

Uganda

National Environment Act, 2019

## National Environment (Waste Management) Regulations, 2020

Statutory Instrument 49 of 2020

Legislation as at 20 March 2020

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# Uganda

## National Environment Act, 2019

# National Environment (Waste Management) Regulations, 2020

## Statutory Instrument 49 of 2020

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**Commenced on 20 March 2020**

*[This is the version of this document from 20 March 2020.]*

In exercise of the powers conferred upon the Minister by section 179 of the National Environment Act, 2019 and in consultation with the National Environment Management Authority, these Regulations are made this 11th day of October, 2019.

## Part I – Preliminary

### 1. Title

These Regulations may be cited as the National Environment (Waste Management) Regulations, 2020.

### 2. Interpretation

In these Regulations, unless the context otherwise requires—

“**Act**” means the National Environment Act, 2019;

“**after-care**” means measures that are necessary to be taken in relation to a waste management facility for the purposes of preventing harm to human health or the environment, following cessation of operations and decommissioning of a facility;

“**Authority**” means the National Environment Management Authority established under the Act;

“**authorised officer**” means an officer of the Authority or any other person authorised to act on behalf of the Authority under the Act;

“**Board**” means the Board of the Authority appointed under the Act;

“**co-generation plant**” means any stationary or mobile plant in which waste is treated by thermal means for the purpose of disposal and for generation of energy;

“**currency point**” has the value assigned to it in Schedule 1 of these Regulations;

“**disposal**” means any operation related to waste management which is not a recovery operation even where the operation has as a secondary consequence the extraction of substances or energy;

“**domestic waste**” means waste generated from households;

“**electrical or electronic equipment**” means equipment which is dependent on electric currents or electromagnetic fields in order to function properly, as well as equipment for the generation, transfer, distribution and measurement of the currents and fields, including the components necessary for the cooling, heating and protection of the electrical or electronic equipment;

“**electrical or electronic waste**” means waste from electrical or electronic equipment or any part of the equipment, including equipment that is old, obsolete, has reached end-of-life or has ceased to be of any value to its owner;

“**environmental and social assessment**” means a procedure that ensures that the environmental and social impacts, risks or other concerns of a given project are taken into account in approving a project for implementation;

“**environmental standards**” means standards produced or adopted by the Authority in consultation with the Uganda National Bureau of Standards for use in Uganda;

“**extended producer responsibility**” means the responsibility of a producer for the entire life cycle of the product, including responsibility for take back, recycling and final disposal of the product;

“**hazardous waste**” means waste classified, characterised and categorised as hazardous waste in accordance with Schedule 2, Schedule 3 and Schedule 4 to these Regulations;

“**healthcare waste**” means hazardous or non-hazardous waste from medical or veterinary treatment and associated tutoring, research and laboratory facilities, and similar waste originating from other sources;

“**incineration**” means thermal treatment of waste with or without recovery of the combustion heat generated, including through oxidisation of carbon or material containing carbon into carbon dioxide and water, as well as other thermal treatment processes including pyrolysis, gasification or plasma processes when the substances resulting from this treatment are subsequently oxidised;

“**incineration residue**” means any material generated through the operation of an incineration plant or co-generation plant, and defined as waste, including bottom ash and slag, fly and boiler ash, solid reaction products from gas treatment, spent catalysts and spent activated carbon;

“**industrial waste**” means waste produced by industrial activity and includes any material that is rendered useless during a manufacturing process;

“**landfill**” means an engineered site for disposal of waste onto or into land, lined with impervious plastic sheeting to prevent leakage or leaching of dangerous substances into soil or water;

“**lead agency**” means any ministry, department, agency, local government or public officer in which or in whom the functions of control or management of any segment of the environment is vested;

“**local government**” means a local government established under the Local Governments Act;

“**municipal waste**” means waste, excluding industrial waste, collected within a local government;

“**plastic carrier bags**” means sacks and carrier bags made of polythene or other synthetic polymers for the conveyance and packaging of goods;

“**product steward**” means a person or agent of such person responsible for the importation, manufacture, distribution or sale of a product that becomes waste or results in waste;

“**recovery**” means any operation the principal result of which is—

- (a) waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function; or
- (b) waste being prepared to fulfil that function, in the plant or in the wider economy;

“**recycling**” means any recovery operation by which waste materials are re-processed into products, materials or substances whether for the original or other purposes, and includes the reprocessing of organic material;

“**re-use**” means any operation by which products or components that are not waste are used again for the same purpose for which they were intended;

“**transboundary movement of waste**” means any movement of hazardous waste or other waste from another country to or through Uganda or from Uganda to another country;

“**vessel**” means motor vehicle, ship, aircraft or other mode of transport;



“**waste**” means any substance or object which is dumped, abandoned, discarded or disposed of or intended or required by law to be disposed of;

“**waste handler**” means a person licensed by the Authority under these Regulations to collect, transport, store, treat or dispose of waste;

“**waste management**” means activities relating to the collection, transportation, storage, treatment and disposal of waste, including the management of waste at source and during decommissioning of waste management facilities;

“**waste management facility**” means a plant, site, structure and associated facilities or infrastructure used in the management of waste.

### 3. Application of Regulations

- (1) These Regulations apply—
  - (a) to all waste classified, characterised and categorised under Schedule 2, Schedule 3 and Schedule 4 to these Regulations;
  - (b) to the generation, collection, transportation, storage, treatment and disposal of waste;
  - (c) to transboundary movement of waste; and
  - (d) to all waste management facilities.
- (2) For the avoidance of doubt, subregulation (1) shall not apply to petroleum waste regulated under the Petroleum (Waste Management) Regulations, 2019.

## Part II – General provisions relating to waste management

### 4. Compliance with environmental principles

A person who generates waste, a waste handler or a product steward shall, in compliance with the environmental principles set out in section 5 of the Act—

- (a) apply measures in the management of waste to prevent harm to human health and ensure safety of human beings;
- (b) apply measures in the management of waste to prevent pollution, harm to biological diversity and contamination of the wider environment by waste;
- (c) use best available technologies and best environmental practices to manage waste; and
- (d) ensure resource efficiency—
  - (i) by the application of the waste management hierarchy and the control or minimisation of the generation of waste to the greatest extent possible;
  - (ii) by promoting proper cyclical use of resources; and
  - (iii) by ensuring proper disposal of circulative resources not put into cyclical use.

### 5. Responsibility for waste management

- (1) A person who generates waste, a waste handler or product steward has a duty of care and shall take measures to ensure that—
  - (a) waste is managed appropriately and securely in accordance with the Act, these Regulations, any other applicable law, environmental standards and conditions of the licence;

- (b) waste is managed in a manner that does not cause harm to human health or the environment;
  - (c) any leakage or spillage of waste is quickly detected and managed; and
  - (d) spillages which may cause pollution are managed in accordance with regulation 95.
- (2) A waste handler shall, in accordance with the Occupational Safety and Health Act, 2006, ensure that employees involved in the collection, transportation, storage, treatment or disposal of waste are—
- (a) aware of the risks or hazards associated with handling of the waste;
  - (b) protected from exposure to health hazards;
  - (c) provided with appropriate personal protective equipment, first aid facilities and proper training; and
  - (d) accorded periodic and annual medical check-up as may be commensurate to the health risks they face.
- (3) The Authority, lead agency, a person who generates waste, a waste handler and a product steward shall create awareness and promote positive change in attitudes and practices regarding the management of waste.

## 6. Littering

- (1) A person shall not, in accordance with section 97 of the Act, empty, leave, store or transport waste in a manner that is unsightly or may cause damage or nuisance to the environment.
- (2) For the avoidance of doubt, subregulation (1) applies to wrecked vehicles, aircrafts and other vessels or similar large detached objects.
- (3) A person responsible for a waste management facility or a person transporting waste to a storage, treatment or disposal facility shall take appropriate measures to avoid littering.
- (4) A person who litters shall be responsible for the necessary clean-up.
- (5) The Authority or lead agency may direct the person who litters to clean-up to the satisfaction of the Authority or the lead agency.
- (6) Notwithstanding subregulation (5), any other person may require the person who litters to clean-up and dispose of the waste in a responsible manner.
- (7) Where the person in subregulation (4) fails, neglects or refuses to clean-up as required, the Authority or lead agency may undertake the clean-up at the expense of that person and shall require payment of costs and expenses incurred by it in the clean-up exercise.

## 7. Waste management hierarchy

- (1) A person who generates waste, a waste handler or a product steward shall manage waste in accordance with the Act and these Regulations through the application of the following hierarchical waste management practices—
  - (a) prevention;
  - (b) reduction and recovery at source;
  - (c) re-use;
  - (d) recycling;
  - (e) other recovery;
  - (f) treatment; and

(g) responsible disposal.

- (2) When applying the waste management hierarchy referred to in subregulation (1), the person who generates waste, a waste handler or a product steward shall apply the options that deliver the best overall environmental outcome and the least negative impact to the environment and human health, taking into consideration best available technologies and best environmental practices.

## 8. Waste streams

- (1) A person who generates industrial waste, a waste handler or product steward shall identify all waste streams with respect to volumes and any significant risks that the waste may pose to human health and the environment.
- (2) The waste streams identified under sub regulation (1) shall be quantified, characterised and documented to determine the best waste management options.
- (3) A person who generates industrial waste, a waste handler or product steward shall continuously monitor and evaluate the processes that generate waste streams from source through to recovery, recycling and disposal to ensure compliance with the Act and these Regulations.

## 9. Intractable waste

A person who generates waste, a waste handler or product steward shall, where the generation of intractable waste is not preventable under regulation 7(1)(a) and where there are no recycling, treatment or disposal options within Uganda, ensure that the waste is exported for proper disposal in accordance with these Regulations.

## 10. Use of good waste management practices

A person who generates hazardous waste or a waste handler shall—

- (a) put in place measures and management systems for handling hazardous waste, including ensuring that hazardous waste is segregated and managed at source and at the waste management facility by way of waste stream identification and clarification, to facilitate its appropriate handling and traceability;
- (b) ensure that the classification of waste, further handling and treatment of the waste is not distorted by mixing or dilution of the waste;
- (c) put in place measures for segregation of the waste to ensure that the hazardous waste is identified, separated and managed differently from the non-hazardous waste; and
- (d) ensure continuous improvement in the waste management practices as technology advances.

## 11. Environment management system

- (1) A person who generates hazardous waste and a waste handler shall establish, maintain and implement an environment management system to ensure compliance with the requirements of the Act, the National Environmental (Audit) Regulations, 2020, these Regulations, conditions in the licence and any other applicable law.
- (2) The environmental management system referred to under subregulation (1) shall include—
- (a) measures for compliance with the waste management hierarchy specified in regulation 7;
- (b) operating procedures for waste handling and the equipment available for waste management;
- (c) health, safety, social and environmental safeguards;

- (d) an environmental management and monitoring plan where applicable, developed in accordance with the National Environment (Environmental and Social Assessment) Regulations, 2020;
  - (e) waste management plan which shall consider the choice of waste management options and their impacts on human health or the environment, including the ecological sensitive areas;
  - (f) mechanisms for traceability of waste and waste streams from the point of waste generation to final disposal of waste;
  - (g) a programme to be implemented at the waste management facility for accepting waste, including routine and random inspections of incoming loads, visual inspection of all waste as it is delivered, inspection of suspicious loads and records of inspections;
  - (h) a toxic release inventory of the chemicals used in the waste management processes;
  - (i) training of personnel;
  - (j) procedures for notification of relevant authorities; and
  - (k) an effective information, education and communication strategy.
- (3) The waste management plan referred to under subregulation (2)(e) shall—
- (a) describe the geographical area of the waste management activity and specific activities addressed;
  - (b) identify the waste streams and categories of waste produced or handled;
  - (c) evaluate the waste management options;
  - (d) explore waste minimisation strategies, taking into consideration the waste management hierarchy in accordance with these Regulations;
  - (e) include a waste management programme and strategies for the minimisation of waste and the proper management of waste in accordance with the waste management hierarchy, including an evaluation tool for the programme;
  - (f) select environmentally and socially suitable waste management practices in accordance with a licence issued under these Regulations.
  - (g) highlight historical contaminated waste disposal sites, if any and measures for their rehabilitation;
  - (h) include organisational aspects related to waste management, including a description of the allocation of responsibilities between public and private actors;
  - (i) include an evaluation of the usefulness and suitability of economic and other instruments in tackling various waste problems; and
  - (j) include a programme for environmental literacy for waste handlers and the general public, including strategies to promote public participation in waste management.
- (4) A person who generates hazardous waste and a waste handler shall ensure that the personnel managing the waste are qualified, trained and comply with the waste management system and waste management plan referred to in subregulations (2) and (3).
- (5) The person who generates hazardous waste and a waste handler shall ensure that the waste management system and waste management plans developed under this regulation are documented, implemented, regularly updated and made available to the Authority and other relevant lead agencies upon request.

### Part III – Licence to manage waste

#### 12. Application for licence to manage waste

- (1) A person who intends to carry out the business of collecting, transporting, storing, treating or disposing of waste and any other person required under these Regulations shall apply to the Authority for a licence.
- (2) An application referred to in subregulation (1) shall be in the form set out in Schedule 5 to these Regulations and shall be accompanied by proof of payment of the fee prescribed in Schedule 6 to these Regulations.
- (3) An application referred to in subregulation (2) shall, as applicable, be accompanied by a copy of a certificate of approval of environmental and social impact assessment granted for the activity in accordance with the Act and the National Environment (Environment and Social Assessment) Regulations, 2020.
- (4) An application under this regulation shall—
  - (a) contain general information regarding—
    - (i) the legal status of the applicant;
    - (ii) a description of the technical competence and experience of the applicant including the personnel;
    - (iii) financial capacity of the applicant;
  - (b) contain, in respect to transportation—
    - (i) the nature and type of vessels and equipment to be used;
    - (ii) proof of safety checks of the transportation vehicles for road worthiness and suitability;
    - (iii) carriage capacity of vessel;
    - (iv) quantity of waste to be transported per vessel;
    - (v) proposed collection schedule for the transportation of the waste;
    - (vi) site or plant to which the waste is to be transported;
  - (c) contain, in respect to storage—
    - (i) proposed location of the storage facility;
    - (ii) specifications regarding layout, design and construction of the facility;
    - (iii) source, type and quantity of waste to be stored;
    - (iv) type and labels of containers;
    - (v) proposed safety measures at the facility;
    - (vi) measures for the containment and treatment of leakage and leachate, if applicable;
    - (vii) preliminary plan for decommissioning;
  - (d) contain, in respect to treatment and disposal—
    - (i) proposed location of the treatment or disposal site;
    - (ii) approval of physical planning by the relevant lead agency;

- (iii) specifications regarding the layout, design and construction of the site;
- (iv) type and quantity of waste to be treated or disposed of;
- (vi) type of treatment or disposal technique to be used;
- [Please note: numbering as in original.]*
- (vii) estimated life-span of the site;
- (vii) measures for the containment and treatment of leakage and leachate;
- (viii) preliminary plan for decommissioning; and
- (e) contain, where applicable, consent from the local government where the waste management facility is to be located.

### 13. Consent of local government

- (1) A person who intends to store, treat or dispose waste shall obtain the written consent of the local government in which the waste management facility is to be located.
- (2) The local government referred to in subregulation (1) shall, before granting the consent ensure that
  - (a) the intended location of the waste management facility conforms to the requirements in regulation 62; and
  - (b) the applicable laws, ordinances, by-laws and planning requirements are complied with.

### 14. Consultations

- (1) The Authority may consult a relevant lead agency before making a decision on an application under this Part.
- (2) The lead agency consulted under sub regulation (1) shall review the application and submit its comments and recommendations on the application within twenty-one days from the date of receipt of the application.

### 15. Publication of notice of intention to issue a licence

- (1) The Authority may, where it deems necessary and at the cost of the applicant, publish its intention to issue a licence to manage waste in a newspaper of national circulation or any other media at least fifteen days before the issuance of the licence.
- (2) The notice under subregulation (1) shall contain—
  - (a) the name and address of the applicant;
  - (b) the proposed site or activity, where appropriate;
  - (c) where applicable, the invitation to the public to make comments within the period specified in the notice; and
  - (d) any other information the Authority may deem necessary.

### 16. Processing of application for a licence

- (1) The Board shall set up a technical committee on pollution control in accordance with section 21 of the Act.

- (2) The Committee set up under subregulation (1) shall process applications under this Part, taking into account comments and recommendations received from the lead agency under regulation 14 and, where applicable, from the public under regulation 15(2)(c).
- (3) The Committee may, in processing the application—
  - (a) conduct inspections that are necessary to enable it to make an informed decision regarding—
    - (i) the availability of adequate and appropriate facilities and equipment to transport, store, treat or dispose of the waste for which the application is made;
    - (ii) measures for the protection of human health and the environment;
    - (iii) any other specific measure that may be deemed necessary; and
  - (b) make recommendations to the Authority in respect to the application.
- (4) The Authority shall, before issuing a licence under this regulation—
  - (a) verify that the applicant has adequate financial capacity and has provided an insurance policy under regulation 19 and at least one other form of financial security referred to in regulation 18;
  - (b) verify that the applicant has adequate technical capacity to manage the waste;
  - (c) consider the possible effects of the waste on the environment;
  - (d) where applicable, verify that the applicant has obtained consent from the relevant local government in accordance with regulation 13;
  - (e) verify that the applicant meets any other relevant requirements of the Act, these Regulations, environmental standards and any other applicable law; and
  - (f) take any other measures as are necessary to ensure compliance with the relevant requirements of the Act, these Regulations, environmental standards and any other applicable law.
- (5) An application for a licence to manage waste shall be processed expeditiously, but in any case not later than ninety days from the date of receipt of a complete application.

## 17. Determining financial capacity

For the purposes of determining the financial capacity of an applicant under regulation 16(4)(a), the Authority shall be guided by—

- (a) the net assets of the applicant as disclosed in the annual returns;
- (b) audited financial statements of the applicant for the last two years or as applicable;
- (c) the tax obligations of the applicant;
- (d) the bank statement of the applicant for the last two years or as applicable;
- (e) the actual stock in trade of the applicant; and
- (f) key financial ratios.

## 18. Financial security

- (1) The Authority may, in accordance with section 141 of the Act, require an applicant for a licence to provide a financial security in the form of an on-demand bank guarantee in the format set out in Schedule 7 to these Regulations, insurance, performance bonds, escrow agreements or any other form of credit or similar security as the Authority may determine.

- (2) The financial security obtained under subregulation (1) shall be any one security and an insurance policy under regulation 19.
- (3) The financial security shall guarantee environmental remediation of a waste management facility or vessel where—
  - (a) there is need for immediate response action to an emergency occasioned by the waste management facility, vessel or activity of the waste handler;
  - (b) decommissioning, restoration and after-care procedures of the waste management facility have not been carried out to the satisfaction of the Authority; or
  - (c) the waste handler is declared insolvent.
- (4) In determining the financial security to be provided by the applicant under subregulation (1), the Authority shall take into consideration—
  - (a) the type and quantity of waste that the waste handler is authorised to handle;
  - (b) the possible costs related to decommissioning, restoration and after-care procedures;
  - (c) the potential cost of clean-up operations for the hazardous waste that may not be handled by the waste handler, given the quantities of hazardous waste permitted to be stored by the waste handler or transported for safe handling elsewhere; and
  - (d) the risks associated with the waste management activity.

## 19. Insurance

- (1) The Authority may require a person who generates hazardous waste or an applicant to be granted a licence under this Part, to subscribe to an insurance policy.
- (2) The insurance policy required under this Part shall cover environmental risks likely to arise out of the waste management operations, including harm caused to human health or the environment, and damage to a third party's property caused by operations of the waste management activity.

## 20. Grant of licence to manage waste

- (1) The Authority may, after being satisfied that the applicant meets the requirements of the Act and this Part, grant a licence to manage waste.
- (2) The licence issued under this regulation shall be in the format set out in Schedule 8 to these regulations.
- (3) A licence granted under this regulation shall not be transferable.

## 21. Conditions in a licence

- (1) The Authority may, in granting a licence under regulation 20(1), impose conditions, including requirements relating to—
  - (a) compliance with conditions of a certificate of approval of environmental and social impact assessment;
  - (a) fitness for purpose of facility or vessel;
  - (b) qualifications and experience of the personnel;
  - (c) handling, transport, storage, treatment or disposal of waste, including requirements for facilities and equipment;
  - (d) the need to obtain a financial security in accordance with regulation 18 before commencement of operations;



- (e) the need to subscribe to an insurance policy covering the environmental risks likely to arise out of the waste management activity in accordance with regulation 19;
  - (e) pollution abatement, risk reduction and environmental standards, including control of emissions, noise and vibration, and effluent;
  - (f) site specific measures;
  - (g) decommissioning, restoration and after-care of the waste management facility;
  - (h) the type and total amount of waste permitted to be managed at any time;
  - (i) additional measures for the protection of human health and the environment; and
  - (j) any other measure as the Authority may deem necessary.
- (2) Where a licence relates to operation of a landfill, the Authority may, in addition to the conditions under subregulation (1), stipulate—
- (a) the class of the landfill, in accordance with regulation 71;
  - (b) the maximum capacity of the landfill;
  - (c) the types and quantity of waste which is authorised to be deposited in the landfill;
  - (d) the requirements for landfill preparation, operation and monitoring and control procedures, including preliminary requirements for decommissioning;
  - (e) measures for compliance with the waste acceptance criteria contained in the operating procedures for the facility;
  - (f) reporting obligations under the Act and these Regulations; and
  - (g) any other condition specific to landfills as the Authority may deem necessary.
- (3) Where the licence relates to operation of an incineration or co-generation facility, the Authority may, in addition to the conditions under subregulation (1), require the waste handler to put in place measures to guarantee that—
- (a) the facility is designed, equipped and will be operated in a manner that the requirements of the Act, these Regulations, any other applicable law and environmental standards are complied with, taking into account the categories of waste to be incinerated;
  - (b) the heat generated during the incineration and cogeneration process is recovered as far as practicable, including through combined heat and power, or the generation of process steam;
  - (c) the residue from the incineration process is minimised in amount or hazard potential, and recycled where appropriate; or
  - (d) the disposal of the residue remaining after minimisation or recycling under paragraph (c) is carried out in conformity with these Regulations.

## 22. Duration of licence

- (1) A licence for transportation of waste shall be valid for a period of two years.
- (2) A licence for the storage, treatment or disposal of waste shall be valid for a period of three years.

