 Eskom	Instruction	Hendrina Power Station
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Title: **Waste Management Procedure**

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Area of Applicability: **Hendrina Power Station**

Functional Area: **All**

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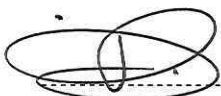
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1. INTRODUCTION

There are a lot of areas on the power station where waste can be generated. The generators of a waste stream need to identify their waste and classify it so that the correct method of safe handling and disposal can be used.

1.1 SCOPE

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

1.1.1 Purpose

To maintain best waste management operational practice in Hendrina Power station. To establish a Waste Management System, to minimise the risk of polluting the environment. The effective management for the disposal of domestic, garden and industrial waste. The effective handling of toxic, medical, ash, oil and asbestos waste to ensure that no harm is done to the environment. The implementation and maintenance of an active recycling programme for printer cartridges, paper, plastic, oil, glass and cartridges.

The management of the Waste Disposal Site in accordance with the Waste Disposal Site Permit in terms of section 20 (1) of the Environmental Conservation Act 1989 (Act No 73 of 1989). To reduce the quantities of waste to be disposed of by instituting recycling programmes whenever feasible.

1.1.2 Integrated Business Improvement objectives

IBI verification mechanisms and Error Prevention tools that can be applied include Housekeeping Management to control the generation and disposal of waste generated.

2.1.3 Applicability

This document is applicable to all Eskom Hendrina Power Station personnel and contractors as depicted in the table below.

	All	Group Manager	Line Manager	Supervisor	Engineer	Safety Risk	Environmental	Quality	IBI	Commercial	Financial	Support Services	Training	Auxiliary	Civil	Control & instrumentation	Electrical	Mechanical
Hendrina Power Station personnel	X																	
Hendrina Power Station contractors	X																	
Assurance and Integrated Risk Management																		
Business Services																		
Human Resources																		
Engineering																		
Maintenance																		
Outage & Project Management																		
Operating																		
Production Integration																		

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1.2 NORMATIVE/ INFORMATIVE REFERENCES

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

1.2.1 Normative

- Eskom Waste Management Standard (32 – 245)
- Eskom Healthcare Waste Risk Management Standard (240-115842952)
- Temporary hazardous waste storage facility (License No: 12/9/11/L440/6)
- General waste landfill site permit (Permit No: B33/2/210/141/P9)

1.2.2 Informative

- The South African Constitution (Act 108 of 1996)
- Hazardous Substances Act (Act 5 of 1973)
- The National Environmental Management Act (Act 107 of 1998)
- National Environmental Management: Waste Act, 2008 (Act 59 of 2008)
- National Environmental Management: Waste Amendment Act, 2014 (Act 26 of 2014)
- R. 634: National Environmental Management: Waste Act (59/2008): Waste Classification and Management Regulations
- R. 635: National norms and standards for the assessment of waste for landfill disposal
- R. 636: National norms and standards for disposal of waste to landfill
- EMS ISO 14001: 2015 Standard

1.2.3 Affected business processes

Environmental Department

1.3 DEFINITIONS

1) 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

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2) HAZARDOUS WASTE

Means 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 the environment.

3) WASTE

Means any (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, material 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 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 or recovered;

(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 particular process from the definition of waste; or

(iv) where the Minister has, in the prescribed manner, excluded any waste stream or a portion of a waste stream from the definition of waste.

Environment” means the surroundings within which humans exist and that are made up of -

(i) the land, water and atmosphere of the earth;

(ii) micro-organisms, plant and animal life;

(iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and

(iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing;

Permit/Licence— A permit for the Waste Disposal Site issued by the Department of Water Affairs.

Permit/Licence holder— Hendrina Power Station Waste Disposal Site – Eskom, Hendrina Power Station.

1.3.1 Classification

Documents are classified in accordance with the Access to Information Act into the following categories. The classification could either be enforced by law, or discretionary.

- **Controlled disclosure (CD):** controlled disclosure to external parties.

1.3.2 Hierarchy levels

o **Business area / department document (Level 3)**

These are documents authorised by the relevant manager or his management team. These documents are applicable to Business Area.

