Eskom	Work Instruction	Duvha Power Station/ Generation

Title: **Work Instruction for Waste Management (Environmental)**

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Compiled by	Supported by	Functional Responsibility	Authorized by
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Date: 30/07/2020	Date:	Date: 2020/07/30	Date: 2020-08-03

Content

1. INTRODUCTION

Duvha Power Station has different waste streams which occur during the power generation processes and other activities that take place at the station, this waste must be handled, stored, transported and disposed in a manner which is environmentally acceptable

2. SUPPORTING CLAUSES

2.1 Scope

This procedure 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 management. The avoidance of waste generation, and where avoidance is not possible, 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 is applicable to Duvha Power Station and its contractors.

2.1.3 Effective date

This document will be effective from the 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] National Environmental Management Waste Act (59 of 2008), 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.

2.2.2 Informative

[6] National water Act (Act 36 of 1998)

[7] National Road Traffic Act (Act 93 of 1996)

[8] National Environmental Management Act (Act 107 of 1998)

[9] National Environmental Management: Waste Act (Act 59 of 2008), GN 926, 921

[10] SANS 10228 identification and classification of dangerous goods for transportation

2.3 Definitions

2.3.1 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

2.3.2 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.

2.3.3 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

2.3.4 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

2.3.5 Waste

(a) 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

(b) 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 in paragraphs (a) and (b),

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

2.3.6 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.

2.4 Abbreviations.

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

2.5 Roles and Responsibilities

2.5.1 Duvha Power Station Employees and Contractors

2.5.1.1 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

2.5.1.2 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 Management Department

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

2.5.2.2 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.

2.5.2.3 Ensure safe keeping of all waste manifest

2.5.2.4 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

2.5.2.5 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 Coal Management Department

2.5.3.1 Coal 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 at all times

2.5.3.2 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 sent to the Environmental department after being received.

2.5.3.3 Ensure that that waste bins and skips are labelled in accordance with the Duvha colour coding system**.**

2.5.3.4 Ensure that waste holding containers are in good condition

2.5.3.5 Ensure that waste reconciliation is practiced

2.5.3.6 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.

2.5.3.7 Coal Management is responsible for identifying and classifying all waste streams generated by station's activities.

2.5.4 Materials Management Department

2.5.4.1 Must co-ordinate the removal of Scrap metals and waste oil from site by a registered recycler

2.5.4.2 Materials manager must send scrap sale report and waste oil recycling manifest to Environmental Management on a monthly basis

2.5.5 Occupational Hygienist

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

2.5.6 Performance and testing

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

2.5.7 Ops Support

2.5.7.1 Ops Support must ensure that small general waste bins are provided

2.5.7.2 Once the bins are full, they are emptied into the white skips

2.5.7.3 Ensure that there is proper storage of oil drums at the old oil storage area

2.5.7.4 Responsible for offloading and loading of the drums containing oil

2.5.7.5 Responsible for ensuring that that the storage area is clean

2.5.7.6 Responsible for controlling access at the oil storage area

2.6 Process for Monitoring

- Audits
- Inspections

2.7 Related/Supporting Documents

2.7.1 Records Generated

- 240-47176064 Eskom Waste reporting template
- 240-471755997 Eskom summary PCB inventory template
- 240-47175987 Eskom Asbestos inventory template
- Hazardous Waste Collection check Sheet (ENVP005-1)

3. PROCESS

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

3.1 General waste

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

3.1.1 Paper

- There are recycling boxes that are strategically distributed for the disposal of paper throughout the offices around the station.
- When the boxes are full a contractor specializing in paper recycling is contacted. The waste paper recycler takes the papers for recycling
- Records of the volumes of paper collected for recycling are kept by EO's

3.1.2 Food waste

- Food waste is produced at the Stations Main kitchen and is placed in bins at the Swill store area
- Duvha donates food waste to a local Pig farmer for re-use in Pig feeding.
- Once the bins are full the waste is quantified, the food waste will then be collected by the Pig farmer to feed the Pigs. The Site Kitchen must ensure that a service level agreement between the farmer and Duvha Power Station stating that the food will only be used to feed animals and any other Duvha requirements.
- Records of the volumes of waste are then send to the Environmental Department for record keeping.

3.1.3 Garden Waste

- Garden waste is generated by the Horticulture contractor
- The Refuse is quantified and taken to the Ash dam for rehabilitation

3.1.4 Building Rubble

- This waste is generated by different sections during construction
- 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
- Volumes disposed must be sent to the Environmental Department for record keeping.

3.1.5 Ferrous and Non-Ferrous Metals

- Maroon skips are strategically placed throughout the Station with the lettering Scrap Metal depicted on them
- 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
- Materials Management manager submit records to the Finance Department for record keeping

3.1.6 Mineral fibres (e.g. lagging)

- Mineral fibres normally originate from the turbine hall, boiler and ash plant.
- 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
- Records of volumes are then submitted to Environmental Department for record purposes

3.2 Hazardous Waste, Liquids and Solids

3.2.1 Chemicals (including Thinners, Solvents)

- Place chemical waste in a chemical store under lock and key
- Contact the waste disposal contractor to collect the load for disposal thereof (maximum period of storage on site is 90 days)
- 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.
- A safe disposal certificate will be issued and kept in the waste management file for record keeping

3.2.2 Fluorescent Tubes

- Electrical maintenance department is responsible to remove faulty and spent fluorescent tubes in the Station
- Used fluorescent tubes and mercury globes are placed in red skips where they are stored in a locked skip until collection.

