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## GENERAL NOTICE

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### NOTICE 432 OF 2011

#### DEPARTMENT OF ENVIRONMENTAL AFFAIRS

#### NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008)

#### DRAFT NATIONAL STANDARD FOR DISPOSAL OF WASTE TO LANDFILL

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby give notice of intention, under section 7(1)(c) read with section 73 of the National Environmental Management: Waste Act, 2008 (Act No. 58 of 2008), set national standards for disposal of waste to landfill as set out in the Schedule hereto.

Members of the public are invited to submit to the Minister, within 30 days of publication of this notice in the *Gazette*, written comments or objections to the following addresses:

By post to:     The Director-General: Environmental Affairs  
                  Attention: Ms Nomphele Daniel  
                  Private Bag X447  
                  Pretoria, 0001

By fax to: (012) 320 0024, and by e-mail to: [ndaniel@environment.gov.za](mailto:ndaniel@environment.gov.za)

Hand delivered at: 315 Pretorius Street, Pretoria, Fedsure Forum Building, North Tower, 2<sup>nd</sup> Floor (Reception)

The full document can also be accessed at [www.sawic.org.za](http://www.sawic.org.za).

Any inquiries in connection with the draft regulations can be directed to Ms Nomphele Daniel at (012) 310 3904.

Comments received after the closing date may not be considered.



**BOMO EDITH EDNA MOLEWA**  
**MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS**

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**PART 1: INTERPRETATION AND PURPOSE****1. Definitions**

- (1) In this Standards any word or expression to which a meaning has been assigned in the Act has that same meaning, and unless the context requires otherwise—

**“the Act”** means the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008);

**“the Regulations”** means the Waste Classification and Management Regulations , 2011, in terms of Section 69(1)(a), (b), (g), (h), (m), (q), (s), (dd) and (ee) of the Act.

**2. Purpose and Application**

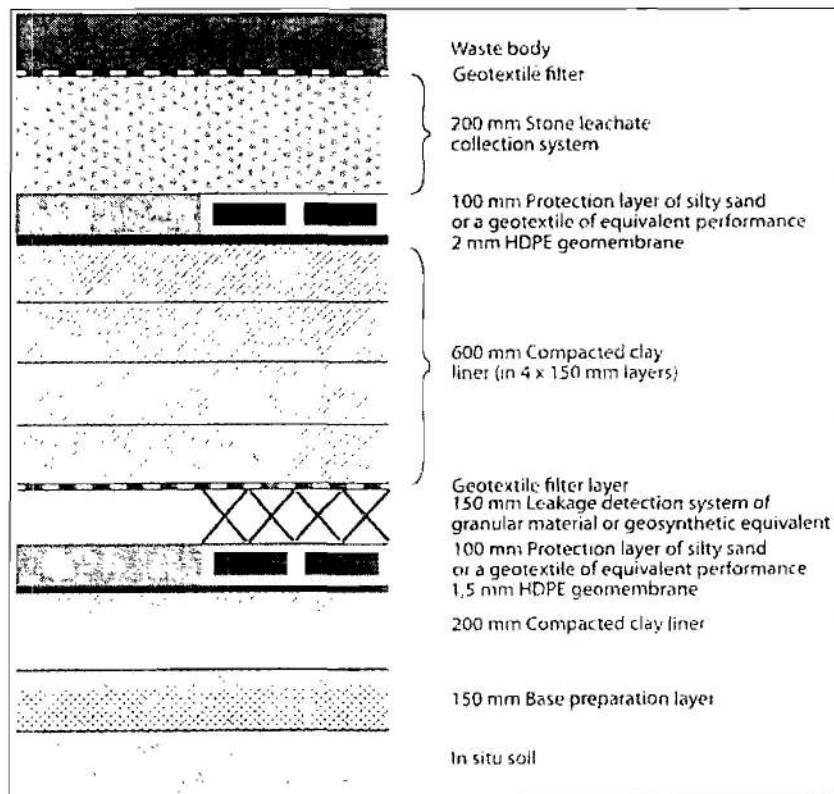
- (1) This Notice prescribes the requirements for the disposal of waste to landfill as contemplated in Regulation 8(1)(b) and (c) of the Regulations.