## 23. Variation, suspension or revocation of licence

- (1) The Authority may vary, suspend or revoke the licence issued under regulation 20.
- (2) The reasons for variation of the licence under subregulation (1) may be to—
  - (a) protect human health or the environment;

- (b) comply with prescribed environmental standards; or
  - (c) any other reasons the Authority may consider relevant.
- (3) Where the variation relates to substantive matters referred to under subregulation (2), the Authority may require the waste handler—
  - (a) to halt project activities until the variation has been made and an updated licence has been issued;
  - (b) to conduct such investigations and assessments as the Authority may direct and to submit to the Authority reports with any comments on those reports from interested and affected parties; and
  - (c) to consult the relevant lead agency or other stakeholders in accordance with regulation 14 or 15.
- (4) Where the variation is at the initiative of the Authority, the Authority shall—
  - (a) notify the waste handler in writing of the proposed variation;
  - (b) give the waste handler an opportunity to comment on the proposed variation in writing; and
  - (c) if necessary, consult the relevant lead agency or other stakeholders in accordance with regulation 14 or 15, and accord them the opportunity to submit to the Authority written comments on the proposed variation.
- (5) The Authority shall, within twenty one days of completion of the process contemplated for substantive variations in subregulation (2)-
  - (a) vary or decline to vary the licence; and
  - (b) notify the waste handler and other interested or affected parties, if any, of the decision and its reasons.
- (6) Where the Authority varies the licence, the variation shall be without prejudice to any liabilities or obligations which may have accrued on the waste handler before the variation was effected.
- (7) The Authority may suspend or revoke the licence where—
  - (a) information or data given by the applicant in the application or during consultations was false, substantially incorrect or intended to mislead;
  - (b) information related to the conduct of the applicant which could have precluded the approval of the application had it been available to the Authority, is brought to the attention of the Authority;
  - (c) there is non-compliance with the Act, these Regulations or the conditions of a licence;
  - (d) it is necessary to protect human health or to prevent harm or further harm to the environment, due to a situation that was not foreseen during the grant of the licence; or
  - (e) there is a substantial change or modification of the process or technology, the basis on which the licence was granted, which may lead to adverse environmental impacts or endanger human health or undermine safety.
- (8) Where the Authority intends to suspend or revoke a licence, it shall—
  - (a) notify the waste handler of the intention within fourteen days before the decision; and
  - (b) inform the waste handler of their right to show cause why the licence should not be suspended or revoked.

- (9) A waste handler given notice under subregulation (8) may give a written response to the Authority within seven days from the date of receipt of the notice, stating reasons why the licence should not be suspended or revoked.
- (10) The Authority may, after the expiration of the period specified in subregulation (9), suspend or revoke the licence where—
  - (a) it is not satisfied with the reasons given by the waste handler; or
  - (b) it has not received a response from the waste handler.
- (11) Notwithstanding subregulation (9), the Authority may, depending on the gravity of the matter, suspend or revoke a licence granted under these Regulations without notice and immediately stop operations of the waste handler.
- (12) Where a licence is suspended or revoked under subregulation (10) or (11), the waste handler shall stop any further operations and undertake necessary remediation measures in a manner determined by the Authority.
- (13) Where a licence has been suspended and a waste handler has undertaken remediation measures under subregulation (12) to the satisfaction of the Authority, the waste handler may apply to the Authority for reconsideration.

#### **24. Renewal of licence**

- (1) A person granted a licence under these Regulations may apply to the Authority for renewal of the licence at least sixty days before the expiration of the licence.
- (2) An application referred to under subregulation (1) shall be in the form set out in Schedule 5 to these Regulations.
- (3) The application referred to under subregulation (1) shall be accompanied by—
  - (a) a copy of the current licence;
  - (b) evidence of compliance with the conditions of the licence to be renewed, including where applicable, the most recent environmental compliance audit report or monitoring reports;
  - (c) a copy of the most recent annual report;
  - (d) proof of financial and technical capacity;
  - (e) where applicable, a confirmation of the financial security, including insurance;
  - (f) proof of payment of the fee prescribed in Schedule 6 to these Regulations; and
  - (g) any other information that may be required by the Authority.
- (4) The Authority may process the application for renewal in accordance with this Part.
- (5) The Authority may, in renewing a licence under this regulation, impose any of the conditions specified in regulation 21.

#### **25. Transfer of waste management facility**

- (1) Where a waste handler wishes to transfer a waste management facility, the waste handler shall, at least ninety days from the date of the proposed transfer—
  - (a) notify the Authority in writing of the intention to transfer the facility; and
  - (b) advise the new transferee to apply to the Authority for the issuance of a new licence in accordance with these Regulations using the form prescribed in Schedule 5 to these Regulations.

- (2) In the absence of the waste handler referred to under subregulation (1), the transferee shall obtain the waste handler's information required under subregulation (2) and notify the Authority of the transfer.
- (3) The transferee referred to under subregulation (1) shall, within the period stipulated under subregulation (1), apply to the Authority for a licence to manage waste in accordance with these Regulations.
- (4) The application under subregulation (2) shall, in addition to the requirements of regulation 12, state—
  - (a) the name and address of the proposed transferee;
  - (b) the technical and financial capacity of the proposed transferee to carry on with the management of the waste;
  - (c) that the transferee shall be responsible for all the liabilities of the waste management facility;
  - (d) a resolution of the company or certificate of ownership from the registrar of companies; and
  - (e) any other information the Authority may deem necessary.
- (5) The Authority may, in accordance with regulations 16, 20 and 21, approve the new application under this regulation.
- (6) Where the Authority makes the decision to issue a new licence, it shall cancel or withdraw the old licence before issuing a new licence.

## **Part IV – Domestic waste, municipal waste and industrial waste**

### **Management of domestic and municipal waste**

#### **26. Disposal of domestic and municipal waste**

- (1) A person who generates domestic waste or municipal waste may, without a licence issued under these Regulations, dispose of non-hazardous waste in an environmentally sound manner in accordance with these Regulations, and ordinances and by-laws made by a relevant local government.
- (2) A person who generates hazardous domestic waste or hazardous municipal waste shall ensure that —
  - (a) the waste is segregated from non-hazardous waste;
  - (b) the waste does not cause harm to human health or the environment; and
  - (c) hazardous waste is delivered to a waste handler licensed to receive hazardous waste under these Regulations.
- (3) Where hazardous domestic waste or hazardous municipal waste is delivered to a waste handler under subregulation (2)(c), the person who generates the waste shall, as far as possible, ensure that —
  - (a) information on the type of the waste is provided; and
  - (a) the packaging is clearly labelled with this information.
- (4) The Authority or relevant local government may, by notice, limit the amount of domestic or municipal waste that can be handled under subregulation (1).

## 27. Local government responsibility for domestic and municipal waste

- (1) A local government shall put in place measures for the management of domestic and municipal waste generated within its jurisdiction, including collection, transportation and disposal of the waste.
- (2) For the purposes of subregulation (1), the local government shall comply with these Regulations and may make ordinances and bylaws under the Local Governments Act, which shall include provisions on—
  - (a) segregation and re-use of waste;
  - (b) control of open burning of waste;
  - (c) collection and transportation of waste; and
  - (d) treatment or disposal of waste.
- (3) A local government shall, with the approval of the Authority, establish and manage waste disposal sites for domestic and municipal waste in accordance with the Act and these Regulations.
- (4) Notwithstanding subregulation (3), two or more local governments may cooperate in the management of waste generated within their jurisdiction, including operating joint waste management facilities.
- (5) For the avoidance of doubt, a local government shall, before establishing a waste disposal facility—
  - (a) undertake an environmental and social impact assessment in accordance with the Act and the National Environment (Environmental and Social Assessment) Regulations, 2020; and
  - (b) obtain a licence for the management of the facility in accordance with Part III of these Regulations.
- (6) A local government may contract a waste handler to manage domestic or municipal waste.
- (7) A local government intending to receive hazardous waste for disposal at its waste disposal facility shall obtain a licence in accordance with Part III of these Regulations.

## 28. Local government waste management plan

The Authority may require a local government to develop a waste management plan in accordance with regulation 11.

## 29. Waste in public places

- (1) A local government shall provide waste receptacles at public places, including public recreational areas, public transport commuter parks and other heavily visited areas.
- (2) A local government shall ensure that the waste receptacles provided under subregulation (1) are emptied and that the waste is transported to a designated waste disposal site in accordance with these Regulations.
- (3) The local government shall ensure cleanliness of the area where the waste receptacles are located in accordance with subregulation (1).
- (4) The duty of the local government under this regulation does not apply if another person has a duty to manage waste under this Part.

## 30. Waste along public roads and highways

- (1) A local government and relevant road authority shall ensure that waste receptacles are provided along public roads outside built-up areas.

- (2) The local government and relevant road authority shall ensure that the waste receptacles are emptied and the waste is transported to a designated waste disposal site.
- (3) The receptacles referred to in subregulation (1) shall be placed in a manner that does not cause safety risks to road users.
- (4) The local government and relevant road authority shall ensure that the necessary clean up within the road boundaries is undertaken where that is not the duty of any other person referred to in this Part.
- (5) The local government and relevant road authority or other authorized person shall provide places of convenience for road users in accordance with the Roads Act, 2019.

### **31. Waste generated at commercial premises or establishment**

A person who owns or operates a commercial premise or establishment shall ensure that—

- (a) waste generated at the premise or establishment is segregated;
- (b) waste receptacles are provided at the premises or establishment for the various waste streams;
- (c) the waste receptacles are emptied in a timely manner;
- (d) the waste is transported to a designated disposal site in accordance with these Regulations; and
- (e) the commercial premise or establishment is clean and free of vermin and offensive odour.

### **32. Waste generated during events**

A person responsible for an event and the owner of the premises where the event is held shall be responsible for the management of waste generated in relation to the event, including the clean-up of the area after the event, where the littering has been occasioned by that event.

### **33. Waste generated from a vessel**

- (1) The owner or operator of a moving or stationary vessel shall ensure that no waste is discarded from the vessel onto water or land.
- (2) The owner or operator of a public service vessel shall provide waste receptacles in the vessel and shall be responsible for clean-up, where waste is littered.

## **Management of industrial waste**

### **34. Duty to manage industrial waste**

- (1) A person who generates industrial waste shall ensure that the waste is managed by a waste handler in accordance with these Regulations.
- (2) Notwithstanding subregulation (1), the Authority may, in accordance with these Regulations, licence a person who generates industrial waste to manage that waste where the Authority determines that the person has the capacity to do so.

## **Part V – Extended producer responsibility and product stewardship, management of plastics and associated waste and management of electrical and electronic waste**

### **Extended producer responsibility and product stewardship**

#### **35. Extended producer responsibility and product stewardship**

- (1) A person who develops, manufactures or processes a product shall, in accordance with section 98 of the Act and these Regulations, be responsible for—
  - (a) use of best available technology and process design that maximises resource efficiency, and applies the waste management hierarchy in the production processes for the product;
  - (b) monitoring the product cycle from beginning to end, to prevent mixing of waste; and
  - (c) take-back of the product after its sale or use for environmentally safe treatment or disposal.
- (2) The responsibility for take-back of products referred to in subregulation (1) extends to a product steward who imports, distributes or sells a substance, a preparation or other product.
- (3) The product steward shall establish and operate collection schemes and shall provide information for the effective return and collection of products or product waste.
- (4) For purposes of this regulation, products that may be taken back include—
  - (a) consumer goods past shelf life;
  - (b) off specification products;
  - (c) products that are no longer needed by the user;
  - (d) discontinued products;
  - (e) restricted or prohibited products;
  - (f) glass, plastics, ceramics and associated waste; and
  - (g) electrical and electronic products destined for disposal in accordance with regulation 44.

#### **36. Guidelines for take-back of products**

The Authority may, in consultation with the lead agency and other relevant stakeholders, issue guidelines for—

- (a) take-back of products, including the management of collection centres and collection schemes; and
- (b) application of production technologies or process designs that prevent or minimise the generation of waste.

### **Management of plastics and associated waste**

#### **37. Prohibition of importation, sale and use of plastic bags and other plastics used for packaging**

- (1) A person shall not import, export, manufacture, use or re-use plastic carrier bags or plastic products made of polymers of ethene (polythene) and propylene (polypropylene) except in accordance with section 76(1) of the Act.

- (2) Plastic carrier bags or plastic products prohibited under subregulation (1) shall be considered waste under these Regulations.
- (3) The management of plastic waste shall take into account the hazards that the waste presents to human health and the environment.

### **38. Duty to minimise plastic waste**

Every person has a duty to minimise the generation of plastic waste and shall—

- (a) find and make use of alternative packaging materials that do not persist in the environment; and
- (b) prevent littering of the environment by plastics.

### **39. Criteria for managing waste from plastics and plastic products**

- (1) In accordance with section 76(2) and (3) of the Act, a person who imports or manufactures plastics or plastic products shall—
  - (a) maintain a record of raw materials and their chemical constituents used to manufacture plastics and plastic products, including plastic carrier bags;
  - (b) document the quantity of plastics and plastic products;
  - (c) batch and label the plastics and plastic products with use, recycling and disposal instructions;
  - (d) ensure that the plastics and plastic products are stored and recycled by persons with appropriate facilities, making use of cyclical resources.
- (2) A person who buys or uses plastic carrier bags shall undertake measures to minimise single-use plastics by—
  - (a) using reusable bag or container when shopping;
  - (b) reusing the same plastic carrier bags for multiple shopping trips;
  - (c) re-purposing plastic bags as trash liners or pet waste bags;
  - (d) refusing a plastic carrier bag for easy-to-carry purchases; or
  - (e) buying products in bulk.
- (3) Every person has a duty to separate plastic waste from other waste.
- (4) Where plastic waste is collected mixed or co-mingled with other waste, the responsible person or waste handler shall ensure that the waste is sorted to separate plastics from other recyclables and other waste.
- (5) Every business, retail outlet, shop, grocery store, institution of learning, workplace, including work operation spaces such as distribution and retail centres, shall set up collection centres for plastics and plastic carrier bags.
- (6) A person who purchases any product wrapped in or carried in plastic material or plastic carrier bag, may drop off the plastic to the retail outlet, shop, grocery store or other venue of a product steward.
- (7) A person who imports or manufactures plastics or plastic products is responsible for their take back in accordance with section 98 of the Act and for their recycling, by use of best available technologies and best environmental practice.
- (8) A person who imports or manufactures plastics or plastic products has a duty, in accordance with international standards and best industry practice, to recycle recyclable plastics, including plastic packaging materials and plastics for various uses.



- (9) The duty in subregulation (8) includes processing and disposal of non-recyclable fractions of plastic waste, including phaseout of non-recyclable plastic carrier bags.

## **Management of electrical and electronic waste**

### **40. Management of electrical and electronic waste**

A person shall not dispose electrical or electronic waste in landfills or unauthorised places.

### **41. Duty of product steward to receive electrical and electronic waste**

- (1) A product steward who imports, distributes or sells electrical or electronic products shall receive waste arising from those products.
- (2) The duty to accept electrical or electronic waste under subregulation (1) applies irrespective of the sales volume or sales period for the product.
- (3) A product steward shall put in place receptacles within the shop, premise or outlet for the receipt of electrical or electronic waste.
- (4) Where electrical or electronic equipment is sold or delivered through a channel outside of the shop premises, including by mail order or via the internet, the product steward shall establish an effective system for the return of similar quantities of electrical or electronic waste.
- (5) Notwithstanding subregulation (1), a product steward may, where the product steward has extra capacity, receive electrical or electronic waste belonging to the same product range and having the same functions as the products sold or distributed by the product steward.

### **42. Collection of electrical and electronic waste by local governments**

- (1) A local government may establish collection centres for the receipt of electrical or electronic waste generated within its jurisdiction.
- (2) A local government may charge a fee for the receipt of electrical or electronic waste from industries, commercial enterprises or institutions.
- (3) A local government may, in collaboration with other stakeholders, provide incentives to encourage members of the public to deliver electrical or electronic waste to a collection centre for proper management.
- (4) Where a local government establishes a collection centre in accordance with subregulation (1), it shall liaise with the manufacturer or product steward to ensure safe storage and disposal of the electrical and electronic waste collected.

### **43. Information on disposal of electrical and electronic waste**

- (1) The product steward or local government shall, by notices in public places, shops, display and exhibition premises, temporary points of sale and other sale areas and information materials, provide information that electrical or electronic waste should be delivered to a designated collection centre and not be disposed of together with other types of waste.
- (2) The notices referred to in subregulation (1) shall—
  - (a) be easy to read;
  - (b) be distinct from other information; and
  - (c) be displayed in a conspicuous place.

#### 44. Management of received electrical or electronic waste

- (1) A product steward or local government that receives or collects electrical or electronic waste is not required to obtain a licence for the receipt or collection of that waste.
- (2) The product steward or local government receiving electrical or electronic waste shall ensure that—
  - (a) the received electrical and electronic waste is secured;
  - (b) the waste is handled in a manner that does not cause harm to human health or the environment;
  - (c) the waste is exported or delivered to a waste handler authorised to handle that waste in accordance with the Act and these Regulations;
  - (d) records are kept of the quantities and types of electrical or electronic waste—
    - (i) received or collected by the product steward or local government collection facility; and
    - (ii) exported or delivered to a waste handler.
- (3) A waste handler who receives electrical or electronic waste under subregulation (2)(c) shall—
  - (a) ensure that the received electrical and electronic waste is secured;
  - (b) put in place a system for the segregation of the different materials and components of the waste;
  - (c) ensure that the hazardous materials and components in the waste are segregated from other waste and handled in accordance with Part VI; and
  - (e) ensure that the recycling target, if any, is met.

*[Please note: numbering as in original.]*
- (4) A person may re-use or recycle segregated materials and components of the electrical or electronic waste only where it is determined, in accordance with the Act and these Regulations, that such re-use or recycling will not cause harm to human health or the environment.

### Part VI – Management of hazardous waste

#### Classification, Characterisation and Categorisation of Hazardous Waste

#### 45. Waste classification, characterisation and categorisation

- (1) A person who generates hazardous waste, not being a person referred to under regulation 26(2) and a waste handler, shall classify, characterise and categorise waste streams in accordance with these Regulations, using test methods contained in the guidelines set out in Schedule 9 to these Regulations.
- (2) The person referred to under subregulation (1) shall, in characterising the waste, take into account—
  - (a) the source of the waste;
  - (b) information about the process producing the waste, and any hazardous chemicals and substances used in the process or that may have contaminated the waste;
  - (c) data on the composition of the waste and its leaching behaviour;
  - (d) the smell, colour and physical form of the waste;

- (e) whether the waste consists of a mixture of different substances and if so, the composition of the mixture and the extent to which the composition may vary; and
  - (f) possible variations and changes in-between the waste streams during the management of the waste.
- (3) Where the waste referred to under Schedule 3 to these Regulations is not identified, separated and characterised as nonhazardous, the whole container or consignment shall be considered hazardous waste.
- (4) A person referred to under sub regulation (1) shall use laboratories which are designated by the Authority or certified for provision of laboratory services for the characterisation of waste.

#### **46. Prohibition on mixing hazardous waste**

- (1) A person who generates waste or a waste handler shall not mix hazardous waste with—
- (a) a different category of hazardous waste;
  - (b) non-hazardous waste; or
  - (c) any substance or material other than hazardous waste of the same category.
- (2) A person who generates waste or a waste handler shall not mix or dilute hazardous waste with other material or substances for the purpose of reducing the concentrations of hazardous substances to avoid classification or characterisation as hazardous waste.
- (3) Where hazardous waste has been mixed, the holder of that waste shall make arrangements for the separation of the waste to be effected by a waste handler authorised to handle that waste.

### **Responsibility for handling of hazardous waste**

#### **47. Responsibility of a person who generates hazardous waste**

A person who generates hazardous waste, not being a person referred to under regulation [26\(1\)](#), shall—

- (a) provide for proper storage of the waste in accordance with regulations [54](#) and [55](#);
- (b) maintain sufficient information on the source, content and properties of the waste to ensure that the waste is managed in a responsible manner;
- (c) ensure that the waste is managed by a waste handler authorised to manage that waste if the person generating the waste is not licensed to handle the waste;
- (d) ensure that where the waste is delivered to a waste handler—
  - (i) complete a waste manifest in accordance with regulation [53](#);
  - (ii) package and label the waste in accordance with regulations [56](#) and [57](#); and
  - (iii) keep documentation to verify delivery of the waste to a waste handler authorised to handle the waste.

#### **48. Responsibility of a waste handler in relation to hazardous waste**

- (1) The waste handler managing hazardous waste shall—
- (a) obtain the necessary licences and permits for the proper management of the waste in accordance with the Act and these Regulations;
  - (b) establish or maintain necessary facilities for the specific aspect of waste management licensed;

- (c) ensure that the waste received is accompanied by a waste manifest and other relevant documentation showing that it is classified, characterised and categorised in accordance with regulation 45;
- (d) in the case of hazardous domestic waste delivered in accordance with regulation 26(2) (c)—
  - (i) transport the waste in accordance with a licence issued under Part III to these Regulations;
  - (ii) classify, characterise and categorise the waste received at the facility in accordance with these Regulations, using the guidance set out in Schedule 9 to these Regulations; and
  - (ii) issue a waste manifest for the waste in accordance with regulation 53.
- (2) The waste handler shall use the information on classification, characterisation and categorisation of hazardous waste together with the waste manifest to guide the subsequent management of the waste.
- (3) The waste handler shall not accept the waste that—
  - (a) is not covered under the licence;
  - (b) is not accompanied by a waste manifest; or
  - (c) does not match the description on the accompanying waste manifest.
- (4) Where a person attempts to transport or deliver waste to a waste management facility contrary to subregulation (3), the waste handler shall—
  - (a) reject the waste;
  - (b) immediately notify the Authority and a relevant lead agency; and
  - (c) direct the transporter to return the waste, unless otherwise instructed by the Authority.
- (5) Where the waste handler rejects waste under subregulation (4), the waste handler shall immediately notify the Authority, lead agency and any other relevant government authority.

