	WORK INSTRUCTION	DUVHA POWER STATION
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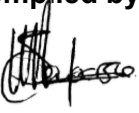

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Compiled by	Functional Responsibility	Authorised by
		
N Maposa	N Nhlapo	L Chauke
Officer Environmental	Manager Environmental	General Manager
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1. INTRODUCTION

Duvha Power Station has different waste streams which emanate from the power generation processes and other activities that take place on site, this waste must be handled, stored, transported, and disposed in a manner which is environmentally acceptable.

2. SUPPORTING CLAUSES

2.1 Scope

This document applies to all activities at Duvha Power Station where waste is generated, as well as handling and disposal thereof.

2.1.1 Purpose

The purpose of this procedure is to set out the waste management requirements for Duvha Power Station. Effective waste management is required to ensure the prevention of pollution and ecological degradation.

An integrated approach is required to minimise and manage waste and the associated risks in an environmentally acceptable and cost-effective manner. Duvha Power Station will manage waste in a responsible manner through the identification and proactive management practices of waste.

The avoidance of waste generation promotes the conservation of resource use through effective and efficient resource utilisation, minimisation, re-use, recycling, and the disposal of the remaining waste.

2.1.2 Applicability

This document shall apply throughout Duvha Power Station and its contractors.

2.1.3 Effective date

This document shall be effective from date of authorisation.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] 32-245: Eskom Waste Management Standard
- [2] Act 59 of 2008: National Environmental Management Waste Act, its Associated Norms, Standards and Regulations
- [3] DUV0048: Duvha Environmental Management Policy
- [4] ENVP0014: Duvha Environmental Management Resources, Roles, Responsibilities and Authorities
- [5] 32-303: Eskom Requirement for safe processing, handling, storing, disposal and phase-out of Asbestos and Asbestos containing material, equipment, and articles.

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2.2.2 Informative

- [6] Act 36 of 1998: National Water Act.
- [7] Act 93 of 1996: National Road Traffic Act
- [8] Act 107 of 1998: National Environmental Management Act
- [9] Act 59 of 2008: National Environmental Management: Waste Act, GN 926, 921
- [10]

2.3 Definitions

Domestic Waste: Means waste, excluding hazardous waste that emanates from premises that are used wholly or mainly for residential, educational, health care, sport, or recreation purposes.

Ferrous and non-ferrous material: Ferrous metals are iron, and surface treated iron and non-ferrous metals include copper and copper alloys, zinc, lead aluminium, tin, and precious metals such as gold and silver.

General waste: Means waste that does not pose an immediate hazard or threat to health or to the environment; and includes:

- (a) Domestic waste
- (b) Building and demolition waste
- (c) Business waste and
- (d) Inert waste

Hazardous Waste: Any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical, or toxicological characteristics of that waste, have a detrimental impact on health and environment.

Recycling: Means a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material.

Waste: Any substance, material, or object, that is unwanted, rejected, abandoned, discarded, or disposed of, or that is intended or required to be discarded or disposed of by the holder of that substance, materials or object whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to this Act, or

Any other waste substance, material or object that is not included in schedule 3 that may be defined as a waste by the Minister by notice in the Gazette, but any waste or portion of waste, referred to above.

Ceases to be a waste:

- (i) Once an application for its re-use, recycling or recovery has been approved or after such approval, once it is, or has been re-used, recycled.
- (ii) Where approval is not required, once a waste is, or has been re-used, recycled, or recovered.
- (iii) Where the Minister has, in terms of section 74, exempted any waste or a portion of waste generated by a generated by a particular process from the definition of waste; or
- (iv) Where the minister has, in the prescribed manner, excluded any (ii) any portion of waste, once re-used, recycled, and recovered, ceases to be waste.

CONTROLLED DISCLOSURE

2.4 Abbreviations

Abbreviation	Description
EMD	Electrical Maintenance Department
EO	Environmental Officer
FFB's	Fabric filter Bags
OPS	Operating Department
SRM	Safety Risk Management

2.5 Roles and Responsibilities

2.5.1 Duvha Power Station Employees and Contractors

[1] Duvha employees and contractors working for or on behalf of Duvha Power Station are responsible for disposing of waste in the correct skips/bins provided at strategic places and will ensure that as far as possible, no hazardous substance will be spilled or discarded incorrectly.

[2] Each department supervisor is responsible to ensure that waste storage in their area of responsibility is in accordance with Duvha Power Station Waste management practice.

