# GENERAL NOTICE

# **NOTICE 431 OF 2011**

### DEPARTMENT OF ENVIRONMENTAL AFFAIRS

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

# DRAFT NATIONAL STANDARDS FOR THE SCRAPPING OR RECOVERY OF MOTOR VEHICLES

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby give notice of my intention to, under section 19(3)(a) read with section 73 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), declare the scrapping or recovery of motor vehicles as a waste management activity that does not require a waste management licence and to set the national standards for the scrapping or recovery of motor vehicles as set out in the Schedule hereto.

Members of the public are invited to submit to the Minister, within sixty (60) days of publication of this notice in the Gazette, written representations or objections to any of the following addresses:

By post to:

The Director-General: Environmental Affairs

Attention: Mr Mpho Tshitangoni

Private Bag x447 Pretoria, 0001

By fax to: (012) 310 3753, and by e-mail to: <a href="mailto:mtshitangoni@environment.gov.za">mtshitangoni@environment.gov.za</a>.

Hand delivered at: 315 Pretorius street, Pretoria, Fedsure Forum building North Tower, 2nd floor (Reception).

The full document can also be accessed at www.sawic.org.za, under the link "draft documents for comment".

Any inquiries in connection with the draft national standards can be directed to Mr. Mpho Tshitangoni at (012) 310 3380.

Comments received after the closing date may not be considered.

BOMO EDITH EDNA MOLEWA

MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

# **SCHEDULE**

# DRAFT STANDARDS FOR THE SCRAPPING OR RECOVERY OF MOTOR VEHICLES

**APRIL 2011** 



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### **DEFINITIONS OF TERMS AND ACRONYMS**

### **DEFINITIONS**

In these Standards, any word or expression to which a meaning has been assigned in the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and associated Regulations shall have the meaning so assigned and, unless the context otherwise indicates—

"auto fluff" means waste residue from the vehicle shredding operation;

"best practice" means to perform or exercise a particular activity or activities in the most suitable, appropriate, advantageous or best advised manner in order to achieve the highest standards while performing or excising such activity or activities;

"ground water" means water that occupies pores in the soil and cavities and spaces found in the rocks which are situated in the saturated zone of the profile by rising from a deep magmatic source or by the infiltration of rainfall;

"handling" means functions associated with the movement of waste, including storage, treatment and ultimate disposal, by the use of manual systems or automated systems;

"holding tank" means a container installed above ground or underground at the lowest point at the scrap yard, where contaminated water from the scrap yard collects and from which it is pumped out;

"monitoring" means continuous or non-continuous measurement of a concentration or other parameters for purpose of assessment or control of environmental quality or exposure and the interpretation of such measurements;

"motor vehicle" means an automobile, automobile truck, automobile wagon, motorcycle, or any other self-propelled vehicle designed for running on land but not on rails;

"oil/water separator" means an engineering designed drainage system at the lowest point of the motor vehicle scrapping or recovery facilities which separates hydrocarbons from water;

"scrapping or recovery facility" means an operational area in excess of 300m<sup>2</sup> where vehicles are dismantled and valuable material extracted for reuse or recycling;

"scrapping" means the dismantling of a motor vehicle and extraction of useful material for re-use or recycling in an operational area in excess of 300m<sup>2</sup>;

"sewer" means the system for collection and transportation of effluent, waste water or sewage, including conduits, pipes, and pumping stations;

"sustainable" means - capable of being continued with minimal long-term effect on the environment;

"the Act" means the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

# **ACRONYMS**

MSDS- Material Safety Data Sheet;

SABS- South African Bureau of Standards;

SEMAs- Specific Environmental Management Acts

NEMA- National Environmental Management Act

NEMWA- National Environmental Management: Waste Act

### 1. PURPOSE

The standards aim at controlling the scrapping or recovery of motor vehicles at facilities that fall within the threshold as described in paragraph 3 of these standards in order to prevent or minimise potential negative impacts on the bio-physical and socio-economic environments. These facilities are required to comply with these standards without a need to conduct a basic assessment and obtain a waste management licence as per the provisions in the Government Notice No. 718 of July 2009.

