



**environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

# **Implementation Guideline of Waste Classification and Management Regulations**

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## 1. INTRODUCTION

The Waste Classification and Management Regulation were developed to replace the Minimum Requirements for the Handling and Disposal of Waste. Shortcomings in the Minimum Requirements saw the disposal of waste to landfill being the major waste management option used by waste generators in South Africa.

The regulations on Waste Classification and Management aims to provide mechanisms which could implement the waste hierarchy to move away from landfill to treatment, reuse and recovery, and to put measures in place to monitor this progress.

The Waste Classification and Management Regulations were meant to:

- Enable the improved and more efficient classification and management of hazardous waste.
- Provide for safe and appropriate handling, storage, reuse, recycling, recovery, treatment and disposal of waste.
- Enable accurate and relevant reporting on waste generation and management.
- Apply common principles applied in the classification of waste as appropriate, including
  - (i) pre-identification of waste,
  - (ii) testing and analyses to determine the characteristics of the waste,
  - (iii) classification of waste based on pre-defined physical, health and environmental hazard criteria, and
  - (iv) further analyses as required to inform waste management options.
- Direct the consideration of higher order management options for waste, in line with the Waste Management Hierarchy.
- Support the beneficial recovery of resources from waste that does not harm the environment or health.
- Promote the diversion of waste from landfill by implementing mechanisms for facilitating waste re-use, recycling and recovery.
- Encourage separation of waste at source.

## **2. BACKGROUND**

The Department of Environmental Affairs (DEA) in its efforts to enhance consultation and stakeholder engagement established the Industry Waste Management Forum which is coordinated by the Sub-directorate Industry Support. In the first meeting held on 2 May 2014 two Task Teams were established to deal with urgent concerns regarding the Amendment to the Waste Act and the Waste Classification and Management Regulations (WCMR).

During the meeting of the Task Team on the Waste Classification and Management Regulations held on 19 June 2014, it was agreed that Business Unity South Africa (BUSA) would prepare a list of concerns and recommendations on how to address the concerns. A document was received from BUSA and DEA prepared responses which were discussed in the meeting held on 21 August 2014.

BUSA requested that on those issues that could not be resolved the Department should consider preparing an Implementation Guideline.

This Guideline includes information gathered through engagements with provincial officials and waste managers as well as BUSA.

### 3. TESTING FOR GHS CLASSIFICATION

The Globally Harmonised System of Classification of Chemicals and Labelling (GHS) does not require testing where testing has been done previously unless the process has been modified. Any data you have gathered from previous testing campaigns can be used to do the GHS classification as required in the law. Information or data that has been published in journals or any credible source can be used to classify the waste.

If mixing of waste is complicating the classification process then the generator must cease to mix waste streams as recommended in the Regulation.

The GHS classification is used to determine the hazards and risks associated with handling of the waste. It does not inform whether the waste can be recycled, re-used or recovered.

### 4. PRE CLASSIFICATION

Classification of waste is an important part of waste management. Pre-classification of waste and the expansion of wastes listed in Annexure 1 is an important aspect of implementing classification and reducing the cost of waste management. Industries, industry sectors and associations are invited to approach the DEA to discuss pre-classification of wastes produced by the sector/industries.

### 5. CLASSIFICATION OF E-WASTE

It is internationally accepted that E-waste is hazardous because of the potential of the hazardous metals found in e-waste to contaminate ground water especially when it comes in contact with water.

It is also accepted that once dismantled certain components of E-waste are not hazardous and can be classified accordingly.

### 6. ASSESSMENT OF WASTE FOR DISPOSAL

The disposal standards are aligned to a landfill containment barrier and therefore the assessment of waste for disposal cannot be used to argue that the waste is general or inert. General Waste is listed in Annexure 1, 2(a) of the WCMR.

The Australian Standard Leaching Procedure is adopted method for the assessment of waste for disposal. It has come to the Department's attention that there are aspects of the method that are not clear especially the inclusion of the liquid portion of the wet wastes. Refer to the ASLP Assessment Report compiled by the Department.

### 7. DISPOSAL OF ANIMAL CARCASSES

Infectious animal carcasses cannot be disposed to landfill because of the potential to spread the infection. The State Veterinary determines the appropriate disposal method of this waste as provided for in the Animal Health Act of 2002.

Condemned meat however does not fall into this category and can be disposed to landfill based on the determination of the official condemning the meat.

## 8. DISPOSAL OF TREATED HCRW

HCRW that has been treated to the approved standard for microbial inactivation can be disposed at a Class B landfill site. The owners of the Class B landfill site, for operational reasons, also have the right to not accept such waste.