2.5.2 Environmental Officer

[1] Environmental Officer must report overall figures of waste generated from the station to CoE monthly using the online waste reporting system, quarterly and annually using Annexure 1 (Doc no-240-47176064) and reports on the monthly waste performance KPI (ash produced, ash disposed and asbestos) to CoE and SAWIS

[2] EO must conduct waste management inspections at waste storage areas, waste transportation and waste disposal sites at planned intervals. The inspection schedule will be updated on an annual basis.

[3] Ensure safe keeping of all waste manifest.

[4] Responsible for notifying the municipality in writing, prior to the generation of industrial, hazardous or health care risk waste generated, of the composition of such waste, the estimated quantity generated, the method of storage, the proposed duration of storage, the manner in which it will be collected and disposed, and the identity of the certificate holder removing such waste.

[5] Notify the municipality in writing of any changes occurring with respect to the generation, composition, quantity and method and location of disposal of the special industrial, hazardous, or health care risk waste.

2.5.3 Environmental Management Department

[1] Environmental Management Department must ensure skips are supplied at strategic points for proper storage of general waste and hazardous waste and to ensure that waste bins and skips are not overflowing.

[2] Co-ordinate the removal of the general and hazardous waste from site to the correct and registered disposal site and must ensure that safe disposal certificate is received for every hazardous waste disposed. Copies of certificates must be kept on record after being received.

[3] Ensure that that waste bins and skips are labelled in accordance with the Duvha colour coding system.

[4] Ensure that waste holding containers are in good condition.

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[5] Ensure that waste reconciliation is practiced.

[6] Responsible for informing the municipality in an appropriate manner as determined by the municipality prior to the date of collection of the date of collection, the quantity and the composition of the waste collected and the facility at which the waste is to be disposed.

[7] Responsible for identifying and classifying all waste streams generated by station's activities.

[8] Environmental Department must ensure that small general waste bins are provided and have correct colour coding.

2.5.4 Materials Management Department

[1] Must co-ordinate the removal of Scrap metals and waste oil from site by a registered recycler.

[2] Materials Manager must send scrap sale report and waste oil recycling manifest to Environmental Officer on a monthly basis.

2.5.5 Occupational Hygienist

Occupational hygienist is responsible for compiling and updating asbestos template of all asbestos and asbestos containing material.

2.5.6 Performance and Testing

Compile a STEP report for ash figures and send to Environmental department every first week of every month.

2.5.7 Ops Support

[1] Ensure that once the bins are full, they are emptied into the white skips.

[2] Ensure that there is proper storage of oil drums at the old oil storage area.

[3] Responsible for offloading and loading of the drums containing oil.

[4] Responsible for ensuring that that the storage area is clean.

[5] Responsible for controlling access at the oil storage area.

2.5.8 Support Services

[1] Ensure that all sanitary waste is collected from sanitary bins and weighed accordingly.

[2] Ensure the sanitary waste is disposed at a registered incineration facility.

[3] Ensure waste manifest are provided to the Environmental Officer for record keeping.

2.6 Process for Monitoring

This document shall be subjected to internal reviews.

2.7 Related/Supporting Documents

Up to date versions of the following documents

240-47176064: Eskom Waste reporting template

240-471755997: Eskom summary PCB inventory template

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240-47175987: Eskom Asbestos inventory template.

ENVP005-1: Hazardous Waste Collection check Sheet

3. WASTE MANAGEMENT PROCESS

Two types of waste are generated at Duvha Power Station namely: General waste and Hazardous waste.

3.1 General Waste

- [1]** Separate waste at the source (only general waste is disposed in the white skips)
- [2]** White skips and bins are placed strategically throughout the station.
- [3]** Waste is collected from the station waste bins and placed into skips.
- [4]** The waste disposal contractor collects the waste on a weekly basis (or when necessary) and transports it to a permitted landfill site.
- [5]** Duvha receives documentation in the form of waybill and safe disposal certificates for record purposes.

3.1.1 Paper

3.1.1.1 There are recycling boxes that are strategically distributed for the disposal of paper throughout the offices around the station.

3.1.1.2 When the boxes are full a contractor specializing in paper recycling is contacted. The wastepaper recycler takes the papers for recycling.

3.1.1.3 Records of the volumes of paper collected for recycling are recorded on the Waste Register.

3.1.2 Food Waste

3.1.2.1 Food waste is produced at the Stations Main kitchen and is placed in bins at the Swill store area.

3.1.2.2 Duvha donates food waste to a local Pig farmer for re-use in Pig feeding.

3.1.2.3 Once the bins are full the waste is quantified, the food waste will then be collected by the Pig farmer(s) only for the purpose of feeding Pigs.

