure of screen;
- Failure of baler;
- Failure of wrapper;
- Restricted staff availability; and
- Extreme meteorological conditions

3.6 Following the risk assessment, the severity of the following events has been rated as acceptable:

- Failure of odour containment;
- Flooding;
- Vandalism; and,
- Fire.

3.7 No events were rated as unacceptable following the risk assessment.

4 Mitigation Measures

Proposed management and mitigation controls will ensure that all activities will be managed and operated in accordance with the Integrated Management System Policy which brings together all Quality, Environmental and Occupational Health and Safety requirements.

Table 1.5 Mitigation Measures

Hazard	Circumstances through which Abnormal Event Would Arise	Significance of Risk	Consequence	Mitigation Measure
Non permitted wastes received	Delivery of non-permitted waste via a third-party haulier	Insignificant	Waste received at the facility that is not permitted. Potential for odour emissions.	<p>All deliveries to the site will be subject to pre-acceptance evaluation and delivery schedule as agreed with customers prior to arrival on site.</p> <p>All vehicles permitted to enter the site to deposit waste material or to remove products from the site will pass over a weighbridge. All waste will</p>
Transfer and/or mixing of incompatible waste	Incompatible waste received at the facility	Insignificant	Breach of PPC permit.	<p>be unloaded and inspected before being pushed into the waste acceptance stockpile. Therefore, any incompatible waste will be identified at this stage and will not be mixed with any other waste.</p> <p>There will be no ad-hoc waste deliveries. In the event that a vehicle arrives on site, and it is verified that there has been no prior agreement made to receive that vehicle, the delivery will be refused, and vehicle turned away, and the incident recorded in the site diary.</p> <p>If hazardous waste is found the waste will be removed immediately and placed within the designated quarantine area.</p> <p>If personnel come into direct contact with hazardous waste, they shall ensure that they report to the trained first aid staff member on site.</p>

<p>Waste reception area storage capacity exceeded</p>	<p>A failure of waste processing equipment resulting in a back log of waste in the reception area</p>	<p>Insignificant</p>	<p>Permitted waste storage tonnages exceeded. Potential for odour emissions.</p>	<p>All plant and equipment and electrical installations will be kept maintained and in good working condition and subject to routine inspection and maintenance to minimise any potential breakdowns or plant failure.</p> <p>Waste deliveries will be prohibited from entering the site if the reception area is found to be at full capacity and there is insufficient space for storage of waste or incoming vehicles on site.</p> <p>Wastes arriving at the site will be managed using the 'first-in', 'first-out' waste handling practice, reducing as far as possible the storage time of untreated materials at the facility.</p>
<p>Processed waste storage area capacity exceeded</p>	<p>Failure to remove processed waste from the site</p>	<p>Insignificant</p>	<p>Permitted waste storage tonnages exceeded. Potential for odour emissions.</p>	<p>The facility shall use the 'first-in', 'first-out' waste handling practices, reducing as far as possible the residency time of materials on site.</p> <p>Storage capacities for segregated wastes are noted within the Environmental Management System and will not be exceeded. Storage times for processed wastes/products (i.e., SRF/RDF) are also noted within the Environmental Management System.</p> <p>All products, wastes and recovered materials that are dispatched from the installation will be inspected prior to dispatch to confirm their description and composition. Waste dispatched from the site will only be sent via appropriately licensed waste carriers to appropriately Permitted or approved end markets.</p>

Contaminated runoff from waste	Waste exposed to surface water or precipitation	Insignificant	Contamination of ground water and surface water.	<p>Waste will be processed inside the building providing complete protection from precipitation. All waste handling, processing or storage will take place on impermeable concrete surfaces.</p> <p>Adequate drainage infrastructure is provided for the Waste Processing Facility. Surface water drainage and clean run-off from the roof will be discharged via silt traps and full retention interceptors to storage crates. Such interceptors will be subject to regular inspection and maintenance. Surface water will then be released to the existing surface water drains on the industrial estate.</p> <p>Penstock valves will be located on the foul and storm drainage outlet pipes which will be closed in the event of a spill or accident.</p> <p>The site has been designed with appropriate falls to allow all surface runoff to discharge towards the drainage system and the interceptor.</p>
Transfer of waste leading to spillage	Waste spilled from HGV trailers delivering waste to or removing waste from the site	Insignificant	Contamination of sealed drainage system and land.	<p>All loaded vehicles entering and leaving the site are sheeted to minimise spillages and to prevent windblown dust and litter.</p> <p>All waste material on site will be stored and processed on an impermeable surface so as to prevent ingress of spills or leakages into underlying soils and groundwater and also to divert liquids to appropriate drainage points. All areas that have the potential for contaminated run-off will be sealed and serviced with a secondary containment system.</p>