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1.4 ABBREVIATIONS

Abbreviation	Description
MSDS's	Material safety data sheets
EMS	Environmental Management System
EA	Environmental authorisation
DWA&F	Department of Water Affairs and Forestry
EMS Rep	Environmental Management System Representative
PCB's	Polychlorinated Biphenyls
IBI	Integrated Business Improvement
NEM	National Environmental Management
NEM:WA	National Environmental Management: Waste Act

1.5 ROLES AND RESPONSIBILITIES

General Responsibilities

- Every employee will ensure that as far as possible no hazardous substance will be spilled or discarded incorrectly.
- Each section will identify the different waste types (i.e. hazardous waste or recyclable waste) that are generated in their workplace and or activities. These waste types need to be forwarded to the Environmental Co-ordinator who would include it into the procedure and waste disposal contract, where applicable.
- The Materials Management Manager will ensure that hazardous waste containers are available as a stock item for disposal of hazardous waste materials by the various sections that generate it. The location of these containers will be decided on by the various departments depending on the types and quantities of waste being generated by that section.
- The Environmental Manager will co-ordinate the removal of the hazardous waste by a registered operator to the correct type of disposal site for safe disposal by a licensed waste disposal company. It is the responsibility of each section head that has chosen to have a hazardous substance drum under his control to remove the drum to the hazardous waste storage site for the Environmental Manager to arrange the final removal off site. It should however be noted that hazardous waste is not to be stored for more than 90 days from the date of accumulation to the date of disposal. This is a legislative requirement that states that waste stored for longer than 90 days needs to be registered as a hazardous waste disposal site.
- Drums need to be correctly labelled by the person drawing the drum from stores, clearly stating WARNING: Hazardous Waste., the contents of the drum, and the date on which accumulation of waste has started. Refer to Annexure B: Hazardous Waste Drum Labelling Sticker.
- The relevant department will be responsible for cleaning up of spillages that can be classified as hazardous substances.
- It is the responsibility of every person responsible for abnormal maintenance or projects that will result in the generation of hazardous waste to include the proper disposal at an approved hazardous waste disposal site into the project costs

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Environmental Manager

- To implement and maintain recycling.
- To report back on all waste related incidents to Head Office as well as the relevant authorities.
- Ensure that the Domestic Waste Disposal Site is managed in accordance with the permit issued by the Department of Water Affairs and Forestry
- Develops and implements all required procedures and contingency plans applicable to waste management.
- Will organise the disposal of hazardous waste (including medical waste) and ensure that he/she gets disposal certificates.
- Manages the disposal of domestic and garden refuse.
- Loading, transporting and dumping domestic refuse in accordance with the approved procedure.
- Ensures that all hazardous waste that has been disposed of on behalf of Hendrina Power Station has been done correctly. This is ensured by receiving a waste disposal manifest for every load of hazardous waste disposed off. And checking that the acceptance signatures at the hazardous waste disposal site on the manifest reflect the final signatures.
- Reports on the Waste Figures in the Bi-annual Report to Sustainability Department using Annexure K of the Eskom Waste Management Procedure, using the Hendrina SHE reporting verification procedure for the verifications of figures.

Horticulture

- Loading, transporting and dumping garden refuse in accordance with the approved procedures.
- Notifies the Environmental Manager if any incident should occur.
- Loading transporting and dumping domestic refuse in accordance with the approved procedure.

Auxiliary Plant

- Hand in reports with regards to all statistics and incidents at the Ash Dams.
- Develops and implements all required procedures and contingency plans applicable to the Ash Dams.
- Makes the Asbestos disposal site available on request of Outages/Safety Risk Management.

Domestic Waste Site Contractor

- Manages the Waste Disposal Site in accordance with the Eskom contract and in compliance with the regulations stipulated in the permit.
- Hands in monthly reports on amount and type of waste disposal on site.
- Comply with the environmental laws prescribed for the handling of waste and operation of the waste disposal sites.

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Safety Risk Management

- Manage the handling and disposal and asbestos and asbestos containing material.
- Ensure asbestos removal and safe disposal.
- Ensure the correct management of asbestos related emergencies.