## Healthcare waste

### 49. Categories of healthcare waste

- (1) A person who generates healthcare waste shall categorise the waste as hazardous or non-hazardous waste.
- (2) Hazardous healthcare waste includes—
  - (a) sharps waste, including needles, hypodermic needles, scalpels, blades, knives and infusions;
  - (b) infectious waste, including waste contaminated with blood and other body fluids, cultures and stocks of infectious agents from laboratory work and waste from infected patients in isolation wards;
  - (c) pathological waste, including waste consisting of tissues, organs, body parts, blood, body fluids and other waste from surgery and autopsies on deceased persons with infectious diseases;
  - (a) pharmaceutical waste, including cytotoxic and genotoxic waste and expired, unused, split and contaminated pharmaceutical products;

*[Please note: numbering as in original.]*

- (b) chemical healthcare waste containing the characteristics in regulation [45](#), including discarded solid, liquid and gaseous chemicals; and
  - (c) radioactive healthcare waste, including materials contaminated with radionuclides.
- (3) For the avoidance of doubt, a person handling healthcare waste shall comply with these Regulations.

## 50. Assessment of healthcare waste

In addition to the requirements in regulations [45](#) and [46](#), a person who generates healthcare waste and a waste handler authorised to manage healthcare waste shall—

- (a) undertake waste assessment to characterise the biological and physico-chemical composition of the healthcare waste in order to develop a waste minimisation plan and strategy for handling the different types and quantities of the waste;
- (b) estimate the quantities of hazardous healthcare waste that require special handling in accordance with regulation [55](#); and
- (c) identify and determine the potential for recycling and other waste minimization measures in accordance with regulation [7](#).

## 51. Handling of healthcare waste

- (1) A person who generates healthcare waste and a waste handler authorised to manage healthcare waste shall ensure that the waste is managed in a manner that does not cause harm to human health or the environment, and in accordance with the Act, these Regulations and any other applicable law.
- (2) A person who generates healthcare waste shall ensure that—
  - (a) the healthcare waste is segregated and handled according to the different categories in regulation [49\(2\)](#);
  - (b) the healthcare waste is not mixed with other types of waste; and
  - (c) infectious healthcare waste is contained and managed to avoid harm to human health or the environment or transmission of infections.
- (3) A person who generates healthcare waste shall ensure that the waste is managed by a waste handler authorised to handle healthcare waste.
- (4) The Authority may, in accordance with these Regulations, license a person who generates healthcare waste to manage that waste where the Authority determines that the person has the capacity to do so.
- (5) A waste handler authorised to manage healthcare waste shall ensure that—
  - (a) the healthcare waste is not mixed with other types of waste;
  - (b) infectious healthcare waste is contained, treated and managed to avoid harm to human health or the environment or transmission of infections; and
  - (c) the waste is packaged and labelled in accordance with regulations [56](#) and [57](#).

## Waste Containing Radioactive Material

### 52. Handling of waste containing radioactive material

- (1) A person who generates waste and a waste handler shall ensure that any waste containing radioactive materials is managed in accordance with the Act, the Atomic Energy Act, 2008 and Regulations made under that Act.
- (2) For the purpose of subregulation (1), a person who generates waste likely to contain radioactive material and a waste handler, shall put in place measures and obtain and use necessary equipment to detect radioactivity in waste generated or handled.
- (3) The person who generates waste and a waste handler shall, in accordance with these Regulations and a permit or licence obtained from the Atomic Energy Council, control the use of radioactive materials, to prevent exposure or contamination and accumulation of waste containing radioactive material and to provide for safe disposal of the waste.
- (4) The person who generates waste and a waste handler shall be liable for any exposure of persons to waste containing radioactive material and related waste in the waste handler's control.

## Handling, Storage and Labelling of Hazardous Waste

### 53. Waste manifest

- (1) For the purpose of traceability and proper documentation of the hazardous waste, a person who generates hazardous waste and a waste handler shall each complete a waste manifest for each consignment of hazardous waste in the format set out in Schedule 10 to these Regulations.
- (2) The waste manifest referred to in subregulation (1) shall accompany each consignment of waste.
- (3) A copy of the waste manifest shall be kept by the person who generates the waste and the waste handler in hard copy and, where possible, in electronic form for a period of at least five years from the date of first movement of the waste, thereafter the waste manifest shall be kept and be available in electronic form.
- (4) The waste manifest shall be made available to the Authority, lead agency, environmental inspectors and other authorised officers, upon request.

### 54. Storage of hazardous waste

- (1) A person who generates hazardous waste or a waste handler may store waste for a period not exceeding one year to accumulate quantities of waste material that can be transported for recycling, treatment or disposal where the waste streams involved are small or the production processes generating these waste streams operate intermittently.
- (2) A person who generates hazardous waste shall not store quantities of waste exceeding three tonnes at any given time.
- (3) For the avoidance of doubt, the quantity of hazardous waste that can be stored by a waste handler at any given time shall be prescribed in the licence issued under Part III of these Regulations.
- (4) A person who generates hazardous waste and a waste handler shall keep records of the waste stored under this regulation.
- (5) Notwithstanding subregulation (1), the Authority may, before the expiration of the one year period prescribed, and in the interest of human health or the environment, require a person who generates hazardous waste or a waste handler to remove the waste stored within a shorter specified time.

## 55. Requirements for storage areas for hazardous waste

- (1) A person who generates hazardous waste and a waste handler who stores hazardous waste shall ensure that the waste is stored in a manner that does not cause harm to human health or the environment.
- (2) A person who generates hazardous industrial waste and a waste handler shall store the waste in designated storage areas approved by the Authority.
- (3) A storage area for hazardous waste referred to in subregulation (2) shall—
  - (a) be established based on an environmental risk assessment undertaken in accordance with the Act and any other applicable law;
  - (b) be located in an area that does not inconvenience the neighbouring communities or pose a risk of pollution to fragile ecosystems;
  - (c) have an impermeable surface to prevent leakage to the ground, water and surrounding environment;
  - (d) contain appropriate storage containers that can be easily moved, where applicable;
  - (e) be secured to prevent unauthorised access;
  - (f) be indicated on the facility layout drawing, including the storage capacity, waste types to be stored, and operating practices;
  - (g) allow for proper inspections and handling of the waste; and
  - (h) comply with any other requirements the Authority may deem necessary.
- (4) Access to waste storage areas shall be controlled and documented to the extent that is necessary—
  - (a) to allow for an inventory of waste to be completed as required;
  - (b) to avoid uncontrolled accumulation of waste; and
  - (c) to avoid tampering and unnecessary human or environmental exposure to the waste.
- (5) A person who generates hazardous waste and the waste handler shall establish adequate procedures for corrective measures to be taken immediately in the event of accidents or leakages.

## 56. Waste handling containers for hazardous waste

- (1) A person who generates hazardous waste and a waste handler shall not store or transport in the same container—
  - (a) two or more categories of waste which are not compatible; or
  - (b) waste which is not compatible with any substance placed in the container.
- (2) A person who generates hazardous waste and a waste handler who uses a container to store or transport hazardous waste shall—
  - (a) ensure that the container is suitable for the purpose and meets standards approved by the Authority;
  - (b) ensure that the container is not reactive to the waste to be stored in it;
  - (c) keep the container closed at all times during storage or transportation;
  - (d) not handle, store or transport the container in a manner which may cause it to leak or rupture;

- (e) ensure that the outside of the container is clearly labelled in accordance with these Regulations;
  - (f) ensure that the container is sufficiently durable so as to contain the waste safely;
  - (g) ensure that the packaging and fastenings are strong and solid throughout to ensure that the container does not loosen and that the container meets the normal stresses and strains of handling;
  - (h) ensure that the container does not cause harm to persons involved in handling the waste, the neighbouring community and the environment in general; and
  - (i) ensure that any replaceable fastening fitted to the container holding the waste is designed so that the container can be repeatedly refastened without its contents spilling.
- (3) A person shall not—
- (a) place hazardous waste in an unclean container that previously held a material which is incompatible with that waste; or
  - (b) use a container which has been used for hazardous waste to store, hold or transport water, food, animal feed or a product which may directly or indirectly become part of food for human consumption or animal feed.
- (4) For the avoidance of doubt, containers used to carry hazardous chemicals or hazardous waste which cannot be reused for similar purposes, are considered hazardous waste under these Regulations.

#### **57. Labelling of hazardous waste management facilities, containers and vessels**

- (1) A container or package containing hazardous waste shall have attached to it a label, written in English in easily legible characters as determined by the Authority.
- (2) The label referred to in subregulation (1) shall be permanently fixed to the container or package and may have a translation in a relevant local language, where necessary.
- (3) The label referred to under subregulation (2) shall include the following information as appropriate—
  - (a) the identity of the waste, including name, classification and characteristic of the waste;
  - (b) the net contents;
  - (c) flash point, if appropriate;
  - (d) precautions and action required in the event of a spillage;
  - (e) information detailing the nature and degree of hazard inherent in the waste, including all or some of the following as appropriate—
    - (i) the words “warning” or “caution”;
    - (ii) the words “danger! Unauthorised persons keep away”;
    - (iii) the words “HAZARDOUS WASTE”;
    - (iv) the word “poison”, marked indelibly in blue or a contrasting background; and
    - (v) pictogram or symbols in accordance with Schedule 11 depicting the degree of hazard;
  - (f) a statement directing the user to read the label before handling of the waste;
  - (g) emergency contact information; and
  - (h) any other information that the Authority may deem necessary.



- (4) The Authority may determine the size and font of the pictogram, symbols and words referred to in subregulation (3)(e).
- (5) All primary containers for waste containing hazardous chemicals and substances shall be packaged with up-to-date safety data sheets with instructions for handling of the hazardous waste, including safety precautions in accordance with environmental standards and best industry practices.
- (6) A vessel carrying hazardous waste shall be labelled in accordance with subregulation (3) and the label—
  - (a) shall not contain any warranties, guarantees or liability exclusion clauses inconsistent with the Act or these Regulations; and
  - (b) shall include the words “HAZARDOUS WASTE” in permanent, fluorescent and legible characters, placed on both sides of the vessel in a colour contrasting with the background.
- (7) A person who generates hazardous waste or a waste handler shall ensure that hazardous waste containment areas are appropriately marked in accordance with subregulation (3).

## Collection and Transportation of Hazardous Waste

### 58. Collection and transportation of hazardous waste

- (1) A waste handler licensed to transport hazardous waste shall ensure that—
  - (a) the collection and transportation of the waste is conducted in a manner that does not cause leakage, spillage, scattering or littering of the waste or the emitting of noxious smells or harmful odours;
  - (b) the vessel used for transportation of hazardous waste is labelled in accordance with regulation 57;
  - (c) that the vessel used for transportation of the hazardous waste or other means of conveyance of the waste uses designated routes, if any, from the point of collection of the waste up to the disposal facility;
  - (d) a waste manifest and a safety data sheet for waste containing hazardous chemicals accompany the waste, to enable the tracking of each batch of hazardous waste from its source to its final disposal; and
  - (e) the personnel involved in the collection and transportation of the hazardous waste are, in accordance with the Occupational Safety and Health Act, 2006 and any other applicable law, provided with—
    - (i) appropriate personal protection equipment and safety clothing;
    - (ii) appropriate equipment or facilities for handling the waste;
    - (iii) safe and secure sitting facilities in the vehicles used for transporting the waste; and
    - (iv) proper training, information and instruction, including on how to handle emergency situations.
- (2) The Authority may, in consultation with a relevant lead agency, designate a transportation route referred to under subregulation (1)(c).
- (3) A waste handler shall not permit unauthorised access to the vessel used for the transportation of the waste.
- (4) A waste handler shall ensure that the vessel used for transportation of hazardous waste is not used for any other purpose.

### 59. Transportation journey management plan

- (1) The waste handler with a licence to transport hazardous waste shall develop a journey management plan before commencement of operations for the transportation of hazardous waste and shall make it available to the Authority and any other relevant lead agency, upon request.
- (2) The journey management plan referred to under subregulation (1) shall include—
  - (a) the designated routes;
  - (b) route specific speed limits;
  - (c) designated driving period;
  - (d) health, safety and environment requirements; and
  - (e) any other information that the Authority and any other relevant lead agency may require.
- (3) A copy of the journey management plan referred to in subregulation (1) shall at all times be present in the vessel transporting the hazardous waste.
- (4) The waste handler shall install electronic tracking systems for vehicles used in the transportation of hazardous waste.
- (5) The waste handler shall provide access to real time vehicle tracking information to the Authority and relevant lead agency.

## Part VII – Treatment and disposal of waste

### 60. Treatment and disposal of waste

- (1) The waste handler shall treat or dispose waste in accordance with the treatment or disposal methods and environmental standards approved by the Authority and shall use best available technologies and best environmental practices.
- (2) Where there are no environmental standards, the waste handler may, with the approval of the Authority, use internationally recognised standards.
- (3) The waste handler shall have quality control and quality assurance protocols to ensure that the treatment and disposal of waste is in compliance with the Act, these Regulations, environmental standards, conditions in the licence and any other applicable law.

### 61. Treatment and disposal of hazardous waste

- (1) A waste handler licensed to treat hazardous waste shall, in addition to the requirements in regulation 60, take reasonable measures to determine the composition, nature and properties of the waste before treatment.
- (2) For the purposes of subregulation (1), the waste handler shall, in accordance with these Regulations and any other applicable laws, undertake physical, chemical or biological analyses, taking into account the waste manifest and any relevant published scientific information.
- (3) Without limiting the general effect of subregulation (2), the waste handler shall inquire into and ascertain the composition of waste wherever the waste handler has reason to believe that—
  - (a) a process or operation producing the hazardous waste delivered to the waste management facility has changed; or
  - (b) the description of the waste received at the facility does not match the description of the waste on the accompanying waste manifest.

## General provisions relating to waste management facilities

### 62. Siting of waste management facilities

- (1) A person shall not establish, construct or operate any waste management facility—
  - (a) in a floodplain;
  - (b) within five hundred metres of a mapped out geological fractured zone;
  - (c) in a place which is prone to natural disasters, including earthquakes, floods and landslides, unless the waste management facility is designed, constructed, operated and maintained to prevent collapse or washout;
  - (d) within two hundred meters of any land which may be prone to or impacted by slope failure;
  - (e) on a hilly or mountainous area with a gradient of more than 60 degrees;
  - (f) in a water source area, including the surface and subsurface water catchment area, through which pollutants are likely to move toward and reach water sources;
  - (g) within five hundred metres of a cultural or natural heritage or archeological site; or
  - (h) within 6 kilometers from an aerodrome.
- (2) Where the waste management facility is for treatment or disposal of hazardous waste, the waste handler shall, in addition to the requirements in subregulation (1) ensure that—
  - (a) the waste treatment or disposal facility is not within two hundred meters from the boundaries of a protected area, bird sanctuary, wildlife management area or land acquired and administered under the Uganda Wildlife Act, the National Forestry and Tree Planting Act, 2003 or any other law on conservation areas;
  - (b) the waste treatment or disposal facility is not located within a wetland or within five hundred meters from a riverbank, lakeshore or area immediately adjacent to fragile ecosystems;
  - (c) the boundary of the waste treatment or disposal facility is at a distance of at least five hundred metres away from human settlements or commercial areas; and
  - (d) the boundary of the waste treatment or disposal facility is not within areas suitable for agriculture except with the approval of the Authority.
- (3) The waste handler shall ensure that the waste treatment or disposal facility—
  - (a) is enclosed and secured from access by unauthorised persons or wildlife;
  - (b) has an updated site layout plan; and
  - (c) has a buffer zone around it as prescribed under the Act, these Regulations and any other applicable law.
- (4) Without limiting the general effect of subregulation (2)(c), the waste handler shall conduct scientific studies on the climatological and hydro-geological characteristics of the area proposed for siting of a waste management facility, to determine any further distance being more than five hundred meters as may be necessary for the protection of human settlements and commercial areas from the impacts of a waste management facility.

### 63. Management of run-off

- (1) A waste handler shall put in place sufficient measures to minimise and manage run-off from the waste management facility.

- (2) The Authority may prescribe requirements regarding management of run-off including requirements relating to measurement and reporting of relevant discharge parameters in accordance with the National Environment (Standards for Discharge of Effluent into Water or Land) Regulations, 2020.

#### **64. Joint treatment or disposal facilities**

- (1) The Authority may require two or more waste handlers with similar waste residues to have a joint facility for treatment or disposal of the residues from their respective facilities.
- (2) Where the Authority requires a joint treatment or disposal facility under subregulation (1), the waste handlers shall comply with the Act and these Regulations.

### **Utilisation of waste**

#### **65. Utilisation of waste**

- (1) A person may utilise waste where—
  - (a) the purpose is not primarily to get rid of the waste;
  - (b) the waste is not classified, characterised or categorised as hazardous waste in accordance with Part VI;
  - (c) there is sufficient evidence to show that the activity for which the waste is to be utilised would have taken place even without access to the waste;
  - (d) the utilisation of the waste does not cause harm to human health or the environment;
  - (e) the properties of the waste make it suitable for the purpose; and
  - (f) the amount of waste required is proportionate to the need for the material.
- (2) Where the waste proposed to be utilised under subregulation (1) is treated hazardous waste, the person who wishes to utilise that waste shall apply to the Authority for approval.
- (3) The Authority may approve utilisation of waste under subregulation (2) where it is satisfied that the hazardous properties of the waste have been neutralised.
- (4) The waste handler and the person utilising the waste under this regulation shall be responsible for any pollution or health impacts that may arise from the utilisation of the waste.

### **Contaminated soil**

#### **66. Handling of contaminated soil**

- (1) Contaminated soil shall be characterised and handled in accordance with environmental standards prescribed by the Authority.
- (2) Contaminated soil that is classified, characterised and categorised as hazardous waste in accordance with this regulation and regulation 45, shall be managed in accordance with these Regulations, the National Environment (Minimum Standards for Management of Soil Quality) Regulations, 2001 and any other applicable law.
- (3) The waste handler shall, in accordance with regulation 45, undertake an analysis of contaminated soils and produce a report providing the type and concentration level of the contaminants and how the contaminated soil will be treated and managed.
- (4) The report produced under subregulation (3) shall be available to the Authority or authorised officer on request.

## 67. Utilisation of treated soil

- (1) Contaminated soil may be treated and utilised in accordance with these Regulation and any other applicable law.
- (2) A person who wishes to utilise treated soil shall apply to the Authority in writing for approval, taking into account subregulation (3).
- (3) The Authority may, in consultation with the relevant lead agency, approve the utilisation of treated soil where—
  - (a) the Authority is satisfied that the hazardous properties of the treated soil have been neutralised.
  - (b) the purpose is not primarily to get rid of the treated soil;
  - (c) there is sufficient evidence to show that the activity for which the treated soil is to be utilised would have taken place even without access to the treated soil;
  - (d) the utilisation of the treated soil does not cause harm to human health or the environment;
  - (e) the properties of the treated soil make it suitable for the purpose; and
  - (f) the amount of treated soil applied for is proportionate to the need for the material.
- (4) The waste handler and the person utilising the treated soil under this regulation shall be responsible for any pollution or health impacts that may arise from the utilisation of the treated soil.

## Part VIII – Landfills

### 68. General provisions for landfills

- (1) The purpose of this Part is to ensure that where landfilling of waste is approved by the Authority as the waste disposal method, the waste is landfilled in a sound and controlled manner and does not cause adverse effects on human health or the environment.
- (2) A waste handler who has been operating a dumpsite before the coming into force of these Regulations shall, within three months from the coming into force of these Regulations, apply to the Authority for guidance to transition from a dumpsite to an engineered landfill.
- (3) Subject to subregulation (2), the Authority may require the waste handler to close the dumpsite.

### 69. Landfills

- (1) A waste handler with a licence to own or operate a landfill, shall, in addition to the requirements of regulation 21(2)—
  - (a) construct an engineered landfill in accordance with the Act, these Regulations, environmental standards, guidelines for landfills issued by the Authority, best environmental practices and best available technologies;
  - (b) ensure, in accordance with regulation 62, that the engineered landfill is located in an area which—
    - (i) has been identified after undertaking research and studies, and found to be suitable for the purpose;
    - (ii) has been subjected to environmental and social assessment in accordance with the National Environment (Environmental and Social Assessment) Regulations, 2020;

- (c) provide an approved secure buffer zone surrounding the active area of the engineered landfill, in accordance with environmental standards;
  - (d) apply appropriate and effective practices and techniques that prevent leakage of hazardous elements into the groundwater systems and soil, so as to prevent the risk of environmental pollution; and
  - (e) conduct quarterly monitoring of air, water and soil quality in the surrounding environment to establish the level of contaminants arising from the landfill operations and submit monitoring reports to the Authority on a half yearly basis.
- (2) Where there are no environmental standards in Uganda, the waste handler may, with the approval of the Authority, use internationally recognised standards.

#### **70. Waste prohibited from being landfilled**

A waste handler shall not landfill—

- (a) liquid waste;
- (b) flammable waste;
- (c) explosive or reactive waste;
- (d) electrical and electronic waste;
- (e) infectious healthcare waste;
- (f) radioactive or corrosive waste;
- (g) polymers, including non-biodegradable plastics, carrier bags and tyres;
- (h) glass;
- (i) waste from research institutions and education facilities that contains chemical substances whose effects on human health and the environment are not known; and
- (j) any other type of waste as may be determined by the Authority.

#### **71. Classes of landfills**

A landfill shall be classified into—

- (a) Class 1: landfills for hazardous waste in accordance with Part VI other than hazardous waste specified in regulation 70; or
- (b) Class 2: landfills for non-hazardous waste—
  - (i) biodegradable waste; or
  - (ii) inert waste other than similar waste specified in regulation 70.

#### **72. Waste to be accepted in the different classes of landfills**

- (1) A waste handler shall ensure that—
  - (a) a class 1 landfill receives and manages only hazardous waste; and
  - (b) a class 2 landfill receives and manages only non-hazardous waste.
- (2) A waste handler shall treat hazardous waste before it is landfilled.
- (3) A waste handler shall ensure that waste delivered to a landfill is suitable for the landfill and is accompanied with documentation required under these Regulations.

- (4) A waste handler shall reject waste that does not meet the acceptance criteria for the landfill.

### 73. Waste database

- (1) A waste handler shall maintain an up to date database of the quantities and characteristics of the waste disposed in the landfill, indicating—
- (a) the type, description and origin of the waste;
  - (b) the date of delivery of the waste;
  - (c) the identity of the person or facility that generated the waste;
  - (d) the method of treatment of the waste prior to landfilling; and
  - (e) in the case of hazardous waste, the exact location of the waste on the site.
- (2) The database referred to in subregulation (1) shall be kept for a minimum period of ten years.
- (3) The database maintained under subregulation (1) shall be made available to the Authority, a lead agency or an authorised officer upon request.