### 2. LEGISLATIVE FRAMEWORK

The Bill of Rights contained in Chapter 2 of the Constitution of the Republic of South Africa, 1996 places a positive obligation on the State to (through reasonable legislative and other measures) give effect to rights to an environment that is not harmful to health or well-being of its citizens, and to have the environment protected for the benefit of present and future generations. South African legislators responded to this provision of the Constitution by developing and promulgating the National Environmental Management Act, 1998 (Act No. 107 of 1998) which sets principles for environmental management in the country. This Act was followed by a number of Specific Environmental Management Acts (SEMAs), including amongst others the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008), which makes provisions for the development of standards set in this document. Section 19 of this Act provides for the Minister to publish by notice in the Gazette a list of waste management activities that have, or are likely to have a detrimental effect on the environment and to indicate whether a waste management license is required to conduct the activity, or if a waste management licence is not required, the requirements or standards that must be adhered to when conducting the activity. This list was first published in July 2009, in the Government Notice No. 718, with the scrapping or recovery of motor vehicles at facilities with an operational area in excess of 500m² included as an activity that required a waste management licence. The standards set in this document hence replace this previous requirement, and the activity of scrapping or recovering motor vehicles thus now need to be managed in terms of provisions of these standards.

### 3. APPLICATION OF THESE STANDARDS

These standards apply in the following contexts:

- a) All vehicle scrapping or recovery facilities in an operational area in excess of 300m<sup>2</sup>, which were initiated, constructed or upgraded after the coming into effect of these standards;
- b) A person, category of persons or industry who lawfully initiated and conducted the activity of scrapping or recovering of motor vehicles prior to and on the date of coming into effect of these standards may continue with the activity for

the duration as stipulated in the approval, authorisation or licence until such time that the Minister directs that person, category of persons or industry to comply with the provisions stipulated in these standards.

## 4. MINIMUM REQUIREMENTS FOR THE DESIGN, CONSTRUCTION OR UPGRADING OF A FACILITY

- 4.1. All new scrapping or recovery facilities must not be constructed in environmentally sensitive areas such as floodplains, residential areas, wetlands and any other conservation or protected areas and within 100m away from such areas.
- 4.2. The facilities must be constructed in an area that is accessible to emergency response personnel and equipment.
- 4.3. Construction within the site must be carried out under the supervision of a registered professional engineer appointed by the site owner or the site management and according to the approved engineering drawings, which must portray the location of *inter alia* the following:
  - (a) All drainage systems (including storm water, sewerage and waste water drains);
  - (b) Floor area design, including-
    - (i) the storage yard for whole vehicles when brought on site;
      - (ii) the vehicle dismantling area; the storage area for all solid dismantled parts;
      - (iii) the storage area for all liquid parts including used oil, fuel and other fluids, vehicle shredding area;
      - (iv) the location of liquid waste treatment areas such as the oil/water separator;
      - (v) the location of the dispatching area for shredded parts.
- 4.4. The floor in the following areas within the scrapping or recovery facility must be designed and paved with an impermeable concrete layer with impermeable joints to prevent pollutants ingress into the soil or ground water—
  - (i) in an area that stores whole vehicles that still contain vehicle fluids;
  - (ii) in an area where dismantled and still unclean parts that still contain some fluids are stored;
  - (iii) in an area where fluid containing containers or tanks are stored;
  - (iv) in an area where the crushing operations are undertaken;
  - (v) in an area where the shredding operations take place.
- 4.5. This floor must be designed and sloped towards an oil or water separation system, which should be located down gradient of the facility.

