

Attachment No H.4

EMS procedure 9.2-01 procedure for management of waste

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| | SMS | SOP | Review: 3 yearly |



ESB MONEYPPOINT GENERATING STATION

PROCEDURE FOR MANAGEMENT OF WASTE

(EMS 9.2-01)

Prepared by:

| Reviewed and Validated by: | Date | Version No. |
|----------------------------|-----------|--|
| G. Noonan | May 2008 | 8.0 (Revised to include Waste Stream Procedures. Renumbered, cover page & header revised.) |
| J Casey | July 2014 | 9.0 Revised to accommodate changes as a result of meeting with Waste Contractors, EPA Audit, etc.... |
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Latest revision approved by:

J Casey

Environmental Co-ordinator
Moneypoint Generating Station
Date: Jul 2014

Check with the computer system to verify that this is the latest revision prior to use

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1.0 PURPOSE

The purpose of this procedure is to ensure that Waste generated at Moneypoint is managed in a safe and correct manner with due respect for the environment.

2.0 SCOPE

This procedure sets out the procedure to be followed for the prevention, minimisation recycle, reuse and or disposal of any hazardous or non-hazardous waste at Moneypoint Generation Station. The procedure also addresses the specific requirements for strict documentation management and compliance with the specific requirements of the site IPPC licence.

3.0 RESPONSIBILITY

The responsibility for the provision of resources and waste management infrastructure lies with the Moneypoint Plant Maintenance Manager. The General Services Supervisor will carry out this role on his /her behalf.

It is the responsibility of the Environmental Coordinator or designated person to maintain all waste documentation on file in accordance with our IPPCL and to ensure that a valid waste licence and collection permit is up to date and kept on file.

It is the responsibility of the Environmental Coordinator or designated person to ensure an up to date list of all waste contractors and subcontractors is kept on file.

The Environmental Co-ordinator shall liaise with EPA in agreeing suitable waste contractors and prepare and submit to EPA an annual Waste Management Report. He shall also choose appropriate waste contractors for specific waste streams.