### 74. Water control and leachate management

A waste handler shall take appropriate measures to—

- (a) control water from precipitation entering into the landfill mass;
- (b) prevent surface water or groundwater from entering the landfilled waste;
- (c) collect contaminated water and leachate; and
- (d) treat contaminated water and leachate collected from the landfill to achieve the required discharge quality.

### 75. Protection of soil and water

- (1) The waste handler shall ensure that the landfill is situated and designed in accordance with these Regulations, conditions in the licence and the guidelines issued by the Authority to prevent pollution of soil, groundwater or surface water.
- (2) The waste handler shall put in place preventive measures to ensure that soil, groundwater and surface water is protected by lining the landfill as follows—
- (a) the base and sides of the landfill shall contain a layer which is a combination of—
    - (i) a geological barrier determined by geological and hydro-geological conditions below and in the vicinity of a landfill site, providing sufficient attenuation capacity to prevent potential risk to soil and groundwater;
    - (ii) an impermeable liner;
    - (iii) a drainage layer with a minimum thickness of 0.5 meters or more as may be determined by the Authority to ensure that leachate accumulation at the base of the landfill is kept to a minimum; and
    - (iv) a functional leakage and leachate detection system;
  - (b) the top layer of the landfill placed during closure and decommissioning shall have a combination of a draining layer, a top liner and where applicable—
    - (i) a layer to allow for controlled release of gas out of the landfill;
    - (ii) an impermeable membrane; and

(iii) a geological barrier.

- (3) The base layer referred to in subregulation (2)(a) shall be at a minimum of 1.5 meters above groundwater.
- (4) The waste handler shall, during the construction of the landfill, put in place measures to ensure that topsoil and overburden is securely stored to avoid erosion and contamination during the operation of a landfill.

#### **76. Gas control**

- (1) A waste handler shall put in place appropriate measures to collect or control the accumulation and migration of landfill gases.
- (2) A waste handler may only flare landfill gases for safety and emergency reasons.

#### **77. Nuisance and hazards**

A waste handler shall put in place appropriate measures to minimise nuisance and hazards arising from—

- (a) gaseous emissions, including offensive odour and particulate matter;
- (b) wind-blown materials;
- (c) traffic related to the landfill;
- (d) noise and vibrations; and
- (e) birds, vermin and insects.

#### **78. Stability of landfilled waste**

- (1) A waste handler shall ensure that placement of waste in the landfill is undertaken in a manner that ensures stability of the mass of waste and associated structures.
- (2) Where an artificial barrier is established, the waste handler shall monitor how the waste settles, to prevent damage to the barrier.

#### **79. Control and monitoring procedures in the operational phase**

- (1) A waste handler shall implement a quality control and monitoring programme during the operation of the landfill in accordance with these Regulations and landfill guidelines issued by the Authority.
- (2) The quality control and monitoring programme referred to under subregulation (1) shall—
  - (a) describe and provide a map showing the installations;
  - (b) identify the monitoring devices, instruments or tools that should be used, including the calibration procedures for each instrument;
  - (c) provide detailed instructions for the collection of samples, including collection of quality control or quality assurance samples;
  - (d) provide detailed instructions on measurements, including a description of the units of measurement, the required measurement precision and accuracy, and any other relevant information;
  - (e) identify all data that should be recorded, including the date and time of all samples or measurements, staff names, weather conditions, sampling locations;
  - (f) provide relevant forms or equipment for data recording; and



- (g) address health and safety issues by providing or referencing an appropriate health and safety plan.
- (3) A waste handler shall notify the Authority of any health, safety and environmental effects disclosed by the control and monitoring procedures.
- (3) A waste handler shall ensure that sampling and analyses for quality control, quality assurance and environmental monitoring purposes is carried out in accordance with the Act, these Regulations, environmental standards and conditions in the licence.

#### **80. Excavation, disruption or removal of deposited material in landfill**

- (1) A waste handler who intends to excavate, disrupt or remove deposited material from an active, terminated or closed landfill shall apply to the Authority for approval.
- (2) The application under subregulation (1) shall include a plan stating—
  - (a) the area of the landfill involved;
  - (b) the depth of the excavation with final grades;
  - (c) the site where excavated material is to be re-deposited;
  - (d) the estimated time required for completion of excavation procedures;
  - (e) proposed control measures to address potential risks from the operations; and
  - (f) any other relevant information.
- (3) The Authority may, in granting an approval under subregulation (1), include conditions related to—
  - (a) measures to be taken to control dust, odour, fires, vermin, rodents, insects, litter, surface water run-off and erosion;
  - (b) confinement of the excavation, disruption or removal of deposited material to a specific area in the landfill; and
  - (c) any other condition the Authority may deem necessary.

#### **81. Closure and after-care procedures**

- (1) Where a landfill or part of a landfill is to be closed, the waste handler shall take into account the changes that are likely to occur in the landfill in order to inform the process of landfill decommissioning and after-care.
- (2) Where a landfill or part of a landfill is to be closed, the waste handler shall notify the Authority and undertake decommissioning in accordance with Part X of these Regulations.
- (3) A landfill or part of a landfill, shall be regarded as closed only after the Authority has carried out a final on-site inspection and is satisfied that the conditions for closure have been fulfilled.
- (4) A waste handler shall, in accordance with regulation 79, remain responsible for the after-care of the landfill including maintenance, monitoring and control, and for remediation action for a period of at least thirty years.
- (5) The landfill after-care referred to in subregulation (4) may include—
  - (a) control and monitoring of landfill gases;
  - (b) monitoring and management of leachate;
  - (c) control of erosion, including of top cover;
  - (d) monitoring the quality of groundwater;

- (e) observation of changes in condition of vegetation; and
  - (f) observation and control of vermin and odour.
- (6) Where there are special cells for inert waste, aftercare monitoring shall be for a minimum of twenty years.
- (7) A waste handler shall immediately notify the Authority of any adverse environmental effects disclosed by the after-care and monitoring.

## Part IX – Waste Incineration

### 82. General provisions for waste incineration

- (1) The purpose of this Part is to ensure that where incineration is approved as the waste disposal method, the waste is incinerated in a sound and controlled manner and does not cause adverse effects on human health or the environment.
- (2) A waste handler with a licence to incinerate waste shall ensure that the incinerator—
- (a) is technically sound and controls air pollution, including by flue gas cleaning system;
  - (b) has means of monitoring the performance of the combustion process;
  - (c) is adapted to the specific type and hazardous constituents of waste to be incinerated;
  - (d) is designed to ensure that its operation is in compliance with environmental standards;
  - (e) where feasible, is designed to provide for recovery of energy; and
  - (f) where feasible, is designed to recover metals or mineral from bottom-ash or slag.

### 83. Registration and control

- (1) A waste handler shall ensure that each type of waste accepted at a waste incineration plant or co-generation plant, is weighed and recorded.
- (2) Where hazardous waste is accepted at a waste incineration plant or co-generation plant, the waste handler shall ensure that the waste corresponds with the description in the waste manifest.
- (3) A waste handler shall maintain an up to date database of the quantities and characteristics of the waste incinerated at the facility, indicating—
- (a) origin of the waste;
  - (b) date of delivery of the waste;
  - (c) identity of the person or facility that generated the waste;
  - (d) where applicable, the method of treatment of the waste prior to incineration; and
  - (e) the characteristic of the residue material after incineration.
- (4) The database under subregulation (3) shall be kept for a minimum period of ten years.
- (5) The database maintained under subregulation (3) shall be made available to the Authority or an authorised officer, upon request.

#### 84. Conditions for incineration

- (1) A waste handler shall ensure that a waste incineration plant or co-generation plant is designed, constructed and operated in a manner that meets the following minimum requirements—
  - (a) incineration plants shall be operated to achieve a level of incineration where the Total Organic Carbon content in the slag and bottom ashes is less than 3 percent or the loss on ignition is less than 5 percent of the dry weight of the material and, if necessary, appropriate techniques of waste pre-treatment shall be used;
  - (b) incineration plants shall be designed, equipped, built and operated in a manner that ensures that the emissions resulting from the process are in compliance with the Act, these Regulations, conditions in the licence and environmental standards; and
  - (c) each line of the incineration plant shall be equipped with at least one auxiliary burner in case the functionality of the main burner is compromised.
- (2) Waste incineration plants and co-generation plants shall be designed, built and operated to ensure that—
  - (a) the quantity of incineration residue from the operation of the plant is minimised as much as possible, and that valuable components in the residue will be recovered;
  - (b) the content of hazardous substances in the incineration residue is further minimised as much as possible;
  - (c) energy generated by the incineration process is recovered as far as practically possible; and
  - (d) odours or other emissions from the incineration process are not a nuisance, and do not cause harm to human health or the environment.
- (3) The waste handler shall ensure that changes in technology or operational conditions of a waste incineration plant or co-generation plant do not generate more residues or residues with a higher content of organic pollutants contrary to the Act, these Regulations, conditions in a licence or environmental standards.
- (4) Where a waste handler intends to make changes under subregulation (3), the waste handler shall notify the Authority at least three months prior to the proposed change.
- (5) A waste handler authorised to incinerate healthcare waste shall ensure that infectious waste is handled appropriately and incinerated without mixing with other categories of waste.
- (6) Non-hazardous incineration residue may be utilised in accordance with regulation 65, where appropriate or handed to an authorised waste handler for final disposal.
- (7) For the avoidance of doubt, hazardous residue from incineration shall be managed in accordance with Part VI of these Regulations.

#### 85. Maintenance of waste incineration plants and co-generation plants

- (1) The waste handler shall ensure that the incineration and cogeneration equipment is maintained in sound operational condition.
- (2) The waste handler shall document the maintenance systems and procedures for the equipment referred to in subregulation (1).

#### 86. Control of emissions

- (1) The waste handler shall ensure that a waste incineration plant or co-generation plant is designed, built and operated in a manner which ensures that the emission levels are within the limits

prescribed under the Act, these Regulations, environmental air quality standards, any other applicable law and conditions in the licence.

- (2) Flue gas from incineration plants shall be raised in a controlled manner through a stack.
- (3) The height of the stack referred to in subregulation (2) shall be at a level that ensures that concentration of air pollution at ground level or at any nearby air in-let does not exceed the air quality standards prescribed under the air quality regulations made under the Act.
- (4) The Authority may set the required stack height in the licence.

## 87. Control of wastewater discharges

The waste handler shall ensure that a waste incineration plant or co-generation plant is designed, built and operated in a manner that ensures that the concentration of hazardous substances in wastewater from the cleansing of flue gas comply with the requirements of the Act, these Regulations, the Water (Waste Discharge) Regulations, the National Environment (Standards for Discharge of Effluent into Water or Land) Regulations, 2020 and conditions in the licence.

## 88. Monitoring and control of processes

- (1) The waste handler shall undertake technological, environmental and health monitoring to ensure that waste incineration plants or co-generation plants are equipped to monitor operation and control parameters relevant to the incineration process.
- (2) Technological monitoring shall be undertaken to check performance and ability of the facility to control emissions and shall include—
  - (a) monitoring of state-of-the-art and best available technology for a smart facility operation;
  - (b) regular inspection, to determine signs of corrosion, wear, blockages or other damage in the facility; and
  - (c) energy recovery aspects of the facility.
- (3) Environmental monitoring shall include—
  - (a) continuous measurements of pressure, temperature, concentration of pollutants and composition of the flue gas;
  - (b) continuous monitoring of metals and their compounds as well as dioxins and furans;
  - (c) continuous measurements of pH, temperature and flow of wastewater from the cleansing of flue gas;
  - (d) continuous measurements of temperature after the last injection of combustion air, as measured near the inner wall or at another representative point of the combustion chamber;
  - (e) measurement of the quantity of waste incinerated;
  - (f) performance tests to ascertain compliance with the emission limits and performance specifications for continuous monitoring systems, when the facility is operating under normal conditions; and
  - (b) measurement of any other parameters that the Authority may deem necessary.

*[Please note: numbering as in original.]*

- (3) Health monitoring shall assess and monitor employee health both prior and during employment and shall include—
  - (a) compliance with the health and safety programme of the facility;

- (b) pre-employment screening, to determine fitness-for-duty, including the ability to work while wearing personal protective equipment, and provide baseline data for future exposures;
  - (c) periodic medical monitoring examinations, the content and frequency of which depend on the nature of the work and exposure, to determine biological trends that may mark early signs of chronic adverse health effects;
  - (d) provisions for emergency and acute non-emergency treatments; and
  - (e) auxiliary utilisation of portable sensor stickers to facilitate the detection of fugitive emissions of defined pollutants.
- (4) Where the waste handler observes significant variations from the limits prescribed under these Regulations, the air quality regulations made under the Act, any other applicable law and conditions of the licence, the waste handler shall notify the Authority within twenty-four hours.

## Part X – Decommissioning of waste management facilities

### 89. Decommissioning plan

- (1) A waste handler shall prepare and submit to the Authority, for approval, a comprehensive decommissioning plan for the waste management facility at least twelve months prior to the commencement of the decommissioning.
- (2) The decommissioning plan referred to in subregulation (1) shall, as a minimum contain—
- (a) details of how the waste management facility will be decommissioned and disposed of or closed when operations cease;
  - (b) details of how the waste generated during decommissioning will be managed;
  - (c) procedures for the restoration or rehabilitation and remediation of the waste management site against the baseline of the area immediately before the facility was constructed or the immediate surrounding environment;
  - (d) the occupational health and safety measures to be undertaken during decommissioning;
  - (e) proposals on further use of the decommissioned site or facility, other use, complete or partial removal and disposal of the facilities;
  - (f) an indication of resources required for the decommissioning, restoration and after care;
  - (g) the proposed duration of the decommissioning process;
  - (h) environmental monitoring measures during and after decommissioning;
  - (i) evidence of consultation with the relevant stakeholders on the proposed decommissioning;
  - (j) a summary of the most recent environmental compliance audit report and where available, the response from the Authority to the audit report; and
  - (k) any other information the Authority may require.
- (3) Where the decommissioning plan is in respect to a landfill, the plan shall, in addition to the requirements under subregulation (2) include—
- (a) measures to address likely residual issues and impacts identified;
  - (b) final shaping and landscaping;
  - (c) final landfill cover or cap design, including the utilisation of the topsoil stockpiled during the design and construction of the landfill;

- (d) measures for permanent storm-water diversion, run-off control and anti-erosion measures; and
  - (e) a description of any infrastructure relating to selected end use, where applicable.
- (4) The Authority shall on receipt of the decommissioning plan, review it and may require further information and evaluation to be carried out by the waste handler or may require a new or amended plan to be submitted.
- (5) The Authority shall, before approving the decommissioning plan, consult the relevant lead agency.
- (6) The Authority may, when satisfied with the decommissioning plan and taking into account any comments from the lead agency referred to under subregulation (5), approve the plan with conditions where necessary.
- (7) The Authority shall review and approve or reject the plan submitted under this regulation within 6 months from date of receipt of a complete plan.

#### **90. Decommissioning of a waste management facility**

- (1) The waste handler shall undertake the decommissioning process in accordance with the approved decommissioning plan, these Regulations, any other applicable law, environmental standards, guidelines issued by the Authority and international environmental best practices.
- (2) Where there are no environmental standards, the decommissioning shall be undertaken in accordance with internationally recognised standards approved by the Authority and best industry practices.
- (3) The Authority may, during the decommissioning process, impose additional requirements on the waste handler.
- (4) The waste handler shall, during decommissioning—
- (a) remove all roads and other access means and make them inaccessible, where applicable;
  - (b) remove all foundations of buildings, permanent structures, equipment and debris from the decommissioned site;
  - (c) geo-reference the decommissioned site and include a landmark approved by the Authority;
  - (d) remove any contaminated soil so as not to cause further pollution of the area, where applicable;
  - (e) restore the decommissioned site as near as possible to its original state;
  - (f) vegetate or re-vegetate the decommissioned site with indigenous species compatible with the surrounding ecosystem;
  - (h) record and monitor the restoration of the decommissioned site after decommissioning for a period required by the Authority in consultation with the relevant lead agency; and
- [Please note: numbering as in original.]*
- (i) carry out any other activity related to the decommissioning as the Authority may require.

#### **91. Post decommissioning and after care**

- (1) On completion of the decommissioning, the waste handler shall submit a report stating—
- (a) the end of the decommissioning process;
  - (b) achievements and lessons learnt;
  - (c) issues for follow up; and

- (d) any other relevant information.
- (2) The report submitted under subregulation (2) shall be accompanied by—
  - (a) the post decommissioning audit report undertaken by an independent auditor contracted by the waste handler; and
  - (b) a site verification report by the relevant local government.
- (3) Notwithstanding subregulation (2), the Authority may require the waste handler to submit an annual report on the condition of the decommissioned site in accordance with regulation 100.
- (4) The Authority shall, where it receives the report under subregulation (2)—
  - (a) consult the relevant lead agency; and
  - (b) carry out an independent verification of the decommissioned site.
- (5) The Authority shall, where it is not satisfied with the decommissioning process, require the waste handler to undertake further remediation or may undertake the remediation at the expense of the waste handler.
- (6) For the avoidance of doubt, the waste handler shall remain liable for the post-care and future pollution costs resulting from the waste management activities in accordance with the Act and these Regulations.

## Part XI – Transboundary movement of waste

### 92. Export and import of waste

- (1) A person who intends to export waste from Uganda or to import waste into Uganda shall apply in writing to the Authority for a licence.
- (2) An application under subregulation (1) shall be accompanied with a movement document in Form I set out in Schedule 12 to these Regulations and the fees prescribed in Schedule 6 to these Regulations.
- (3) The Authority may issue a licence to an applicant to export waste from Uganda—
  - (a) where it is satisfied with the completed movement document submitted under subregulation (2); and
  - (b) after obtaining the consent of the Designated National Authority of the state to which the waste is to be exported and, where applicable, the country through which the applicant intends to move the waste.
- (4) The Authority may issue a licence to an applicant and give consent to import waste into Uganda where—
  - (a) the applicant has the requisite financial security;
  - (b) the Authority has received a complete movement document from the Designated National Authority of the country where the waste is being imported from;
  - (c) the Authority is satisfied with the information in the completed movement document submitted under subregulation (2);
  - (d) the Authority has received comments from the international body designated under any agreement or arrangement to which Uganda is a party or participant, where applicable; and
  - (e) the importer is licensed to manage the type of waste to be imported and has the facilities and capacity to safely manage the waste in accordance with these Regulations.

- (5) A licence for export or import of waste shall be as prescribed in Form II set out in Schedule 12 to these Regulations and issued on payment of the fee prescribed in Schedule 6 to these Regulations.
- (6) A person shall not transport hazardous waste by water within Uganda, except hazardous waste generated from islands or operations on water bodies within the territorial jurisdiction of Uganda.
- (7) Waste shall only be exported out of Uganda or imported into Uganda through the customs points of entry designated in Schedule 13 to these Regulations.

### **93. Waste in transit through Uganda**

- (1) A person transporting waste through Uganda shall ensure that—
  - (a) the waste transported conforms to the accompanying documents;
  - (b) the waste is packaged in containers meeting the specifications in regulations 56 and 57, and bears a seal of the relevant lead agency for the transit period;
  - (c) there is evidence of consent from the Designated National Authority of the state of final destination of the waste;
  - (d) the Authority has been notified about the transportation and has consented to it;
  - (e) the transportation within Uganda is carried out in compliance with the laws of Uganda; and
  - (f) the waste is not disposed of or abandoned in Uganda.
- (2) A person transporting waste through Uganda shall ensure that the waste is accompanied by a notification document in the Form set out in Schedule 14 to these Regulations.

## **Part XII – Environmental, health and safety measures**

### **94. Personnel handling hazardous waste**

- (1) A person who generates hazardous waste and a waste handler shall comply with the Occupational Safety and Health Act, 2006, and any other applicable law relating to employee rights, health, safety and security.
- (2) A person who generates hazardous waste and a waste handler shall ensure that personnel involved in the management of hazardous waste are provided with—
  - (a) appropriate personal protective equipment;
  - (b) periodic and annual medical check-ups for exposure to hazardous substances;
  - (c) appropriate equipment or facilities for handling the waste;
  - (d) safe and secure facilities in the workplace, including vehicles and other vessels used for transportation of hazardous waste; and
  - (e) proper training, information and instructions on the management of hazardous waste.

### **95. Control of emissions, discharges and contamination of the environment**

- (1) A person who generates hazardous waste and a waste handler shall take measures to ensure that the waste management methods do not cause adverse effects to human health or the environment through emissions, discharges or other contamination.
- (2) A person who generates hazardous waste and a waste handler shall operate a facility, plant, site or vessel used for management of hazardous waste in a manner that—
  - (a) controls vermin, disease and pest infestation at the facility, plant site or vessel;



- (b) provides sufficient ventilation for enclosed facilities;
  - (c) prevents pollution and littering at the facility, plant, site or vessel; and
  - (d) complies with any other requirements given by the Authority or applicable law.
- (3) A person who generates waste and a waste handler shall, in addition to this regulation, comply with the standards specified in the National Environment (Standards for Discharges of Effluent into Water or Land) Regulations, 2020.

#### **96. Protection against exposure to noxious fumes**

A waste handler shall ensure that vapours emitted during filling, cleaning or storage of waste containers, or during operations at a waste management facility do not—

- (a) expose a person at the vicinity of the waste management facility to noxious fumes or offensive odour; or
- (b) cause the concentration of vapours to exceed permissible levels of exposure in accordance with the air quality standards made under the Act.

#### **97. Precautionary measures**

A person who generates hazardous waste and a waste handler shall, in accordance with Schedule 15 to these Regulations and the Occupational Safety and Health Act, 2006, put in place and maintain at a waste management facility—

- (a) warning, hazard and safety systems appropriate to the nature of operations at the facility; and
- (b) measures to prevent fire or explosions, accidental reactions of the waste with other substances, uncontrolled releases of hazardous substances or damage to the structural integrity of the waste management facility.