- 4.6. The design of such a system must be dependent on the locality of the facility; however the system chosen should be able to prevent or minimise the escape of pollutants that will likely cause adverse impacts on the environment.
- 4.7. Storage areas for oil and fuel drained from the engines must be constructed. These areas must have impermeable floors with bund walls capable of holding up to 110% of oil or fuel in the case of accidental leaks, spillages, or overflows. This area must also be surrounded by an interception trench with a sump for intercepting and recovering potential spills.
- 4.8. The installation of waste storage containers or tanks (above-ground or underground) including all secondary containment equipment and mitigation measures must be undertaken by an experienced professional.
- 4.9. To minimise the impact of noise on the neighboring areas, construction equipment must only operate between the hours of 08h00 and 17h00. It is also the applicant's responsibility to ensure that noise levels do not exceed those stipulated in relevant noise legislation applicable in that particular locality/ province.
- 4.10. Onsite fueling and servicing of construction equipment and vehicles must only occur in a designated area. Should a vehicle require maintenance, it must be removed from site and repaired at a service workshop/ garage.
- 4.11. The area under construction must be demarcated to prevent unauthorised access during the construction process.
- 4.12. Dust generated by construction activities must be minimised by dust suppression techniques such as the use of water sprinklers.

### 5. MINIMUM REQUIREMENTS DURING THE OPERATIONAL PHASE

## 5.1. Vehicle dismantling operation

- 5.1.1. On arrival at the site, the following parts must be removed from a vehicle prior to this vehicle being crushed or shredded. No vehicle should be shredded with these parts still attached to it:
  - (a) Asbestos containing parts, such as brake pads;
  - (b) Mercury containing parts from hood and trunk light switches, anti-lock braking systems, high-intensity headlights; and virtual-image instrument panels, especially from old vehicle models;
  - (c) Lead containing parts such as acid lead batteries, lead tire weights and battery cable ends;
  - (d) Petrol or diesel or gas, brake fluid, oil and oil filters;
  - (e) Refrigerants; and
  - (f) Tyres.
- 5.1.2. This dismantling operation should only be undertaken in a concrete floor linked to an oil/ water separation system.

5.1.3. The requirement for the removal of oil filters and oil does not apply to engines that are intended to be removed from the vehicle for reuse as whole.

# 5.2. Solid waste management

- 5.2.1. Tyres that are damaged beyond repair (i.e. are road un-worthy, not suitable to be retreaded, repaired or sold as a part, and not fit for their original intended use) should be managed in accordance with the Waste Tyre Regulations, 2008. In case the facility falls within a sector that has an approved Integrated Industry Waste Tyre Management Plan, these tyres must be managed in accordance with this plan.
- 5.2.2. Brake pads containing asbestos should be placed in heavy plastic bags, double tied, and stored in a leak proof, airtight container designated for asbestos waste. Disposal of such parts should be carried out in accordance with the Environment Conservation Act, 1989 and the Asbestos Regulations of 2001.
- 5.2.3. Unbroken mercury containing lamps must be stored in a dry locked container labeled "Used Mercury Switches".
  These must be taken to a facility that is approved/ registered to handle or dispose of mercury/ mercury containing material.
- 5.2.4. Cracked or leaking acid batteries must be regarded as hazardous waste and must be placed separately in a closed leak-proof and acid resistant storage container and the container must be labeled as "Hazardous Waste-Lead Acid Batteries". This waste must be removed by an approved or registered hazardous waste handling company for disposal in an approved or licensed hazardous waste disposal facility. Spilled battery acid must be neutralised with a basic material such as lime or baking soda with residue from battery cleanup to be managed and disposed of as hazardous waste.
- 5.2.5. Prior to dispatch to a customer or commercial battery recycler, reusable or recyclable batteries must be stored indoors, upright and in heavy plastic sheeting or pallets in an area that will prevent the batteries from being damaged by moving or falling objects.
- 5.2.6. Filters removed from the engine should be drained of oil and fuel completely and stored in containers labeled "used oil or fuel filters". Completely drained metal filters should either be recycled or disposed of. Incompletely drained or not drained fuel filters should be stored in a separate fireproof container marked "Hazardous Waste Filters Only" away from potential sources of ignition and should be handled by approved hazardous waste handling companies for recycling or disposal at approved or licensed hazardous waste disposal facilities.
- 5.2.7. Parts that contain gas, such as gas for fueling the vehicle in the case of hybrid vehicles, as well as gas from the air-conditioning refrigerants, should be kept in an area designated for temporary storage of such parts. No gas