				<p>All site personnel will be tasked with monitoring for evidence of spills, leakages, and debris during their day to day routine. Training will be provided to all staff relating to the use of spill kits and the Spill Clean-Up Procedures.</p> <p>Any evidence of spills, leakages, and debris will be reported to the Site Manager or his nominated deputy for remedial action. Clean-up procedures will be implemented to contain and remove potentially polluting material. Records of any pollution incidents including corrective actions will be maintained. Natural Resources Wales will be notified as per requirements of the Environmental Permit. Clear access will be provided to all potentially leaking equipment.</p>
Failure of impermeable surfacing	Wear and tear of site traffic or accidental damage from loading shovels	Insignificant	Failure of containment therefore the potential for contamination of surface water/groundwater and land.	<p>The site access road & hardstanding will be inspected by the Site Manager on a daily basis to determine the need for maintenance, cleaning, and litter picking. All repairs will match the original standard and specification.</p> <p>All departing road transport will be inspected for cleanliness, prior to leaving the site. Paved roads will be swept and washed regularly as determined by Site Manager inspections. Regular inspection will ensure that 'special needs' cleaning will take place when and where necessary.</p>
Failure of odour containment	Breakdown of the air extraction fan or odour	Acceptable	Failure of the final stage of the odour control system, therefore potential	All activities are carried out within the main reception building. The waste reception building will be fitted with roller shutter doors and kept under negative pressure with internal air being treated via dust filters and a carbon filter prior to its release via a stack. All plant and equipment and

	breakthrough in the carbon filter		release of odour from the facility.	<p>electrical installations will be kept maintained and in good working condition and subject to routine inspection and maintenance.</p> <p>A regular review will be maintained of the use and the effectiveness of all media in the carbon filters. If the media is becoming ineffective in the treatment of odour the media will be replaced. This replacement of media will be recorded in the site diary. All spent media will be disposed to an appropriately licenced disposal facility.</p>
Failure of grab	Waste cannot be loaded into the shredder therefore waste build up in the reception area	Insignificant	Permitted waste storage tonnages exceeded. Potential for odour emissions.	All plant and equipment and electrical installations will be kept maintained and in good working condition and subject to routine inspection and maintenance. Equipment associated with waste processing is covered by a maintenance contract and/or a programme of planned preventative maintenance.
Failure of shredder	Waste cannot be loaded into the shredder therefore waste build up in the reception area	Insignificant	Permitted waste storage tonnages exceeded. Potential for odour emissions.	<p>Any identified maintenance or technical issues will be raised with the appropriate contact (i.e., onsite fitter / contractor / manufacturer) and rectified as soon as practically possible and a note will be made in the site diary.</p> <p>Reserve equipment will be kept on site so that any failed parts are quickly replaced and unnecessary delays in ordering parts can be avoided.</p>
Failure of screen	Waste cannot be processed therefore waste build up in the reception area	Insignificant	Permitted waste storage tonnages exceeded. Potential for odour emissions	<p>Arrangements will be made with maintenance/service companies to ensure that breakdown or damage to any critical items will be dealt with, and repair/replacement actioned as a matter of urgency.</p>

Failure of baler	Waste can be processed but cannot be baled therefore waste build up in the baler infeed area	Insignificant	Permitted waste storage tonnages exceeded. Potential for odour emissions	<p>In the event that there is a malfunction or breakdown of essential equipment on site, and the plant cannot accept or process waste, emergency contingency measures will be put into place to manage expected waste deliveries, until normal operations on site can resume.</p> <p>As all waste received at the site is from other waste management companies, these companies will be contacted when an abnormal operating situation which may lead to excessive waste building up on site is encountered and asked to stop deliveries until the situation is resolved. The above processes will ensure that permitted tonnages are not exceeded.</p>
Failure of wrapper	Waste can be baled but cannot be wrapped.	Insignificant	Un-wrapped waste would be stockpiled in the facility.	
Flooding	Sirhowy River breaching their banks and flooding the site	Acceptable	Flooding due to ingress of flood water or blocked drainage may lead to a reduction in quality of water discharging from the site	<p>The Site is not located within a flood zone and given that all of the processing equipment is generally elevated, the risk of flooding equipment is not likely.</p> <p>Surface water from the external areas of site will drain to storage crates for attenuation. Surface water will then be released to the existing surface water drainage system on the industrial estate. All surface water run-off will pass through full retention separators. These will be inspected on a regular basis to check their integrity and be maintained to prevent overflowing. The surface water attenuation system has been designed to hold the volumes of water from a 1:100 year storm event plus an additional allowance for Climate Change.</p>
Vandalism	Un-authorized access to the	Acceptable	Potential significant effects	The site will be surrounded by a perimeter fence. The main reception building, and cabin will be locked when not in use. Access to the site will