#### **98. Emergency preparedness and response**

- (1) A person who generates hazardous waste and a waste handler shall establish an emergency preparedness and response system based on an environmental risk assessment undertaken in accordance with the Act, the National Environment (Environmental and Social Assessment) Regulations, 2020, the oil spill regulations made under the Act, where applicable and any other applicable law.
- (2) The emergency preparedness and response system established under subregulation (1) shall be documented in an emergency preparedness and response plan.
- (3) The emergency preparedness and response plan made under subregulation (2) shall, as applicable, contain—
  - (a) the location of the waste management facility in sufficient detail;
  - (b) the site lay out;
  - (c) a description of the available emergency response equipment, actions and vessels;
  - (d) a description of the hazardous waste managed at the facility or transported;
  - (e) the maximum number of persons likely to be present at the facility on a normal working day;
  - (f) the emergency planning assumptions, including emergency measures planned for identified incidents and areas likely to be affected;
  - (g) the response resources available or that can be called for, to control an incident, hazard or accident;

- (h) the emergency response procedures and command structures; and
  - (i) notification procedures.
- (4) A person who generates hazardous waste and a waste handler shall ensure that employees are equipped with skills and are regularly trained and instructed on how to handle emergency situations.
- (5) The emergency preparedness and response plan prepared in accordance with subregulation (2) shall be reviewed on an annual basis or such other shorter period as may be deemed necessary, to ensure that the measures put in place are effective during an emergency.
- (6) A person who generates hazardous waste and a waste handler shall keep a record of each review carried out under subregulation (5), including—
  - (a) the measures, systems, procedures, equipment or other factors reviewed;
  - (b) a description of the review methods;
  - (c) the date of the review of each component;
  - (d) the results of the review; and
  - (e) description and date of any corrective action.
- (7) The record referred to in subregulation (6) shall be available for inspection by the Authority or other authorised officer.
- (8) The person who generates hazardous waste and a waste handler shall take action when an emergency situation occurs during waste management.

## 99. Operational shutdowns and emergencies

- (1) The waste handler shall prepare a plan for proper handling of waste in the event of operational shutdowns and emergencies.
- (2) The plan developed under subregulation (1) shall clearly indicate—
  - (a) the period of operational shutdown;
  - (b) emergency procedures;
  - (c) how the waste will be handled during operational shutdown or emergency;
  - (d) the availability of fire-fighting and other emergency equipment and personnel; and
  - (e) any other information for the proper shutdown and handling of emergencies.
- (2) The personnel working within the waste management facility shall be trained in emergency prevention, preparedness and response.
- (3) The plan prepared under subregulation (1) shall be made available to the Authority or an authorised officer upon request.

## Part XIII – Records, reports and notifications

### 100. Waste records and annual report

- (1) A waste handler shall in respect of the waste handled and in accordance with these Regulations, maintain at the waste management facility—
  - (a) a record of the waste handled, including a chain-of-custody transfer of waste and copies of the waste manifests;
  - (b) a record of the operations, including measurements and monitoring records of pollutants; and
  - (c) incident reports and actions taken.
- (2) The record under subregulation (1) including electronic records shall be made available to the Authority or an authorised officer upon request.
- (3) The waste handler shall, by the 31<sup>st</sup> of January of each year, submit to the Authority an annual report in the format set out in Schedule 16, including, where applicable information on—
  - (a) the type and amount of waste managed;
  - (b) emission and discharges from the waste management activities;
  - (c) health and safety data; and
  - (d) any other information the Authority may deem necessary.
- (4) A waste handler shall submit to the Authority an environmental compliance audit report in accordance with the National Environment (Audit) Regulations, 2020.
- (5) The records and documents generated under this regulation shall be kept for a minimum of ten years.
- (6) The Authority may develop an electronic tracking system for the records and reports required under these Regulations.

### 101. Notifications

- (1) In the event of acute pollution caused by waste, a person who generates waste, a waste handler or product steward shall immediately notify the nearest police, the Authority and relevant lead agency.
- (2) A person who generates waste, a waste handler or product steward shall as soon as possible and in any case not later than twenty four hours, notify the Authority and relevant lead agency where—
  - (a) radioactivity has been detected in the waste;
  - (b) the waste delivered does not meet the description in the waste manifest;
  - (c) the waste cannot be traced or has not reached its destination; and
  - (d) the waste has been mixed up or otherwise tampered with.
- (3) The duty in subregulation (1) or (2) does not release the person who generates waste, a waste handler or product steward from the obligation to take immediate action to mitigate the damage resulting from the waste.

### 102. Database of licences

- (1) The Authority shall maintain a database of all licences issued under the Act and these Regulations.

- (2) Subject to the Constitution and the Access to information Act 2005, the database maintained under subregulation (1) may be made accessible to the public upon request and payment of the prescribed fee.

### 103. Inspection and monitoring

The Authority or authorised officer may conduct regular inspections and monitoring of the waste management facilities to—

- (a) assess compliance by the waste handler with the requirements of the Act, these Regulations, the Occupational Safety and Health Act, 2006, any other applicable law and environmental standards;
- (b) ascertain that appropriate measures are in place for avoiding and minimising the consequences of incidents or accidents arising from the waste management activity on human health and the environment; or
- (c) ensure that information contained in reports sent to the Authority by the waste handler reflects the performance of the waste management facility.

## Part XIV – Offences, penalties and general provisions

### 104. Negligent acts

A person who dumps waste that is rejected by a waste handler commits an offence and is liable on conviction—

- (a) in the case of an individual, to a fine not exceeding ten thousand currency points or imprisonment not exceeding two years or both;
- (b) in the case of a body corporate, to a fine not exceeding fifty thousand currency points; or
- (c) in the case of a continuing offence, to a fine not exceeding two thousand currency points in respect of each day or part of day on which the offence continues.

### 105. Offences relating to plastic carrier bags and plastic products

A person who imports, exports, manufactures, uses or reuses plastic carrier bags or plastic products made of polymers of ethene (polythene) and propylene (polypropylene) prohibited under the Act commits an offence and is liable on conviction—

- (a) in the case of an individual, to a fine not exceeding ten thousand currency points or imprisonment not exceeding five years or both;
- (b) in the case of a body corporate, to a fine not exceeding fifty thousand currency points; or
- (c) in the case of a continuing offence, to a fine not exceeding two thousand currency points in respect of each day or part of day on which the offence continues.

### 106. Administrative measures

Without prejudice to penalties imposed by a competent court, the Authority may—

- (a) give a written warning to the waste handler;
- (b) stop and inspect any vessel used for the transportation of waste;
- (c) enter upon any premises or facility used for waste management;
- (d) order a waste handler to immediately suspend or terminate an activity where there is acute risk of harm to human health or the environment;

- (e) close a waste management facility that does not comply with the requirements of a licence issued under these Regulations;
- (f) impose an administrative penalty prescribed by law on a person who generates waste, a product steward or a waste handler;
- (g) impose a surcharge of five percent of the amount required to be paid which is in default for each day of default;
- (h) confiscate the property or equipment;
- (i) order payment of costs and expenses incurred by the Authority or authorised person in administering the measures under this regulation;
- (j) order the waste handler to adopt appropriate technologies or install appropriate equipment; or
- (k) order the waste handler to take samples and analyse them as the Authority may direct.

### 107. Guidelines

The Authority may, in collaboration with the relevant lead agency, make guidelines for waste management, including guidelines for—

- (a) landfills;
- (b) incineration of waste; and
- (c) plastic waste.

### 108. Revocation of S.I 153-2

- (1) The National Environment (Waste Management) Regulations S.I. No. 153-2 are revoked.
- (2) An approval made or licence given under the National Environment (Waste Management) Regulations repealed under subregulation (1), and which is in force immediately before the commencement of these Regulations—
  - (a) shall have effect from the commencement of these Regulations as if granted under these Regulations; and
  - (b) in the case of an approval or licence for a specified period, shall remain in force, subject to these Regulations, for so much of that period as falls after the commencement of these Regulations.

## Schedule 1 (Regulation 2)

### Currency point

A currency point is equivalent to twenty thousand shillings.

**Schedule 2 (Regulation 2 and 3(1)(a))****Waste classified as hazardous**

UN	CODE	Characteristics Class <sup>1</sup>
1	H1	<p>Explosive</p> <p>An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or waste) which is in itself capable by chemical reaction or producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.</p>
2.1	H2.1	<p>Flammable gases.</p> <p>Gases which at 20 °C and a standard pressure of 101.3 kPa are ignitable when in a mixture of 13 percent or less by volume with air; or have a flammable range with air of at least 12 percentage points regardless of the lower flammable limit. Flammability shall be determined by tests or by calculation in accordance with methods adopted by ISO (see ISO 10156:1996). Where insufficient data is available to use these methods, tests by a comparable method recognized by a national competent authority may be used.</p>
2.3	H2.3	<p>Toxic gases.</p> <p>Gases which are known to be so toxic or corrosive to humans as to pose a danger to health; or are presumed to be toxic or corrosive to humans because they have an LC50 value equal to or less than 5000 ml/m<sup>3</sup> (ppm).</p>

1

Corresponds to the hazardous classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev. 5. United Nations, New York, 1988).

UN	CODE	Characteristics Class <sup>1</sup>
3	H3	<p>Flammable Liquids</p> <p>The word 'flammable' has the same meaning as 'inflammable'. Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example paints, varnishes, lacquers, etc. but not including substances or waste otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5°C, closed-cup test, or not more than 65.6°C, open-cup test. (Since the results of open-cup tests and of closed cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such difference would be within the spirit of this definition).</p>
4.1	H4.1	<p>Flammable solids</p> <p>Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.</p>
4.2	H4.2	<p>Substances or waste liable to spontaneous combustion.</p> <p>Substances or waste which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.</p>

Corresponds to the hazardous classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev. 5. United Nations, New York, 1988).

UN	CODE	Characteristics Class <sup>1</sup>
4.3	H4.3	<p>Substances or waste which, in contact with water emit flammable gases.</p> <p>Substances or waste which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.</p>
5.1	H5.1	<p>Oxidizing.</p> <p>Substances or waste which, while in themselves not necessarily combustible, may, generally by yielding oxygen, cause or contribute to the combustion of other materials.</p>
5.2	H5.2	<p>Organic peroxides.</p> <p>Organic substances or waste which contain the bivalent-O-O- structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.</p>
6.1	H6.1	<p>Toxic or Poisonous (Acute).</p> <p>Substances or waste liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.</p>
6.2	H6.2	<p>Infectious substances extremely hazardous to health.</p> <p>Substances or waste containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.</p>

Corresponds to the hazardous classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev. 5. United Nations, New York, 1988).



UN	CODE	Characteristics Class <sup>1</sup>
8.	H8	<p>Corrosives</p> <p>Substances or waste which, by chemical action, will cause severe damage when in contact with living tissue, or in the case of leakage will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.</p>
9	H10	<p>Liberation of toxic gases in contact with air or water</p> <p>Substances or waste which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.</p>
	H11	<p>Toxic (delayed or chronic).</p> <p>Substances or waste which, by intersection with air or water, are liable to give off toxic gases in dangerous quantities.</p> <p>Substances or waste which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.</p>
	H12	<p>Ecotoxic.</p> <p>Substances or waste which if released present or may present immediate or delayed adverse impacts to the environment by means of bio-accumulation and/or toxic effects upon biotic systems.</p>
	H13	<p>Capable, by any means, after disposal, of yielding another material, e.g. leachate, which possesses any of the characteristics listed above.</p>

Corresponds to the hazardous classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev. 5. United Nations, New York, 1988).

**Schedule 3 (Regulation 2, 3(1)(a) and 45(3))****Waste characterised as hazardous****List A**

Waste contained in this Schedule are characterized as hazardous and their designation in this Schedule does not preclude the use of Schedule 3 to demonstrate that a waste is not hazardous.

<b>Al Metal and metal-bearing waste.</b>	
A1010	<p>Metal waste and waste consisting of alloys of any of the following—</p> <ul style="list-style-type: none"> <li>Antimony</li> <li>Arsenic</li> <li>Beryllium</li> <li>Cadmium</li> <li>Lead</li> <li>Mercury</li> <li>Selenium</li> <li>Tellurium</li> <li>Thallium</li> </ul> <p>but excluding such waste specifically listed on list B.</p>
A1020	<p>Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following—</p> <ul style="list-style-type: none"> <li>Antimony; antimony compounds</li> <li>Beryllium; beryllium compounds</li> <li>Cadmium; cadmium compounds</li> <li>Lead; lead compounds</li> <li>Selenium; selenium compounds</li> <li>Tellurium; tellurium compounds.</li> </ul>
A1030	<p>Waste having as constituents or contaminants any of the following—</p> <ul style="list-style-type: none"> <li>Arsenic; arsenic compounds</li> <li>Mercury; mercury compounds</li> <li>Thallium; thallium compounds.</li> </ul>

<b>Al Metal and metal-bearing waste.</b>	
A1040	Waste having as constituents any of the following— Metal carbonyls Hexavalent chromium compounds.
A1050	Galvanic sludges
A1060	Waste liquors from the pickling of metals.
A1070	Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.
A1080	Waste zinc residues not included on list B, containing lead and cadmium in concentrations sufficient to exhibit Schedule 3 characteristics
A1090	Ashes from the incineration of insulated copper wire
A1100	Dusts and residues from gas cleaning systems of copper smelters
A1110	Spent electrolytic solutions from copper electrorefining and electrowinning operations
A1120	Waste sludges, excluding anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations
A1130	Spent etching solutions containing dissolved copper
Al 140	Waste cupric chloride and copper cyanide catalysts
A1150	Precious metal ash from incineration of printed circuit boards not included on list B
A1160	Waste lead-acid batteries, whole or crushed
A1170	Unsorted waste batteries excluding mixtures of only list B batteries. Waste batteries not specified on list B containing Schedule 4 constituents to an extent to render them hazardous

<b>A1 Metal and metal-bearing waste.</b>	
A1180	Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Schedule 4 constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Schedule 3 (note the related entry on list B B1 110)
A1190	Waste metal cables coated or insulated with plastics containing or contaminated with coal tar, PCB, lead, cadmium, other organohalogen compounds or other Schedule 4 constituents to an extent that they exhibit Schedule 3 characteristics.
<b>A2 Waste containing principally inorganic constituents, which may contain metals and organic materials.</b>	
A2010	Glass waste from cathode-ray tubes and other activated glasses.
A2020	Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such waste specified on list B.
A2030	Waste catalysts but excluding such waste specified on list B.
A2040	Waste gypsum arising from chemical industry processes, when containing Schedule 4 constituents to the extent that it exhibits a Schedule 3 hazardous characteristic (note the related entry on list B B2080).
A2050	Waste asbestos (dusts and fibres).
A2060	Coal-fired power plant fly-ash containing Scheduled substances in concentrations sufficient to exhibit Schedule 3 characteristics (note the related entry on list B B2050).

<b>A1 Metal and metal-bearing waste.</b>	
<b>A3 Waste containing principally organic constituents, which may contain metals and inorganic materials.</b>	
A3010	Waste from the production or processing of petroleum coke and bitumen.
A3020	Waste mineral oils unfit for their originally intended use.
A3030	Waste that contain, consist of or are contaminated with leaded anti-knock compound sludges.
A3040	Waste thermal (heat transfer) fluids.
A3050	Waste from production, formulation and use of resins, latex, plasticizers, glues/adhesives excluding such waste specified on list B (note the related entry on list B B4020).
A3060	Waste nitrocellulose.
A3070	Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges.
A3080	Waste ethers not including those specified on list B.
A3090	Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry on list B B3100).
A3100	Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent chromium compounds or biocides (note the related entry on list B B3090).
A3110	Fellmongery waste containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list B B3110).
A3120	Fluff - light fraction from shredding.
A3130	Waste organic phosphorous compounds.

<b>A1 Metal and metal-bearing waste.</b>	
A3140	Waste non-halogenated organic solvents but excluding such waste specified on list B.
A3150	Waste halogenated organic solvents.
A3160	Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations.
A3170	Waste arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloro-ethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorhydrin).
A3180	Waste, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more.
A3190	Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolytic treatment of organic materials.
A3200	Bituminous material (asphalt waste) from road construction and maintenance, containing tar (note the related entry on list B, B2130).
A3210	Plastic waste, including mixtures of such waste, containing or contaminated with Schedule 4 constituents to the extent that it exhibits a Schedule 3 characteristic.
<b>A4 Waste which may contain either inorganic or organic constituents.</b>	
A4010	Waste from the production, preparation and use of pharmaceutical products but excluding such waste specified on list B.
A4020	Clinical and related waste; that is waste arising from medical, nursing, dental, veterinary, or similar practices, and waste generated in hospitals or other facilities during the investigation or treatment of patients, or research projects.

<b>Al Metal and metal-bearing waste.</b>	
A4030	Waste from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated, or unfit for their originally intended use.
A4040	Waste from the manufacture, formulation and use of wood-preserving chemicals.
A4050	Waste that contain, consist of or are contaminated with any of the following—  Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides Organic cyanides.
A4060	Waste oils/water, hydrocarbons/water mixtures, emulsions.
A4070	Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010).
A4080	Waste of an explosive nature (but excluding such waste specified on list B).
A4090	Waste acidic or basic solutions, other than those specified in the corresponding entry on list B (note the related entry on list BB2120).
A4100	Waste from industrial pollution control devices for cleaning of industrial off-gases but excluding such waste specified on list B.
A4110	Waste that contain, consist of or are contaminated with any of the following:  Any congener of polychlorinated dibenzo-furan Any congener of polychlorinated dibenzo-P-dioxin.
A4120	Waste that contain, consist of or are contaminated with peroxides.
A4130	Waste packages and containers containing Schedule 4 substances in concentrations sufficient to exhibit Schedule 3 hazard characteristics.

<b>Al Metal and metal-bearing waste.</b>	
A4140	Waste consisting of or containing specification or outdated chemicals corresponding to Schedule 4 categories and exhibiting Schedule 3 hazard characteristics.
A4150	Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on human health and/or the environment are not known.
A4160	Spent activated carbon not included on list B (note the related entry on list B B2060).

### **List B**

Waste contained in this Schedule shall not be waste considered hazardous unless they contain hazardous material to an extent causing them to exhibit hazardous characteristics.



<b>BI Metal and metal-bearing waste.</b>	
B1010	<p>Metal and metal-alloy waste in metallic, non-dispersible form—</p> <ul style="list-style-type: none"> <li>• Precious metals (gold, silver, the platinum group, but not mercury)</li> <li>• Iron and steel scrap</li> <li>• Copper scrap</li> <li>• Nickel scrap</li> <li>• Aluminium scrap</li> <li>• Zinc scrap</li> <li>• Tin scrap</li> <li>• Tungsten scrap</li> <li>• Molybdenum scrap</li> <li>• Tantalum scrap</li> <li>• Magnesium scrap</li> <li>• Cobalt scrap</li> <li>• Bismuth scrap</li> <li>• Titanium scrap</li> <li>• Zirconium scrap</li> <li>• Manganese scrap</li> <li>• Germanium scrap</li> <li>• Vanadium scrap</li> <li>• Scrap of hafnium, indium, niobium, rhenium and gallium</li> <li>• Thorium scrap</li> <li>• Rare earths scrap</li> <li>• Chromium scrap.</li> </ul>
B1020	<p>Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.), of-</p> <ul style="list-style-type: none"> <li>• Antimony scrap</li> <li>• Beryllium scrap</li> <li>• Cadmium scrap</li> <li>• Lead scrap (but excluding lead-acid batteries)</li> <li>• Selenium scrap</li> <li>• Tellurium scrap.</li> </ul>

<b>BI Metal and metal-bearing waste.</b>	
B1030	Refractory metals containing residues.
B1031	Molybdenum, tungsten, titanium, tantalum, niobium and rhenium metal and metal alloy waste in metallic dispersible form (metal powder), excluding such waste as specified in list A under entry A1050, Galvanic sludges.
B1040	Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous.
B1050	Mixed non-ferrous metal, heavy fraction scrap, not containing Schedule 4 materials in concentrations sufficient to exhibit Schedule 3 characteristics.
B1060	Waste selenium and tellurium in metallic elemental form including powder.
B1070	Waste of copper and copper alloys in dispersible form, unless they contain Schedule 4 constituents to an extent that they exhibit Schedule 3 characteristics.
B1080	Zinc ash and residues including zinc alloys residues in dispersible form unless containing Schedule 4 constituents in concentration such as to exhibit Schedule 3 characteristics.
B1090	Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury.

<b>BI Metal and metal-bearing waste.</b>	
B1100	<p>Metal-bearing waste arising from melting, smelting and refining of metals—</p> <ul style="list-style-type: none"> <li>• Hard zinc spelter</li> <li>• Zinc-containing drosses: <ul style="list-style-type: none"> <li>• Galvanizing slab zinc top dross (&gt;90% Zn)</li> <li>• Galvanizing slab zinc bottom dross (&gt;92% Zn)</li> <li>• Zinc die casting dross (&gt;85% Zn)</li> <li>• Hot dip galvanizers slab zinc dross (batch) (&gt;92% Zn)</li> <li>• Zinc skimmings</li> <li>• Aluminium skimmings (or skims) excluding salt slag</li> </ul> </li> <li>• Slags from copper processing for further processing or refining not containing arsenic, lead or cadmium to an extent that they exhibit Schedule 3 hazard characteristics</li> <li>• Waste of refractory linings, including crucibles, originating from copper smelting</li> <li>• Slags from precious metals processing for further refining</li> <li>• Tantalum-bearing tin slags with less than 0.5% tin.</li> </ul>
B1110	<p>Electrical and electronic assemblies-</p> <ul style="list-style-type: none"> <li>• Electronic assemblies consisting only of metals or alloys</li> <li>• Waste electrical and electronic assemblies or scrap (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Schedule 4 constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Schedule 3 (note the related entry on list A Al 180)</li> <li>• Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse, and not for recycling or final disposal.</li> </ul>
B1115	<p>Waste metal cables coated or insulated with plastics, not included in list A Al 190, excluding those destined for List A operations or any other disposal operations involving, at any stage, uncontrolled thermal processes, such as open-burning.</p>
B1120	<p>Spent catalysts excluding liquids used as catalysts, containing any of the following-</p>

<b>BI Metal and metal-bearing waste.</b>	
	<p>Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A:</p> <ul style="list-style-type: none"> <li>• Scandium</li> <li>• Vanadium</li> <li>• Manganese</li> <li>• Cobalt</li> <li>• Copper</li> <li>• Yttrium</li> <li>• Niobium</li> <li>• Hafnium</li> <li>• Tungsten</li> <li>• Titanium</li> <li>• Chromium</li> <li>• Iron</li> <li>• Nickel</li> <li>• Zinc</li> <li>• Zirconium</li> <li>• Molybdenum</li> <li>• Tantalum</li> <li>• Rhenium</li> </ul>
	<p>Lanthanides (rare earth metals):</p> <ul style="list-style-type: none"> <li>• Lanthanum</li> <li>• Praseodymium</li> <li>• Samarium</li> <li>• Gadolinium</li> <li>• Dysprosium</li> <li>• Erbium</li> <li>• Ytterbium</li> <li>• Cerium</li> <li>• Neodymium</li> <li>• Europium</li> <li>• Terbium</li> <li>• Holmium</li> <li>• Thulium</li> <li>• Lutetium</li> </ul>
B1130	Cleaned spent precious-metal-bearing catalysts.
B1140	Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides.
B1150	Precious metals and alloy waste (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labeling.
B1160	Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A A1 150).
B1170	Precious-metal ash from the incineration of photographic film.