Ensures that all medical waste that has been disposed off on behalf of Hendrina Power Station has been done correctly. This is ensured by receiving a waste disposal manifest for every load of medical waste disposed of And checking that the acceptance signatures at the hazardous waste disposal site on the manifest reflect the final signatures.

Environmental Management System Representative (SHE Rep)

To ensure that waste streams are separated at source, at least regarding general and hazardous waste. Monitoring of waste should address all aspects of waste management. Efficient collection and disposal to ensure legal compliance.

Monitoring of the various waste streams should be done to:

- Ensure that mixing of hazardous and general waste is prevented
- Ensure that mixing of different types of hazardous waste is also prevented. Waste containing the same hazardous material can be mixed e.g. paint, paint brushes, paint rags and paint tins, or oil rags, oil absorbent material, oil filters, oil cans etc.
- The MSDS's for all hazardous waste/substances need to be available at the point of use, as well as sent to the Environmental Department when requesting disposal.
- Recycling of waste is carried out when this is viable.
- Temporary storage facilities, (waste bins, skips), are used effectively.
- Collection of waste is done at the required intervals and that littering is not caused during collection
- Recycling activities should be monitored to ensure that they are handled effectively.
- Hazardous waste drums in individual departments need to be clearly marked and have an allocated area. Drums need to be correctly labelled by the person drawing the drum from stores, clearly stating WARNING: Hazardous Waste., the contents of the drum, and the date on which accumulation of waste has started.
- These bins are to be taken to the hazardous waste storage and holding site at the South end of the station by that department (access is controlled by the environmental department).
- Temporary Storage – Efficient use of waste bins by employees must be monitored. Littering in the vicinity of waste bins must be considered as serious as the non-usage of waste bins.
- Ensures that hazardous waste is not stored for more than 90 days from the date of accumulation to the date of disposal. This is a legislative requirement that states that waste stored for longer than 90 days needs to be registered as a hazardous waste disposal site.

1.6 PROCESS FOR MONITORING

- Inspections
- Audits

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1.7 RELATED/SUPPORTING DOCUMENTS

- Hendrina Power Station Waste Disposal Site Permit number: B33/2/210/141
- Temporary Hazardous Waste Storage Facility Licence number:12/9/11/L440/6
- Contract with Eskom Rotek Industry to manage waste and the disposal: 4600065513
- Handling, Storage, Collection and Disposal of Medical Waste Procedure – HSPHON001
- Safe Demolition, Storing, Transporting and Disposal of Asbestos and Asbestos containing Material
- Prevention And Clean –up of Chemical and Hydrocarbon Spill – HSPPON003
- Environmental Emergency Preparedness Procedure – HSPPIN032
- Management of Polychlorinated Biphenyls
- EMS Non-Conformance, Corrective and Preventative Actions Procedure – HSPPIN034
- Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste by the DWA&F
- Planning Procedure – HSPPIN042
- SANS 10228 – Eskom intranet, Documentation Centre
- Eskom Waste Management Procedure 32-245: Annexure K
- Reportable Safety, Health, Environmental indicators
- Environmental Incidents Management Procedure – 240-13308 7117

2. PROCEDURE

WASTE MANAGEMENT SYSTEM

Hendrina Power station where practically possible follows the Hierarchy of Waste Management which is stipulated in the below:

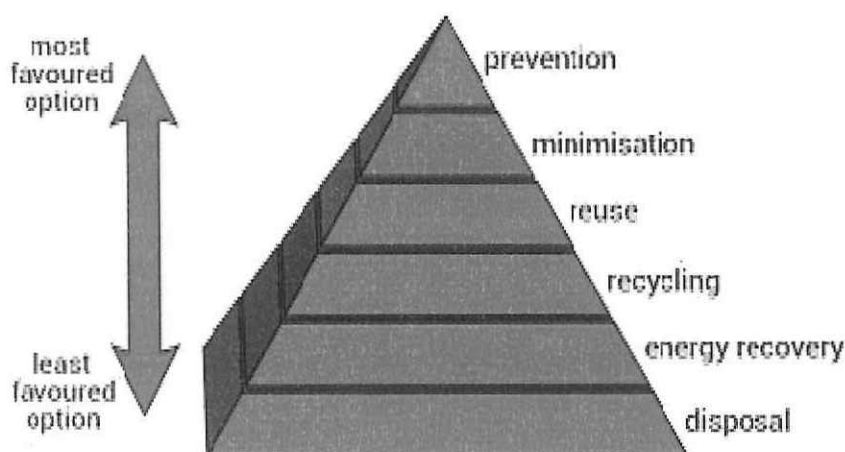


Figure1: Waste management hierarchy

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Minimisation”, when used in relation to waste, means the avoidance of the amount and toxicity of waste that is generated and, in the event where waste is generated, the reduction of the amount and toxicity of waste that is disposed of;

