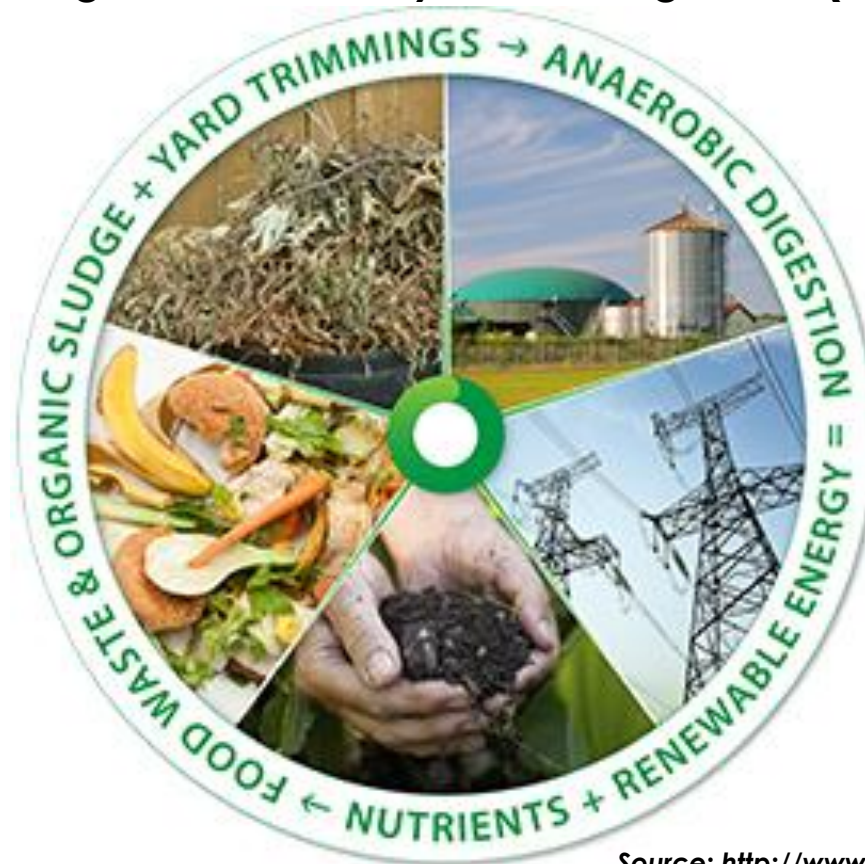


Organic Waste Norms & Standards

3rd National Biogas Conference, 1 November 2017

"There is no such thing as organic waste, only wasted organics." (Vermi~BIOLOGICALS)



Source: <http://www.robthompsonforbmcc.com>



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ROLE PLAYERS

- South African-German Energy Programme (SAGEN) implemented by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH
- *Cape EAPrac*
- Department of Environmental Affairs
- Industry Representatives
- Specialists
- Public



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NORMS & STANDARDS

- Chapter 5 of NEMA provides for the development or adoption of **norms or standards** for listed activities, or more specifically, that adherence to a norm or standard will negate the need to apply for an environmental authorisation.
- Standards are designed to enable management of environmental impacts within limits of acceptable change based on predetermined thresholds and known management measures.
- Need to fully understand the potential impacts of an activity in a particular locality, the likely significance thereof, and the full range of mitigation measures that can be applied, in order to set thresholds that do not contradict accepted environmental management principles.
- Standards free up institutional capacity for known impacts with known solutions.



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NORMS & STANDARDS

- Compliance with the applicable standards will be mandatory and no deviations or flexibility can be accommodated.
- Reduces the time and cost of following EIA processes (efficiency).
- Ensures environmental management is adequately addressed (effectiveness).
- To date the only Norms & Standards approved for the NEM:WA:
 - Norms & Standards for Storage of Waste, 2013
 - Standards for Extraction, Flaring or Recovery of Landfill Gas, 2013
 - Standards Scrapping or Recovery of Motor Vehicles, 2013
 - Norms & Standards for the Sorting, Shredding, Grinding, Crushing, Screening or Bailing of General Waste, 2017.