- 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.
- 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

- Used batteries from the station are placed in red 210L drum waste containers in the Battery Store under lock and key
- The drums are then sealed when full and the waste contractor collects the drums and transport them to a waste treatment facility for treatment
- A waste manifest will be submitted to the Environmental Department to be kept in the waste management file for record keeping

3.2.4 Asbestos Containing Material

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

- Medical waste is to be placed in the differently labelled containers at the medical centre
- Once the containers are full, the waste contractor is contacted to collect and transport waste to a permitted hazardous waste site for incineration
- 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**

- Sanitary waste is placed in designated SHE bins located in the ladies' bathrooms.
- Waste is collected by Ops Support and taken for disposal at a registered landfill site. A certificate of safe disposal is submitted to Environmental department to be kept in the waste management file for record keeping

3.2.7 Fabric Filter Bags's

- The FFB's are stored in skips at the ash plant
- The appointed contractor is notified when the skip is full to collect the waste from site to the permitted landfill site for disposal

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

3.2.8 **Sulphur Waste**

- Sulphur waste is stored in a red 210L drum or skip next to the SO_3 plant
- 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
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.9 Oil rags and Absorbent

- Oil rags and used absorbent are deposited in brown skips or bins
- 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
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.10 Sewage sludge

- Sewage sludge is stored in red bins or skips
- When the container is full a contractor is notified for collection of waste
- The contractor completes and signs the Hazardous Waste Transportation and Acceptance form (appendix 1)
- Waste is then disposed of at permitted landfill site
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.11 Coal and Ash Discards

- 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
- 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
- The Waste Officer records the quantities disposed of

3.2.12 Contaminated Broken Glasses and Hazardous Containers

- This is generated at Water Treatment Plant
- 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

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

3.2.13 Paint Containers

- The paint containers are placed in a red colour-coded skip
- Once the skip is full the contractor is informed and the skip is taken to the permitted landfill site for disposal.
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.14 Used Degreaser and Paraffin

- This is mostly generated during outages by different sections
- The used liquid is poured into two different 210L red drums
- The contractor is contacted once the drums are full and are taken to the permitted landfill site for disposal
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.15 Silica Gel crystals

- The crystals are placed into a 210L red drum at EMD Outside plant
- Once the drum is full the contractor is informed and the drum is taken to the permitted landfill site for disposal
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.16 Bunker Oil 150 Sludge

- This is generated from fuel oil tanks
- The sludge is either placed in brown skip or, 210L drum or directly into an enclosed truck, depending on the quantity
- The waste contractor then transports it to a permitted hazardous landfill site for disposal.
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.17 Used Lubrication oil

- 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
- 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

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

3.2.19 Water Treatment Plant Sludge

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

- This is also generated by Water treatment plant when water is being purified
- This is placed into red skip by a contractor. Once the container is full Eskom employees will transport the skip to the ash dams for disposal

3.2.21 Ash

- This is generated when coal is burnt in the boilers
- During the burning process coarse and fly ash is formed. Coarse ash is then pumped to the ash dams
- The ash will be packed into layers and rehabilitation done when necessary

3.2.22 E-Waste

- It is waste emanating from electrical and electronic equipment
- 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
- All old electrical equipment's are disposed through the Assets Disposal Process

3.2.23 Dead Animals Carcasses

- The carcass is to be inspected by the veterinarian
- In addition to the former, blood analyses are performed, and the cause of death established
- 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

- The above waste is collected from the kitchen

- The oil is placed in the 20L containers and then stored at the kitchen oil storage area
- Once the container is full the waste collector is contacted and the waste is taken to the permitted landfill site for disposal
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.25 Sandblasting grit

- Sandblasting grit is stored in red skips
- Once the skip is full the waste is taken to a permitted landfill site for disposal
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.26 Tar Waste

- Tar waste is the waste that is generated from the construction or repairing of the roads and packing around the station
- 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
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.2.27 Empty drums 210L

- These are the empty drums which were used to carrying lubricant oil and any other hazardous substance in the station
- These are placed into a 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.
- A safe disposal certificate and waste manifest is issued and kept in the waste management file

3.3 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

3.4 Waste Handling, Storage and Transportation

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

3.5 Waste Classification

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

3.6 Records

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

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

3.7 Reporting

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

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

3.7.3 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 (Center of Excellence: Waste) on a monthly basis.

3.7.4 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 on a monthly basis

3.7.5 The ash produced figure is obtainable from the STEP report generated on a monthly basis 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.