3.1.2.4 The Environmental Officer must ensure that a Service Level Agreement (SLA) between the farmer and Duvha Power Station is in place. The SLA should explicitly state that the food will only be used to feed pigs. The SLA should also contain any other necessary requirements for the collection and use of the waste.

3.1.2.5 Records of the volumes of waste are then sent to the Environmental Officer for record keeping.

3.1.3 Garden Waste

3.1.3.1 Garden waste is generated by the Horticulture contractor.

3.1.3.2 The Refuse is quantified and taken to the municipal dumping site.

3.1.4 Building Rubble

3.1.4.1 This waste is generated by different sections during construction.

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3.1.4.2 The waste is placed in white skips and when the skip is full ERI is responsible for the disposal of the waste a registered general waste landfill site.

3.1.4.3 Volumes disposed must be sent to the Environmental Department for record keeping.

3.1.5 Ferrous and Non-Ferrous Metals

3.1.5.1 Maroon skips are strategically placed throughout the Station with the lettering Scrap Metal depicted on them.

3.1.5.2 When the skips are full the assigned scrap metal dealer will then collect the scrap metal for recycling and the scrap dealer must submit figures collected to Materials Management.

3.1.5.3 Materials Management manager submit records to the Finance Department for record keeping.

3.1.6 Mineral fibres (e.g., lagging)

3.1.6.1 Mineral fibres normally originate from the turbine hall, boiler, and ash plant.

3.1.6.2 Originator must use double-bags to store fibres after removal from the plant and place them into white skips for removal to permitted landfill site.

3.1.6.3 Records of volumes are then submitted to Environmental Officer for record purposes.

3.2 Hazardous Waste, Liquids and Solids

3.2.1 Chemicals (including Thinners, Solvents)

3.2.1.1 Place chemical waste in a chemical store under lock and key.

3.2.1.2 Contact the waste disposal contractor to collect the load for disposal thereof (maximum period of storage on site is 90 days).

3.2.1.3 The chemicals may only leave the site once a Hazardous Waste, Transportation and Acceptance form has been completed and signed. It is then transported to the permitted hazardous landfill site where the waste contractor decides on trenching, treatment, filling, or encapsulation of the waste.

3.2.1.4 A safe disposal certificate will be issued and kept in the waste management file for record keeping.

3.2.2 Fluorescent Tubes

3.2.2.1 Electrical maintenance department is responsible to remove faulty and spent fluorescent tubes in the Station.

3.2.2.2 Used fluorescent tubes and mercury globes are placed in red skips where they are stored in a locked skip until collection.

3.2.2.3 The waste contractor is then contacted once the skip is full for collection and to transport the waste to a registered recycling facility for recycling.

3.2.2.4 A waste manifest after recycling is produced and must be submitted to Environmental department to be kept in the waste management file for record keeping.

3.2.3 NiCad Batteries

3.2.3.1 Used batteries from the station are placed in red 210L drum waste containers in the Battery Store under lock and key.

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3.2.3.2 The drums are then sealed when full and the waste contractor collects the drums and transport them to a waste treatment facility for treatment and disposal.

3.2.3.3 A waste manifest will be submitted to the Environmental Officer to be kept in the waste management file for record keeping.

3.2.4 Asbestos Containing Material

3.2.4.1 Cover or pack asbestos containing material completely with double impermeable material and seal with tape, so that no fibres can break off and be dispersed into the atmosphere.

3.2.4.2 Place asbestos sealed packets in a red labelled drum or skip before transporting it to a permitted hazardous landfill site for disposal.

3.2.4.3 Records and certificate of safe disposal submitted to Environmental department to be kept in the waste management file for record keeping.

3.2.5 Medical Waste

3.2.5.1 Medical waste is to be placed in the differently labelled containers at the medical centre.

3.2.5.2 Once the containers are full, the waste contractor is contacted to collect and transport waste to a permitted hazardous waste site for incineration.

3.2.5.3 A certificate of safe disposal is submitted to Environmental department to be kept in the waste management file for record keeping.

3.2.6 Sanitary Waste

3.2.6.1 Sanitary waste is placed in designated SHE bins located in the ladies' bathrooms.

3.2.6.2 Waste is collected by Support Service Department and taken for disposal at a registered landfill site. A certificate of safe disposal is submitted to Environmental Officer to be kept in the waste management file for record keeping.

3.2.7 Fabric Filter Bags'

3.2.7.1 The FFB's are stored in skips at the ash plant.

3.2.7.2 The appointed contractor is notified when the skip is full to collect the waste from site to the permitted landfill site for disposal.

3.2.7.3 A safe disposal certificate and waste manifest is submitted to Environmental Officer to be kept in the waste management file for record keeping.