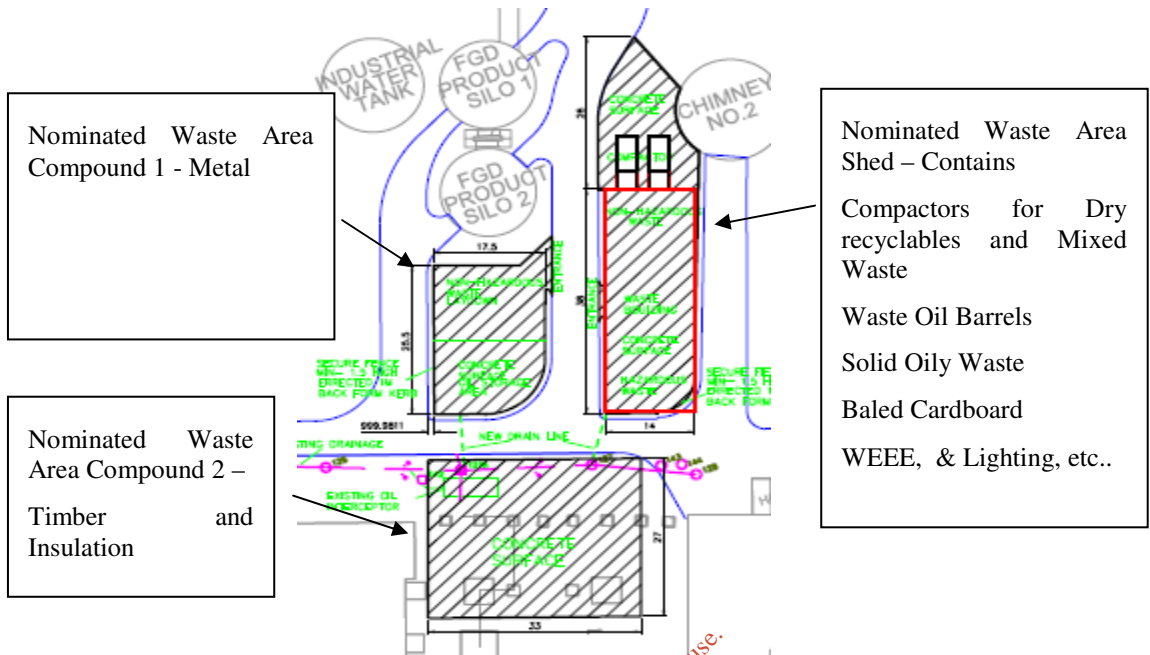
4.0 PROCEDURE

4.1 Waste Segregation

All waste should be segregated and stored in the Nominated Waste Area (NWA) or in designated collection areas.

The Nominated Waste Area is laid out as follows :-

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Designated collection areas for dry recyclable and mixed waste are located as follows :-

1. Canteen
2. Adjacent to Workshops
3. Adjacent to Contractors Welfare Facility
4. Adjacent to Unit 1 Blowdown Tank
5. Coalyard

Waste from these areas are directly collected as appropriate. Should contamination occur these waste containers are brought to the Nominated Waste Area shed and the contamination source followed up upon.

The waste streams have been identified (Appendix 1) and containers / storage areas provided as required for their segregation.

4.2 Waste and the waste register

- Staff and Contractors are responsible for the disposal of waste in a safe and environmental friendly manner.
- Originators of waste are required to
 1. Contact the General Services Supervisor to arrange delivery of their waste to the Nominated Waste Area (For specific jobs designated skips can be provided) or

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2. To deposit waste as per the appropriate stream in any of the five designated collection areas.

- Entries of waste movements and completion of the relevant transactions and documentation should be recorded in the waste register.
- Non-Hazardous waste will be segregated and removed from site by the designated Non-Hazardous waste contractor.
- Hazardous waste will be removed from site by the designated Hazardous waste contractor only.
- Purchasing Procedures will cover tendering and appointment of designated waste contractors.
- Appendix 1 below contains waste types, EWC codes, method of removal and removal contractor.

From time to time, other waste streams may arise. In these cases, the Environmental Co-ordinator shall advise how to manage those waste streams.

4.3 Waste Disposal Procedure – Major Waste Streams – See Appendix 1 for full list

1. Mixed Waste

Mixed waste is collected in bins which are located at strategic points around site and then brought to either the designated waste collection areas or else added to the compactor in the Nominated Waste Area.

2. Dry recyclables.

Office areas around site have been provided with dry recyclable bins, these are emptied as required by the maintenance team and transferred to dry recyclable bins in the designated waste collection areas. Cardboard packaging from areas such as the stores is compacted in the Mechanical Workshop before being transferred to the in the Nominated Waste Area.

3. Timber - The designated storage area for waste/recyclable wood is in the Nominated Waste Area Compound 2.

4. Mixed Metals - The designated storage area for scrap metal is in the Nominated Waste Area Compound 1. Skips are provided in strategic points around site , e.g. Mechanical Workshop, and then brought to the Nominated Waste Area as required.

5. Insulation – Insulation should be bagged at the workplace before being brought to Compound 2 in the Nominated Waste Area.

6. Batteries are collected at various points on site such as the admin block first floor before being deposited in a special container in the Nominated Waste Area.

7. For all matters relating to Asbestos Safety and Storage, refer to PGTS 4/22”Asbestos safety”.

- No waste is to be burned on site.

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- The Environmental Co-ordinator shall confirm, based on the nature of the waste and its European Waste Catalogue (EWC) listing, whether it is considered hazardous waste or not.
- The Environmental Co-Ordinator shall maintain a record of all waste movements from the site in the Waste Register.

4.4 Waste Register

All Waste movements from the site must be recorded in the Waste Register. Persons assigned responsibility for co-ordinating waste movements i.e. hazardous and non-hazardous shall ensure that the appropriate documentation is added to the waste register.

The waste register shall be kept under the control of the Environmental Co-Ordinator.