- should be allowed to vent into the atmosphere. These gas containing parts must only be handled by facilities that are registered to safely recycle or dispose of the gas.
- 5.2.8. The sludge removed from the oil or water separation system must be stored in containers labeled "Hazardous Waste Sludge" and it should be handled and disposed of at a hazardous waste disposal facility by an approved or registered hazardous waste handling company.
- 5.2.9. Waste oily rugs and any other contaminated cloths from the cleaning of parts should be stored in closed, fireproof container with no structural defects and the container must be labeled "Used contaminated rugs or cloths". These oily rugs or contaminated cloths must be disposed of in an authorised or licensed hazardous waste disposal facility in case they will not be reused or recycled.
- 5.2.10. At the shredding plant, contaminated auto fluff must be stored separately from the clean and valuable scrap metal picked up following the shredding process. This auto fluff must be stored in covered or closed containers labeled "Auto Shredder Residue", and where the recycling market for such does not exist; the fluff must be regarded as hazardous and disposed of in an authorised or licensed hazardous waste disposal facility.
- 5.2.11. Uncontaminated auto fluff may be sent to an authorised or licensed general landfill site, where it may be used as alternative daily cover.
- 5.2.12. Measures must be in place to prevent soil contamination from occurring. Where soil contamination has already occurred, the source of the contamination should be identified and cleanup activities undertaken to remove contaminated soil.
- 5.2.13. Partially empty or malfunctioning spray cans of products that contain ignitable, chlorinated solvents and that will not be recycled, must be disposed of as hazardous waste at approved or licensed hazardous waste disposal facilities.
- 5.2.14. Contaminated soil must be collected and stored in leak proof containers labeled "Hazardous Waste Contaminated Soil" until it can be treated or transported to a waste treatment or disposal facility.
- 5.2.15. Any minor leaks within the bunded area must be contained by use of appropriate spill kits, with contaminated material handled as hazardous waste.

# 5.3. Liquid waste management

5.3.1. Oil drained from the vehicle engine and oil filters as well as fuel drained from fuel tanks and fuel filters as well as any other vehicular fluid such as brake fluid, should be poured into containers designated for the temporary storage of these liquids. The containers must each be labeled with the name of the fluid they are holding, and must be stored in a bunded area, capable of holding up to 110% of liquid in case of major leaks, overflows or spillages.

- In addition to these requirements, the facility must ensure compliance with provisions made in the Norms and Standards for the Storage of Waste, with regards to the design of such containers.
- 5.3.2. These containers must be in good condition and should not exhibit any structural defects, rust, leaks or have evidence of deterioration.
- 5.3.3. Where underground containers are used to store used fuel, the facility must ensure compliance with the design specifications for the underground tanks, as provided for in the Norms and Standards for the Storage of Waste. The following additional requirements must however be complied with:
  - (a) The tanks must have monitoring wells and must be fitted with a leak detection system;
  - (b) The tanks must be fitted with an overfill shut-off valve to prevent potential overflows and spillages.
- 5.3.4. To minimise potential overflows and spillages the above ground or underground containers must be emptied before fuel or oil reach the level of 80%.
- 5.3.5. No fuel, oil, brake fluid or any other vehicle fluids should be allowed to drip or poured direct into the soil, storm water drain, sewer lines, septic tanks or to any water course.
- 5.3.6. Used oil may be given or sold to an approved used oil recycling company or sent for disposal to an authorised or licensed hazardous waste disposal facility.
- 5.3.7. Brake fluid should be handled as hazardous waste by an approved hazardous waste handling and disposal company.
- 5.3.8. Hydrocarbon contaminated water from the facility must be passed through an oil/ water separation system.
- 5.3.9. Water residue from the oil or water separation system must not be discharged direct into the storm water drains, nearby water streams; soils; ground water and to the wetlands without approval from the Department of Water Affairs.
- 5.3.10. Disposal of such residue water into the municipal sewer lines must only be undertaken following agreements with the Municipality concerned.
- 5.3.11. The opportunity for the onsite reuse and recycling of contaminated water must be investigated prior to disposal.
- 5.3.12. The oil or water separation system must be inspected daily and maintained by trained personnel in such a way that oil or contaminated water does not overflow and spill direct into storm water drains or direct into the environment.
- 5.3.13. Oil from the oil or water separation system must be pumped out for recycling and / or for disposal by a registered waste oil handling company.