**PART 2: STANDARD DESIGN, ACCEPTANCE AND DISPOSAL REQUIREMENTS**

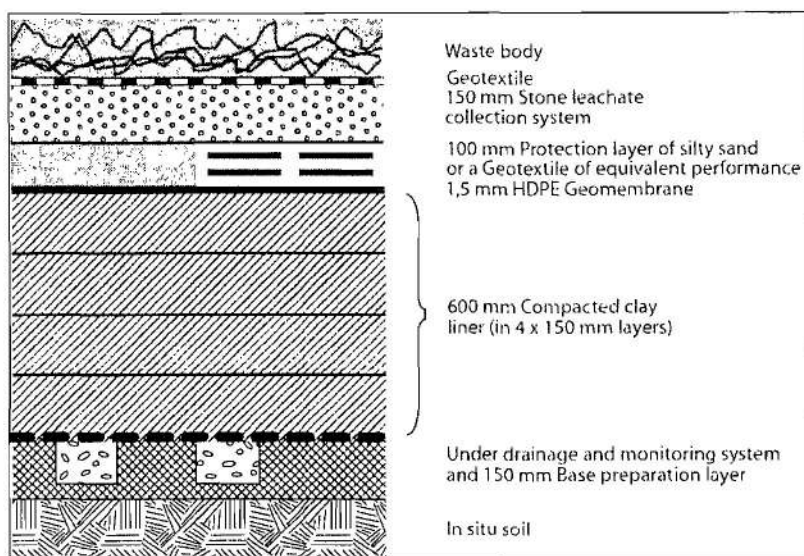
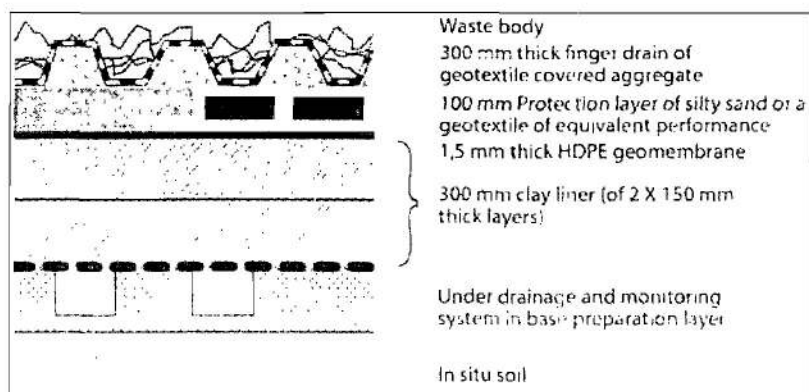
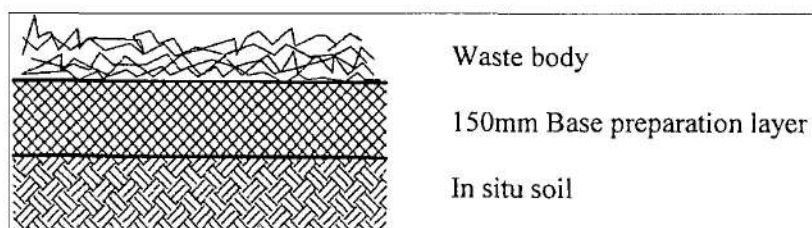
### 3. Landfill Classification and Containment Barrier Design

- (1) The containment barriers of landfills for the disposal of waste in terms of paragraph 4 of this Notice must comply with the following engineering design requirements—

(a) Class A Landfill:



(b) Class B Landfill:

(c) Class C Landfill:(d) Class D – Inert Landfill:

- (2) The following requirements must be complied with during the design and installation process of landfill containment barriers—

