

3 SITE OPERATIONS

3.1 Waste Pre Acceptance

Health and Safety Instruction

- 3.1.1 All vehicles entering the site must stop on the weighbridge and report to the site office. First time visitors to the site are asked to read the issued notice giving instructions on health and safety and site procedures then sign issue log to acknowledge understanding. Visitors other than customers bringing waste to the site must sign the Visitors Book and undertake a site induction before proceeding onto the site, and sign out prior to leaving.

Site manager/sales manager/ site supervisor duties

- 3.1.2 The site manager must ensure that the company's own waste transfer note template complies with the requirements of the Duty of Care for Waste (Section 34 of the Environmental Protection Act 1990) and that the hazardous waste consignment note templates contain all the information required by and the Hazardous Waste Regulations.
- 3.1.3 It should also be ensured that the company is registered as a registered waste carrier.
- 3.1.4 Prior to acceptance of all wastes the TCM or other suitably trained and authorized person will ensure that:
- the waste is suitable to be accepted under the conditions of the permit
 - sufficient storage capacity exists and site is adequately manned to receive waste,
- 3.1.5 All staff should be adequately trained in pre acceptance procedures. Details of training requirements should be recorded on Employee Training Needs Assessment/Review Form TBS/RF/6 as detailed in Appendix 2.

Weighbridge clerk / drivers

- 3.1.6 Customers must wait on the weighbridge to have the gross weight of the vehicle recorded on the computerised system. The driver of the vehicle must provide a document detailing the source location and description including EWC codes of the waste they are carrying for Duty of Care purposes. These details are recorded on the computer system along with the vehicle registration number. Annual duty of care notes are provided by some customers for inputs where the producer, description of waste, approximate quantity and carrier does not vary. A copy of these notes is held at the weighbridge office and Head Office.
- 3.1.7 The weighbridge clerk will check that the Customer is a Registered Waste Carrier by referring to the detail on the computer system maintained by Head Office. If the customer details on the computer show there not to be a valid carrier's registration the customer will be asked for proof of registration in the form of a validated Carriers Certificate. If the customer is not a Registered Waste Carrier the weighbridge clerk will not permit them to access the site and advise them to contact the NRW to ensure registration. In addition NRW will be notified that

an unregistered waste carrier has attempted to access the site. Details to be recorded on Carrier Registration Check Form –TBS/RF/10 (or similar) as detailed in Appendix 2.

- 3.1.8 The only exemptions to this are local authorities and customers carrying their own wastes (if not construction and demolition material). The Manager should be contacted if any clarification is needed.
- 3.1.9 Any commercial customer bringing hazardous waste into the site must bring a completed Hazardous Waste Consignment Note. All details in Section A (producer details and dates of pre-notification), Section B (waste description) and Section C (Carrier Detail, date of collection and vehicle registration) and Section D (signature of producer) must be carefully checked to ensure all detail is complete and that the date of collection is at least 3 days (but not more than one month) after the pre-notification date (usually under signature in A6). The date in section C should also correspond to the date of delivery at the site.
- 3.1.10 If all details are correct and complete, Section E should be filled in by the weighbridge clerk - date and time of delivery, vehicle registration, Environmental Permit reference (EPR) number, company detail.
- 3.1.11 The weighbridge clerk will question the driver if unsure about the waste description to ensure it complies with the requirements of the Permit for the site. The clerk will make a visual check, whenever possible, to ensure an adequate description has been provided.
- 3.1.12 If the clerk is satisfied that the waste is acceptable at the site within the terms of the Permit, the customer will be directed to the tipping area or the relevant recycling area as indicated on the Site Layout Drawing (2784.CAU.VN.XX.DR.V.0002.S2.P1).
- 3.1.13 If the clerk is not satisfied by either the waste description or the content of the incoming load, the vehicle will be directed to the waste checking area, and the clerk will call the site supervisor/manager. The supervisor/manager will check the load thoroughly and decide on its acceptability, if necessary requesting help from the Operations Manager.
- 3.1.14 If the waste is not acceptable under the terms of the permit, the weighbridge clerk should: -
- refuse entry to the site;
 - if possible, advise on alternative disposal options;
 - make record of the waste rejection in site diary with date, time, waste description, reasons for rejection, customer name and vehicle's registration number (form TBS/RF/2);
 - if deemed necessary, the advice of NRW may be sought.