	site and damage to plant and equipment		to the integrity of building structure, plant, and equipment	<p>generally be restricted to the workforce other than site visitors during opening hours.</p> <p>The location of the cabin will ensure that any persons or vehicles entering the site will be identified prior to accessing the main waste activity and storage areas.</p> <p>Unauthorised access will not be permitted at any time. The site will be locked and secured when closed.</p> <p>CCTV will be used onsite both to deter unauthorised access to the site, and to capture any unpermitted activity.</p>
Fire	Fire from vandalism, build-up of heat within waste stockpiles, smoking on site or ignition from plant or electrical items.	Acceptable	Risk to human health from smoke, dust and PM10 emissions/ Surface run from firewater.	<p>The facility will be controlled by one of the most advanced fire detection and suppression systems which includes flame detection, high level and under conveyor sprinkler, deluge systems, fire hydrants and an onsite fire fighting water storage tank. The site has been designed to retain all fire fighting water onsite in the drainage system. This is controlled by a penstock valve that will close the storm water discharge from the site.</p> <p>The SRF will be turned and blended at least daily. This will ensure that the temperature does not build up within the stack. The SRF will generally only be stored for 5 working days and will be dispatched on a regular basis with loads leaving daily. Baled SRF will be wrapped and stored externally. Recyclates removed during the RDF/SRF preparation process will be stored in dedicated bays within the main building. Baled recyclable materials will be stored externally.</p>

				<p>All site staff will be trained in the Fire Emergency Response Procedure in Appendix B of the Fire Prevention Plan and in the use of firefighting equipment. Key Site and Emergency Contacts are included in Appendix A of the Fire Prevention Plan and will be completed when the site has been constructed.</p> <p>Staff will be trained in the identification of fire hazards, the site evacuation plan including escape routes and assembly points, raising the alarm and the correct use of firefighting equipment during induction. Fire drills will be completed regularly on site. Key information regarding what to do in the event of an emergency or problem will be made visible for all staff members and visitors entering the site.</p>
Restricted staff availability	Restricted staff availability on site caused by staff members unable to attend work due to illness and/or injury.	Insignificant	Risk of increased impact from any area of site where normal operations affected.	<p>Several staff will be trained to operate the loading shovels and other mobile plant; all other equipment will be automated.</p> <p>The facilities standby staff rota will be actively managed, and in the event of staff illness, the shift supervisor will be available to carry out the role of the absent staff member and the Site Manager will carry out the Shift Supervisor's role. Maintenance staff will also be available at short notice if required.</p>
Extreme meteorological conditions	Abnormal or extreme meteorological	Insignificant	No change to emissions anticipated.	Weather conditions will be recorded on a daily basis.

	conditions or unanticipated extreme changes in weather conditions.			The Facility has been designed to take account of worst case weather conditions including storms, high rainfall events, and lightning.
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5 Remedial Actions

- 5.1 Following the occurrence of any incident/accident scenario on site a full post-event investigation will be conducted and if necessary, modifications to the control measures, mitigation equipment, training and contingency actions will be implemented to ensure it does not occur again.

Non-Permitted Wastes Received

- 5.2 Only permitted waste will be received at the site through not accepting speculative costumers at the site, the clarification of waste loads at the weighbridge before waste is tipped and the inspection of waste at the reception area before it is mixed with other wastes.

Mixing of Incompatible Waste

- 5.3 All materials will be reviewed and subject to contract, including material specification, prior to acceptance. Therefore, Drumcastle Limited will be in control of the delivery of all materials to the facility. Pre-acceptance measures will ensure that the composition of waste and EWC Codes are obtained prior to its delivery at the site. All waste will be tipped in the retrospective tipping halls in the relevant waste reception areas and inspected before it is mixed with other wastes for processing. Therefore, any contamination can be isolated and placed in the quarantine area, if required.