3.7.6 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 (Center of Excellence: Waste)

4. ACCEPTANCE

This document has been seen and accepted by:

Name	Designation
Octavia Mohale	Risk and Assurance Manager
Zama Ngwazi	Acting Coal Management Manager
Neels Steynfaardt	Project Manager
Sam Mashao	Acting Technical Plant Manager
Kakanyo Mabaso	Maintenance Manager
Koena Moabelo	Human Resources Manager
Mehendra Maharaj	Acting Engineering Manager
Charles Makola	Acting Finance Manager
Wandile Khumalo	Outage Manager
Morris Marebane	Operating Manager
Maila Mamoleka	Compliance Manager
Simthandile Nhlapo	Environmental Manager
Neo Mkhize	Procurement Manager
Ntombenhle Mkhize	Acting General Manager
Bongi Gowa	Operating Support Manager
Joseph Selialia	Electrical Maintenance Manager
Uwe Kaphengst	Performance and Testing Manager
Msebenzi Khanyile	Materials Management Manager

5. REVISIONS

Date	Rev.	Compiler	Remarks
June 2020	7	T Lechaba	Added recycling 2.3.6, minor changes on 2.5.2, 2.5.3, 3.1.2, 3.1.3 and minor changes on 3.2.6 and 3.7
February 2019	6	M Sinthumule	Minor changes.
2018	5		Addition on 6.5.24-6.5.27
August 2015	4		Minor Changes
December 2012	3		Changes to 4.0, 5.0, 6.0, 7.0 and 8.0

Date	Rev.	Compiler	Remarks
October 2009	2		Changes to 3.0, 4.0, 5.0, 6.0 and 7.0
September 2005	1		Review
October 2003	0		Original

6. DEVELOPMENT TEAM

The following people were involved in the development of this document:

- Thakgalo Lechaba
- Muwanwa Sinthumule
- Maqhawe Nkambule

Appendix 1: Hazardous Waste Collection checklist

Eskom	**Hazardous Waste Collection - Checklist**	**Allocation Centre: 03A-Duvha Duvha Doc ID: ENVP0005-1**	
		Rev 1	**Page 1 of 3**

SECTION 1

Waste Manifest No: ____

DOCUMENTATION

Tremcard?	Y	N	HazChem Driver Card?	Y	N
Emergency Procedure?	Y	N	Scale card?	Y	N
Route Map?	Y	N	Medical card?	Y	N

TRUCK

Replacement container?	Y	N	PPE?	Y	N
Emergency clean-up kit?	Y	N	Truck labeling correct?	Y	N
Is driver pre-start checklist complete & a copy attached?				Y	N

Remarks: ____

SECTION 2 (to be completed after loading)

Waste Manifest No: ____

LOAD

Load secured?	Y	N	Waste correctly labeled?	Y	N
Load contained?	Y	N	Accepted by client?	Y	N
Route Map?	Y	N	Medical card?	Y	N

Remarks: ____

Time left site: | Time arrived at destination

SECTION 3 (to be completed after off-loading)

Was load accepted? Y N | Were empty containers removed? Y N

Remarks:

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:

Vehicle registration:

Special instructions:

ACCEPTED

	Name	Signature	Date
On behalf of waste Transporter:			

On behalf of sub-contractor:			

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:
Vehicle registration:	
Special instructions:	

ACCEPTED

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

Annexure 1: Waste reporting template (240-47176064)

Eskom	WASTE REPORTING TEMPLATE			Template Identifier	240-43921804	Rev	5
				Document Identifier	240-47176064	Rev	4
				Effective Date	Jul-18		
				Review Date	Aug-21		

Reporting period			
Date of submission	:		
Business Area covered by report, including any exclusions	:		
Name of person submitting report	:	**Signature:**	
Name of responsible manager	:	**Signature:**	

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)

LEVEL1	LEVEL 2			LEVEL 3 - SPECIFC 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 waste disposed of	Where waste disposed of
GENRAL WASTE	GW01	General: Municipal waste							
	GW10	General: Commercial and industrial waste							
	GW13	General: Brine							
	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 issuing machines					
			GW1805	Lighting equipment					
			GW1806	Electric and electronic tools					
			GW1807	Security and health care equipment					
			GW1808	Mixed WEEE					
	GW21	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					
	GW50	Paper	GW5001	Newsprint and magazines					
			GW5002	Brown grades					
			GW5003	White grades					
			GW5004	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					
	GW54	Metals	GW5301	Ferrous metal					
			GW5302	Non-ferrous metal					
	GW54	Tyres	GW54	Tyres					
	GW99	Other	GW99	Other					

HAZARDOUS WASTE	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 sludge's 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)					
	HW12	Tarry and Bituminous waste	HW1201	Tarry waste					
			HW1202	Bituminous waste					
	HW13	Brine	HW1301	Brine					
	HW14	Fly ash and dust from miscellaneous filter sources: Fly ash	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					
	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 issuing machines					
			HW1805	Lighting equipment					
			HW1806	Electric and electronic tools					
			HW1807	Security and health care equipment					
			HW1808	Mixed WEEE					

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 WASTE STR									

Status reports

Waste management aspects		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	

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			

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