- 5.3.14. If the antifreeze is not going to be reused or recycled, it must be handled as hazardous waste and disposed of at an approved or licensed hazardous waste landfill site by a registered hazardous waste handling company.
- 5.3.15. Used hot tank solutions must be stored in containers designed to hold strong corrosives and labeled "Hazardous" Waste Corrosive" and must be disposed of as hazardous waste to a hazardous waste landfill site by a registered hazardous waste handling company.
- 5.3.16. Solvent based or a mineral spirits and petroleum based parts washers must be handled and disposed of as hazardous waste.

# 6. GENERAL REQUIREMENTS

- 6.1. These standards do not replace any other relevant requirements stipulated in terms of other legislation, unless the requirements in terms of the other legislation are less stringent than these requirements.
- 6.2. Pollution or potential pollution of the biological and physical environments (including habitats for animal and plant species, water resources, land, soil and air) as a result of operations within the facility must at all times be prevented or minimized.
- 6.3. Measures must always be in place to ensure prevention or minimisation of negative or potential negative impacts on the health and safety of human beings within and outside the perimeter of the facility.
- 6.4. Sanitation facilities must be made available and must be well maintained to minimize odour beyond the perimeter of the site.
- 6.5. Waste streams should never be mixed. While general waste generated during the construction, operation and decommissioning phases of the facility may be disposed of at a general waste management site, all hazardous waste material must be disposed of at an approved or licensed hazardous waste disposal facility.
- 6.6. If the rest of the yard where a core pile of auto shells are kept, this area should be well maintained, with weed growth and dust emissions kept under control.
- 6.7. A material safety data sheet (MSDS) for each of the chemical products utilised must be kept on site. MSDS information must be obtained, maintained and updated and the files to be kept in an easily accessible location to employees. If MSDSs are kept on a file in a computer, a hard copy should also be available.
- 6.8. General waste must be separated from hazardous waste. Any hazardous waste generated should be kept in containers labeled "hazardous waste" and must be disposed of at a permitted or licenced hazardous waste landfill site.

### 7. TRAINING AND CAPACITY BUILDING

- 7.1. All new employees at the facility must on arrival undergo a safety, health and environmental (SHE) induction which must as a minimum capacitate them to be able to identify, prevent, minimise or manage actions or behavior that is likely to cause adverse impacts on air, water, land, fauna and flora as a result of construction, operation and decommissioning of the vehicle scrapping or recovery facility.
- 7.2. Members of staff must therefore be trained to manage all types of wastes as per the provisions of these standards and any other relevant legislative requirements applicable to the facility.
- 7.3. Only suitably qualified and trained personnel must maintain and service the oil/ water separation system.

#### 8. MANAGEMENT OF EMERGENCY SITUATIONS

- 8.1. A site spill / overflow/ leak incident emergency response plan / procedure must be developed and staff properly trained to respond to such emergencies. The procedure must include amongst others the following:
  - (a) Responding to the oil/ water separator or holding tank overflows into the environment or into the municipal sewerage system;
  - (b) Responding to overflows, spills or leaks of the above ground or the underground waste fuel and oil storage containers;
  - (c) Responding to complaints from members of the public;
  - (d) Evacuation procedures in the case of fires, explosions.
- 8.2. The facility must manage emergency situations in accordance with this procedure.
- 8.3. This procedure must on annual basis be tested through emergency simulation / mockup drills and also evaluated following the occurrence of incidences:
- 8.4. Emergency incidences should be investigated, addressed and recorded in a register and kept on file. Records of any emergency incidences must be made available to the authorities on request and should include as a minimum the following information:
  - (a) Date, time and nature of the incidence;
  - (b) The investigation conducted and findings;
  - (c) Preventative and corrective actions taken and by whom.
- 8.5 All emergency incidents should be closed-out within 7-14 days of the occurrence of the incidence.