Waste Reception Area Storage Capacity

- 5.4 The waste reception area has been designed with sufficient capacity to deal with daily intakes of waste. Any identified maintenance or technical issues will be raised with the appropriate contact (i.e., onsite fitter/ contractor/ manufacturer) and rectified/repared as soon as possible and a note will be made in the site diary. Reserve equipment will be kept on site so that any failed parts are quickly replaced and unnecessary delays in ordering parts can be avoided. Arrangements will be made with maintenance/service companies to ensure that breakdown or damage to any critical items will be dealt with, and repair/replacement actioned as a matter of urgency.

Processed Waste Storage Area Capacity

- 5.5 Processed waste such as SRF will not be stored in excess of permitted tonnages.

- 5.6 An external product storage area will be provided as shown on drawing 20001-402. This area will be surfaced with reinforced concrete and will be used for the storage of end products prior to dispatch to end markets e.g., baled recyclable material and RDF/SRF bales.

Contaminated Runoff from Waste

- 5.7 The non-hazardous waste sourced will be dry in nature to ensure the quality on the SRF produced. Waste will then undergo mechanical processing to produce SRF and to separate recyclable materials. Therefore, no effluent will be produced during this dry process.
- 5.8 All waste handling, processing or storage will take place on impermeable concrete surfaces with sealed drainage systems which will prevent any contamination. Waste will be processed inside the building providing complete protection from precipitation.
- 5.9 Surface water from the external areas of site will drain to storage crates for attenuation. Surface water will then be released to the existing surface water drainage system on the industrial estate. All surface water run-off will pass through silt traps and full retention separators. These will be inspected on a regular basis to check their integrity and be maintained to prevent overflowing. This drainage system will be controlled by a penstock valve which will close/stop the storm water discharge from the site.

Spillage of Waste

- 5.10 Spill kits appropriate for the type and quantity of fuel, oil, or other substances, will be made available and located close to the relevant hazardous material with staff trained in their use. The Nine Mile Point Waste Processing Facility will have spill kits located at the entrance to the facility and within storage areas. Spill kits will also be located at proximity to the fuel tanks for onsite plant.
- 5.11 All waste material on site will be stored and processed on an impermeable surface so as to prevent ingress of spills or leakages into underlying soils and groundwater and also to divert liquids to appropriate drainage points.
- 5.12 All site personnel will be tasked with monitoring for evidence of spills, leakages, and debris during their day to day routine. Any evidence of spills, leakages, and debris will be reported to the Site Manager or his nominated deputy for remedial action. Clean-up procedures will be implemented to contain and remove potentially polluting material. Records of any pollution incidents including corrective actions will be maintained. Natural Resources Wales will be notified as per requirements of the Environmental Permit. Clear access will be provided to all potentially leaking equipment. Spill kits will be maintained in order to respond to any spill.

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- 5.13 The Operator will also have in place emergency measures to deal with any spillages (e.g., the deployment of absorbent mats and booms).
- 5.14 All areas that have the potential for contaminated run-off will be sealed and serviced with a secondary containment system. Training will be provided to all staff relating to the use of spill kits and the Spill Clean-Up Procedures.
- 5.15 Immediate corrective action shall be taken to replace spilled materials to its correct storage/processing area with the use of manual or mechanical means. Any cleaning required will be completed to ensure that the area is left clean.

Failure of Impermeable Surfacing

- 5.16 If the failure of containment arises due to land movement, corrosion, or impact then corrective action will take place as soon as practicably possible to repair any damage. Contractors shall be employed when necessary to reinstate facilities to their original standing and specification. Site staff will regularly inspect the access and all hardstanding which will be maintained free from cracks, potholes and standing water.

Failure of Odour Containment

- 5.17 The activities carried out onsite are limited to sorting, shredding, bailing, and bulking which are not inherently odorous compared with higher risk waste treatment activities. Such activities will be managed in accordance with the operator's management systems. This will include regular inspections and maintenance of equipment to ensure they continue to operate at optimum conditions and to prevent un-planned down time or failure.
- 5.18 Arrangements will be made with local maintenance/service companies to ensure that breakdown or damage to any critical items will be dealt with, and repair/replacement actioned as a matter of urgency.
- 5.19 If the storage/treatment of waste is considered to be a risk, then the further acceptance of waste will be restricted.
- 5.20 The Operator will monitor odour emissions at the Facility to ensure that any odour releases that may occur do not result in the creation of an odour nuisance at a sensitive receptor. Daily odour assessments will be carried out onsite with appropriate action taken if required, more frequently during warm weather. As part of the daily checks the Shift Supervisor or other relevant persons will also undertake checks to ensure that the integrity of the reception building structure, door operation etc. has not been compromised, the results will then be recorded in the site diary.