3.2 Waste Acceptance

Site manager/site supervisor duties

- 3.2.1 The Site manager or supervisor will ensure that there is sufficient storage and operating resources to accept the wastes.

- 3.2.2 The Site manager or supervisor will ensure that all storage and treatment activities are carried out within the designated areas with all identified control measures in place.
- 3.2.3 Details of all inspections/checks carried out will be recorded on Site Inspection Form –TBS/RF4 (or similar)

Site operatives / drivers

- 3.2.4 The site operatives should assist in directing the customers to the correct tipping/storage areas for their waste.
- 3.2.5 When the waste is unloaded, the site operatives must inspect the waste to check that it meets the waste description and is acceptable at the site.

General Wastes

- 3.2.6 All wastes must be handled and stored at the site in accordance with the specific physical properties of the waste. The principles that must be adhered to are as follows:
- wastes should be stored wholly within their designated container or directed to appropriate containment /tipping area.
 - wastes that may give rise to contaminated run-off must be stored on impermeable pavements with sealed drainage being discharged to foul sewer.
 - wastes that are hazardous must be kept segregated and must be handled carefully to prevent spillages or breakages that may result in loss in any hazardous material within it. They must be managed in accordance with Hazardous Waste Regulations.
 - wastes that contains light, loose waste that may become windblown should be kept in within the building.
 - wastes that are likely to give rise to dust must be stored in the building or be stored so that it can be effectively dampened down if necessary.
 - wastes that are malodorous must be contained or removed from the site as soon as possible.
- 3.2.7 See Section 3.3 for further details on waste handling and storage.
- 3.2.8 All wastes will be handled in accordance with this section unless specifically outlined below. General wastes will be deposited in the designated waste deposit areas within the Site. Wastes will be inspected by the Site Operative for compliance with Permit conditions.
- 3.2.9 Recyclable wastes will be segregated by the plant and equipment, or if by hand only whilst no machinery is operating nor customers delivering wastes. The recyclables will be removed to the relevant storage area.
- 3.2.10 Non-recyclable wastes will be loaded into a bulk transport vehicle for onward disposal using a loading shovel or similar, which will also optimise payload by pushing down loaded wastes. The loaded vehicle will be sheeted or netted before leaving the site. Any manual waste handling will only be undertaken by personnel wearing adequate personal protective equipment.

- 3.2.11 In addition to these general principles, the storage requirements for specified wastes which are regularly accepted into the site are detailed below.

Asbestos Waste

- 3.2.12 Asbestos waste is currently the only hazardous waste that the Site accepts under the permit. In the event that other Permitted hazardous waste are proposed to be accepted, this management system will be updated to ensure that the correct control and procedures are in place beforehand.
- 3.2.13 Site operatives should supervise all deposits of asbestos in order to ensure the asbestos is handled carefully to minimise the risk of breakages during deposit. In the event that any asbestos is accidentally broken, then the actions described in the Spillage Response Procedure should be followed.
- 3.2.14 Asbestos stored outside the waste transfer building, double bagged and stored in appropriate containers. The procedures will be updated if any additional hazardous wastes are accepted in the future.

Waste 'contraries' – rejection or quarantine

- 3.2.15 If the waste does not match its description or includes contraries (materials within the load that does not match the waste description), the appropriate action must be taken dependent on the amount and risk associated with the non-conforming waste. Where there is doubt over the appropriate action to take, the site supervisor or technically competent manager should be contacted for further advice. The following actions should be taken:
- if only a small amount of contraries are detected of materials which are otherwise permitted on the site, these contraries can be segregated and placed in the appropriate storage area within the site.
 - if only a small amount of contraries are detected of a waste type that is not permitted on the site, then the contraries need to be segregated. If possible, the customer should be asked to remove the contraries and dispose of them elsewhere. If the waste has already been accepted, however, the contraries should be segregated and quarantined. Quarantined waste should be placed in a suitable container and labeled as to its content.
 - if the load in general is found not to be as described but would otherwise be acceptable at the site, then it may be appropriate to amend the waste transfer note and accept the load.
 - if it is deemed that the load is unacceptable, it should be reloaded and rejected following the procedure outlined above.
- 3.2.16 In all circumstances where loads are found to contain contraries, this should be recorded in the Site Diary or Site Inspection Form. Customers who repeatedly bring in loads with unacceptable wastes or incorrectly described wastes, should be contacted to discuss how to prevent it reoccurring.