Re-use” means to utilise articles from the waste stream again for a similar or different purpose without changing the form or properties of the articles;

Recycle” 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;

Recovery” means the controlled extraction of a material or the retrieval of energy from waste to produce a product;

Disposal” means the burial, deposit, discharge, abandoning, dumping, placing or release of any waste into, or onto, any land;

Waste at Hendrina Power Station should be disposed off in the following categories:

General waste comprises of building rubble, garden, domestic, commercial and general dry industrial waste. This type of waste is disposed of in the general waste bins located throughout the station. The contract for the disposal of domestic waste is handled by the Environmental Department. It is ultimately disposed of in the domestic waste site that is managed by a waste company on behalf of Hendrina Power Station. Refer to Annexure A for the waste that falls within this category.

Hazardous waste is 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 the environment. Examples on site would be oil, oil rags, oil filters, chemical containers, fluorescent tubes etc.

All waste that falls under the hazardous category in the Annexure A needs to be disposed off in the correct hazardous waste drums that are at the hazardous waste site, at the south of the station. A key controls the access to this site, which is available at the Environmental Department. Different types of hazardous waste need to be put into the different bins i.e. oils should not be mixed with aerosol cans. Different types of substances that have been contaminated by the same hazardous substance may be put into the same waste drum i.e. thermometers, and keno meters both contain mercury so they can be placed in the same drum. This principle will also apply to things like safety solvents, rags with safety solvents, and safety solvent containers that can go into the same drum. Any waste that is sent to the hazardous waste site needs to be accompanied by the MSDS for that particular product. Every drum has to be labelled with the relevant information written onto stickers that are also available at the Environmental Department.

Departments that generate large amounts of a particular type of waste like oil rags and oil contaminated material may choose to have a separate drum at the point that the waste is generated due to the frequency or amount of waste. In these situations the department will be responsible for allocating and clearly marking the designated area as well as appropriate signage for the name, warnings and MSDS of that waste type. Stickers for the drums are available at the Environmental Department.

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Departments that choose to have satellite hazardous waste collection sites will be responsible for the movement and maintenance of the drum. These departments need to notify the Environmental Department of the fact that they do have these drums in their area of responsibility.

The waste drums that are stored at the satellite stores need to be removed to the Stations' Temporary area within 75 days from when the waste is first accumulated. The EMS Rep will need to include the inspection and monitoring of this drum in his/her regular inspections.

It should be noted that oil that contains PCB's (potentially in older transformers) are to be treated with extreme caution and should be dealt with according to the Eskom Standard "Management of Polychlorinated Biphenyls. There are special requirements for the handling and disposal of PCB's over and above the hazardous waste requirements.

Note 1: Any substance found in the hazardous category applies to other products that have been contaminated by substances in this list. If paraffin is on the list, the container that holds it is also considered hazardous waste.

Note 2: Any spillage or incorrect disposal of hazardous waste should be dealt with according to the Environmental Emergency Preparedness Procedure and EMS Non-Conformance, Corrective and Preventative Actions Procedure.

Permitted waste is waste that special permission has been given by the Department of Water Affairs and Forestry (DWA&F) to dispose of certain types of waste in a specific way. This waste disposal method and location needs to be acceptable and approved by the DWA&F. This comprises of waste such as ash, coal rejects, and asbestos that is disposed of on the ash dams. Asbestos and asbestos containing products need to be removed and disposed of according to the Asbestos procedure on site. This process is managed by the Safety Risk Department and they should be consulted prior to any removal or disposal of asbestos.