Onsite Plant and Equipment

- 5.21 All plant and equipment will be serviced and maintained on a preventative maintenance programme to minimise un-planned downtime.
- 5.22 Any identified maintenance or technical issues will be raised with the appropriate contact (i.e., onsite fitter / contractor / manufacturer) and rectified as soon as practically possible and a note will be made in the site diary.
- 5.23 Reserve equipment will be kept on site so that any failed parts are quickly replaced and unnecessary delays in ordering parts can be avoided. Arrangements will be made with maintenance/service companies to ensure that breakdown or damage to any critical items will be dealt with, and repair/replacement actioned as a matter of urgency.
- 5.24 In the event of prolonged breakdown of equipment, another piece of equipment of similar specification will be brought to the site to ensure that permitted waste storage tonnages are not exceeded.

Vandalism

- 5.25 Vandalism is not considered to be an issue as the site will be secured by a perimeter fence and the main gates will be locked and secured at the end of each working day. The site shall be kept closed and secured at all times when unattended. During opening hours, appropriate staff will be responsible for preventing unauthorised access.

Access to the site will generally be restricted to the workforce other than site visitors during opening hours.

The location of the cabin will ensure that any persons or vehicles entering the site will be identified prior to accessing the main waste activity and storage areas. Unauthorised access will not be permitted at any time.

CCTV will be used onsite both to deter unauthorised access to the site, and to capture any unpermitted activity.

Flooding

- 5.26 In the extremely unlikely event that flooding should occur and waste has been submerged, there is a likelihood of degradation and onset of anaerobic conditions early, so this will require immediate treatment or removal off site.

5.27 The Site is not located within a flood zone.

5.28 No further waste will be received on site until flooding abated.

Fire

5.29 The facility will be controlled by one of the most advanced fire detection and suppression systems which includes flame detection, high level and under conveyor sprinkler, deluge systems, fire hydrants and an onsite firefighting water storage tank.

5.30 Localised flame detection and suppression will be installed in the high-risk areas of the processing plant. These areas include the input/outputs of the pre-shredder and secondary shredder. The flame detection is a combination between 3IR and 2IR with UV detectors. There will be a total of 16 flame detectors installed, 8 in Zone 1 and 8 in Zone 2. The detectors will be installed to automatically activate the suppression system consists of “open sprinkler” heads which results in a deluge suppression in each zone separately.

5.31 The below outlines how each of the zones have been designed to operate:

- If a flame detector detects a flame within zone 1 (Pre-Shredder), the fire alarm is activated, and all processing equipment stops. A 6 minute window will start for investigation. If a second flame detector detects a flame within the 6 minute window, the deluge system will automatically activate water via sprinkler heads. If the 6 minute window elapses without a second flame detector detecting a flame, the deluge system will automatically activate water via sprinkler heads. The deluge system will continue to operate automatically until manually switched off by the operator.
- Zone 2 (Secondary Shredder) is similar to zone 1, however the 6 minute window for investigation has been removed. If a flame detector detects a flame, the deluge system will automatically activate water via sprinkler heads. The 6 minute has been removed due to the high risk of a fire reaching the SRF stockpile.
- Zones 1 and 2 will have the ability to manually activate the deluge systems. Each of the flame detectors will have a dedicated dust cowl and air wash facility connected to a compressed air supply. The air wash facility will provide an automatic pulsed air supply to the face of the flame detector to remove dust build up.

5.32 The fire suppression system will comprise of a dry sprinkler system at roof level and intermediate levels with an additional deluge sprinkler systems installed to the zones around the pre-shredder and secondary shredders.