3.3 Waste deposit, handling and storage

- 3.3.1 The non-hazardous types of wastes accepted at the site do not generally require special storage arrangements. However there may be circumstances when specific characteristics of the waste require special handling and storage. Therefore if those wastes are accepted at the site or due to storage or weather conditions start to develop these characteristics then the following steps will be taken:

Dusty/dry wastes:

- waste consisting solely of loose powder will not be accepted
- damping down with water of dusty wastes
- particular care will be taken with bonded asbestos as detailed below.

Odorous wastes:

- waste accepted for RDF production will be stored and processed under cover. Processed material if baled and wrapped may be stored externally on impermeable hardstanding with sealed drainage. All loose RDF will be stored within the building.
- wastes of a particularly odorous nature will not be accepted at the site.
- if any waste develops an unpleasant odour which could cause detriment to the amenity it will be removed from the site within 24 hours of the odour being apparent.

Solid wastes which are likely to give rise to contaminated run off:

- such wastes are to be stored on impermeable pavement within the storage and processing transfer buildings.

Combustible waste:

- no flammable or highly flammable waste (H3) will be accepted at the site (with the exception of empty gas bottles which will be stored in a lockable cage).
- all wastes such as paper and wood are to be stored on an impermeable pavement with drainage systems in place or within the transfer buildings (unless accepted under a relevant registered waste exemption).
- all wastes accepted onto site for the production of RDF will be stored within the designated RDF waste transfer building which has sealed drainage to contain any fire water. Storage times and quantities will be strictly adhered to as proposed in the Fire Prevention & Response Plan.

- 3.3.2 In the future if the baling and wrapping equipment is installed on site, bales of RDF may either be stored under cover or on an impermeable pavement with sealed drainage and the bales will be stored as required in Section 5.1 of the Fire Prevention & Response Plan.

- 3.3.3 In addition the hazardous waste accepted at the site ie loads containing asbestos require special storage arrangements.

- 3.3.4 Once a load has been accepted by the operator the contents of the delivery vehicle are discharged into the appropriate bay/container, the waste treatment processes undertaken at the site generally involve the physical/mechanical sorting and treatment of waste for recovery, e.g.

- the physical/ mechanical treatment includes sorting and separating of mixed wastes by means of hand sorting and/or mechanical treatment including a picking station and trommel, mechanical air separators, over band magnetic bands, eddy current separators.
- screening and crushing of unprocessed demolition wastes and soils. Shredding of wood
- baling card, paper,
- bailing and wrapping of RDF
- blending of soils and soil substitutes (possible future activity dependant on customer need)

- 3.3.5 Upon arrival on site the waste will either be directed to the appropriate transfer station building for unloading or if the waste can go directly to one of the external storage areas for wood, green waste, demolition waste, WEEE, gas bottles, waste oil or asbestos it will be directed to the appropriate area for unloading. Waste once unloaded will be sorted and/or treated, if suitable for recycling.
- 3.3.6 General mixed loads are deposited in the mixed waste reception area and subjected to physical sorting by hand and or mechanical treatment which may include trommel and a picking station, into recyclable materials such as paper/ cardboard, plastics, wood/timber, metals and green waste and the sorted material transferred into the appropriate recycling bay/container which are positioned within the transfer building or located externally as shown on Drawing 2784.CAU.VN.XX.DR.V.0002.S2.P1.
- 3.3.7 If a trommel and picking line are being used on site, the pre-sorted material would be loaded into the trommel screen using the loading shovel or 360° grab for mechanical sorting. The remaining material would then be passed through the picking line station for removal of recyclable materials.
- 3.3.8 Once the non-combustible element of the waste such as glass and metals has been removed the residual material (lights) may be transferred to the on- site RDF processing building for further treatment or taken off-site to the sister facility at Gofer, Abergele for processing into RDF.
- 3.3.9 RDF process - mixed municipal waste will be directed to the RDF processing building where it will be shredded using a Doppstadt shredder. The shredded material may then pass through a Nihot air-controlled separator, picking line, eddy current separator to form Refuse Derived Fuel (RDF). The RDF may then be baled and wrapped or may be exported loose off site, to be used by the Energy sector to produce electricity. By baling and wrapping the RDF material will be contained in transit as it is exported off site to a facility where it will be used to produce energy for the local grid.
- 3.3.10 The applicant proposes that the resulting waste fines (ie heavy fraction) are themselves transferred to a fines treatment plant for processing to remove further metal and any other recyclables. The Kinetic flow technique process will involve a screening unit throwing the materials violently and high into the air giving time for separation to take place. The screens

are self-cleaning, the screens allow the apertures in the unit vibrate and stretch slightly, resulting in clean screens and product.