The Waste Register shall be available for inspection by EPA and auditors at any time. It shall form the basis of the annual Waste Management Report to EPA.

4.5 Other Waste Documentation

4.5.1 Non-hazardous Waste

A receipt should be obtained for all **non-hazardous** waste loads disposed of.

This documentation should also be filed in the waste register.

4.5.2 Hazardous Waste

A Waste transfer form (C1 WTF) must be completed for all hazardous waste leaving site by the waste contractor. A copy of the WTF form is received back from the waste contractor with other relevant documentation in due course normally with the monthly invoices

A Transfrontier Shipping form (TFS) must be kept on file for all waste leaving Ireland.

A Cert. of disposal must be received from the waste contractor for hazardous waste and kept on file.

The Waste Register and copies of all certificates of disposal, i.e. C1 forms and TFS forms must be maintained in the waste register for inspection by EPA and auditors at any time.

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Appendix 1 Waste Table

| Waste Stream | Waste Table 1 Waste Titles and brief descriptions. <i>If you are unsure of the waste type contact the Environmental Co-ordinator.</i> | Category Haz. Non- Haz Recycle | European Waste Code or associated grouping | Responsibility |
|--------------|--|---|--|----------------|
| W_01 | Batteries (lead acid, Ni-Cad Mercury dry cells, wet cells and electrolyte from batteries and accumulators.) <i>Designated collection areas allocated for this waste type</i> | Haz | 160600 See catalogue | ENVA |
| W_02 | Ion Exchange Resins: <i>Designated collection areas allocated for this waste type</i> | Non Haz | 190805 | Clean Ireland |
| W_03 | Oily Materials: Oil spill absorbents, oily gloves, clothing, oily rags, oil-contaminated plastic and oil sludge, Used oil filters | Haz | 130600 | ENVA |
| W_04 | Smoke detectors <i>Designated area is in the station stores detectors are returned to supplier for proper disposal</i> | Haz | 200127 | ENVA |
| W_05 | Office Equipment: Laser printer toner cartridges, Photocopier and fax toner cartridges, dot matrix ribbon cartridges, ink jet ink cartridges. <i>Staff members who wish to allocate toner cartridges to a local or national charity may do so provided they provide a record of the quantity given to the charity. This should be agreed in advance with the Environmental Co-ordinator</i> | NonHaz | 200122 200100 | Env Co-Ord |
| W_06 | Spent Lighting: Fluorescent tubes, CFL's, Mercury lamps, Sodium vapour lamps, must be recycled. Filament light bulbs and Halogen bulbs must be recycled. Specialist disposal/recycle method required | Haz | 200121 | ENVA |
| | Chemicals. & Paints: | | | |

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| W_07 | Laboratory waste chemicals, Solvents, varnishes and process chemicals require specialist disposal. Water based paints are non-hazardous <i>Designated collection areas are allocated for these waste types</i> | Haz | 160502 | ENVA |
| W_08 | Oils - PCB free: Control Fluid, Turbine oil, transformer oil, gear and machine oil, distillate, fuel oil, lubricating and canteen grease and cooking oil(recycle). These should all be stored in clearly labelled barrels for collection. <i>Designated collection areas are allocated for these waste types All require specialist disposal methods</i> | Haz | 130200 | ENVA |
| W_09 | Oils- PCB contaminated: <i>Requires specialist disposal methods</i> | Haz | 130301 | ENVA |
| W_10 | Canteen Waste: Food waste, vegetable cuttings go to on-site food digester for composting Packaging and plastic containers are placed in designated recycling bins Mixed wastes are placed in designated bins. Used Cooking oil | NonHaz NonHaz NonHaz Haz | 200100 | Clean Ireland Clean Ireland ENVA |
| W_11 | Plastic: Packaging, wrapping, bags, bottles, must be recycled and compacted where possible Chemical carboys must be stored for specialist disposal method | Non Haz Haz | 20 01 00 15 01 10 | Clean Ireland ENVA |
| W_12 | Waste Paper: Must be Recycled and compacted where possible : office paper, newspapers, magazines, journals and envelopes, | Non Haz | 20 01 0104 | Clean Ireland |
| W_13 | Cardboard Recycle and compact where possible | NonHaz | 150101 | Clean Ireland |