## 9. TIME FRAMES FOR STORAGE AND MANAGEMENT OF WASTE

- Temporary storage is 90 days
- Storage of waste is 18 months
- Indefinite storage is disposal to landfill

Any waste storage facility that is registered with the Department can store waste for 18 months. If the facility is found to have stored the waste for longer than 18 month then the facility can be charged with illegal storage or disposal.

## 10. WASTE TREATMENT

As requested in the correspondence, definitions for mixing, blending and pre-treatment are proposed, and treatment is defined in the Waste Act of 2008.

**Mixing:** means combining one or more waste streams where the constituents are still distinguishable

**Blending:** means combining (merging) one or more waste streams to form a homogenous mixer

**Pre-treatment:** preparation of waste for treatment

**Treatment:** means any method, technique or process that is designed to —

- a) change the physical, biological or chemical character or composition of a waste; or
- b) remove, separate, concentrate or recover a hazardous or toxic component of a waste; or
- c) destroy or reduce the toxicity of a waste, in order to minimise the impact of the waste on the environment prior to further use or disposal (Waste Act)

Section 7 of the WCMR states:

- (1) Waste must not be mixed or treated where this would –*
- (a) reduce the potential for re-use, recycling or recovery; or*
  - (b) result in treatment that is not controlled and not permanent*
- (2) Notwithstanding Regulations 6(2) and 7(1), waste may be blended or pre-treated to –*
- (a) enable potential for re-use, recycling, recovery or treatment; or*
  - (b) (reduce the risk associated with the management of the waste*

Section 7 seeks to ensure that waste must not be changed or altered to the extent it renders it unsuitable for re-use, recycling or recovery. **Section 7 has no bearing in as far as treatment of waste for the purposes of disposal.**

The treatment or blending of waste for disposal can take place for the following purposes:

- It is a Type 0 waste and there are no options for reuse, recycle or recovery then treatment to Type 1 or higher is allowed.
- For the disposal of liquid wastes?
- **To prevent odours.**

The Department understands that a waste stream may be recyclable but the technology and capacity might not exist in the country. Because of this, the interpretation of whether a waste is recyclable, re-usable or recoverable has to take into account the existence of capacity.

The blending and pre-treatment that enables or enhances the potential for reuse and recycle has to be in line with specifications or specific requirements of the technology that will be recycling, reusing or recovering that waste.

## 11. WASTE DISPOSAL RESTRICTIONS

**Table 1: Waste Disposal Restrictions**

	<b>Waste Prohibited or Restricted in terms of Disposal</b>	<b>Compliance Timeframe</b>	<b>Guidance</b>
(b)	Waste with a pH value of <6 or >12	Immediate	The Australian Standard has a sample preparation method for leachability testing. The sample for the testing of pH must be prepared the same way. This will provide consistency in terms of testing for disposal.
(m)	Hazardous waste electric and electronic equipment (WEEE) – lamps	Three (3) years	Crushing of lamps is not considered treatment because it does not meet the definition of treatment
(n)	Hazardous waste electric and electronic equipment (WEEE) – Other	Eight (8) years	If the WEEE or a component thereof classifies as hazardous then it is restricted. The hazard could be purely on environmental impact, i.e. ODS impacting on the ozone layer.
(o)	Waste tyres: whole	immediate	This restriction includes shredded tyres
(p)	Waste tyres: quartered	Five (5) years	
(r)	Hazardous waste with a calorific value of:	Four (4) years	The Calorific Values stated in the Regulation must be expressed on a DRY basis or “moisture free”. Where moisture is present, the Caloric Values on a dry basis and

	(i) > 25 MJ/kg		percentage moisture content must be indicated.
	(ii) > 20 MJ/kg	Six (6) years	<p>Calorific Values for most substances are available on the internet, for mixed wastes where the proportion of the substances are known then the calculated Calorific Values are acceptable.</p> <p>For wastes that not enough is known to calculate the Calorific Value then testing must be conducted using a Bomb Calorimeter.</p> <p>Where there is disagreement on a calculated value then testing with a Bomb Calorimeter will be used to verify the Calorific Value.</p>
	(iii) >10 MJ/kg	Twelve (12) years	
	(iv) > 6% TOC	Fifteen (15) years	
(s)	Brine or waste with a high salt content (TDS >5%) and a leachable concentration for TDS of more than 100,000 mg/l	Eight (8) years	<p>This restriction excludes Mono-disposal sites that have been specifically designed to handle this waste stream.</p> <p>NEMA Section 28 applies.</p>