Recyclable waste is the waste that is generated in sufficient quantities to justify collection of these for re-use. Examples would be paper, oil, printer cartridges etc. We have recently initiated the recycling of glass and plastics, cold drink cans, and cardboard. There are recycle stations for these in the Power Station. No hazardous waste containers are to go into these bins. The bins are for individual waste types and plastics should not be mixed with glass etc.

Other office waste that is currently being recycled is the waste paper, and printer, copier, and fax cartridges. The collection points of these are at a central point in all buildings in the station.

Used oil is another type of waste that is recycled on site. The collection point is at the Scrap yard area. In case of an oil spillage, refer to the procedure on "Prevention and Cleaning of Oil Spills"

A contractor recycles scrap metal. The stores manage this contract. There are blue scrap metal skips in the station for collection of scrap metal.

Medical waste that is usually generated by the Medical Centre or Proto Teams should be dealt with as per procedure on Handling, Storage, Collection and Disposal of Medical Waste Procedure - HSPHON001. This type of waste would include used needles, bandages, medicine bottles etc.

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Annexure A is a table drawn up with the different waste disposal methods at Hendrina Power Station. It is based on the waste inventories from the different departments. This is not an exhaustive list, but merely waste types most commonly found in the power station. The Environmental Manager needs to be informed immediately of any substance that is not found on this list in order to determine the correct disposal method of the new waste type. This list will be updated regularly based on departmental feedback.

3. SHEQR REQUIREMENTS

Health and Safety requirements: The Health and Safety Requirements will be dealt with in accordance with the Safety and Health Management Systems

Environmental requirements: The Environmental Requirements will be dealt with in accordance with the Environmental Management System

Quality requirements: The Quality Requirements will be dealt with in accordance with the Quality Management System

In the event of an emergency associated with waste handling and disposal, the incident will be handled according to Environmental, Occupational Health and Safety Incident Management Procedure (Document Identifier: 32-95). All emergencies are to be reported to: Operating control: 013 296 3485 or 013 296 3555. The station has a Temporary hazardous waste storage facility licence (License No.: 12/9/11/L440/6), it is valid for 20 years (License date: 28 July 2011), hazardous waste emergency situation can be addressed by these storage areas. Hendrina power station also has a licenced landfill (License No.: B33/2/210/141/P9) that can alleviate general waste handling emergency situations.

4. RECORDS TO BE KEPT

- All records and copies of reports are kept at the Environmental Department.
- Maintain a record of all solid waste disposal and incident that occurred

5. NOTES / FORMS / APPENDICES / ANNEXURES

- Different waste stream generated at Hendrina Power station
- Classification of Hazardous and Medical Waste Generated at Hendrina Power Station
- Hazardous Waste Drum Labelling Sticker

ANNEXURE A: Different waste stream generated at Hendrina Power station

<u>Domestic</u>	<u>Recycle</u>	<u>Hazardous</u>	<u>Ash Dam</u>	<u>Medical</u>
Food Products Garden Waste Building Rubble Highlighter White board Marker Pritt Stick Glue Roller ball refills Tipex Sandwich plastic bags Tea bags Cigarette Ash & Butts	Fluorescent Tubes Batteries (all types) Oil (not containing PCB's) Cartridges(all types-printer, copier & fax) Paper Plastic Glass Scrap Metal Soft drink cans &	Silica Gel Oil Oil Rags Oil Filters Oil absorbent material Empty Chemical Containers Aerosol Cans Safety Solvents Paraffin Paint Broken thermometers	Coal Rejects Ash Sewerage Sludge (Any substance agreed upon in advance with the department of water affairs and Forestry – DWA&F)	Bandages Cotton Wool Needles and Sharps Empty Medicine Containers Blood from wounds Specimen bottles Gauze Expired Medical suppliers Contaminated Gloves

