

WASTE MANAGEMENT

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Compiled By	OBS
Approved By	Abdul Kamdar
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1.0 Purpose

The purpose of this procedure is to define how waste is classified, segregated, recycled and disposed, so as to minimise/ eliminate negative environmental impacts.

2.0 Scope

The scope of this procedure covers all areas where waste is generated.

3.0 References:

According to environmental protection legislation and regulations, waste is classified as hazardous if it poses a health hazard or exhibits one or more of the following, characteristics:

- ~ignitability;
- ~corrosivity;
- ~reactivity, or;
- ~toxicity.

A waste is also classified as hazardous if it is included in one of the Department of Environment and Tourism lists of hazardous wastes. Always treat unwanted chemicals as potentially hazardous waste and take precautions to contain them in a manner to prevent unauthorized release to the environment or exposure to people. Pollution prevention is the use of materials, processes or practices that reduce or eliminate the creation of pollutants or wastes at the source. It includes practices that reduce the use of hazardous and non-hazardous materials, energy, water, or other resources as well as those that protect natural resources through conservation or more efficient use. There must be an on-going and comprehensive examination of the operations with the goal of minimizing all types of waste products.

An effective program will:

- _ reduce the risks of criminal and civil liability;
- _ reduce operation costs;
- _ reduce need for transport and disposal;
- _ improve participation by employees, and contractors to Company;
- _ protect the public's health and the environment.

The highest priority for pollution prevention is source reduction, followed by recycling, treatment and disposal. Source reduction includes the use of environmentally friendly products and purchasing only the amounts needed. Recycle whenever possible for paper, oil and other products as markets become available. Treatment includes, but is not limited to, stabilization, neutralization and evaporation. Disposal must be accomplished through the established hazardous waste program at the respective Department that must ensure the wastes are properly handled and taken to a permitted facility.

Management have indicated several goals that should be accomplished by departments through the implementation of Pollution Prevention Plans. The respective departments are responsible for determining the minimum requirements for such plans and determining the criteria for what constitutes as minimal release or generation of hazardous or toxic waste.

The following goals have been established:

- ~ Review the programs, processes, and activities of the department and ascertain how reduction in the amounts of toxic or hazardous substances generated as wastes or released into the environment as pollutants can be achieved.
- ~ Amend those programs, processes, and activities, except those relating to the procurement and use of fuels by stationary sources, so as to reduce the amounts of toxic or hazardous substances generated as wastes or eliminating the release of toxic or hazardous substances into the environment as pollutants.

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4.0 Responsibilities

3.1 Hazardous Waste

3.1.1 Liquids

a) Used Oil and Grease (SANS 0228: (9)

This includes engine oil, transmission oil, hydraulic oil and transformer oil and greases.

- All used oil /grease generated at service areas will be decanted into clearly identified storage drums, sealed & placed outside next to the Hazardous Waste Skip.
- All oil generated from the equipment will be decanted into clearly identified storage drums, sealed & placed outside next to the Hazardous Waste Skip. Under no circumstances may any oil be released directly onto the ground, storm water or effluent system.
- When transporting containers of used oil / grease to place next to the Hazardous Waste Skip, extra care must be exercised at all times to prevent pollution or contamination of the environment.
- A responsible contractor will collect the used oil / grease as and when required and disposes of at a registered recycling site.
- The design, construction and operation of all equipment and facilities, required for the effective collection, containment, control and disposal of used oils will at all times comply to the current legislation to prevent the pollution and/or contamination of the Environment.
- All health, safety and risk requirements must be considered and adhered to by all Employees and Contractors, at all times

Attention must be given to:

- The risk of fire.
- Contamination.
- Use of correct Personal Protective Equipment (PPE).
- Use of correct control measures e.g. bunding, drip trays, oil traps.
- In the event of a spillage or contamination the incident must be reported immediately to ensure prompt action as laid out in the:
- Emergency Preparedness and Response Procedure.
- Spills Procedure.
- Accident / incident Investigation and Reporting Procedure.