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| W_14 | Scrap Metal Recycle option, all metals including fax and printer casings. <i>Designated collection areas are allocated for these waste types</i> | NonHaz | 170400 | Clear Circle Clean Ireland |
| W_15 | Cabling /Wiring: Collected by scrap metal contractor | NonHaz | 170408 | Clear Circle |
| W_16 | Instruments / Switch gear / Monitoring equipment / Computer Parts: Recycle electronic cards and components. Mercury content to be removed from equipment where possible and metal parts to be recycled. Specialist disposal methods required for mercury containing equipment and recycling of electronic equipment | Haz | 60404 | Clean Ireland ENVA |
| W_17 | Waste Containers: Chemical containing containers require specialist disposal methods (e.g. HCL, or detergents) <i>Designated collection areas are allocated for these waste types</i> | Haz | 160503 | ENVA |
| W_18 | Brickwork / Refractory. Landfill or crushed for re-use | NonHaz | 100112 | Clean Ireland |
| W_19 | Rockwool insulation, Mineral Wool. See "Guide to man made mineral fibres". Landfill by local contractor | NonHaz | 170602 | Clean Ireland |
| W_20 | Glass: Containers and jars to be recycled (segregate by colour). <i>Designated collection areas are allocated for this waste type (Rehab)</i> | NonHaz | 200201 | Clean Ireland |
| W_21 | Asbestos: Lagging, ropes, cloth, fire proofing, braking pads, expansion joints, gaskets, packing and building boards, insulation and corrugated boards, cement products... containing asbestos, old brake shoes from conveyor belts and or mobile plant. <i>A designated collection areas is allocated for this waste type in the west of the site</i> | Haz | 170601 | Rilta |
| W_22 | Grass, Seaweed / wood: grass is normally mulched and left on lawns, seaweed is composted at the designated compost area, | NonHaz | 200201 | GSS |

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| | wood is available to staff, composted (i.e. chipping's / shavings) recycled. | | | |
| W_23 | Sludge from oil interceptors Sludge is vacuumed out and taken by ENVA for treatment | Haz | 130503 | GSS ENVA |
| W_24 | Aluminium: Drink cans cladding cables and other aluminium products must be recycled by the appropriate route (e.g. collection by scrap metal contractor) | NonHaz | 200105 | Clear Circle |
| W_25 | CFC's / Halons: CFC refrigerants, Fridges, and air conditioning units containing CFC's. Halon fire extinguishers and fixed fire fighting systems These require specialist recycle / disposal methods. | Haz | 160501 | ENVA |
| W_26 | Spent coolants; Workshop machine coolants are generally re-cycled and or topped up. Where coolant is to be disposed of it should be placed in clearly labelled sealed containers and stored in the designated area (U1 loading bay). Auxiliary cooling water fluid containing antifreeze (ethylene glycol) should be also stored in clearly labelled containers for disposal. Specialist recycle / disposal methods are required | Haz | 140400 | ENVA |
| W_27 | Radioactive devices: Generator core monitors, Fuel moisture meters and other radioactive resources. (smoke detectors are covered in W_04) Specialist disposal method is required | Haz | Return to suppliers The EC should be advised | Env Co-Ordinator |
| W_28 | Ash / FGD By-product: Ash is stored at the Nominated Ash Storage Area or sold to industry. This process and ash/FGD By-product handling is managed by Bulk Materials Operations. (Boiler bottom ash, fly ash, FGD By-product, silo and de-watering bin discharges) | NonHaz | 100101 / 02 | Bulk Materials |
| W_29 | Mercury: Laboratory mercury, plant or equipment containing mercury. Mercury is toxic and vaporises in air and should be stored in clearly labelled containers in the designated area in the Laboratory Specialist disposal method is required. | Haz | 060404 | ENVA |

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