- 3.3.11 Clean demolition materials and soils are taken direct to the soils and aggregates storage and treatment area to await screening or crushing.
- 3.3.12 Bulky inert wastes will be further processed to recover saleable aggregates. Recyclable fractions will be stored in the appropriate bay/skip/container to await onward distribution to an appropriate recycling/ recovery facility.
- 3.3.13 Waste and recyclables are bulked up for transportation for recycling, reuse or for disposal.
- 3.3.14 Waste for landfill which is not suitable for recycling is bulked up and stored in the waste for landfill bay to await removal off site for disposal at an appropriately permitted facility.
- 3.3.15 Waste oil is accepted on site under S1 or S2 waste exemption and will be directed and stored in a 1250 litre waste oil tank.
- 3.3.16 Any lead acid batteries accepted at the site under a S2 exemption will be separated and placed in an upright position in an acid proof and weatherproof container. No more than 20 batteries will be store at any one time.
- 3.3.17 WEEE accepted under a relevant registered waste exemption will be stored according to the requirements of the WEEE Directive Annex III paragraph 1.
- 3.3.18 Any fridges found in a load will be stored in a clean condition with any foodstuffs removed if necessary. The door or rubber door seal may be removed for health and safety reasons. No treatment will take place on site, instead the fridges are collected by a third party and taken way for degassing and recycling.
- 3.3.19 Bonded asbestos will be accepted at the site and will be immediately segregated into a covered skip which will be stored outside the transfer building on a concreted and sealed drainage area of the site. The area designated for the skip is shown on Drawing No. 2784.CAU.VN.XX.DR.V.0002.S2.P1. The asbestos material will be handled according to the following procedure to ensure that there is minimal disturbance and breakage of sheets. No more than one skip will be stored at any one time:
- Inform customers of requirements regarding bonded asbestos.
 - Check loads of incoming waste for asbestos.
 - Reject all non-notified asbestos found in incoming loads.
 - Spray asbestos materials with water to reduce dust hazard.
 - Ensure that all staff likely to come into contact with asbestos have been issued with the relevant PPE and trained in its use.
 - If the asbestos is not in cement-bonded sheet form consult a specialist contractor for removal (FIBROUS ASBESTOS IS NOT ACCEPTED AT THE SITE).
 - Separate from all other waste streams.

- Deposit all asbestos in an enclosed lockable container direct from the delivery vehicle, and spray with water to eliminate any potential dust problems. Spray contents of skip with water prior to adding further waste.
- The skip/container will be loaded with doors open to prevent impact from waste being lowered in the skip. When the skip is half-full, i.e. cannot be loaded by hand any longer, loading plant will lower sheets onto existing load.
- Where practicable sheets will be wrapped in polyethylene sheeting to reduce dust emissions.
- The container will be secure at the end of the working day.

3.3.20 Any gas bottles found in the loads will be stored upright in a lockable cage and no more than 20 bottles will be stored on site at any one time.

3.3.21 Rejected wastes are deposited in a designated skip/container provided for non-conforming wastes. This occurs when non-conforming waste is discovered after the deposit of a load and the producer of the load cannot be contacted (or identified) or where the removal off-site of the waste may cause further problems. Natural Resources Wales is then contacted to agree a course of action where necessary. The contents of the skip/container will be recorded in the site diary.

3.3.22 When a collection vehicle arrives at the site the driver is instructed to report to the site office or the machine/plant operator. All relevant documentation is completed and the vehicle is passed to pick up the load and take it to the designated recycler/disposal site.

Record keeping

3.3.23 The details in this section will be recorded on a combination of the record keeping forms listed in Appendix II, invoices and the site diary. Records will be kept in paper/electronic format.

- the date and time of delivery.
- the name and address of the waste producer.
- the detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
- how the waste is contained e.g. loose, container type.
- the carrier's name and address. Driver's name, signature and vehicle registration No.
- signature or initials of person(s) producing/accepting/inspecting/carrying the waste. Additional handling details/notes made by the driver after inspection of the load.
- SIC code of the premises which produced the waste (where relevant).
- waste hierarchy declaration. Information on previous treatment of the waste e.g. manual or mechanical.