3.2.8 Sulphur Waste

3.2.8 1 Sulphur waste is stored in a red 210L drum or skip next to the SO₃ plant.

3.2.8 2 Once the container is full the removal contractor is notified to collect the waste and the waste is disposed of at a permitted landfill site.

3.2.8 3 A safe disposal certificate and waste manifest is issued and submitted to the Environmental Officer for record keeping.

3.2.9 Oil rags and Absorbent

3.2.9.1 Oil rags and used absorbent are deposited in brown skips or bins.

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3.2.9.2 Once the container is full the removal contractor is notified to collect the waste and the waste is disposed of at a permitted landfill site.

3.2.9.3 A safe disposal certificate and waste manifest is issued and submitted to the Environmental Officer for record keeping.

3.2.10 Sewage sludge

3.2.10.1 Sewage sludge is stored in red bins or skips.

3.2.10.2 When the container is full a contractor is notified for collection of waste.

3.2.10.3 The contractor completes and signs the Hazardous Waste Transportation and Acceptance form, see Appendix A.

3.2.10.4 Waste is then disposed of at permitted landfill site.

3.2.10.5 A safe disposal certificate and waste manifest is issued and submitted to the Environmental Officer for record keeping.

3.2.11 Coal and Ash Discards

3.2.11.1 The above is placed in yellow skips or in case of spillages waste is directly loaded into trucks by Ops Support and waste is disposed of at the ash dam.

3.2.11.2 After a week of accumulation, Eskom employees/contractor (commonly known as Station Cleaning) remove, by means of trucks and dispose of on the ash disposal facility.

3.2.11.3 The coal discards will continue to manage as such until CMD identify an alternative disposal method.

3.2.11.4 The Waste Officer records the quantities disposed.

3.2.12 Contaminated Broken Glasses and Hazardous Containers

3.2.12.1 This is generated at Water Treatment Plant.

3.2.12.2 This is placed into 210L red drum once the container is full the contractor is informed, and the drum is taken to the permitted landfill site for disposal.

3.2.12.3 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.13 Paint Containers

3.2.13.1 The paint containers are placed in a red colour-coded skip.

3.2.13.2 Once the skip is full the contractor is informed, and the skip is taken to the permitted landfill site for disposal.

3.2.13.3 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.14 Used Degreaser and Paraffin

3.2.14.1 This is mostly generated during outages by different sections.

3.2.14.2 The used liquid is poured into two different 210L red drums.

3.2.14.3 The contractor is contacted once the drums are full and are taken to the permitted landfill site for disposal.

3.2.14.4 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

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3.2.15 Silica Gel crystals

3.2.15.1 The crystals are placed into a 210L red drum at EMD Outside plant.

3.2.15.2 Once the drum is full the contractor is informed, and the drum is taken to the permitted landfill site for disposal.

3.2.15.3 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.16 Bunker Oil 150 Sludge

3.2.16.1 This is generated from fuel oil tanks.

3.2.16.2 The sludge is either placed in brown skip or, 210L drum or directly into an enclosed truck, depending on the quantity.

3.2.16.3 The waste contractor then transports it to a permitted hazardous landfill site for disposal.

3.2.16.4 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.17 Used Lubrication Oil

3.2.17.1 The above waste is collected from different dirty oil tanks and placed in 210 litre drums which are stored in the dirty oil store area.

3.2.17.2 From there the contractor specializing in oil recycling is contacted. The oil is sold for recycling purposes.

3.2.18 Conveyor Belts, Tyres, and Rubber

3.2.18.1 The waste is placed in red skips. Once the container is full the waste collector is contacted, and the waste is taken to the permitted landfill site for disposal.

3.2.18.2 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.19 Water Treatment Plant Sludge

3.2.19.1 The sludge is generated when different chemicals are used to clean water.

3.2.19.2 This sludge is stored in a sump and once it reaches a certain level, it is then pumped to the Ash dams.

3.2.20 Used Resins

3.2.20.1 This is also generated by Water treatment plant when water is being purified.

3.2.20.2 This is placed into red skip by a contractor. Once the container is full, Eskom OPS support will transport the skip to the ash dams for disposal.

3.2.21 Ash

3.2.21.1 This is generated when coal is burnt in the boilers.

3.2.21.2 During the burning process coarse and fly ash is formed. Coarse ash is then pumped to the ash dams.

3.2.21.3 The ash will be packed into layers and rehabilitation done when necessary.

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3.2.22 E-Waste

3.2.22.1 It is waste emanating from electrical and electronic equipment.

3.2.22.2 Printer cartridges and toners are placed into labelled box containers. The box containers are placed in certain areas in the Station. Once the container is full the waste collector is contacted, and the waste is taken to the permitted landfill site for disposal.