An effective monitoring system will be implemented and kept in place to:

- Measure quantities generated, disposed of and recycled.
- Record all revenue received from the disposal of used oil.
- The system will be reviewed for efficiency and compliance annually and updated if required.
- All on site contractors will adhere to the above and in addition remove any oil generated by them as well as any containers used to transport new/used oil. The oil containers should be disposed at a registered recycling site/ landfill.

b) Degreasers/Solvents/Paints (SANS 0228: (3)

- All redundant/old degreasers, solvents & sludge must be stored in separate labelled containers and thereafter decanted into the sump pit outside the Maintenance Area.
- When transporting containers to the sump pit, extra care must be exercised all times to prevent pollution or contamination to the environment.
- No redundant/old degreasers/solvents/paints may be poured into drains or sewerage systems.
- An Approved Waste Contractor will be used to drain out the redundant / old degreasers, solvents , sludge from the Sump Pit using the necessary equipment ie Honey Sucker etc & dispose in a registered oil / solvent recycling installation or landfill.
- All redundant/old paints must be kept stored in separate, labelled containers and thereafter placed outside next to the Hazardous Waste Skip.
- When transporting containers of paint to place next to the Hazardous Waste Skip, extra care must be exercised all times to prevent pollution or contamination to the environment.
- All used degreaser; solvent and paint containers must be placed in the Hazardous Waste Skip.
- The system will be reviewed annually for efficiency and compliance and updated if required.
- An Approved Waste Contractor will must remove all redundant/old paint containers from the company site to a registered oil / solvent recycling installation or landfill.

3.1.2 Solids

a) Asbestos – (SANS 0228: (9)

- An up to date register of all asbestos contained on site will be kept for inspection.

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- No asbestos material will be disposed of into scrap metal or domestic waste containers.
- No asbestos materials will be dumped into skips, open environment or any such area that can be contaminated.
- All asbestos waste will be collected and contained in such a manner that it will not pose a health hazard.
- All asbestos waste will be disposed of by a registered waste disposal contractor to a registered disposal site.
- No asbestos will be resold or recycled.
- The design, construction and operation of all equipment and facilities, required for the effective collection, containment, control and disposal of waste asbestos products, will at all times comply to current legislation to prevent the pollution and or contamination of the environment.

b) Batteries (SANS 0228: (8))

This includes scrap automotive batteries, NiCad batteries and torch batteries, UPS and PABX batteries.

- All scrap automotive UPS and PABX batteries are replaced by the Vehicle maintenance contractor.
- Batteries are removed and disposed of by the relevant contractor.
- All on site contractors must conform to prevent pollution/contamination of the environment. Contractors will remove and dispose of their own batteries.

c) Medical Waste/Expired Medicine (SANS 0228: (9)) from first aid boxes This includes: All sharps, contaminated bandages, cotton wool, expired pills, capsules, liquids, powders and other items used that could be a health hazard.

- All medical waste will be kept separate from any other waste
- All medical waste will be contained in separate clearly marked containers
- Expired medicines will be kept and contained separately from any other medical or general waste.
- The design, construction and operation of all waste containers required for the effective collection, containment, control and disposal thereof must comply with all relevant legislation to prevent the pollution and/or contamination of the environment.
- All health, safety and risk requirements must be considered and adhered to by all employees and contractors at all times.
- All medical waste may only be disposed of by incineration, at a registered facility.
- Quantities of disposal / expired medication will be kept in terms of the Medicine Control Act.
- The system will be reviewed for efficiency and compliance annually and updated if required.
- Disposal certificate to be obtained and kept on record

d) Fluorescent tubes/ lamps (SANS 0228: (6.1))

This includes fluorescent tubes, sodium vapour lamps and mercury vapour lamps

- All tubes/lamps to be taken to applicable disposal container for crushing purposes.
- All fluorescent tubes/ lamps must be crushed/ ground finely and place in sealed drums, and treated with correct neutralizing chemicals before disposal.
- Only a registered waste removal contractor will be permitted to remove the drums to a registered waste disposal site.
- All health and safety aspects to be taken into consideration such as the wearing of correct PPE during the handling of such containers.
- Emergency treatment must be given in the case of cuts etc.
- All on site contractors to conform to the above.