3.3.24 The following details will be recorded for all deposits of non-conforming waste at the site and will be forwarded to NRW, where required (i.e. record form TBS/RF/2):

- date and time of deposit.
- a detailed, accurate description of the waste including type and EWC code.

- the quantity of waste (in tonnes or cubic metres).
- how the waste is contained e.g. loose, container type.
- name, address and telephone No. of waste producer.
- the carrier's name, registration number and vehicle registration.
- signature or initials of persons who produced, accepting/ inspecting and carrying the waste.
- reason for the rejection of waste and action taken.

3.3.25 The following details will be recorded for every load of waste leaving the site (i.e. record form TBS/RF/3):

- the date and time of removal.
- detailed and accurate description of the waste including type, quantity of waste (in tonnes or cubic metres) and EWC codes.
- how the waste is contained e.g. loose, container type.
- the destination waste management site or exempt facility.
- the name and registration No. of the carrier or employee removing the waste (if applicable) and vehicle registration No.
- signature or initials of persons i.e. transferor, transferee and carrier of the waste.
- SIC code of the premises transferring the waste.
- waste hierarchy declaration.
- type of treatment waste subjected to (if relevant) e.g. manual, mechanical.

3.3.26 A summary of waste types and quantities deposited at and removed from the site and origin and destination details are then forwarded to Natural Resources Wales using the standard Generic Operator Returns electronic spreadsheet(s), with submission due within one month of the end of each quarter as below:

- a) Quarter 1: January to March (due on or before 30th April)
- b) Quarter 2: April to June (due on or before 31st July)
- c) Quarter 3: July - September (due on or before 30th September)
- d) Quarter 4: October - December (due on or before 31st January of the following year)

3.3.27 Outcomes of inspections of waste types, hardstanding areas, transfer/treatment areas, storage areas, drainage channels, interceptor, etc., will be recorded on site inspection form TBS/RF/4 and detailed comments will be entered into the site diary (including action taken or proposed).

3.3.28 Visitors to the site will sign the visitor's book upon arrival and exit stating the purpose of their visit and whom they represent (TBS/RF/5).

3.4 Waste Despatch

3.4.1 In choosing a suitable destination for wastes despatched from site, all reasonable measures should be taken to follow the waste hierarchy. The waste hierarchy order of preference in terms of waste disposal options is: -

- Prevention;
- Preparing for re-use;
- Recycling;
- Other recovery (for example energy recovery);
- Disposal.

3.4.2 If following the waste hierarchy for a particular waste stream will not achieve the best environmental outcome, then deviations from the hierarchy can be made.

3.4.3 In making these decisions, it must be considered whether the waste to be despatched is of a nature and quality that it conforms to the waste acceptance criteria for the particular destination, for example:

- segregated waste streams for recycling or recovery must not contain impurities or contamination with other materials that makes it unsuitable for the processing site receiving it;
- waste destined for landfill must meet the landfill WAC for the particular type of landfill.

3.4.4 Site operatives or drivers should ensure that waste loads for despatch are secure to prevent spillages or debris, e.g. by use of sheeting or netting.

3.4.5 Once a load has been accepted by the operator, the driver will be asked to unsheet the vehicle (if it is sheeted) and a visual inspection of the contents will be carried out to ensure that the waste types comply with the Environmental Permit.

3.4.6 The nature of mixed construction/demolition and general skip waste makes full inspection difficult until the load is deposited. If rejected waste is discovered before deposit, the load will remain on the delivery vehicle and will be returned to the producer if possible or disposed of at an approved facility. In cases where the presence of unauthorised waste is likely to lead to a breach of permit conditions, Natural Resources Wales will be contacted immediately to agree a course of action.

3.4.7 If the load is acceptable the driver is instructed to deposit it within the relevant waste reception area, as shown on Drawing No. 2784.CAU.VN.XX.DR.V.0002.S2.P1. If the load is unacceptable after deposit it is loaded back onto the delivery vehicle and returned to the producer if possible. Otherwise Natural Resources Wales are contacted and the load is taken to a suitably permitted or exempt site.

3.4.8 Municipal waste accepted for RDF production will be directed to the designated storage and processing building for preparation prior to being exported off site.

3.4.9 All loads are pre-booked as part of the waste acceptance procedure as they are either delivered by Thorncliffe's own vehicles or as part of the local authorities contracts. The weight of incoming loads will be derived according to Section 2.6.