3.2.22.3 All old electrical equipment's are disposed through the Assets Disposal Process

3.2.23 Dead Animals Carcasses

3.2.23.1 The carcass is to be inspected by the veterinarian.

3.2.23.2 In addition to the former, blood analyses are performed, and the cause of death established.

3.2.23.3 If the cause of death is natural, the carcass is to be buried. If the animal died from any communicable disease the carcass should be sent away for incineration.

3.2.24 Used Cooking Oil

3.2.24.1 The above waste is collected from the kitchen.

3.2.24.2 The oil is placed in the 20L containers and then stored at the kitchen oil storage area.

3.2.24.3 Once the container is full the waste collector is contacted, and the waste is taken to the permitted landfill site for disposal.

3.2.24.4 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.25 Sandblasting grit

3.2.25.1 Sandblasting grit is stored in red skips.

3.2.25.2 Once the skip is full the waste is taken to a permitted landfill site for disposal.

3.2.25.3 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.26 Tar Waste

3.2.26.1 Tar waste is the waste that is generated from the construction or repairing of the roads and packing around the station.

3.2.26.2 This is placed into red skip by a contractor. Once the container is full the waste collector is contacted, and the waste is taken to a permitted landfill site for disposal.

3.2.26.3 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

3.2.27 Empty drums 210L

3.2.27.1 These are the empty drums which were used to carrying lubricant oil and any other hazardous substance in the station.

3.2.27.2 These are placed into a red skip by a contractor.

3.2.27.3 Once the container is full the waste collector is contacted, and the waste is taken to a permitted landfill site for disposal.

3.2.27.4 A safe disposal certificate and waste manifest is issued and kept in the waste management file.

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3.2.28 Metal Shavings

3.2.28.1 Metal shavings are pieces of metal that are the debris or waste resulting from machining. During the machining process an oil spray is used lubricate the machine for ease of use. Throughout this activity the metal shavings are contaminated with oil.

3.2.28.2 Metal shavings must be separated at source and placed in the red skip designated for oil contaminated waste.

3.2.28.5 Metal shavings must not be disposed into landfills because they can contaminate the soil and groundwater around the site.

3.2.28.6 Quantities of hazardous waste (metal shavings cannot be quantified on their as they are not weighed separately from other oil contaminated waste types), are kept in the waste management file.

3.2.29 Colour Coding

Colour (Bins & Skips)	Waste Type
Red	Hazardous waste (which includes sulphur, soiled PPE, FFB's, fluorescent tubes, asbestos)
White	Domestic (which includes office waste)
Yellow	Coal & Ash Discards
Maroon	Scrap Metal
Brown	Oil rags / absorbent

3.3 Waste Handling, Storage and Transportation

3.3.1 All waste handling, storage as well as transportation is to be performed in accordance with the National Environmental Management: Waste Act (59 of 2008), its associated regulations and Norms & standards and the Emalahleni Local Municipality Solid Waste Management Bylaws

3.3.2 Hazardous waste will be transported in a way that will not cause environmental pollution.

3.3.3 All contractors providing the following services are regarded as providing commercial services in according to the Emalahleni Local Municipality Solid Waste Management Bylaws and must be licensed by the Municipality:

- Waste collection and transportation
- Waste management
- Waste recycling
- Waste sorting
- Storage of waste
- Waste treatment
- Waste disposal
- Buying or selling of waste
- Other manners of waste handling

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3.3.4 All the hazardous waste containers must be labelled according to the following requirements:

- The date on which waste was first placed in the container.
- The date on which waste was placed in the container for the last time when the container was filled, closed, sealed, or covered.

3.3.5 The waste contractor must also keep records of the following:

- The dates when, and quantities of, waste added, and waste removed from containers.
- The specific category or categories of waste in the containers identified in terms of the National Waste Information Regulations 2012
- The classification of the waste in terms of Regulation 4 once it has been completed.

3.4 Waste Classification

Waste classification and hazard rating is to be performed in accordance with Waste Classification and Management Regulations (GNR 634).

3.5 Reporting

3.5.1 Waste reporting is as per Eskom Waste Management Procedure (32-245) Annexure K.

3.5.2 The amount of waste produced and collected for disposal will be recorded by the responsible person at Environmental Management, Medical Centre & Materials Management and reported to the Environmental personnel on monthly basis.

3.5.3 The Environmental personnel shall update the waste register using the waste Manifest figures in the Waste Management file for verification purposes before capturing the figures on the online waste reporting system to Sustainability (Centre of Excellence: Waste) on a monthly basis.