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- (a) Design reports and drawings shall be approved by a registered professional engineer prior to submission to the Regional Director of the Department of Water Affairs;
  - (b) Service life considerations shall be quantified taking into account temperature effects on containment barriers;
  - (c) Total solute seepage shall be calculated (inorganic and organic) in determining acceptable leakage rates and action leakage rates;
  - (d) Alternative elements of approved equivalent performance may be considered; such as the replacement of —
    - (i) granular filters or drains with geosynthetic filters or drains;
    - (ii) protective soil layers with geotextiles; or
    - (iii) clay components with geomembranes or geosynthetic clay liners.
  - (e) All drainage layers shall contain drainage pipes of adequate size, spacing and strength to ensure atmospheric pressure within the drainage application for the service life of the landfill;
  - (f) Alternative design layouts for slopes exceeding 1:4 (vertical: horizontal) may be considered provided equivalent performance is demonstrated;
  - (g) Construction Quality Assurance is required on site;
  - (h) Geosynthetic materials shall comply with relevant South African National Standards specifications, or accepted best practice; and
  - (i) Chemical compatibility testing of proposed clay components with wastes containing salt is required.
- (3) The landfill classification and containment barrier design requirements in paragraph 3(1) and (2) of this Notice supersede the liner design requirements for landfills contained in

the Minimum Requirements for Waste Disposal by Landfill (2<sup>nd</sup> Edition, 1998; Department of Water Affairs and Forestry).

- (4) Notwithstanding paragraph 3(3) of this Notice, waste may be disposed of in terms of paragraph 4(1) and (2) of this Notice at landfills with the liner design requirements for landfills contained in the Minimum Requirements for Waste Disposal by Landfill (2<sup>nd</sup> Edition, 1998; Department of Water Affairs and Forestry), subject to the following—
- (a) The working cell at the landfill was in operation before the date of publication of this Notice; or
  - (b) The next working cell at the landfill was legally authorised before the date of publication of this Notice.
- (5) The classification and containment barrier design of all new landfills, as well as new working cells at existing landfills, must be implemented in accordance with paragraph 3(1) and (2) of this Notice..

#### 4. Waste Acceptance Criteria for Disposal to Landfill

- (1) Waste may only be accepted and disposed of at appropriately designed and operated landfills as stipulated below—

Waste Disposal Risk Rating	Landfill Disposal Requirements
<b>Type 0:</b> <b>Very High Risk</b>	The disposal of Type 0 waste to landfill is <b>not allowed</b> . The waste must be treated and re-assessed in terms of the <i>Standard for Assessment of Waste for Landfill Disposal</i> to determine the level of risk associated with disposing the waste to landfill.
<b>Type 1:</b> <b>High Risk</b>	Type 2 waste may only be disposed of at a <b>Class A</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, may be disposed of at a landfill site designed and operated in accordance with the requirements for a <b>Hh / HH landfill</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).



<b><u>Type 2: Moderate Risk</u></b>	Type 3 waste may only be disposed of at a <b>Class B</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, may be disposed of at a landfill site designed and operated in accordance with the requirements for a <b>GLB+ landfill</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).
<b><u>Type 3:</u> Low Risk</b>	Type 4 waste may only be disposed of at a <b>Class C</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, may be disposed of at a landfill site designed and operated in accordance with the requirements for a <b>GLB+ landfill</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).
<b><u>Type 4:</u> Inert Waste</b>	Disposal allowed at a landfill with a <b>Class D</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, may be disposed of at a landfill site designed and operated in accordance with the requirements for a <b>GSB- landfill</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).
<b>Waste listed in Section (2)(a) of Annexure 1 of the Regulations</b>	Disposal only allowed at a <b>Class B</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, at a landfill site designed and operated in accordance with the requirements for a general waste site, <b>G S/M/L B-/B+</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).

- (2) Waste that had been classified in terms of the Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (2<sup>nd</sup> Edition, 1998; Department of Water Affairs and Forestry) prior to the Regulations coming into operation, may be accepted and disposed of at appropriately designed and operated landfills as set out below for a period not exceeding two (2) years after the date of commencement of the Regulations—

Waste	Disposal Requirement
<b>Hazardous Waste – Hazard Rating 1 or 2</b>	Disposal only allowed at a <b>Class A</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, at a landfill site designed and operated in accordance with the requirements for a <b>HH landfill</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).
<b>Hazardous Waste – Hazard Rating 3 or 4</b>	Disposal only allowed at a <b>Class A</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, at a landfill site designed and operated in accordance with the requirements for a <b>Hh landfill</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).
<b>Hazardous Waste – Delisted</b>	Disposal only allowed at a <b>Class B</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, at a landfill site designed and operated in accordance with the requirements for a <b>GLB+ landfill</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).
<b>General Waste</b>	Disposal only allowed at a <b>Class B</b> landfill designed in accordance with paragraph 3(1) and (2) of this Notice, or, subject to paragraph 3(4) of this Notice, at a landfill site designed and operated in accordance with the requirements for a general waste site, <b>G S/M/L B-/B+</b> as specified in the Minimum Requirements for Waste Disposal by Landfill (2 <sup>nd</sup> Ed., DWAF, 1998).

