

Changes in Waste legislation – What can be expected

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our future through science

Outline

- Amendments to NEMA
- Amendments to NEMWA
- Draft Waste Classification and Management Regulations
- Draft Standards for Assessment of Waste for Landfill Disposal
- Draft National Standard for Disposal of Waste to Landfill
- Conclusions



Residue stock piles and deposits

869 hectares
90 metres high
560 million tons



> 270 tailings dams on Witwatersrand Covering 400 km²

NEMA amendments impacting NEMWA

- National Environmental Management Laws Amendment Bill
 - Prospecting, mining and exploration or related activities are currently excluded from NEMA – dealt with under MPRDA
 - Some ancillary activities are listed into NEMA and requires environmental authorisation
 - NEMA and MPRDA have different processes and information requirements
- Proposed amendments will give effect to **one environmental system**
 - The Minister of DMR to implement environmental matters into NEMA
 - Amendment of NEMWA to give DEA mandate to develop regulations for residue deposits and stockpiles for implementation by DMR

REDUCE

REDUCE WASTE OR THE NEED TO RECYCLE BY
NOT CREATING IT IN THE FIRST PLACE

REUSE

REUSE MATERIALS BEFORE
RECYCLING OR DISCARDING

RECYCLE

TRANSFORM MATERIAL INTO
ANOTHER USABLE MATERIAL

TREATMENT

REDUCE VOLUME
OR TOXICITY

DISPOSAL

STORE OR BURY
WASTE

NEMWA amendments

- National Environmental Management: Waste Amendment Bill
 - DEA and provinces identified implementation challenges with certain provisions of NEMWA
 - DEA has not consulted any stakeholders on this Bill
- Amendments include:
 - Substitute certain definitions
 - By-product
 - Recovery
 - Re-use
 - Waste
 - Insert definition
 - Waste Management Agency

NEMWA amendments

- Amendments include:
 - Animal carcasses will be regulated under NEMWA
 - DEA (national) will not be required to prepare an IWMP
 - Municipal IWMPs submitted to MEC for endorsement not approval
 - MEC must act in concurrence with Minister when requesting an IndWMP
 - Provincial Departments responsible for waste management will not prepare IndWMPs but IWMPs
 - Allowance for the establishment of a Waste Management Agency to deal with the different waste streams on behalf of DEA
 - Repeal section 78 dealing with appeals which are dealt with under NEMA
 - Insertion of transitional arrangements for review of landfill permits issued under ECA

Definitions – Recovery & Re-use

- ‘Recovery’ means the controlled extraction [of a material] or retrieval of [energy] **any substance or material** from waste to produce a product
- ‘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





Nice
purse!

Thanks. It's
my ex-husband.

Definitions - Waste

- ‘Waste’ means any substance, whether or not that substance can be reduced, re-used, recycled or recovered -
 - a. That is surplus, unwanted, rejected, discarded, abandoned or disposed of;
 - b. Which the generator has no further use of for the purposes of production;
 - c. that must be treated or disposed of; or
 - d. That is defined as a waste by the Minister by notice in the Gazette;
and includes waste generated by the mining, medical or other sector , but-
 - i) a by-product is not considered to be waste; [and] or
 - ii) any portion of waste, once re-used, recycled or recovered, ceases to be waste

Importance of clear definition

- The definition of waste has a significant effect on the implementation of the Act
- Clear distinction needed between waste and non-waste to clarify the scope of the Act
- Criminal liability depends on whether or not a substance falls within the legal definition of waste
- Prosecutions for violations of waste management regulations are decided on the interpretation of the definition of waste

Regulations

- Draft Waste Classification and Management Regulations
 - Introduce a new waste classification system
 - New requirements for the disposal of waste to landfill
- Draft Standards for Assessment of Waste for Landfill Disposal
- Draft National Standard for Disposal of Waste to Landfill

Waste stream classification

- Classification will be done based on the Globally Harmonised System of Classification and Labelling of Chemicals (SANS 10234)
- All waste streams will have to be classified except a few pre-classified waste streams
- Re-classification must be done at specified intervals
- Total concentration and leachable concentration is used
- Analytical protocol differs – Acid rain test is no longer used
- Waste previously hazardous may now be non-hazardous and *vice versa*

LEGEND B⁻ = No significant leachate produced B⁺ = Significant leachate produced R = Requirement N = Not a requirement F = Flag; special consideration to be given by expert or departmental representative	CLASSIFICATION SYSTEM									
	G General Waste								H Hazardous Waste	
	C Communal Landfill		S Small Landfill		M Medium Landfill		L Large Landfill		H:h Hazard Rating 3 & 4	H:H Hazard Rating 1- 4
MINIMUM REQUIREMENTS	B⁻	B⁺	B⁻	B⁺	B⁻	B⁺	B⁻	B⁺		
Appoint responsible person	R	R	R	R	R	R	R	R	R	R
Minimum no. of boreholes	N	N	1	1	3	3	5	5	F	F
Leachate Management	N	N	N	F	N	R	N	R	R	R
Daily cover	F	F	F	F	R	R	R	R	R	R

Source: Minimum Requirements for Disposal by Landfill 1998

Landfill standards

- Classification of landfills will change
 - Only four classes are proposed
 - Losing C,S and M Minimum Requirement landfill classes
 - Standards apply to all landfills and does not allow for exemptions
 - Delisting of waste streams for disposal is no longer an option



Conclusions

- Implementation of environmental systems for mining is streamlined
- Some implementation challenges are addressed
- Definitions changes add other challenges
- Waste classification system is aligned with international approaches and based on scientific methods
- Landfill barrier design requirements are upgraded to ensure environmental protection
- Landfilling will become more expensive
 - Hazardous waste landfill costs will increase by about 20% with the implementation of new regulations
 - General waste landfill costs can double if Class B designs are implemented

Thank You

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