3.5.4 On site waste will be reported from the 16th of current month to the 15th of the following months on monthly basis, the monthly online waste report is completed by the Environmental Officer and sent to Sustainability on or before the 10th monthly.

3.5.5 The ash produced figure is obtainable from the STEP report generated monthly by the performance & testing department. It is a calculated value using the Coal Burnt figure and the percentage of Ash in Coal figure. The Performance & Testing and the Chemical Services (coal lab) Departments are responsible for ensuring that the correct coal burnt and Ash in coal figures is available.

3.5.6 Environmental officer shall draft the waste annual report from the monthly waste register and complete the quarterly and annual waste reporting template and send it to Sustainability (Centre of Excellence: Waste)

CONTROLLED DISCLOSURE

4. ACCEPTANCE

This document has been seen and accepted by:

Name	Designation
Octavia Mohale	Risk and Assurance Manager
Karabo Kgaphola	Coal Management Manager
Wandile Khumalo	Project Manager
Ntombenhle Ndlovu	Technical Plant Manager
Fhatu Tshisikhawe	Maintenance Manager
Koena Moabelo	Human Resources Manager
Maila Mamoleka	Engineering Manager
Zanele Motaung	Finance Manager
Mmbie Munasi	Outage Manager
Morris Marebane	Operating Manager
Oloff Nel	Acting Compliance Manager
Simthandile Nhlapo	Environmental Manager
Mandla Mkhonza	Procurement Manager
Lourence Chauke	General Manager
Bongi Gowa	Operating Support Manager
Dumisani Thabang	Electrical Maintenance Manager
Uwe Kaphengst	Performance and Testing Manager
Roonie Tladi	Acting Materials Management Manager

5. REVISIONS

Date	Rev.	Compiler	Remarks
April 2024	8	N Maposa	Added metal shavings 3.2.28. Changed CMD responsibilities to the Environmental Department
June 2020	7	T Lechaba	Added recycling 2.3.6, minor changes on 2.5.2, 2.5.3, 3.1.2,
February 2019	6	M Sinthumule	Minor changes.
August 2018	5	M Sinthumule	Addition on 6.5.24-6.5.27
August 2015	4	M Sinthumule	Minor Changes
December 2012	3	M Sinthumule	Changes to 4.0, 5.0, 6.0, 7.0 and
October 2009	2	N/A	Changes to 3.0, 4.0, 5.0, 6.0 and 7.0
September 2005	1	N/A	Review
October 2003	0	N/A	Original

6. DEVELOPMENT TEAM

N/A

CONTROLLED DISCLOSURE

7. ACKNOWLEDGEMENTS

N/A.

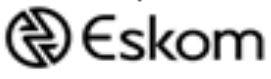
8. RECORDS

Copies of all documentation and records are kept at the Environmental Department

Certificates of safe disposal of all hazardous wastes will be kept at the Documentation Department as permanent records.

CONTROLLED DISCLOSURE

APPENDIX A: HAZARDOUS WASTE COLLECTION – CHECKLIST

	Hazardous Waste Collection Checklist	Allocation Centre: 03A-Duvha Duvha Doc ID: ENVP0006-1	
		Rev: 1	Page: 1 of 3

SECTION 1

Waste Manifest No:

DOCUMENTATION

Tremcard?

☐ Yes ☐ No

HazChem Driver Card?

☐ Yes ☐ No

Emergency Procedure?

☐ Yes ☐ No

Scale card?

☐ Yes ☐ No

Route Map?

☐ Yes ☐ No

Medical card?

☐ Yes ☐ No

TRUCK

Replacement container?

☐ Yes ☐ No

PPE?

☐ Yes ☐ No

Emergency clean-up kit?

☐ Yes ☐ No

Truck labeling correct?

☐ Yes ☐ No

Is driver pre-start checklist complete & a copy attached?

☐ Yes ☐ No

Remarks:

SECTION 2 (to be completed after loading)

Waste Manifest No:

LOAD

Load secured?

☐ Yes ☐ No

Waste correctly labeled?

☐ Yes ☐ No

Load contained?

☐ Yes ☐ No

Accepted by client?

☐ Yes ☐ No

Route Map?

☐ Yes ☐ No

Medical card?

☐ Yes ☐ No

Remarks:

Time left site:

Time arrived at destination:

SECTION 3 (to be completed after off-loading)

Was load accepted?

☐ Yes ☐ No

Were empty containers removed?