- (3) Notwithstanding the requirements of paragraph 4(1) and (2) of this Notice, waste may be disposed of at landfills with a higher level of containment design than specified, subject to the restriction in paragraph 5(2)(a)(ii) of this Notice.

## 5. Waste Disposal Restrictions

- (1) The following prohibitions and restrictions on the disposal of waste to landfill comes into operation after the timeframes as indicated for each waste from the date of publication of this Notice—

Waste Prohibited or Restricted in terms of Disposal	Compliance Timeframe
(a) Waste which, in the conditions of a landfill, is explosive, corrosive, oxidizing, or flammable (according to SANS 10234 or SANS10228).	Immediate
(b) Waste with a pH value of <6 or >12.	Immediate
(c) Reactive waste that may react with water, air, acids or components of the waste, or that could generate unacceptable amounts of toxic gases within the landfill.	Immediate
(d) Waste compressed gases (according to SANS 10234 or SANS 10228).	Immediate
(e) Untreated Healthcare Risk Waste (HCRW).	Immediate
(f) (i) POPs pesticides listed under the Stockholm Convention. (ii) Residue pesticides.	Five (5) years Three (3) years
(g) Lead acid batteries.	Immediate
(h) Other batteries	Eight (8) years
(i) Reclaimable or recyclable used lubricating mineral oils, as well as oil filters, but excluding other oil containing wastes.	Four (4) years
(j) Reclaimable or recyclable used or spent solvents.	Five (5) years
(k) PCB wastes (>50 mg/kg or 50 ppm).	Five (5) years
(l) Waste Electric and Electronic Equipment (WEEE) – Lights.	Three (3) years
(m) Waste Electric and Electronic Equipment (WEEE) – Other	Eight (8) years
(n) Waste tyres: Whole.	Immediate
(o) Waste tyres: Quartered.	Five (5) years
(p) Liquid waste– (i) Waste which has an angle of repose of less than 5 degrees, or becomes free-flowing at or below 60 °C or when it is transported, or is not generally capable of being picked up by a spade or shovel; or (ii) Waste with a moisture content of >40% or that liberates moisture under pressure in landfill conditions, and which has not been stabilised by treatment.	Five (5) years
(q) Hazardous waste with a calorific value of: (i) > 25 MJ/kg. (ii) > 20 MJ/kg. (iii) > 10 MJ/kg. (iv) > 6% TOC.	Four (4) years Six (6) years Eight (8) years Ten (10) years

Waste Prohibited or Restricted in terms of Disposal	Compliance Timeframe
(r) Brine or waste with a high salt content (TDS > 5%), and an LC concentration for TDS of more than the LCT2 value prescribed for TDS.	Eight (8) years
(s) Disposal of garden waste:	
(i) 25% diversion from baseline of separated garden waste.	Five (5) years
(ii) 50% diversion from baseline of separated garden waste	Ten (10) years
(t) Infectious animal carcasses and animal waste.	Immediate

- (2) The following prohibitions and restrictions on activities related to the disposal of waste to landfill comes into operation after the timeframes as indicated for each activity from the date of publication of this Notice—

Prohibited or Restricted Waste Disposal Activities	Timeframe
(a) Disposal of—	
(i) Type 0: Very High Risk Waste that has been treated with waste listed in paragraph (2)(a) of Annexure 1 to the Regulations;	Five (5) years
(ii) Waste classified as hazardous in terms of regulation 4(1), or waste listed in paragraph (2)(b) of Annexure 1 to the Regulations, with waste listed in paragraph (2)(a) of Annexure 1 to the Regulations; and	Five (5) years
(iii) Type 4: Inert Waste with any waste other than Type 4.	Three 3 years
(b) Macro encapsulation of waste.	Eight (8) years
(c) Disposal of laboratory wastes listed in paragraph (2)(b) of Annexure 1 to the Regulations.	Five (5) years