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Bones (food) Pap Staples Stiffy diskettes Serviettes Tea/Coffee Stirrer (wooden sticks) Message pads Paper clips Transparency Sheets Sunlight Dishwashing Liquid Rynol Hand Cleaning Artline permanent markers Toilet paper Sandwich remains Packing (off cuts) Polystyrene Empty Tins Cassettes Sawdust Rubber insertion Wooden Pieces Wrapping for parts Porcelain (electric insulators) Lagging (NON ASBESTOS) Polygrid screens (cooling towers)	Plastic bottles Scrap Paper Paper, Plastic bottles, cans, etc. Waste paper Xerox paper boxes Transparency Sheets Message pads Envelopes Broken Glass Copper Cable Stainless tubing Fax Cartridges Empty paper bags Air conditioners Valves Couplings Nuts and bolts Gaskets Fences and poles Rubber (conveyor belt)	(Mercury) Broken Keno meters (mercury) Herbicides Fabric Filter Bags Circumferential Seals Duracell Alkaline Batteries Silicone Tins of Spray Paint Endorsing Ink Acetone Cleaning Rags Electric cleaner drums Aerosols Grease Copier Ink Glues (all types) Silicone sealer Herbicide containers Manometer fluid spillage's Liquid crystal displays PPE (e.g. dust masks an gloves that have been contaminated by chemicals) Electronic Modules (all types) Video Display units Rags with safety solvents or other chemicals Refrigerant canisters (chlorodiflourom ethane) Resins Blower filters PCB containing oils SF6 Gas Chlorine gas cylinders Sludge (from any dam, station drain or plant process) Computer/electronic waste Blasting Grit used to remove heavy metals or chemicals Raw sewerage	Atonomic al waste
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Annexure B: Classification of Hazardous and Medical Waste Generated at Hendrina Power Station

Hazardous Waste Name	Class	Hazard Group	Origin of waste	Type of Landfill
Used oil	1	High Hazard	Workshops/ Plant	Class A Landfill
Used oil filters	1	High Hazard	Workshops/ Plant/Vehicle servicing garage	Class A Landfill
Oily rags	1	High Hazard	Workshops/ Plant/Vehicle servicing garage	Class A Landfill
Oil Absorbent Material	1	High Hazard	Workshops/ Plant/Vehicle servicing garage	Class A Landfill
Used Paraffin	1	High Hazard	Workshops	Class A Landfill
Fluorescent Tubes	1	High Hazard	Electrical Maintenance Department(EMD)	Class A Landfill
Silica Gel	1	High Hazard	Electrical Maintenance Department(EMD)	Class A Landfill


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Medical waste(Sharps & Swaps)	2	High Hazard	Medical centre	Class A Landfill
Printer Cartridges	3	High Hazard	Offices	Class A Landfill
Empty Paint Tins	3	High Hazard	Outside Auxiliary Plant/ Projects	Class A Landfill
Used Batteries	1	High Hazard	Plant	Class A Landfill
Used Grease	1	High Hazard	Workshops/ Plant/Vehicle servicing garage	Class A Landfill
Sand Blasting Grits	1	High Hazard	Workshops/ Projects	Class A Landfill
Used degreaser	1	High Hazard	Workshops/Plant	Class A Landfill
Used Fabric Filter Bags	1	High Hazard	Boiler Plant	Class A Landfill
Sludge from the Waste Water Recovery	1	High Hazard	Waste Water Recovery Dams	Class A Landfill
Sludge from 7yr dam	1	High Hazard	7 year dam	Class A Landfill
Sludge from Clarifiers	1	High Hazard	Clarifiers	Class A Landfill
Sewage digesters sludge-pre settlement sump	1	High Hazard	Sewage plant	Class A Landfill
Sewage dry bed sludge	1	High Hazard	Sewage Plant	Class A Landfill
Cooking Oil	1	High Hazard	Canteen	Class A Landfill
Waste of electrical and electronic equipment,	1	High Hazard	Buildings and the Plant	Class A Landfill

ANNEXURE C: Hazardous Waste Drum Labelling Information and the Sticker

The Drums that will store Hazardous waste will reflect the following information written on the drum containing waste and in the sticker that will be attached on the drum for additional information: The date on which the 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 and sealed or covered; the dates when, and quantities of, waste added and waste removed from containers or storage impoundments, if relevant; the specific categories of waste in the container or storage impoundments as identified in terms of the National Waste Information Regulations, 2012 and the classification of the waste in terms of Regulation 4 once it has been completed. An example of a sticker that will have additional information is shown below.