The system will be reviewed for efficiency and compliance annually and updated if required.

e) Hazardous Chemical Substances (SANS 0228: (6))

- Be kept / stored in separate designated areas on site.
- Be kept / stored in a sealed container
- Be kept / stored in clearly marked containers
- Be prevented from contaminating clean/raw/effluent water systems
- Not be poured down any drain
- Not be left lying around anywhere on site
- The design, construction and operation of all equipment and facilities required for the effective collection, containment, control and disposal of any chemicals must comply with current legislation to prevent any pollution or contamination of the environment
- All health, safety and risk aspects such as the possibility of chemical reactions, emergency clean-up of spills must be taken into consideration to prevent possible:
 - Chemical poisoning.
 - Fires.
 - Burns/injuries.

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- Pollution of the environment (including eco toxicity).
- An effective monitoring system will be implemented and kept in place to with the aid of comprehensive MSDS's which will be available in all chemical storage areas and where chemicals are in use.
- The supplier must collect all redundant/old chemicals as mentioned above.
- The system will be reviewed for efficiency and compliance annually and updated if required

f) Oily/Greasy rags and cotton gloves (SANS 0228: (9)

This includes all used rags containing grease and oil, or any other substance.

- All discarded used rags and oil absorbent materials in the factory ,maintenance & relevant departments must be placed in clearly demarcated wheely bins and decanted into the Hazardous Waste Skip outside the factory.
- An Approved Waste Contractor will collect the Hazardous Waste Skip when the used rags are ready for disposal as & when required.
- No used rags may be washed, buried or burned.
- No used rags may be disposed of into scrap metal or domestic waste containers.
- All health and safety aspects are to be taken into consideration during the handling and storage of used rags e.g., PPE and fire hazards.
- All on site contractors must conform to the above.
- The system will be reviewed for efficiency and compliance annually and updated if required.

g) All used aerosol cans (SANS 0228: (2)

- This includes spray paint cans, furniture polish, and solvents, quick start and other products contained in an aerosol container.
- No aerosol cans will be disposed of with general waste.
- No aerosol cans will be dumped in scrap metal containers.
- No aerosol cans will be incinerated or punctured.
- No aerosol cans are to be left lying around on site or workshops.
- Clearly marked Hazardous waste containers will be used for the collection of empty aerosol containers.
- All health, safety and risk requirements must be considered and adhered to by all employees and contractors at all times.
- Attention must be given to the risk of explosion.
- The system will be reviewed for efficiency and compliance annually and updated if required.

h) Empty drums (SANS 0228: (9)

This includes empty oil drums, solvent drums and other drums, which contained hazardous substances.

No empty drums having contained hazardous substances may:

- Be washed out in the working place where they were used.
- Be buried or disposed of in any other place.
- Be discarded on to any dump or given to staff for their private use.
- Be kept stored in any manner that can cause pollution to the environment.
- Be used to contain water.
- Be left in the works area.
- An Approved Waste Contractor, upon request, will remove empty drums and a manifest will be issued or recycle the drums if possible.
- Payment, if applicable, for the recycled drums is made directly to the Company.
- An effective monitoring system will be implemented and kept in place.
- The system will be reviewed for efficiency and compliance annually and updated if required

i) Used Machine/Vehicle filters (SANS 0228: (9)

This includes oil, air and fuel filters.

- No filters of any description are to be disposed:
- Into any refuse bins.
- Into scrap metal containers.
- Into general and domestic waste bins.
- Contractors will dispose of machine filters during servicing.
- At all times care will be taken to eliminate any spills of oils still present in the filters, to prevent any pollution to the environment or contamination of the ground.

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j) Printer& Toner Cartridges (SANS 0228: (6)

- Printer cartridges will be collected by ????? for disposal by them, who will collect cartridges for recycling. No new printer/toner cartridge will be issued before the old cartridge has been handed in.

3.2 Non-Hazardous waste

3.2.1 Liquids

a) Detergents (SANS 0228: (6)

This includes: Washing up liquid, water soluble, degreasers and solvents

- All detergents must be used up before a new container is opened.
- These liquids may only be disposed of into the effluent system when washing/cleaning.

