

1.0 PURPOSE

To provide guidance to Gledhow Sugar Company's employees on the management of hazardous and non-hazardous wastes to ensure wastes are responsibly handled contained, controlled, recycled and/or disposed of.

2.0 **RESPONSIBILITY**

3.0 SAFETY, HEALTH AND ENVIRONMENTAL (SHE) ASSESSMENT

4.0 APPLICABILE LEGISLATION AND REGULATION

National Environmental Management Act (Act No. 107 of 1998) National Environmental Management Act: Waste Act (Act No. 59 of 2008)

5.0 PROCEDURE

5.1 Waste Management Hierarchy

- 5.1.1 The waste management hierarchy is a conceptual framework designed to guide and rank waste management decisions at both the individual and organisational level.
- 5.1.2 The hierarchy helps us to rethink our relationship with waste based on five priorities and ranked in terms of what is best for the environment. This is often illustrated as a five-tier inverted pyramid, starting with prevention, re-use, recycling, recovery and disposal.
- 5.1.3 The basic concept of the hierarchy will be to prevent / reduce the generation of waste materials as far as possible. Where waste generation cannot be prevented but can be minimised, wastes will be reduced, recovered and reused.
- 5.1.4 Where this is not possible, the wastes should be treated, destroyed or disposed in an environmentally sound manner.

5.2 Waste Inventory and Classification

- 5.2.1 In order to effectively manage waste streams according to best practice guidelines and legal requirements, it is necessary to identify the waste types generated and to classify them according to their nature (hazardous or non-hazardous) and the type of treatment or disposal required.
- 5.2.2 A waste inventory shall be developed, reviewed and updated on an annual basis. The inventory should provide a description of the waste, specify whether the waste is hazardous or non-hazardous, should identify sources and in which bin / container it should be disposed of.
- 5.2.3 In addition, the waste inventory shall be used to determine the position that each waste holds on the hierarchy of control. The waste treatment / disposal method shall be noted on the waste inventory. Each waste shall be individually assessed to ascertain whether its position on the hierarchy can be improved e.g. instead of disposing a waste, rather finding an option for recycling.
- 5.2.4 Where new operations or activities are planned or changes to existing operations or activities occur, a review of new waste sources must take place during the planning, siting and design activities, including during equipment and process alterations. This review must identify expected waste generation, pollution prevention opportunities and necessary treatment, storage and disposal infrastructure and follow the same waste planning process as outlined above.

5.3 On-site waste management.

- 5.3.1 Labelled bins shall be provided at suitable locations across the operation, including in the plant, workshops & offices. The labels should clearly identify the type of waste to be disposed of into the bin (e.g. Refuse, oily rags, glass etc.).
- 5.3.2 The bins must be covered or have tightly closing lids to prevent wind scatter and overflow of waste.
- 5.3.3 Waste must be properly segregated and the mixing of bio-degradable, nonhazardous and hazardous wastes must be prevented. This must be continually inspected and reinforced with employees through regular awareness training.
- 5.3.4 Waste should not accumulate in large quantities before it is transported to the temporary waste storage area / incinerator / landfill site (as may be applicable).

5.4 On site waste storage

- 5.4.1 Temporary waste storage areas will be demarcated by the applicable signage.
- 5.4.2 Site should be located on an impermeable surface and have adequate bunding in place to minimize environmental and health impacts associated with leachate and spills;
- 5.4.3 The facility will be access controlled and locked at all times when designated and competent waste handlers are not present;
- 5.4.4 Adequate containers must be available (skips, bins, drums, etc.), must be appropriately labelled to show what type of waste can be disposed of in them;
- 5.4.5 The storage area must be inspected on a regular basis for leaks or defective containers
- 5.4.6 Hazardous waste storage should only be conducted / undertaken by employees who have been suitably trained to handle and store hazardous waste

5.5 Separation of Waste

- **5.5.1** Waste bins are evenly distributed in the factory to accommodate different waste sources in the factory.
- 5.5.2 The sorting of waste shall be done from the point of source, according to the type of waste the bin is allocated for.