<b>B1 Metal and metal-bearing waste.</b>	
B1180	Waste photographic film containing silver halides and metallic silver.
B1190	Waste photographic paper containing silver halides and metallic silver.
B1200	Granulated slag arising from the manufacture of iron and steel.
B1210	Slag arising from the manufacture of iron and steel including slags as a source of TiO <sub>2</sub> and vanadium.
B1220	Slag from zinc production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301) mainly for construction.
B1230	Mill scaling arising from the manufacture of iron and steel.
B1240	Copper oxide mill-scale.
B1250	Waste end-of-life motor vehicles, containing neither liquids nor other hazardous components.
<b>B2 Waste containing principally inorganic constituents, which may contain metals and organic materials.</b>	
B2010	Waste from mining operations in non-dispersible form— <ul style="list-style-type: none"> <li>• Natural graphite waste</li> <li>• Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise</li> <li>• Mica waste</li> <li>• Leucite, nepheline and nepheline syenite waste</li> <li>• Feldspar waste</li> <li>• Fluorspar waste</li> <li>• Silica waste in solid form excluding those used in foundry operations</li> </ul>
B2020	Glass waste in non-dispersible form Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses.

<b>BI Metal and metal-bearing waste.</b>	
B2030	<p>Ceramic waste in non-dispersible form—</p> <ul style="list-style-type: none"> <li>• Cermet waste and scrap (metal ceramic composites)</li> <li>• Ceramic based fibres not elsewhere specified or included</li> </ul>
B2040	<p>Other waste containing principally inorganic constituents-</p> <ul style="list-style-type: none"> <li>• Partially refined calcium sulphate produced from flue-gasdesulphurization (FGD)</li> <li>• Waste gypsum wallboard or plasterboard arising from the demolition of buildings</li> <li>• Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301 and DIN 8201) mainly for construction and abrasive applications</li> <li>• Sulphur in solid form</li> <li>• Limestone from the production of calcium cyanamide (having a pH less than 9)</li> <li>• Sodium, potassium, calcium chlorides</li> <li>• Carborundum (silicon carbide)</li> <li>• Broken concrete</li> <li>• Lithium-tantalum and lithium-niobium containing glass scraps</li> </ul>
B2050	Coal-fired power plant fly-ash, not included on list A (note the related entry on list A A2060).
B2060	Spent activated carbon not containing any Schedule 4 constituents to the extent they exhibit Schedule 3 characteristics, for example, carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry on list A A4160).
B2070	Calcium fluoride sludge.
B2080	Waste gypsum arising from chemical industry processes not included on list A (note the related entry on list A A2040)
B2090	Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry).

<b>BI Metal and metal-bearing waste.</b>	
B2100	Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes.
B2110	Bauxite residue (“red mud”) (pH moderated to less than 11.5).
B2120	Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry on list A A4090).
B2130	Bituminous material (asphalt waste) from road construction and maintenance, not containing tar (note the related entry on list A, A3200).

<b>B1 Metal and metal-bearing waste.</b>	
<b>B3 Waste containing principally organic constituents, which may contain metals and inorganic materials.</b>	
B3010	<p>Solid plastic waste—</p> <p>The following plastic or mixed plastic materials, provided they are not mixed with other waste and are prepared to a specification:</p> <ul style="list-style-type: none"> <li>• Scrap plastic of non-halogenated polymers and copolymers, including but not limited to the following; <ul style="list-style-type: none"> <li>• Ethylene</li> <li>• styrene</li> <li>• polypropylene</li> <li>• polyethylene terephthalate</li> <li>• acrylonitrile</li> <li>• butadiene</li> <li>• polyacetals</li> <li>• polyamides</li> <li>• polybutylene terephthalate</li> <li>• polycarbonates</li> <li>• polyethers</li> <li>• polyphenylene sulphides</li> <li>• acrylic polymers</li> <li>• alkanes C10-C13 (plasticiser)</li> <li>• polyurethane (not containing OFCs)</li> <li>• polysiloxanes</li> <li>• polymethyl methacrylate</li> <li>• polyvinyl alcohol</li> <li>• polyvinyl butyral</li> <li>• polyvinyl acetate</li> </ul> </li> <li>• Cured waste resins or condensation products including the following- <ul style="list-style-type: none"> <li>• urea formaldehyde resins</li> <li>• phenol formaldehyde resins</li> <li>• melamine formaldehyde resins</li> <li>• epoxy resins</li> <li>• alkyd resins</li> <li>• polyamides</li> </ul> </li> <li>• The following fluorinated polymer waste <ul style="list-style-type: none"> <li>• perfluoroethylene/propylene (FEP)</li> <li>• perfluoro alkoxyl alkane (PFA)</li> <li>• tetrafluoroethylene/per fluoro vinyl ether (PFA)</li> </ul> </li> </ul>



<b>BI Metal and metal-bearing waste.</b>	
B3011	Plastic waste, provided it is destined for recycling in an environmentally sound manner, and is almost free from contamination or other types of waste.
B3020	<p>Paper, paperboard and paper product waste</p> <p>The following materials, provided they are not mixed with hazardous waste:</p> <p>Waste and scrap of paper or paperboard of—</p> <ul style="list-style-type: none"> <li>• unbleached paper or paperboard or of corrugated paper or paperboard</li> <li>• other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass</li> <li>• paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter) other, including but not limited to 1) laminated paperboard 2) unsorted scrap.</li> </ul>
B3026	<p>The following waste from the pre-treatment of composite packaging for liquids, not containing Schedule 4 materials in concentrations sufficient to exhibit Schedule 2 characteristics:</p> <ul style="list-style-type: none"> <li>• Non-separable plastic fraction</li> <li>• Non-separable plastic-aluminum fraction.</li> </ul>
B3027	Self-adhesive label laminate waste containing raw materials used in label material production.

<b>BI Metal and metal-bearing waste.</b>	
	<p>Textile waste</p> <p>The following materials, provided they are not mixed with other waste and are prepared to a specification-</p> <ul style="list-style-type: none"><li>• Silk waste (including cocoons unsuitable for reeling, yam waste and sulfate stock)<ul style="list-style-type: none"><li>• not carded or combed</li><li>• other</li></ul></li><li>• Waste of wool or of fine or coarse animal hair, including yam waste but excluding sulfate stock # noils of wool or of fine animal hair<ul style="list-style-type: none"><li>• other waste of wool or of fine animal hair</li><li>• waste of coarse animal hair</li></ul></li><li>• Cotton waste (including yam waste and sulfate stock)<ul style="list-style-type: none"><li>• yam waste (including thread waste)</li><li>• sulfate stock</li><li>• other</li></ul></li></ul>

<b>BI Metal and metal-bearing waste.</b>	
B3030	<ul style="list-style-type: none"> <li>• Flax tow and waste</li> <li>• Tow and waste (including yam waste and sulfate stock) of the hemp (<i>Cannabis sativa</i> L.)</li> <li>• Tow and waste (including yam waste and sulfate stock) of jute and other textile bast fibres (excluding flax, the hemp and ramie)</li> <li>• Tow and waste (including yam waste and sulfate stock) of sisal and other textile fibres of the genus <i>Agave</i></li> <li>• Tow, noils and waste (including yam waste and sulfate stock) of coconut</li> <li>• Tow, noils and waste (including yam waste and sulfate stock) of abaca (<i>Manila hemp</i> or <i>Musa textilis</i> Nee)</li> <li>• Tow, noils and waste (including yam waste and sulfate stock) of ramie and other vegetable textile fibres, not elsewhere specified or included</li> <li>• Waste (including noils, yam waste and sulfate stock) of man-made fibres <ul style="list-style-type: none"> <li>• of synthetic fibres</li> <li>• of artificial fibres</li> </ul> </li> <li>• Worn clothing and other worn textile articles</li> <li>• Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials <ul style="list-style-type: none"> <li>• sorted</li> <li>• other.</li> </ul> </li> </ul>
B3035	Waste textile floor coverings, carpets.
B3040	<p>Rubber waste</p> <p>The following materials, provided they are not mixed with other waste—</p> <ul style="list-style-type: none"> <li>• Waste and scrap of hard rubber (e.g., ebonite)</li> <li>• Other rubber waste (excluding such waste specified elsewhere).</li> </ul>
B3050	<p>Untreated cork and wood waste:</p> <ul style="list-style-type: none"> <li>• Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms</li> <li>• Cork waste: crushed, granulated or ground cork.</li> </ul>

<b>BI Metal and metal-bearing waste.</b>	
B3060	<p>Waste arising from agro-food industries provided it is not infectious—</p> <ul style="list-style-type: none"> <li>• Wine lees</li> <li>• Dried and sterilized vegetable waste, residues and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included</li> <li>• Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes</li> <li>• Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised</li> <li>• Fish waste</li> <li>• Cocoa shells, husks, skins and other cocoa waste</li> <li>• Other waste from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption.</li> </ul>
B3065	Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit an Schedule 3 characteristic
B3070	<p>The following waste:</p> <ul style="list-style-type: none"> <li>• Waste of human hair</li> <li>• Waste straw</li> <li>• Deactivated fungus mycelium from penicillin production to be used as animal feed.</li> </ul>
B3080	Waste parings and scrap of rubber.
B3090	Paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry on list A A3100).
B3100	Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry on list A A3090).
B3110	Fellmongery waste not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list A A3110).
B3120	Waste consisting of food dyes.

<b>B1 Metal and metal-bearing waste.</b>	
B3130	Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides.
B3140	Waste pneumatic tyres, excluding those destined for List A operations.
<b>B4 Waste which may contain either inorganic or organic constituents.</b>	
B4010	Waste consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list AA4070).
B4020	Waste from production, formulation and use of resins, latex, plasticizers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Schedule 3 characteristics, e.g., water-based, or glues based on casein, starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A A3050).
B4030	Used single-use cameras, with batteries not included on list A.

### **Schedule 4 (Regulation 2 and 3(1)(a))**

#### **Categories of waste to be considered as hazardous unless controlled, segregated and characterized as non-hazardous**

#### **Part**

- Y0. All waste containing or contaminated by radio-nuclides the concentration or properties of which result from human activity.
- Y1. Waste generated from health care and/or medical examination  
in hospitals, clinics, elderly health care centers and maternity wards and in health care centres and waste from medical examination in medical examination laboratories.
- Y2. Waste generated from production and import of pharmaceutical products and waste generated from preparation of pharmaceutical products for sale and grant;
- Y3. Waste pharmaceutical, drugs and medicines.
- Y4. (a) Waste generated from the production and import of the chemicals including germicides, fungicides, bactericides, insecticides, ratcides, herbicides and other chemicals for prevention of the breeding and extermination of animals, plants and viruses; and growth promoting chemicals, germination control and other chemicals for the promotion and suppression of physiological activities of plants (hereafter referred to as “biocides etc.”);
- (b) Waste generated from formulation of biocides etc. for sales and grant;
- (c) Waste generated from sales and use of biocides etc.

- Y5. (a) Waste generated from the production and import of decay preventing agents, insect control agents and other chemicals for wood preservation (hereafter referred to as “wood preserving chemicals”);  
(b) Waste generated from formulation of wood preserving chemicals for sale and grant;  
(c) Waste generated from sales and use of wood preserving chemicals.
- Y6. (a) Waste generated from the production and import of organic solvents;  
(b) Waste generated from formulation of organic solvents for sales and grant;  
(c) Waste generated from sales and use of organic solvents.
- Y7. Waste from heat treatment and tempering operations containing cyanides.
- Y8. Waste mineral oils unfit for their originally intended use.
- Y9. Waste oils/water, hydrocarbons/water mixtures, emulsions.
- Y10. Waste Substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated triphenyls (PCTs) and/or polybrominated biphenyls (PBBs).
- Y11. (a) Waste tarry residues arising from refining, distillation and any paralytic treatment;  
(b) Waste generated from formulation of inks, etc. for sales and grant.
- Y12. (a) Waste generated from the production and import of inks, dyes, pigments, paints, lacquers and varnishes (hereafter referred to as “inks, etc.”);  
(b) Waste generated from formulation on inks, etc. for sales and grant.
- Y13. (a) Waste generated from production and import of resins, latex, plasticizers, glues/adhesives (hereafter referred to as “resins, etc.”);  
(b) Waste generated from formulation of resins, etc. for sales and grant;  
(c) Waste generated from sales and use of resins, etc.
- Y14. Waste chemical materials arising from research and development or teaching activities, in the following facilities, which are not identified and/or are new and whose effects on man and/or the environment are not known—  
(a) research and examination institutes owned by central and local governments;  
(b) universities, colleges, junior colleges, professional schools and their subsidiary research and study institutes, and;  
(c) institutes for research and development of products and technologies.
- Y15. Waste of an explosive nature not subject to the Explosives Act or any other law.
- Y16. (a) Waste generated from the production and import of sensitive emulsion, developing solution, fixing solution, washing solution and other chemicals and materials for photographs (hereafter referred to as “photographic chemicals, etc.”);  
(b) Waste generated from the formulation of photographic chemicals, etc. for sales and grant;  
(c) Waste generated from the sales and use of photographic chemicals, etc.
- Y17. Waste resulting from the surface treatment of metals and plastics.
- Y18. Residues arising from industrial waste disposal operations.

- Y19. Waste containing metal carbonyl is listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following metal carbonyls - iron-pentacarbonyl, nickel-tetracarbonyl, methyl cyclopentadienyl manganese-tricarbonyl;
  - (b) Waste containing other metal carbonyls.
- Y20. Waste containing beryllium and/or beryllium compounds listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following beryllium and/or beryllium compounds - beryllium, beryllium chloride, beryllium oxide, beryllium nitrate, beryllium hydroxide, beryllium fluoride, beryllium sulphate;
  - (b) Waste containing other beryllium and/or beryllium compounds.
- Y21. Waste containing hexavalent chromium compounds listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following hexavalent chromium compounds - chromium oxychloride, chromic acid solution, zinc chromate, potassium zinc chromate, potassium chromate, calcium chromate, silver chromate, strontium chromate, sodium chromate, lead chromate, barium chromate, bismuth chromate, chromosulphuric acid, chromium trioxide, anhydrous ammonium dichromate, potassium dichromate, sodium dichromate, lead chromate molybdate;
  - (b) Waste containing other hexavalent chromium compounds;
  - (c) Waste to be exported for the purpose of DI to D4 or RIO of Form 1 in Schedule 13 which cannot meet the following criteria: waste in solid form, which cannot meet the ambient soil quality standards established under the National Environment Act.
- Y22. Waste containing copper compounds listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following copper compounds - copper acetoarsenite, copper N,N'-ethylenebis (saricylideneaminato), cuprous chloride, cupric chloride, copper cyanide, sodium cuprocyanide, cupriethylenediamine solution, copper arsenate and copper ;
  - (b) Waste containing 1% or more by weight of any of the following copper compounds - copper (ii) diammonium chloride dihydrate, potassium cupric chloride, copper acetate, potassium cuprocyanide, cupric nitrate, cupric carbonate, cuprous thiocyanate, copper pyrophosphate, cupric fluoride, and cuprous iodide;
  - (c) Waste containing copper compounds other than those listed in a) and b) above;
  - (d) Waste in solid form to be exported for the purpose of RIO of Form 1 in Schedule 13, which cannot meet the ambient soil quality standards in terms of copper compounds.
- Y23. Waste containing zinc compounds listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following zinc compounds: zinc dithionite, zinc arsenite, zinc chloride, zinc cyanide, zinc arsenate;
  - (b) Waste containing 1% or more by weight of any of the following zinc compounds - zinc chlorate, zinc peroxide, zinc permanganate, zinc chromate, zinc fluorosilicate, zinc acetate, diethyl zinc, 2, 5-diethoxy- 4 morpholinobenzenediazonium zinc chloride, dimethyl zinc, 4-dimethylamino-6- (2-dimethylaminoethoxy) toluene-2-diazonium zinc chloride, zinc oxalate, zinc bromate, zinc nitrate, zinc thiocyanate, 3-(2-hydroxyethoxy) -4-pyrrolidin-1 -ylbenzenediazonium zinc chloride, zinc pyrophosphate, zinc fluoride, 4- [benzyl (ethyl) amino]-3-ethoxybenzenediazonium zinc chloride 4- [benzyl (methyl) amino]-3-ethoxybenzenediazonium zinc chloride, zinc methylthiocarbamate, zinc, zinc phosphide, zinc phosphate;
  - (c) Waste containing zinc compounds other than those listed in (a) and (b) above.

Y24. Waste containing arsenic and/or arsenic compounds listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following arsenic and/or arsenic compounds - arsenic, copper acetoarsenite, zinc arsenite, calcium arsenite, silver arsenite, strontium arsenite, ferric arsenite, copper arsenite, sodium arsenite, lead arsenite, alkylarsenic compounds, ethyldichloroarsine, cacodylic acid, sodium cacodylate, diarsenic pentoxide, arsenic pentafluoride, arsenic trichloride, arsenous trioxide, arsenic tribromide, acid manganese arsenate, arsenic trifluoride, diphenylamine chloroarsine, diphenylchloroarsine, tetraarsenic tetrasulfide, vinylzene, arsenic acid, zinc arsenate, ammonium arsenate, potassium arsenate, calcium arsenate, sodium arsenate dibasic, calcium arsenate, ferrous arsenate, mercuric ferric arsenate, copper arsenate, sodium arsenate, lead arsenate, magnesium arsenate, calcium arsenate fluoride, benzenearsonic acid, potassium metaarsenite, sodium metaarsenite, calcium methanearsonate, ferric methanearsonate, arsenic disulfide, arsenic trisulfide;
- (b) Waste containing arsenic and/or arsenic compounds other than those listed in (a) above;
- (c) Waste to be exported for the purpose DI to D4 or RIO of Form 1 in Schedule 13, which cannot meet the following criteria—
  - (i) Waste in solid form, which cannot meet the ambient soil quality standards in terms of arsenic and/or arsenic compounds;
  - (ii) Waste in liquid form, which cannot meet the waste water discharge standards to solid in terms of arsenic and/or arsenic compounds
- (d) Waste to be exported for the purposes other than those listed in (c) above, and which cannot meet the following criteria—
  - (i) Waste in solid form, which cannot meet the standards in the verification standards for hazardous waste in terms of arsenic and/or arsenic compounds;
  - (ii) Waste in liquid form, which cannot meet the standards in the National Environment (Standards for Discharge of Effluent into Water or Land) Regulations, 2020 in terms of arsenic and/or arsenic compounds.

Y25. Waste containing selenium and/or selenium compounds listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following selenium and/or selenium compounds - selenium, sodium selenite, selenium oxychloride, selenium chloride, selenic acid, sodium selenite, selenium dioxide, selenium disulphide;
- (b) Waste containing 1% or more by weight of any of the following selenium and/or selenium compounds - selenious acid, barium selenite, ferrous selenide;
- (c) Waste containing selenium and/or selenium compounds other than those listed in (a) and (b) above.

Y26. Waste containing cadmium and/or cadmium compounds listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following cadmium and/or cadmium compounds - cadmium, cadmium chloride, cadmium acetate, cadmium acetate dihydrate, cadmium oxide, cadmium cyanide, dimethyl cadmium, cadmium bromide, cadmium nitrate, cadmium hydroxide, cadmium stearate, cadmium carbonate, cadmium iodide, cadmium laurate, cadmium, cadmium yellow, cadmium red;
- (b) Waste containing cadmium and/or cadmium compounds other than those listed in the above (a);
- (c) Waste to be exported for the purpose of DI to D4 or RIO of Form 1 in Schedule 13, which cannot meet the following criteria—
  - (i) Waste in solid form, which cannot meet the ambient soil quality standards in terms of cadmium and/or cadmium compounds;



- (ii) Waste in liquid form, which cannot meet waste water discharge standards to soil in terms of cadmium and/or cadmium compounds.
  - (d) Waste to be exported for purposes other than those listed in the above (c), which cannot meet the following criteria—
    - (i) Waste in solid form, which cannot meet the standards in the verification standards for hazardous waste in terms of cadmium and/or cadmium compounds;
    - (ii) Waste in liquid form, which cannot meet the standards in the National Environment (Standards for Discharge of Effluent into Water or Land) Regulations, 2020 in terms of cadmium and/or cadmium compounds.
- Y27. Waste containing antimony and/or antimony compounds listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following antimony and/or antimony compounds - sodium, lead, antimony pentachloride, antimony pentoxide, antimony pentafluoride, antimony trichloride, antimony trioxide, potassium hexahydroxoantimonate (v), antimony trifluoride, Potassium antimony tartrate, Antimony lactate, Sodium metaantimonate;
  - (b) Waste containing 1 % or more by weight of antimony;
  - (c) Waste containing antimony and/or antimony compounds other than those listed in the above (a) and (b).
- Y28. Waste containing tellurium and/or tellurium compounds listed as follows—
- (a) Waste containing 1 % or more by weight of any of the following tellurium and/or tellurium compounds - tellurium, diethyl tellurium, dimethyl tellurium;
  - (b) Waste containing tellurium and/or tellurium compounds other than those listed in the (a).
- Y29. Waste containing mercury and/or mercury compounds listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following mercury and/or mercury compounds listed as follows - mercury, mercury benzoate, ethylmercury chloride, mercurous chloride, mercuric chloride, mercury ammonium chloride, methylmercuric chloride, mercuric oxycyanide, mercury oleate, mercury gluconate, mercury acetate, mercury salicylate, mercuric oxide, mercury cyanide, mercuric potassium cyanide, diethyl mercury, dimethyl mercury, mercury (II) bromide, mercurous nitrate, mercuric nitrate, phenyl mercuric hydroxide, mercuric thiocyanate, mercuric arsenate, mercury (II) iodide, mercury potassium iodide, mercury fulminate, mercury sulphide, mercurous, mercuric;
  - (b) Waste containing 1% or more by weight of any of the following mercury and/or mercury compounds - mercury nucleate, mercurous acetate, phenylmercury acetate, phenylmercuric nitrate, thimerosal;
  - (c) Waste containing mercury and/or mercury compounds other than those listed in (a) and (b) above;
  - (d) Waste to be exported for the purpose of DI to D4 or RIO of Form 1 in Schedule 13, which cannot meet the following criteria—
    - (i) Waste in solid form, which cannot meet the ambient soil quality standards in terms of mercury and/or mercury compounds;
    - (ii) Waste in liquid form, which cannot meet the waste water discharge standards to soil in terms of mercury and/or Mercury compounds.
  - (e) Waste to be exported for purposes other than those listed in the above (d), which cannot meet the following criteria—
    - (i) Waste in solid form, which cannot meet the standards in the verification standards for hazardous waste in terms of mercury and/or mercury compounds;

- (ii) Waste in liquid form, which cannot meet the standards in the effluent quality standards in terms of mercury and/or mercury compounds.