3.2.2 Solids

a) Scrap Metal (SANS 0228: (N/A)

This includes: Ferrous Metals, Non Ferrous Metals.

- Only the designated Waste Skips will be used for the disposal of scrap metals ie Aluminium / Stainless Steel / Mild Steel.
- No domestic waste, tins such as oil, grease, paint, solvent, descaler tin, bottles, plastic containers, filters, wood or rags are to be placed in the scrap metal container.
- The design, construction and operation of all waste bins, containers and facilities, required for the effective containment, containment control and disposal of scrap metal will at all times comply to current legislation to prevent pollution and or contamination of the environment.
- All health, safety and risk aspects must be considered.

An effective monitoring system be implemented and kept in place to:

- Measure quantities disposed of.
- Record any revenue received from the disposal of scrap metal
- The system will be reviewed for efficiency and compliance annually and updated if required.

b) Plastic containers (SANS 0228: (9))

This includes all plastic containers, which did not contain any hazardous substances.

- All empty plastic containers must be collected at the workplace. Where possible suppliers must remove supplied containers.
- Contractors must remove their empty containers from the site and dispose of them in a registered landfill site.
- Empty plastic containers are disposed of with general waste, unless it contained a hazardous substance.
- In the case of a container used for hazardous substances, the container must be disposed of with the hazardous waste.
- The plastic containers / drums can also be cut open and the oily rags & used cotton gloves are placed inside the drums and thereafter stored properly in the Hazardous Waste Skip.
- The oily rags / used gloves can be sold to an approved recycling company.
- All health and safety aspects to be considered.

c) Domestic Waste (SANS 0228: (N/A)

This includes labels; cool drinks cans, plastic, bottles and general waste placed into dustbins.

The above will be dealt with as follows:

- Disposal into the Department domestic waste pits, (where applicable), which in accordance with DWAF policy, (Department of Water Affairs and Forestry), should be clearly demarcated, signposted and controlled.
- Disposal to a registered landfill site where above disposal method have proven to be problematic due to operational constraints.
- No wastes, which have specific disposal requirements discussed in this Procedure, may be disposed of in the general skip.
- At a registered landfill site will dispose of the above.
- The design construction and operation of all equipment and facilities, required for the effective collection, containment, control and disposal of domestic waste will at all times comply to the current legislation to prevent pollution and/or contamination of the environment
- All health, safety and risk requirements must be considered and adhered to by all employees and contractors at all times
- The system will be reviewed for the efficiency and compliance annually and updated if required.

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On site Contractors

- No on site Contractor will be permitted to establish a waste disposal/landfill site. Only a registered waste disposal Contractor will be authorized to remove domestic waste from any Contractors' sites.

d) Waste Paper and cardboard (SANS 0228: (N/A)

- Waste paper will be collected from offices by cleaning staff on an ad hoc basis and placed into bins.
- When full bins of paper / cardboard are ready for disposal, contact contractor to arrange collection or deliver to an Approved Waste Contractor for recycling.
- The full bags are weighed by the supplier and manifest issued.
- Payment, if applicable, for the paper is made directly to the Company.

e) Plastic Packaging / Packets (SANS 0228: (N/A)

- Plastic Paper / Packaging will be collected & placed into bins
- When full bin of plastic packets are ready for disposal, contact contractor to arrange collection or deliver to an Approved Waste Contractor for recycling.
- The full bins are weighed by the supplier and manifest issued
- Payment, if applicable, for the recycled plastic is made directly to the Company.

3.3 Waste Disposal Sites (Landfill Sites)

All waste material or substances; hazardous or non-hazardous will be removed by registered Waste Disposal Contractors to registered disposal sites as detailed in this Procedure.

3.4 General

It is the responsibility of Management, Employees, and Contractors of the Company, to ensure that waste generation and disposal is controlled and the environment is not polluted or contaminated. It is the duty of each Department Manager to incorporate the requirements of this Procedure directly into their Department Operations.