☐ Yes ☐ No

Remarks:

Hazardous Waste Collection Checklist	Allocation Centre: 00A7 Dwba Doc ID: ENVP0006-1	
	Rev: 1	Page: 2 of 3

SECTION 4 (to be completed by waste transport supervisor)

Operator pre-start checklist received?	Y	N	Waste Transport manifest received?	Y	N
Sub-contractor's manifest received?	Y	N			

HAZARDOUS WASTE MANIFEST

Collection Details

Manifest no:

CLIENT DETAIL

Collected from:

Date collected:

WASTE DETAIL

Description of waste:

Quantity of waste:

Was sample tested?	Y	N	Reason if no:
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Vehicle registration:

Special instructions:

ACCEPTED

	Name	Signature	Date
On behalf of waste Transporter:			
On behalf of sub-contractor:			

Page Break

CONTROLLED DISCLOSURE

1

Hazardous Waste Collection Checklist	Allocation Centre: 02A1 1 Dwha Doc ID: ENVP0006-1a	
	Rev: 1a	Page: 2 of 4a

2

Delivery Details

SUB-CONTRACTOR DETAIL

Name of sub-contractor:

--

3

Delivered to:

--

4

Manifest no:

--

5

ACCEPTED

6

7

Name

Signature

Date

On behalf of waste Transporter:

8

On behalf of sub-contractor:

9

10

CONTROLLED DISCLOSURE

APPENDIX B: WASTE REPORTING TEMPLATE

Eskom		WASTE REPORTING TEMPLATE		Template Identifier	240-43921804	Rev	5
				Document Identifier	240-47176064	Rev	3
				Effective Date	March 2018		
				Review Date	February 2021		
Reporting period		FY2018/19					
Date of submission							
Business Area covered by report, including any exclusions							
Name of person submitting report				Signature			
Name of responsible manager				Signature			
<p>The following should be reported by all divisions where applicable. Where an issue is not applicable, this should be noted. Units: Oil contaminated waste, cubic meters, 210 L drums, density problems, conversion is not accurate, need densities of all wastes. Put a request from government to allow in the different units per drum, per kg, per cubic meter.</p>							
LEVEL 1	LEVEL 2	LEVEL 3 - SPECIFIC WASTE TYPE	Quantities generated (produced) (unit of measure to be stated)	Quantities of wastes that were re-used or recycled	Quantities disposed of (unit of measure to be stated)	How disposed of	Where disposed of
GENERAL WASTE	GW01	General: Municipal waste					
	GW10	General: Commercial and industrial waste					
	GW13	General: Mine					
	GW14	Fly ash and dust from miscellaneous filter sources					
	GW15	General: Bottom ash					
	GW16	Slag	GW1601 Slag: Ferrous metal slag GW1602 Slag: Non-ferrous metal slag GW1603 Slag: Other				
	GW17	Mineral waste	GW1701 Foundry sand GW1702 Refractory waste GW1703 Mineral waste: Other				
	GW18	Waste of Electric and Electronic Equipment (WEEE)	GW1801 Large household appliances GW1802 Small household appliances GW1803 Office, Information and Communication Equipment GW1804 Entertainment and Consumer Electronics and toys, leisure, sports and recreational equipment and automatic sewing machines GW1805 Lighting equipment GW1806 Electric and electronic tools GW1807 Security and health care equipment GW1808 Mixed WEEE				
	GW20	Organic waste	GW2001 Organic waste: Garden waste GW2002 Food waste GW2003 Wood waste				
	GW21	Sewage sludge	GW2101 Sewage sludge				
	GW30	Construction and demolition waste	GW3001 Construction and demolition waste GW3002 News print and magazines				
	GW50	Paper	GW5001 Brown grades GW5002 White grades GW5003 Mixed grades				
	GW51	Plastic	GW5101 Polyethylene terephthalate GW5102 High-density Polyethylene GW5103 Polyvinylchloride GW5104 Low-density Polyethylene GW5105 Polypropylene GW5106 Plastic Polystyrene GW5107 Plastic: Other				