Y30. Waste containing thallium and/or thallium compounds listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following thallium and/or thallium compounds - thallium chlorate, thallium acetate, thallic oxide, thallium bromide, thallic nitrate, thallium iodide, thallium ;
- (b) Waste containing 1% or more by weight of thallium;
- (c) Waste containing thallium and/or thallium compounds other than those listed in (a) and (b) above.

Y31. Waste containing lead and/or lead compounds listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following lead and/or lead compounds - lead, lead azide, lead arsenite, lead monoxide, lead chloride, basic lead silicate, lead perchlorate, lead chromate, lead silicate, lead acetate, tribasic lead, lead cyanamide, tetraalkyllead, lead cyanide, lead tetroxide, lead nitrate, lead hydroxide, lead styphnate, lead stearate, lead carbonate, lead naphthenate, calcium plumbate, dibasic lead, dibasic lead, lead stearate dibasic, basic lead phthalate, lead dioxide, lead fluoroborate solution, lead sulfate dibasic, lead arsenate, lead fluoride, lead metaborate, lead methanesulphonate, lead iodide, lead, lead chromate molybdate ;
- (b) Waste containing lead and/or lead compounds other than those listed in (a) above;
- (c) waste to be exported for the purpose of DI to D4 or RIO of Form 1 in Schedule 13, which cannot meet the following criteria—
  - (i) Waste in solid form, which cannot meet the ambient soil quality standards in terms of lead and/or lead compounds:
  - (ii) Waste in liquid form, which cannot meet the waste water discharge standards to soil in terms of lead and/or lead compounds;
- (d) Waste to be exported or imported for purposes other than those listed in (c) above, which cannot meet the following criteria—
- (e) Waste in solid form, which cannot meet the standards of the verification standards for hazardous waste in terms of lead and/or lead compounds;
- (f) Waste in liquid form, which cannot meet the standards in the effluent quality standards in terms of lead and or lead compounds.

Y32. Waste containing inorganic fluorine compounds excluding calcium fluoride listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following lead and/or inorganic compounds - fluorosilicic acid, bromine pentafluoride, bromine trifluoride, boron trifluoride hydrate, potassium bifluoride, difluorophosphoric acid, ammonium fluoride, potassium fluoride (spray dide), chromic fluoride, hydrofluoride, ammonium hydrogenfluoride, hydrofluoric acid, sodium fluoride, fluorosulphonic acid, fluorophosphoric acid anhydrous, hexafluorophosphoric acid, fluobolic acid;
- (b) Waste containing 1 % or more by weight of any of the following inorganic fluorine compounds - ammonium fluoroborate, ammonium fluorosilicate, barium fluoride, barium fluorosilicate, iodine pentafluoride, lithium, borofluoride, magnesium borofluoride, magnesium fluorosilicate, manganese fluorosilicate, potassium fluoroborate, potassium fluorosilicate, potassium hydrogen fluoride, sodium fluorosilicate, sodium hydrogen fluoride, stannous fluoride, sodium fluoroborate, zinc fluorosilicate;
- (c) Waste containing inorganic fluorine compounds other than those listed in (a) and (b) above.

Y33. Waste containing inorganic cyanides listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following inorganic cyanides - cyanogen bromide, hydrogen cyanide, hydrocyanic acid aqueous, leadcyanide, mercurycyanide, mercuric

- potassium cyanide, nickel cyanide, potassium cyanide, silver cyanide, sodiumcuprocyanide, sodiumcyanide, zinc cyanide;
- (b) Waste containing 1% or more by weight of any of the following inorganic cyanides - barium cyanide, barium platinum cyanide, calcium cyanide, copper cyanide, potassium cobalt cyanide, potassium cuprocyanide, potassium gold cyanide, potassium nickel cyanide;
- (c) Waste containing inorganic cyanide other than those listed in (a) and (b) above;
- (d) Waste to be exported or imported for the purpose of DI to D4 or RIO of Form 1 in Schedule 13, which cannot meet the following criteria—
- (i) Waste in solid form, which cannot meet the ambient soil quality standards in terms of inorganic cyanide;
  - (ii) Waste in liquid form, which cannot meet the waste water discharge standards to soil in terms of inorganic cyanide;
- (d) Waste to be exported or imported for the purposes other than those listed in d) above, which cannot meet the following criteria—
- (i) Waste in solid form, which cannot meet the standards in the verification standards for hazardous waste in terms of inorganic cyanide;
  - (ii) Waste in Liquid form, which cannot meet the standards in the effluent quality standards in terms of inorganic cyanide.
- Y34. Acidic solutions or acid in solid form with Ph value of 2.0 or less, or basic solutions or bases in solid form with Ph value of 11.5 or more by weight (in case of substances in solid form, Ph value of the solution of water-substance has a ratio 1:3 in weight).
- Y35. Basic solutions or bases in solid form.
- Y36. Waste containing asbestos in the form of dust or fibres
- Y37. Waste containing organic phosphorus compounds listed as follows—
- (a) waste containing 0.1% or more by weight of any of the following organic phosphorus compounds - azinphosethyl, azinphos-methyl, butyl phosphorotrithionate, carbophenothion, chlorfenvinphos (iso), chlormephos, s-[(6-chloro-2-oxo-3-benzoxazolyl) methyl] o, o-diethyl phospholodithioate, chlorthiophos, camaphos, cresyldiphenyl sulfate, crotoxyphos, crufomate, demephion, demeton-omethyl, demeton-s-methyl, dialifos, dichlofenthion, dichloromethylphosphine, dicrotophos, o, o-diethyls-2-(ethylthio) ethyl phosphorodithioate, diethyl = 4-nitrobenzylphosphonate, o, o-diethyl-o-(5-phenyl-3-isoxazolyl) phosphorothioate, o, o-diethyl-o-3,5,6-trichloro- 2- pyriylnphosphorothioate, dimefox, o, o-dimethyl-s- (1, 2-ethylthioethyl phosphorodithioate, dimethyl 2,2-dichlorovinylphospate, dimethyl etylthicethyl dithiophosphate, dimethylhydrogen sulfate, imethylmethylcarbamoylthioethyl thiophosphate, o, o-dimethyl-nmethylcarbamoylmethyl dithiophosphate, - dimethyl - s- (n-methyln- formoylcarbamoylmethyl) dithiophosphate o, odimethyl-o- [3-methyl-4-methylthio) phenyl] thiophosphate, o, odimethyl-o-(3-methyl-4-nitrophenyl) thiophosphate, o, o-dimethyl-s- (phenylaceticacidethylester) dithiophosphate, o, o-dimethyl phthaloimid methylthiophosphate, dimethylthiophosphory chloride, dimethyl 2, 2, 2- trichloro-1- hydroxyethyl phosphorate, dioxathion, diphenyl-2, 4, 6-trimethylbenzoylphosphineoxide, edifenphos, endothion, ethion, ethoatemethyl, ethoprophos, o-ethyl-o-2 s opr op oxycarbonylphenyl=iso propylphosph oloamidthioate o-ethyl=o-pnitrophenylthionobenz enephosphate, fenamiphos, fensulfothion, fonofos, hexaethyl tetraphosphate, hexamethylphosphoric triamide, heptenophos, isodecyl diphenylphosphate, 2-isopropyl-4- methylpyrimidyl- 6-diethylthiophosphate, isothioate, mecarbam, menazon, mephosfolan, methamidophos, 2-methoxy- 4h-1, 3, 2-benzodioxaphosphorin-2-sulfide, s-[5methoxy-2-oxo-2, 3- dihydro-1, 3, 4-thiadiazolyl- (3) -methyl]dimethyl - phospholothiolothionate, methyl parathion, methyltrithion, mevinphos, naled, omethoate, oxydisulfoton, oxydemetonmethyl, paraoxon, parathion, pirimiphosethyl, phenkapton, phorate, phosfolan, phosphamidon, prothoate, propaphos, pyrazophos, pyrazoxon,

quinalphos, schradan, sulprofos, tetraethyl dithiopyrophosphate, thionazin, temephos, terbufos, tris (1-aziridinyl) phosphine oxide, triamiphos, triazophos, trichloronate, triethylphosphate tris(1-aziridinyl) phosphine sulphide, tris (4-methoxy-3, 5-dimethylphenyl) phosphine, trixylyl phosphate, tributyl phosphates's 3 -(dimethoxyphosphinyloxy)-n-methylcrotonamide, di-(2-ethylhexyl) phosphoric acid, di-(ethylhexyl) phosphoric acid, triallyl phosphate, tricresyl phosphate, tris(isopropylphenyl) phosphate, tris(2,3-dibromopropyl) phosphate;

- (b) Waste Containing 1% or more by weight of any of the following organic phosphorus compounds - amidothiaate, bialaphos, o-4-bromo-2-chlorophenyl o-ethyl-spropyl phosphorothioate, bromophosethyl, butamifos, o-buthyl-s-benzyl-s-ethyl phosphorodithioate, 2-chloro-1-(2,4-dichlorophenyl) vinyl dimethyl phosphate, def, demeton, demeton-o, dialkyl phosphodithioate, o-2, 4-dichlorophenyl-oethyl-s-propyl phosphorodithioate, diethyl-sbenzyl thiophosphate, diethyl-4-chlorophenyl mercaptopythyl dithiophosphate, diethyl-(1,3-dithiocyclopentylidene) - thiophosphoramidate, diethyl-4-methylsulfinylphenyl-thiophosphate, o,o-diethyl-o-(3-oxo-2-phenyl-2h-pyridazin-6-yl) phosphorothionatediethyl-paradimethylaminosulfonylphenylthiophosphate, diethylthiophosphorylchloride, o,o-diisopropyl-sbenzylthiophosphate, diisopropyls-(ethylsulfinylmethyl) - dithiophosphate, dimethyl-s-p-chlorophenylthiophosphate, o,odimethyl-o-4-cyanophenyl phosphorothioate, 2,3-(dimethyldithiophosphro)-paradoxan, o,odimethyl-s-2(ethylsulfinyl)- isopropyl-thiophosphate, dimethyl-[2-(1'-methylbenzyloxycarbonyl)-1-methylethylen]-phosphate o,o-dimethyl-o-(3,5,6-trichloro-2-pyridinyl) phosphorothioate, ethyl-2,4-dichlorophenylthionobenzene phosphorate, o-6-ethoxy-2-ethylpyrimidin-4-yl=O, o-dimethyl=phosphorothioate, fosthiazate, leptophos, mesulfenfos, methylcyclohexyl-4-chlorophenylthiophosphate, octyl diphenyl phosphate, phenylphosphonic dichloride phenylphosphorous thiodichloride, piperophos, propetamphos, pyraclofos, sulfotep, tetraethylpyrophosphate, temevinphos, tributoxyethyl phosphate, tri-n-butyl phosphine, s,s-s-tributylphosphorotrithioate, triethyl phosphite, trimethyl phosphate, trimethyl phosphite, trioctyl phosphate, tris(chloroethyl) phosphate, tris (b-chloropropyl) phosphate, tris (dichloropropyl) phosphate;
- (c) Waste containing organic phosphorus compounds other than those listed in (a) and (b) above;
- (d) Waste to be exported for the purpose DI to D4 or RI 0 of Form 1 in Schedule 13, which cannot meet the following criteria—
- (i) Waste in solid form, which cannot meet the ambient soil quality standards in terms of organic phosphorus compounds;
  - (ii) Waste in liquid form, which cannot meet the waste water discharge standards to soil in terms of organic phosphorus compounds;
- (e) Waste to be exported for the purposes other than those listed in the above (d), which cannot meet the following criteria—
- (i) Waste in solid form, which cannot meet the standards in the verification standards for hazardous waste in terms of organic phosphorus compounds;
  - (ii) Waste in liquid form, which cannot meet the effluent quality standards in terms of organic phosphorus compounds.

Y38. Waste containing organic cyanides listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following organic cyanides: Acetone cyanhydrin, Acrylonitrile, Adiponitrile, 2-Amino-5-(2-chloro-4-ityrophenylazo)-4-methyl-3-thiophenecarbonitrile 2,2'-azobis-[2-(hydroxymethyl) propionitrile], 2,2'-azobis-(methylbutyronitrile), benzonitrile, bromobenzylcyanides, bromoxynil, 3-chloro-4-methylphenyl isocyanate, Cyanazine, a-Cyano-3 phenoxybenzyl=bis(trifluoromethyl) methyl-1-(3,4-isopropylidene) abele-1, 4-decarboxylate, Cyclohexyl isocyanate, 2,6-Dichlorobenzonitrile, Dichlorophenylisocyanate, 3,3'-Dimethyl-4,4'-biphenylenediisocyanate, Diphenylmethane-4,4'-diisocyanate, Ethylene Cyanhydrin, Fenpropathrin, loxynyl, Isophorone diisocyanate, lactonitrile, Malononitrile, Methacrylonitrile, methyl isocyanate, Phenylacetone nitrile, Phenyl isocyanate, O-Phthalodinitrile, Propionitrile, Trimethylhexamethylene diisocyanate, Tolylenediisocyanate;

- (b) Waste containing 1% or more by weight of any of the following organic cyanides - acetonitrile, 2,2' -azobis isobutyronitrile, 2,2' azobis-(2,4-dimethylvaleronitrile), 2,2' - azobis-(2,4-dimethyl-4-methoxyvaleronitrile), 1,1' -azobis-(hexahydrobenzoxazine), butyronitrile, n-cyanoethyl onochloroacetoamide, cyanofenphos (CYP), (RS)-a-cyano-3-phenoxybenzyl, cyhalothrin, cyphenothrin, cyfluthrin, 2,3-dibromopropionitrile, 2-dimethylaminoacetonitril, ethyl cyanoacetate, ethyl isocyanate, fluvalinate, hexamethylene diisocyanate, isobutyl isocyanate, isobutyronitrile, isocyanatobenzotrifluoride, isopropyl isocyanate, methoxymethyl isocyanate, methyl isothiocyanate, 3- (n-nitrosomethylamino) propionitrile, n-propyl isocyanate, terephthalonitrile, tralomethrin, 1,2,5- trithiocycloheptadiene-3,4,6,7-tatranitrile (TCH);
- (c) Waste containing organic cyanides other than those listed in (a) and (b) above.

Y39. Waste containing phenols and/or phenol compounds—

- (a) Waste containing 0.1% or more by weight of any of the following phenol and/or phenol compounds - 2-Aminoanthraquinon, 7-Amino- 4-hydroxy-2-naphthalene sulfonic acid, p-tbutylphenol, carbolic oil, chlorophenol, coal tar, cresols, cyclohexylaminophenol, dichlorophenols, 2,4-dichloro-3- methylphenol, 1,4-dihydro-9,10- dihydroxyanthracene, 2,4-dinitro-6-sec- buthylphenoldimethyl acrylate, 4,6-dinitro-o-cresol, 2,4- dinitrophenol, dinoseb, dinosebacetate, dinoterb, dinoterbacetate, dodecylphenol, o-ethylpheno heptyll[2,5-dimethyl-4 (2-methylphenylazo)] phenylazo- 2-naphthol, Hydroxybenzene, isoamyl salicylate, Medinoterb, methyl salicylate, nitrocresols, nitrophenols, nonylphenol, nonylphenol poly (4-12) ethoxylates, pentachlorophenol, 4-phenoxyphenol, picric acid, sodium pentachlorophenate, trichlorophenols, 2- (thiocyanatomethylthio) benzothiasol, xylenols;
- (b) Waste containing 1% or more by weight of any of the following phenol and/or phenol compounds - 2-amino-4-chlorophenol, aminophenols, ammonium dinitro-o-cresolate, ammoniumpicrate, chlorocresols, diazodinitrophenol, 2, 4-dinitro-6-cyclohexylphenol, 2, 4-dinitro-6-(1methylpropyl) - phenol, dinitrophenolate, alkali metals, dinitroresorcinol, dyes, hydroquinone, 4-hydroxysulfonic acid, n-methylcarbaryl-2- chlorophenol (CPMC), B-naphthol, resorcinol, sodium-2, 4-dichloro-6-nitrophenol (DNCP), sodiumdinitro-o-cresolate, 2,4,6- tri(dimethylaminomethyl) hydroxbenzene, 2,4,6-trinitro-mcresol, 2,4,6- trinitroresolcinol;
- (c) Waste containing phenol and/or phenol compounds other than those listed in (a) and (b) above.

Y40. Waste containing ethers listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following ethers - o-anisidine, 2-(2-aminoethoxy) ethanol, 2-amino-dimethoxypyrimidine, a-[1- [(allyloxy) methyl] -2- (nonylphenoxy) ethyl] -w-hydroxypoli (n=1-100) (oxyethylene), allylglycidylether, alkaryl polyether (C9-C20 alcohol (C6-C17) secpoly (3 -12) thoxylates, alcohol (C12-C15) poly (1-11) ethoxylates, alcohol (C13-C1 5) lyethoxylates, 1,2-Butylene oxide, butyl glycidyl ether, butyl sulfate anisol, 2-t-butyl-6-nitro-5-[p-( 1,1,3,3-tetramethylbutyl) phenoxy] benzoxazole, carbofran, 4-chlorobenzyl-4- ethoxyphenyl ether, p-(2-chloroethyl) anisol, m-chloromethylanisol, coumafuryl, p-cresidine, endotal sodium, 2, 3-epoxy-lpropanol, 2,3-epoxypropyl-acetate, 2-(2,3-epoxypropyl)-6- methoxyphenyl-acetate, a-2, 3 -epoxypropoxyphenyl-w-hydtropoli(n= 17) [2-(2,3- epoxypropoxy) benzylidene-2,3- epoxypropoxyphenylene], ethyleneglycol isopropyl ether, ethyleneglycol phenyl ether, ethyleneglycol methylbutyl ether, ethyleneglycol monoacrylate, ethyleneglycol monobutyl ether, ethyleneglycol monobutyl ether acetate, ethyleneglycol monoethyl ether, ethyleneglycol monoethyl ether acetate, ethyleneglycol monomethyl ether, ethyleneglycol monomethyl ether acetate, ethyleneglycol mono-n-propyl ether, ethyl 3-ethoxypropionate, safrole, propylene oxide, di- (2-chloro-iso-propyl) ether, B, B '-Dichloroethyl ether, 3,3' -dichloro-4 4' -diaminodiphenyl ether, 1,3-dichloro-2-methoxy-5-nitrobenzene, disodium=6-(4-amino-2,5-dimethoxyphenylazo)- 3-[4-(4- amino-sulfonatephenylazo)-2, 5-dimethoxyphenylazo]-4- sulfate-2- naphthalenesulfonate, diphenyl ether, dipropylenglycol monobutyl ether, dipropylenglycol monomethyl ether, din-pentyl ether, styreneoxide, petroleum ether, tetrahydrofuran, dodecylphenoxybenzene disulphonate (solns.), drazoxolan, triethyleneglycol monoethyl ether, triethyleneglycol monomethyl ether, 2, 4, 6- tris(chloromethyl)-1, 3, 5-trioxane, 3, 3, 3-trifluoro-1, 2-epoxypropane, tripropylenglycol monomethyl ether, trimethylolpropane polyethoxylate, 5-[N,N- Bis(2-

acetoxyethyl)amino]-2-(2-bromo-4,6-dinitrophenylazo)-4-methoxyacetanilide, 1,6-Bis(2,3-epoxypropoxy) naphthalene, 4,4' - bis (3-epoxypropoxy) biphenyl, 1,1- bis[p- (2,3-epoxypropoxy) phenyl] ethane, 1,1-bis[p- (3-chloro-2-hydroxypropoxy) phenyl] ethane, bis(chloromethyl) ether, 4,6-bis(difluoromethoxy)-2- methylthiopyrimidine, tributyltin oxide, bisphenol a diglycidyl ether, diglycidyl ether of bisphenol F, ethyl vinyl ether, phenylglycidylether (RS)-1-(4-Phenoxyphenoxy)-2-propanol, dihydro-2 (3H) - furanone, butoxyl, brucine, furfural, furfurylalcol, B- Propiolactone, 2,3-Epoxypropyl-propionate, Propyleneglycol monoalkyl. Ether, propyleneglycol monomethyl ether acetate, ropoxur, 1-bromo-4-(2,2 dimethoxyethoxy)-2,3-dimethylbenzene, 1,1' [oxybis(methylene)bis(benzene)] polyethyleneglicol monoalkyl ether, methylchloromethyl ether, 2-methoxy-2- methylpropane, 4-methoxy-2,2', 4' - trimethyldiphenylamine, 1 -(4-methoxyphenoxy)-2- (2-methylphenoxy) ethane, morpholine, resorcinol diglycidyl ether, rotenone;

- (b) Waste containing 1% or more by weight of any of the following ethers -acetal, anisole, N-aminopropylmorpholine, allylethylether, ethylpropyl ether, ethyleneglycol diethyl ether, ethyleneglycol diglycidyl ether, ethyleneglycol dimethyl ether, 3-ethoxypropylamine, 1,2-epoxy-3-ethoxypropane, glycidol, chloroethyl vinyl ether, chloromethyl ethyl ether, diallyl ether, diethyleneglycol dimethyl ether, diethyleneglycol 1 monobutyl ether, di-2-ethoxyethyl peroxy dicarbonate, 3,3 diethoxypropene, diethoxymethane 2,5-diethoxy-4-morpholino benzenediazonium zinc chloride, 1,3-dioxane, dioxolan, 2,3-dihydropyridine, diphenylsulfide, dibutyl ether, dipropyl ether, 4-dimethylamino-6-(2-dimethylaminoethoxy) toluene-2-diazonium zinc chloride, dimethyldiethoxysilane, dimethyldioxane, dimethoxyisopropylperoxydicarbonate, 1,1-dimethoxyethane, dimethoxybutyl peroxydicarbonate, 2,2-dimethoxypropane, tetrahydrofurfurylamine, triglycol dichloride, trinitroanisole, trinitrophenetole, nitroanisole, neopentylglycol diglycidyl ether, 3-(2-hydroxyethoxy)-4-pyrrolidin-1-ylbenzenediazonium zinc chloride, isobutyl vinyl ether, phenetidines, phenetole, phenoxyethylacrylate, ethylbutyl ether, n-butyl methyl ether, furan, furfurylamine, furfurylmercaptan, 2-bromoethylethylether, 4-[benzyl (ethyl) amino]-3-thoxybenzenediazonium zinc chloride-[benzyl(methyl) amino]-3-ethoxybenzenediazonium zinc chloride, benfuracarb, tetrahydrofurfuryl methacrylate, methylal, methyltetrahydrofuran, 2-methylfuran, methylpropyl ether, methyl-3-methoxybutanol, N-methylmorpholine, 4-methoxy-4-methylpentane-2-one;
- (c) Waste containing ethers other than those listed in (a) and (b) above.