- 8.6 Fire fighting measures, such as fire extinguishers, must be maintained and located on-site and the workforce must be made aware of fire prevention and fire fighting measures.
- 8.7 In all areas that store material or waste that has potential to cause environmental harm in the case of accidental spillages, leaks or overflows, appropriate spill kits must be in place in accessible areas.

# 9. MONITORING, AUDITING AND REPORTING

- 9.1. The site must be inspected on daily basis to ensure early detection and addressing of potential environmental pollution.
- 9.2. The authorities must be given access to audit and/or inspect the site at any time and at such frequency as they may decide, or to have the site audited or inspected at any time and at such frequency as they may decide.
- 9.3. The oil storage area (including the oil/ water separation system) must be inspected daily to ensure early detection of leaks, overflows or spillages and a speedy cleanup response.
- 9.4. During such inspections, the site must make any records or documentation available to the inspection team as may be required.
- 9.5. Safe disposal certificates for hazardous waste removed from site must be kept on record.
- 9.6. A certificate of compliance with relevant SABS codes regarding the installation of above ground or underground waste storage containers, should be kept on files and made available to the authorities on request.
- 9.7. Pressure testing on underground waste fuel storage tanks must be undertaken on annual basis and in cases where a leak is suspected. Records of testing must kept on file and made available to the authorities on request.
- 9.8. A record of any noncompliance findings by the authorities and the manner such non-compliances were addressed must be kept on file.
- 9.9. Keep records of hazardous waste disposed of.
- 9.10. The annual environmental performance audit must be conducted at the facility and results of the audit kept on record. The annual audit should include, but should not be limited to the following:
  - (a) Confirmation of compliance of the facility to these standards;
  - (b) Confirmation of compliance with any specific requirements issued by authorities (at local, provincial or national levels);
  - (c) Confirmation that the oil/ water separation system is functioning well and is still maintained in good order;

- (d) Confirmation of any major environmental incidences that occurred and detail of the manner the incidences were addressed;
- (e) Confirmation that hazardous waste is separated from non-hazardous waste and that such waste is removed by registered waste handling companies for either recycling or disposal to a licenced or authorized landfill site;
- (f) Confirmation of the presence of records of safe disposal certificates for all hazardous waste removed from the facility.

## 10. MINIMUM REQUIREMENTS DURING THE DECOMMISSIONING PHASE

- 10.1. If for whatever reasons, a facility is to be discontinued, the site must be rehabilitated to the satisfaction of the Department.
- 10.2. A rehabilitation plan for the site, including the indication of end use of the area must be developed and submitted to the Department for approval not more than one year prior to the intended closure of the facility.
- 10.3. The rehabilitation plan must indicate amongst others the following:
  - (a) Measures for rehabilitating contaminated areas within the facility;
  - (b) Indication of the intended use of containers or tanks and related piping that previously stored hazardous fluids such as used fuel, used brake fluid, used engine and transmission oil rained from the dismantled vehicles;
  - (c) Measures to be taken to deal with such infrastructure as oil / water separation systems, bund walls within which fluid storage tanks or containers were kept, the contaminated floor and shredding areas as well as any waste material still kept on site, e.g. auto shells, tyres, auto fluff, used fuel, used oil, etc.
- 10.4. The site must be rehabilitated according to such a plan.
- 10.5. The owner of the facility at any given point in time, including the subsequent owner of the facility will remain responsible for any adverse impacts on the environment, even after operations have ceased.

# 11. TRANSITIONAL PROVISIONS

- 11.1 For the purpose of compliance monitoring, all facilities that fall within the scope as described in paragraph 3 of these standards must do a once off registration with the department.
- 11.2 A person who unlawfully owns, manages or control a scrapping or recovery of motor vehicles facility prior to the date of the commencement of these Norms and Standards, must ensure that the facility is compliant with these norms and standards within six months after the commencement of these Norms and Standards