5.33 There shall be 4 No. fire hydrants installed around the perimeter of the SRF building. The hydrants will be fed from the via a dedicated diesel pump and the water supply will be from

- the sprinkler tank. Potable fire extinguishers will be installed to the full facility to BS 5306 Part 8.
- 5.34 There shall be nine (30m length) wash down hose reels installed throughout the facility primarily for washing down purposes, however these may also be used to extinguish small fires and allow early suppression of larger fires.
- 5.35 The fire suppression systems at the NMP facility will be served by a sprinkler tank. The sprinkler tank will provide water for 120 minutes system operation in a fire condition. The pumphouse will contain 1 no. electric driven fire pump and 1 no. diesel driven fire pump complete with jockey unit for the sprinkler systems. In addition to this, there will be 1 no. diesel pump complete with jockey unit dedicated to feeding the hydrants on site.
- 5.36 Due to the fire detection and suppression measures employed on site, a significant fire event is unlikely to occur.
- 5.37 In the event of a significant fire, waste will not be accepted onto site. Contingency arrangements are in place whereby waste is diverted directly to the Oakleaf Materials Recovery Facility.
- 5.38 All site staff will be trained in the Fire Emergency Response Procedure included as Appendix B in the Fire Prevention Plan. Key Site and Emergency Contacts are included in Appendix A of the Fire Prevention Plan and will be completed when the site has been constructed.
- 5.39 Staff will be trained in the identification of fire hazards, the site evacuation plan including escape routes and assembly points, raising the alarm and the correct use of firefighting equipment during induction. Fire drills will be completed regularly on site. Key information regarding what to do in the event of an emergency or problem will be made visible for all staff members and visitors entering the site.
- 5.40 The Fire Prevention Plan will be reviewed and updated by senior management following construction and every 4 years afterwards or immediately following any major fire incident / event. Any technical and managerial changes on site will also initiate a review of the Fire Prevention Plan to ensure that the control techniques remain appropriate for the site.
- 5.41 Regarding firewater containment, the following measures are in place.
- In the event of a fire, the site operational procedure shall include closing the penstock valves located on the foul and storm drainage outlet pipes and ensuring that flood barriers are installed at the site access/egress locations.
 - The site design included reinforced concrete walls on the lower boundaries to capture fire water. This will allow the external surfaced area as well as the building footprint to act as the containment area for any fire water from firefighting.

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- In order to remove any contained fire water from the site, tankers will be brought to site to extract the fire water from the drainage system.

Restricted Staff Availability

- 5.42 Several staff will be trained to operate the loading shovels and other mobile plant; all other equipment will be automated.
- 5.43 If required hired staff could be employed temporarily as necessary.

Extreme Meteorological Conditions

- 5.44 If extreme meteorological conditions occur inhibiting the adequate dispersion of odours or increasing risk of unacceptable exposure at receptors, potential odour generating activities such as waste reception will be suspended.

6 Notification

- 6.1 In the event that an accident or incident, which could impact on the environment occurs, the Operator will notify Natural Resources Wales as soon as practically possible, using the phone line (0300 065 3000). The Shift Supervisor or TCM for the facility will also notify the Regulatory Officer should any complaints be received directly to site and advise what remedial measures or actions have been taken to address the problem. Copies of any material complaints received will be made available to Natural Resources Wales for review.

7 Reporting

- 7.1 If an accident or incident causes damage to the environment, or risks doing so, the measures included in the Accident Management Plan will be implemented.
- 7.2 A Notice Board will be located at the site entrance which will be readable from outside the site entrance in daylight hours and inspected weekly. The sign will detail the following including the contact numbers for the site in the event of an emergency.
- The site name and address;
 - Environmental Permit number;
 - Site opening times;
 - Site Operator's name;
 - Emergency contact name and the telephone number for the operator;
 - A statement that the site is permitted by Natural Resources Wales
 - Natural Resources Wales national number 0300 0653000.
- 7.3 An Accident and Incident Record Form will be filled out in the event of any incident or accident on site. Records of incidents or accidents will be completed as soon as possible. All records will be kept in a clear, legible, accessible format and will be retained for at least 6 years from the date of recording.
- 7.4 An investigation will take place to determine the reasoning for the incident or accident with consideration for what needs to be done to ensure it does not happen again. A review of the Accident Management Plan will be carried out following any incident or accident with amendments made if required.
- 7.5 Where appropriate, the public will be informed of what to do if the problem arises.
- 7.6 Natural Resources Wales shall be notified without delay following the detection of:
- Any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution
 - The breach of a limit specified in the permit
 - Any significant adverse environmental effects.

8 Conclusion

- 8.1 Following the risk assessment, no events have been classified as an unacceptable risk. Mitigation measures have been provided for all potential accidents with further information being provided to ensure, as far as is reasonably practicable, environmental accidents do not occur. It is considered that the management of the site, in accordance with the Environmental Management System and this Accident Management Plan, will ensure the effective control of environmental accidents at the proposed Nine Mile Point Facility.

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