CLASS:		WARNING HAZARDOUS WASTE		SAWIC D01310 - 01	
	WASTE TYPE				DEPARTMENT
	DANGERS		ABSORPTION ROUTE		
	Brain Damage	EYES	LUNGS	SKIN	MOUTH
	Liver Damage	Safety Goggles	Respiratory Protection	Gloves	Face Shield
	Others	Ventilation	Safety Shower		
Harmful / Irritant		Intervention and other protection			
Is MSDS - Available		Biological Monitoring			
YES <input type="checkbox"/> NO <input type="checkbox"/>		End of Shift <input type="checkbox"/> Annually <input type="checkbox"/>			
24 HOURS EMERGENCY No. 5485		HANDLING AND STORAGE: _____			
		ENVIRONMENTAL EFFECTS: _____			
N.B. Minimum requirements for the storage of Hazardous Waste on site should not exceed 90 days Hazardous Waste Drums are to be removed within 75 days from the plant to allow arrangement for final disposal Accumulation Start Date _____					

ANNEXURE D: Hendrina Power Station Waste Recycling Plan (to implement the Programme that is managed at Head Office: Waste Centre of Excellence).

Type of waste	Current Disposal method	Quantities disposed	Recycled Quantities in 2016/ 2017 FY	Recycling Target 2017/ 2018 FY	Future Reduction method
Construction (rubble)	Landfill site	1731.15 Tons	1731.15 Tons	100%	N/A
Municipal (Domestic)	Landfill site	15908.50 (m3)	0	Recycle 20%	Composting at the landfill
E-waste (CATREDGIS)	DESCO	255Kg	255Kg	100%	N/A
Metals	Recycled/ Columbus	1718.30(Tons)	1718.30(tons)	100%	N/A
Paper	Recycled	1470.20(KG)	170.20(KG)	Recycle 50%	Improve waste separation on site
Plastic	Recycled	791.74 (KG)	791.74KG	100%	N/A
Glass	Recycled	0KG	0KG	100%	Recycling by supplier
Other wastes (empty drinking cans)	Recycled	784.89KG	784.89KG	100%	N/A
Cooking oil	Recycled	920L	920L	100%	N/A
Waste oil	Mpumalanga Oil	132 L	132 L	100%	N/A

6. ACCEPTANCE

This document has been seen and accepted by:

Name	Designation
M Raphasha	Engineering Manager
P Ndwandwe	Maintenance Manager
M Sindane	Operating Manager (Acting)
L Masango	Environmental Officer
J Phaleng	Senior Advisor – Quality Assurance
L Malaza	A&IRM Manager
S Hlophe	Senior Advisor – Configuration Management
H De Wet	Safety Risk Manager (Acting)
A Nel	Senior Advisor – Integrated Business Improvement

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7. REVISIONS

Date	Rev.	Compiler	Remarks
August 1995	1	Manager	New revision
April 2003	2	Y Singh	Second revision
December 2005	3	Y Singh	Minor revision
November 2006	4	Y Singh	Revision Pt 5: New responsibility added for the Environmental Co-coordinator & Safety Risk Manager Pt 7: Reference is made to the Asbestos Emergency Procedure Pt 9: Distribution list has been updated.
February 2008	5	Y Singh	Revision Pt 5: 90 day rule for the storage of hazardous waste has been included. Pt 5: General & EMS Rep responsibilities include additional requirements for hazardous waste management. Projects are also to cater for costs of proper hazardous waste disposal. Pt 6: Requirements for the requirements on hazardous waste have been expanded Pt 7: Medical waste procedure number was incorrectly referenced - this is now correct. Annexure A: Updated with new waste types identified in the last year. Annexure B: New addition to procedure detailing the Minimum Requirements by DWA&F
August 2010	6	Nuku Manenye	Minor changes
August 2013	7	Ben Madiope	Procedure due for review
December 2015	8	Ben Madiope	Procedure review Minor changes
April 2017	9	Ben Madiope	Removal of Power Station's Ash dams as the dumping site for asbestos
October 2019	10	Justice Ramagoma	Changes based on SABS audit (February 2018)

8. DEVELOPMENT TEAM

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

9. ACKNOWLEDGEMENTS

All inputs to the procedure are acknowledged

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