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DRAFTING N&S



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MOTIVATION FOR THE DEVELOPMENT OF NORMS & STANDARDS FOR THE TREATMENT OF ORGANIC WASTE IN SOUTH AFRICA

DRAFT REPORT FOR STAKEHOLDER REVIEW AND
COMMENT

16 OCTOBER TO 16 NOVEMBER 2017

12 October 2017



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DEPARTMENT OF ENVIRONMENTAL AFFAIRS

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998), NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008) AND THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT 39 OF 2004)

DRAFT NATIONAL NORMS AND STANDARDS FOR ORGANIC WASTE TREATMENT

DRAFT



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SUBMITTING N&S

- **STEP 10: Workshop and submit the draft standards**
 - Once the draft standards have been produced a workshop should be arranged with the industry. Broad representation must be ensured. The purpose of the workshop should be to present and explain the draft standards to the industry and receive comment. It is advised that a copy of the draft standards be made available to industry stakeholders prior to the workshop to provide stakeholders time to consider the implications of the standards. All comments and suggestions must be recorded as minutes. The workgroup may amend the draft standards based on input received at this stage, but must ensure that the standards are in keeping with the IEM objectives provided in NEMA.
 - The draft standards must then be submitted to the competent authority.
 - The competent authority will consider the draft standards. If the draft standards are found to be acceptable by the competent authority, the draft standards will be published in the relevant Government Gazette for comment.



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IN A NUTSHELL - FEEDSTOCK

TYPES OF FEEDSTOCK AND TREATMENT OPTIONS

Agriculture:	Mechanical	Chemical	Anaerobic	Aerobic	Thermal
Manure	✓		✓	✓	✓
Mortalities	✓	✓	✓	✓	✓
Biomass: Lignocellulose (woody)					
Agricultural crop residue	✓	✓		✓	✓
Invasive plant species	✓	✓		✓	✓
Plantation residue	✓	✓		✓	✓
Sawmill residue	✓	✓		✓	✓
Biomass: Low Lignocellulose (non-woody)					
Agricultural crop residue	✓	✓	✓	✓	✓
Invasive plant species	✓	✓	✓	✓	✓
Sugar bagasse	✓	✓	✓	✓	✓
Processing:					
Abattoir Waste	✓	✓	✓	✓	✓
Food Oils	✓	✓	✓	✓	✓
Organic Fraction of Municipal Solid Waste (MSW)	✓	✓	✓	✓	✓
Restaurant Waste	✓	✓	✓	✓	✓
Food processing	✓	✓	✓	✓	✓
Sewage:					
Sludge	✓	✓	✓	✓	✓



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IN A NUTSHELL - REQUIREMENTS

Principle Component	Subsection
Siting	<ul style="list-style-type: none">• locality map showing the siting of the facility and location of environmentally sensitive areas, including residential zones, dwellings, schools and hospitals• ground plan of facility, including location of monitoring points/equipment• natural characteristics of site (local meteorology (wind and rain patterns), soil morphology, geology, hydrogeology and surface waters)• facility environmental policy (including protection of environmentally sensitive areas)• business plans (type and quantity of organics to be processed now and in future, and type and quality of products)• staffing (organisation, headcount, skills, responsibilities, training and proposed working hours)• zoning of the site must be consistent with the local authority requirements
Water management	<ul style="list-style-type: none">• surface water controls• leachate controls and handling• water monitoring and assessment• leachate monitoring and assessment• contaminated water remediation
Gas and odour management	<ul style="list-style-type: none">• process controls and monitoring• odour and weather monitoring• management of rapidly biodegradable organics• gas containment and extraction (where applicable)• gas monitoring• remediation of uncontrolled gas emissions• gas oxidation controls and monitoring



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IN A NUTSHELL - REQUIREMENTS

Principle Component	Subsection
Incoming organics management	<ul style="list-style-type: none">• screening and recording of organics received• organics handling and storage
Product quality assurance	<ul style="list-style-type: none">• feedstock selection• process controls and monitoring• product testing and monitoring – physical, chemical and biological• management of contaminated organics and products
Noise management	<ul style="list-style-type: none">• scheduling of the operation of noisy equipment and heavy transport vehicles• noise monitoring
Housekeeping practices	<ul style="list-style-type: none">• dust and litter control• pest, weed and vermin control• site security• disposal of wastes and contaminated products• maintenance of facility and equipment• stock controls
Fire-fighting and prevention	<ul style="list-style-type: none">• fire prevention• fire-fighting provisions
Monitoring	<ul style="list-style-type: none">• The site must be inspected on a daily basis to ensure early detection and addressing of environmental pollution.• All monitoring data must be kept up to date and made available on request.



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THAT'S THE END

THANK YOU

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