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LEVEL 1	LEVEL 2		LEVEL 3 - SPECIFIC WASTE TYPE	Quantities generated (produced) (unit of measure to be stated)	Quantities of wastes that were re-used or recycled	Quantities disposed of (unit of measure to be stated)	How disposed of	Where disposed of
HAZARDOUS WASTE	GW52	Glass	GW5201 Glass					
	GW53	Metals	GW5301 Ferrous metal					
			GW5302 Non-ferrous metal					
	GW54	Tyres	GW5401 Tyres					
	GW99	Other	GW99 Other					
	HW01	Gaseous waste	HW0101 Gases (excluding Greenhouse gases)					
			HW0102 Obsolete ozone depleting gases					
	HW02	Mercury containing waste	HW0201 Liquid waste containing mercury					
			HW0202 Solid waste containing mercury					
	HW03	Lead batteries	HW0301 Lead batteries					
			HW0302 Mercury batteries					
			HW0303 Ni/Cd batteries					
			HW0304 Manganese dioxide and alkali batteries					
			HW0305 Lithium and Lithium ion batteries					
			HW0306 Nickel-metal hydride batteries					
			HW0307 Mixed batteries					
	HW04	POP waste	HW0401 PCB containing waste (>50mg/kg)					
			HW0402 Other POP-containing waste					
	HW05	Inorganic waste	HW0501 Liquid and sludge inorganic waste					
			HW0502 Solid inorganic waste					
			HW0503 Spent pot lining (inorganic)					
	HW06	Asbestos containing waste	HW0601 Asbestos containing waste					
	HW07	Waste oils	HW0701 Waste oil					
	HW08	Organic halogenated and/or sulphur containing solvents	HW0801 Solvents containing halogens and/or sulphur					
	HW09	Organic halogenated and/or sulphur containing solvents	HW0901 Liquids and sludges containing halogens and/or sulphur					
			HW0902 Solids containing halogens and/or sulphur					
	HW10	Organic Solvents without halogens and sulphur	HW1001 Solvents without halogens and sulphur					
	HW11	Other organic waste without halogens or sulphur	HW1101 Liquid and sludge organic waste					
			HW1102 Solid organic waste					
			HW1103 Spent pot lining (organic)					
			HW1104 Tarry waste					
	HW12	Tarry and Bituminous waste	HW1201 Tarry waste					
			HW1202 Bituminous waste					
	HW13	Brine	HW1301 Brine					
	HW14	Fly ash and dust from miscellaneous filter sources	HW1401 Fly ash					
	HW15	Bottom ash	HW1501 Bottom ash					
	HW16	Slag	HW1601 Ferrous metal slag					
			HW1602 Non-ferrous metal slag					
			HW1603 Other					
	HW17	Mineral waste	HW1701 Foundry sand					
			HW1702 Refractory waste					
			HW1703 Other					

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LEVEL 1	LEVEL 2		LEVEL 3 - SPECIFIC WASTE TYPE	Quantities generated (produced) (unit of measure to be stated)	Quantities of wastes that were re-used or recycled	Quantities disposed of (unit of measure to be stated)	How disposed of	Where disposed of
	HW18	Waste of Electric and Electronic Equipment (WEEE)	HW1801	Large household appliances				
			HW1802	Small household appliances				
			HW1803	Office, information and communication equipment				
			HW1804	Entertainment and consumer electronics and toys, leisure, sports and recreational equipment and automatic vending machines				
			HW1805	Lighting equipment				
			HW1806	Electric and electronic tools				
			HW1807	Security and health care equipment				
			HW1808	Mixed WEEE				
	HW19	Health care risk waste: Pathological waste	HW1901	Pathological waste				
			HW1902	Infectious waste and sharps				
			HW1903	Health care risk waste: Chemical waste				
	HW20	Sewage sludge	HW2001	Sewage sludge				
	HW99	Miscellaneous	HW9901	Miscellaneous				
Based on Divisional Aspect Registers, all applicable waste streams should be reported. If data is not available, the process implemented to gather the data should be noted.								
OTHER WASTE STREAMS/TYPE								
OTHER ESKOM WASTE STREAMS			HW	Oil Contaminated Waste				
			HW	Waste Grease				
			HW	FFB's				
			HW	Used Chemicals (from lab)				
			HW	PCB Oils				
			HW	Silica Gel				
			HW	Empty Chemical Containers				
			HW	SHE/Sanitary Waste				
			HW	Nuclear Waste (low/intermediate waste)				
			GW	Conveyor Belts				
			GW	Cooking Oil				
			GW	Cans				
			GW	Scrap metals				

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Waste management aspects		Status reports		Requirement		
	Waste management plan(WMP)	% Completed developed WM plan				
		% Implementation of plan				
	PCBs inventory and phase out plan	Verified PCB inventory				
		Status of PCB phase out plan				
	Asbestos inventory and phase out plan	Verified Asbestos inventory				
		Status of Asbestos phase out plan				
	ODS inventory and phase out plan	Verified ODS inventory				
		Status of ODS phase out plan				
	Information pertaining to Eskom waste disposal sites					
	Name of site and location		Permit or license number	Year of the permit/license	Classification	Status
Registers	In Place (Y/N)	Up to date(Y/N)	Responsibility			
Solvents register						
Province and Local Authority	Eskom Division and site (Grid / Region / Substation / TSC /Power Station)	Waste types at storage facility	Daily throughput	Date established and legal status		