- 5.5.3 Hazardous waste shall not be co-disposed with general waste.
- 5.5.4 Hazardous wastes shall be placed and stored in containers suitable for wastes with specific chemical and physical characteristics.
- 5.5.5 Suitable safety equipment shall be used when handling the waste e.g. full length overalls, eye protection, chemically resistant gumboots, gloves and apron, as well as individually assigned chemical respirators when handling hazardous waste;
- 5.5.6 Ensure that no incompatible wastes are co-disposed to prevent chemical reactions.
- 5.5.7 Hazardous wastes will be disposed of in specially designed containment, specially designed containers resistant to chemicals being stored in them, with leachate management measures in place.
- 5.5.8 Different containers for storing different hazardous wastes will be located within the factory. These containers will be labelled for the appropriate waste.

5.6 Transportation

- 5.6.1 Waste shall be moved daily from the sectional positioned waste bins, by the contracted non recyclable waste contractor for removal to the landfill site.
- 5.6.2 All Hazardous waste bins will be removed by an appointed Certified Hazardous Waste Removal Contractor.
- 5.6.3 Transport vehicles will cater for the type, class and quantity of waste being transported in terms of its composition, load capacity, covering etc.
- 5.6.4 Hazardous waste being transported must be accompanies by a manifest that describes the load and its associated hazards, including Name and identification number of material(s); physical state (i.e., solid, liquid, gas or a combination of one or more of these); quantity (e.g. kilograms or litres, number of containers); date dispatched; date transported; date received.
- 5.6.5 Waste transportation records must be kept by the waste contractor and copies provided to the SHERQ officer

5.7 Site specific waste management plans.

- 5.7.1 Site-specific waste management plan(s) must be developed for respective operational sites, which generates waste. The management plan shall be developed and/or approved by the SHERQ officer, should be aligned with this procedure and must cover / address, as a minimum, the following:
 - 5.7.1.1 Site-specific waste inventory.
 - 5.7.1.2 Waste storage and separation.
 - 5.7.1.3 Checklists for waste management.
 - 5.7.1.4 Additional / specific standard operating procedures with instructions for special waste treatment / handling if required, and
 - 5.7.1.5 Health and safety requirements.

5.8 Health and safety, and emergency response.

- 5.8.1 The handling of hazardous substances poses potential risks to the health and safety of employees, operators, waste contracting staff and employees in general. It is vital that the correct personal protective equipment (PPE) is provided and used when handling hazardous and general waste. PPE commonly used include:
- 5.8.2 protective jackets, safety boots, dust masks, respirators, protective aprons, goggles and/or eye shields and gloves.
- 5.8.3 Medical records for all staff involved in all aspects of waste management must be maintained.
- 5.8.4 Employees shall be made aware of emergency telephone numbers, locations of spill kits, emergency exits and evacuation routes.
- 5.8.5 Medical emergency response shall be undertaken when necessary.

5.9 Training and Awareness

- 5.9.1 Training and awareness must be provided regarding spillages and emergency response procedures.
- 5.9.2 Training and awareness about all the aspects of waste management and the contents and implementation of this procedure must be provided to all employees and contractors, and
- 5.9.3 Records must be maintained of all training and awareness programmes undertaken.
- 5.9.4 All employees and contractors are subjected to the induction which covers the waste management on site.

5.10 Monitoring and Documentation

- 5.10.1 Conduct daily inspection around the factory, and admin area and to monitor littering and whether adequate waste disposal is undertaken and that the appropriate equipment and facilities are available / in good condition. Daily checklist shall be used to monitor general waste on site.
- 5.10.2 Regular inspections of the waste transportation systems shall be undertaken. This will include the inspection of waste collection vehicles in order to ensure they are adequate and suitable for their purpose and that they are kept in good condition.
- **5.10.3** Periodic auditing of third-party treatment and disposal services shall be undertaken. Audits must include site visits to the treatment, storage and disposal facilities.
- 5.10.4 Any non-conformances in regard with the handling, storage, transportation, treatment and disposal must be recorded in terms of the incident reporting procedures and investigated accordingly. Preventative and/or corrective actions must be identified, implemented and monitored, during and after closing out the incident.



6.0 Records

7.0 DISTRIBUTION

8.0 APPENDICES

None 9.0 REFERENCE