Y41. Waste containing halogenated organic solvents listed as follows—

- (a) Waste containing 0.1% or more by weight of any of the following halogenated organic solvents - chloropropanes, chloropropenes, chlorobenzene, chloroform, carbon tetrachloride, dichloroethanes, dichloroethylenes, dichloropropanes, dichloropropenes, dichlorobenzene, methylene chloride, dibromoethanes, tetrachloroethane, tetrachloroethylene, tetrabromoethane, tetrabromomethane, trichloroethanes, trichloroethylene, trichloro-trifluoroethane, 1,2,3-trichloropropane, 1,2,4-trichlorobenzene, pentachloroethane;
- (b) Waste containing 1% or more by weight of any of the following halogenated organic solvents - 1,1-dichloro-1-nitroethane, 1,4-dichlorobutane, dichloropentanes, bromoform;
- (c) Waste containing halogenated organic solvents other than those listed in (a) and (b) above;
- (d) Waste in liquid form to be exported for the purpose of DI to D4 or RIO of Form 1 in Schedule 13, which cannot meet the waste water discharge standards soil in terms of tetra-chloro-ethylene and/or tri-chloroethylene;
- (e) Waste to be exported for the purposes other than those listed in the above (d), which cannot meet the following criteria—
- (i) Waste in solid form, which cannot meet the standards in the verification standards for hazardous waste in terms of tetra-chloroethylene and/or tri-chloro-ethylene;
  - (ii) Waste in liquid form, which cannot meet the standards in the National Environment (Standards for Discharge of Effluent into Water or Land) Regulations, 2020 in terms of tetrachloro-ethylene and/or tri-chloro-ethylene.



## Y42. Waste containing organic solvents excluding halogenated solvents—

- (a) Waste containing 0.1% or more by weight of any of the following organic solvents - acrolein, diisononyl adipate, acetaldehyde, ethyl acetoacetate, methyl acetoacetate, acetophenone, acetone, aniline allyl alcohol, alkylbenzenes, benzylbenzoate, methyl benzoate, isoamyl alcohol, isooctanol, isooctane, isononyl alcohol, isobutanol, iso butylamine, 4-methyl-2-pentanone, isopropylamine, isopropyl alcohol, isopropyl cyclohexane, isopropyl toluene, 3-methyl-2-butanone, isopentane, isopentene, isobutyric acid, ethanolamine, ethylanilines, ethylamine, ethylcyclohexane, nethyl cyclohexylamine, 2-ethylbutanol, n ethylbutylamine, ethyl-butylketone, 2-ethyl-3-propyl acrolein, ethylpropyl ketone, 2-ethylhexanol, 2-ethylhexylamine, ethyl n-pentyl ketone, 2-butanone, ethyleneglycol diacetate, ethylene glycol, ethylenediamine, octanol, octane, octanes, formic acid, isobutyl formate, n-butyl formate, methyl formate, quinoline, dimethyl succinate, acetic acid, isobutyl acetate, isopropyl acetate, isopentyl acetate, ethyl acetate, ethylbutyl acetate, n-octyl acetate, cyclohexyl acetate, n-decyl acetate, n-nonyl acetate, vinyl acetate, 2-phenyl ethyl acetate, butyl acetate, secbutyl acetate, n-propyl acetate, n-hexyl acetate, sec-hexyl acetate, heptyl acetate, benzyl acetate, pentyl acetate, sec-pentyl acetate, methyl acetate, methylpentyl acetate, mesityl oxide, diisobutylamine, diisobutyl ketone, diisopropanolamine, diisopropylamine, N, Ne, diethylaminoethanol, diethylamine, diethylenetriamine, cyclohexanol, cyclohexanone, cyclohexane, cyclohexylamine, cycloheptane, cyclopentane, cyclopentene, dicyclohexylamine, di-n-butylamine, dipropylamine, dipentene, N, N- dimethylacetamide, n, N-dimethylaniline, dimethylamino azobenzene, 2-dimethylaminoethanol, 2,6-dimethyl-4-heptanol, N, n-dimethyl formamide, diethyl oxalate, camphor oil, styrene, butyl stearate, tetrahydrothiophene-1, i-dioxide, petroleum naphtha, petroleum sulfate, dimethyl sebacate, solvent naphtha, diethyl carbonate, dimethyl carbonate, decanol, decene, tetraethylenepentamine, tetrahydronaphthalene, turpentine oil, dodecanol, 1-dodecylamine, triethanolamine, triethylamine, triethylenetetramine, tributylamine, tripropylamine, toluidine, naphthalene, nitroethane, nitroxyls, o-nitrotruen, nitoropropanes, nitrobenzene, nitromethane, ethyl lactate, butyl lactate, Carbon disulfide, nonanol, nonane, nonene, paraldehyde, methyl palmitate, picolines, 4-hydroxy- 4-methyl-2-pentanone, pinenes, pyridine, phenyl ethyl alkyl, 1- phenyl-1- xylylethane, n-butanol, 2-butanol, dialkyl sulfates, bis (diethyleneglycol) phthalate, butyl benzylphthalate, butanediols, n-butylamine, sec-butylamine, tert-butylamine, 1,3-propane sultone, propionic acid, n-amyl propionate, ethyl propionate, n-butyl propionate, methylpropionate, propylamine, hexanol, hexane, sulfate, heptanols, sulfate, n-heptene, benzyl alcohol, benzene, 1,3-pentadiene, pentanols, n-pentane, pentenes, formamide, white spirit, di-n-butyl maleate, methyl myristate, methanol, methyl alcohol, methylamine, methyl iso-amylketone, 7-methyl-1, 6-octadiene, 2-methylcyclohexanol, ethylcyclohexanone, methylcyclohexane, methylcyclopentane, i-methyl naphthalene, methyl n-pentyl ketone, methyl butanol metju; nitu; letame, methyl butanol, 2-methyl hexane, methyl nhexylketone, methyl heptyl ketone, methylpentanol, 2-methyl pentane, 2-methyl- 1-pentane, 4-methyl-1-pentane, ethyleneglycol monoacetate, methyl laurate, butyric acid, ethyl butyrate, vinyl butyrate, n-butyl butyrate, methyl butyrate, ligroin, dimethylsulfide, dimethyl;
- (b) Waste containing 1% or more by weight of any of the following organic solvents - allylamine, methyl valerate, methyl isopropenyl ketone, isobutyl isobutyrate, isopropyl isobutyrate, ethyl isobutyrate, n-undecane, ethyl alcohol, n-ethyltoluidine, allyl formate, ethyl formate, propyl formate, pentyl formate, allyl acetate, isopropenyl acetate, tert-butyl acetate, diallilamine, diisopropyl ketone, diethyl ketone, diethyleneglycol, cyclohexene, cycloheptene, cyclopentanol, cyclopentanone, dipropyl ketone, dimethylcyclohexane, dimethyl sulfoxide, 2,3-dimethylbutane, 1,3-dimethylbutylamine, dioctyl sebacate, dibutyl sebacate, thiophene, n-decane, tetrahydrothiophene, terpinolene, triallilamine, trimethylene glycol, methyl lactate, dimethyl disulphide, acetyl methyl carbinol, vinyltoluene, piperidine, 3-butanol, butylmercaptan, 1,4-butanediol, n-propanol, isopropyl propionate, isobutyl propionate, 4-methyl-1,3-dioxacyclopentan- 2-one, 1,2-propylenediamine, 2- methyl-2,4- pentanedil, pentamethylheptane, pentane-2,4-dione, triisopropyl borate, ethyl borate, trimethyl borate, butyric anhydride, n-methylaniline, methyl vinyl ketone, N-methylpiperidine, methyl propyl ketone, 5-methylhexan-2-one, isopropyl butyrate, isopentyl butyrate, pentyl butyrate;

- (c) Waste containing organic solvents other than those listed in a) and b) above.
- Y43. Any congener of polychlorinated de benzo-foran.
- Y44. Any congener of polychlorinated dibenza-p-dioxin.
- Y45. Waste containing organohalogen compounds other than substances referred to in this Schedule, listed as follows—
- (a) Waste containing 0.1% or more by weight of any of the following organohalogen compounds:  
 1-(acetyl amino)-4-bromoanthraquinone, atrazine, 2-amino-2-chloro-5-nitrobenzophenone, (6R,7R)-7-amino-3-chloromethyl-8-oxo-5-thia-1-azabicyclo(4,2,0)octa-2-ene-2-carboxylic acid-4-methoxybenzyl, methyl aminodithio-2-chloropropionate hydrochloride, 2-amino-3,5-dibromothiobenzamide, 2-chloro-2',6'-diethyl-n-(methoxymethyl)acetanilide, alidochlor, aldrin, isodrin, Imazalil, ethyl-3,5-dichloro-4-hydroxybenzoate, ethyl-3,5-dichloro-4-hexadecyloxy carbonyloxybenzoate ethylene chlorohydrine, epichlorohydrin, acetyl chloride, anisole chloride, allyl chloride, choline chloride, chlorinated paraffins (CI 0-13), pyrosulphuryl chloride, benzylidene chloride, benzyl chloride, benzoyl chloride, endrin, captafol, canpachlor, coumachlor, crimidine, chloral, chlordimeform, chlordane, chlorendic acid, chloroacetaldehyde, chloroacetone, chloroanilines, 4-chloro-2-aminotoluene hydrochloride, 1-chlorooctane, 1-chloroethylchloroformate, 1-chloro-3-(4-chlorophenyl)hydrazono-z-propanol monochloroacetic acid, chlorodinitrobenzene, 3-chloro-1,2-dibromopropane, 1-chloro-3,3-dimethyl-2-butanol, ethylchlorothioformate, 2-chloro-5-trifluoromethylnitrobenzene, chlorotoluidines, chlorotoluenes, 2-chloronicotinic acid, chloronitroanilines, 4-chloro-2-nitrotoluene, N-(2-chloro-3-nitro-6-pyridyl)acetamide, 4-(2-chloro-4-nitrophenylazo)-N-(2-cyanoethyl)-N-phenetyl aniline, chloronitrobenzenes, chloropicrin, chlorohydrins, chlorophacinone, 4-chloro-o-phenylenediamine, 3-chloro-2-fluoronitrobenzene 3-chloro-4-fluoronitrobenzene, chloroprene, 2-chloropropionic acid, 3-chloropropionic acid, 1-chlorohexane, 1-chloroheptane, p-chlorobenzylchloride, p-chlorobenzotrichloride, chloromethyl=p-tolyl=ketone, 2-(4-chloromethyl-4-hydroxy-2-thiazoline-2-yl)guanidine=chloride, methyl 2-[(chloromethyl)phenyl]propionate, (2S)-3-chloro-2-methylpropionic acid, (Z)-4-chloro-2-(methoxycarbonylmethoxyimino)-3-oxobutyric acid, 2-chlorobutyric acid, kepone, kelevan, 1-chloroformyl-1-methylethyl acetate, 1-bromoformyl-1-methylethyl acetate, benzotrichloride, 3,5-diaminobenzene, diallate, silicon tetrachloride, diglycol sulfates, cyclohexenyltrichlorosilane, 3,4-dichloroaniline, 4,5-dichloro-p-n-octylisothiazole-3-one, dichloroacetic acid, methyl dichloroacetate, 3,3'-dichloro-4,4'-diaminodiphenylmethane, 3,5-dichloro-4-(1,1,2,2-tetrafluoroethoxy)aniline, 1,4-dichloro-2-trichlorosilyl-2-butene, 2,4-dichloro-5-trifluoromethylnitrobenzene, 1,4-dichloro-2-nitrobenzene, 2,2-dichloro-5-nitrobenzophenone, 2,4-dichlorophenoxyacetic acid diethanolamine, 2,4-dichlorophenoxyacetic acid diethylamine, 2,4-dichlorophenoxyacetic acid triisopropanolamine, 2,4-dichloro-3-fluorene, 1,3-dichloro-4-fluorobenzene, 2,3-dichloro-1-propanol, 2,2-dichloropropionic acid, methyl 2,3-dichloropropionate, dichlorobromomethane, 1,6-dichlorohexane, 2,6-dichloro-3-perchloromethyltoluene, 4,5-dichloro-2-perchloromethyltoluene, dichlorobenzidine, 2,2-dichloro-3-pentanone, 2,4-dichloro-3-pentanone, 2,6-difluoroaniline, 3,4-difluoronitrobenzene, 2-dibromoethylene 2'-(2,6-dibromo-4-nitrophenylazo)-5'-diethylaminoacetanilide, 2,3-dibromopropionate, dibromomethane, simazine, acetyl bromide, allyl bromide, sulfalate, cyclohexyl-iodoethyl=carbonate, DDT (chlorophenothane), 2,4-DB((2,4-dichlorophenoxy)butyric acid), dieldrin, 2,2,6,6-tetrachlorocyclohexanone, 2,2',4,4'-tetrachlorobenzophenone, sulfate-5,5-dimethyl-2(lh)-pyrimidinone [p-trifluoromethyl]-a-[p-(trifluoromethyl)styryl]cyaniliden]hydrazono, 2,2,3,3-tetrafluoroxetane, diuron, telodrin, toxaphene, 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1h-1,2,4-triazol-1-yl)-2-butanone trichloroacetylchloride, 2,2,6-trichloro-6-(1-chloroisobutyl)cyclohexanone, trichloroacetic acid, 2,4,6-trichloro-1,3,5-triazine, 2,2,3-trichloro-3-phenyl-1,1-propanediol, 2,4,5-trichlorophenoxyacetic acid, trichlorobutene, perchloromethylmercaptan, 2-trichloromethyl-5-(4-hydroxystyryl)-1,3,4-oxadiazole, sodium trifluoroacetate, 2,3,4-trifluoronitrobenzene, nitrobenzotrifluoride, trimethylacetylchloride, trimethylchlorosilane, sodium=4-(2,4-dichloromethyl)-1,3-dimethylpyrazole-5-oleate, nitrofen, paraquat, 5'-bis(2-acetoxyethyl)amino]-2'-(2-chloro-4-nitrophenylazo)acetanilide 4-(p-bis(2-chloroethyl)aminophenyl)butyric acid, odomethylpivalate 2-t-butyl-5-chloro-6-



nitro-benzooxazole, o-3- t-butylphenyl -chlorothioformate, 2-chloro-lpropanol, 4-bromo-3-oxobutyroanilide, l-bromo-2- chloroethane, ethyl bromoacetate, 3-bromopropionic acid, ethyl 3-bromopropionate, e-3-[p-(bromomethyl) phenyl] acrylic acid, ethyl e-3-[p-(bromomethyl) phenyl] acrylate, 3-bromo-2-methylpropionic acid 4-bromo-2- methoxyimino-3-oxobutyryl=chloride, hexachlorocyclohexane, hexachloro-1, 3-butadiene, hexachlorobenzene, heptachlor, perfluoroprpxoy- 1,1,2-trifluoroethylene, i-benzyl-2-(chloromethyl) imidazole=chloride, hexachloro-hexahedra- methano-dioxathiepine oxide, N-[B-(benzol) furan-2-yl) acrylol-n'-trichloroacetohydrazid, pentachloronaphthalene, pentafluoroiodoethane, mirex, 2-methyl-4-chlorophenoxy-acetic acid, methyltrichlorosilane, 2-methyl-3- trifluoromethylaniline, methylphenyldichlorosilane, methrachlor, 2-mercaptobenzothiazol, monofluoroacetic amide, acetyl iodide, allyl iodide, methyl iodide, 3-iodopropionic acid;

- (b) Waste containing 1% or more by weight of any of the following organohalogen compounds: isopropyl-n-(3-chlorophenyl) carbamate (ipc), imidacloprid, echlomezole, ethychlozate, epibromohydrin, (4-chloro-2-methylphenxoy) acetic acid, isobutyryl chloride, butyryl chloride, propionyl chloride, pentyl chloride N'-(2-methyl- 4-chlorophenyl)-N,N-dimethylformamizine chloride, oxadiazon, 2-chloro-4, 5-dimethylphenyln-methylcarbamate, chlorphenamidinel-[3, 5-dichloro-4-(3- chloro- 5-trifluoromethyl-2- pyridylox y) phenyl]-3-(2, 6-difluorobenzoyl) urea, chlormequat, chloroacetonitryl, chloro acetophenone, chloroanisidine, allyl chloroformate, isobutyl chloroformate, isopropyl chloroformate, ethyl chloroformate, 2-ethylhexyl chloroformate, 2-ethoxyethyl chloroformate, chloromethyl hloroformate, cyclobutyl chloroformate, phenyl chloroformate, n-butyl chloroformate, sec-butyl chloroformate, t-butylcyclohexyl chloroformate, 2-butoxyethyl chloroformate, npropyl chloroformate, benzyl chloroformate, methyl chloroformate, isopropyl chloroacetate, ethyl chloroacetate, sodium chloroacetate, vinyl chloroacetate, methyl monochloroacetate, 1 -chloro-1,2-dibromoethane, 2-chloropridine, chlorobutanes, 3-chloro-lpropanol, glycerol a-monochlorohydrin, isopropyl 2-chloropropionate, ethyl 2-chloropropionate, methyl 2-chloropropionate, i-chloro-3- bromopropane, dichlorobenzylicacid ethyl ester, p -chlorobenzoyl chloride, chlorobenzotrifluorides, 1,1 -bis(p-chlorophenyl)-2,2,2 -trichloroethanol, 2,4,6-tri chlorophenyl-4'-nitrophenyl ether, 1,4,5,6,7,7-hexachlorobicyclo(2,2,1) hept-5-ene- 2,3-d carboxylic acid di-2-propenylester, dicloro dinitromethane, dichlorobutyne, 1,3-dichloroacetone, 2,5-dichloroaniline, 3,5-dichloroaniline, B, B'-Dichloroethyl horma 1,1'-Ethylene-2, 2'-dipyridiliumdibromide, dibromochloropropane 3,5-dibromo-4-hydroxy-4'- nitroazobenzene (BAB), 1,2-dibromobutan-3-one, m-dibromobenzen, bromoacetone, isopropyl bromide, ethyl bromide, xylol bromide, diphenylmethyl bromide, phenacyl bromide, n-buthyl bromide, 2-bromobutane, benzyl bromide, thiochlormethyl, 1,1,2,2-tetrachloronitoroethane, methyl trichloroacetate, trichloronitroethylene, 2,4,5-trichlorophenoxyacetic acid butoxyethylester, 2,4,5-trichlorophenoxyacetic acid methoxyethylester, 2,4,6-trinitrochlorobenzene, trinitrofluorenone, trifluoroacetate acid, trifluoromethanesulfonic acid 2-trifluoromethylaniline, 3trifluoromethylaniline, N,N'-[4-priperazinediylbis(2,2,2,-trichloroethylide ne)] bisformamide, nitrobromobenzene, n-valerylchloride, halofuginone, isopropyl p,p'- dibromobenzilate, fluoroaniline, fluoroacetic acid, fluorotoluene, fluorobenzene, fulsulfamide, methyl bromoacetate, 3-bromopropyne, bromobenzene, 2-bromopentane, i-bromo-3-methylbutane, bromomethylpropane, hexachloroacetone, hexachloro-1,3-cyclopentadiene, hexachlorophene, hexythiazox, permethrin, benzotrifluoride, benzoate pentyltrichlorosilane, methylallyl chloride, methyl bromoacetone, sodium fluoroacetate, monofluoroacet-p-bromoanilide, N-(pbromobenzyl) monofluoroacetamide, n-butyl iodide, benzyl iodide, 2-iodobutane, iodopropanes, iodomethylpropane, hexafluoroacetone;
- (c) Waste containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated triphenyls (PCTs) and/or polybrominated biphenyls (PBBs) of 50 ppm or more by weight;
- (d) Waste other than the organic halogen compounds given in (a), (b), and (c) (excluding waste listed in other items);
- (e) Waste to be exported for the purpose of DI to D4 or RIO of Form 1 in Schedule 13, which cannot meet the following criteria—
- (i) Waste in solid form, which cannot meet the ambient soil quality standards in terms of PCB;

- (ii) Waste in liquid form, which cannot meet the waste water discharge standards to soil in terms of PCB.
- (f) Waste to be exported or imported for purposes other than those in e) above, which cannot meet the following criteria—
- (g) Waste in solid form, which cannot meet the standards in the standards for hazardous waste in terms of PCB;
- (h) Waste in liquid form, which cannot meet the standards in the effluent quality standards in terms of PCB.

## **Part 2 – Categories of waste requiring special consideration**

- Y46. Waste collected from households.
- Y47. Residues arising from the incineration of household waste.
- Y48. In the annex relating to plastic waste, including mixtures of such waste, with the exception of plastic waste which is hazardous waste and plastic waste almost exclusively consisting of; one - non halogenated polymer, one cure resin or condensation product, specific fluorinated polymer waste, and, mixtures of plastic waste consisting of polyethylene, polypropylene or polyethylene terephthalate provided they are destined for separate recycling of each material and in an environmentally sound manner and almost free from contamination and other types of waste.

**Schedule 5 (Regulations 12(2), 24(2) and 25(1)(b))****Application for a licence/ renewal of a licence to manage waste**

*(To be completed in Triplicate)*

Application Reference No \_\_\_\_\_  
Licence No \_\_\_\_\_ *(in case of renewal)*

**Part A: General**

1. Name, physical and postal address and legal status of the applicant  
*(whether individual, partnership or company)*  
\_\_\_\_\_  
\_\_\_\_\_
2. Technical competence and experience of applicant *(attach supporting documents)*  
\_\_\_\_\_  
\_\_\_\_\_
3. Financial capacity of the applicant  
Provide documents demonstrating the financial capacity of the applicant including, a detailed statement of the applicant's assets and liabilities signed by the applicant, or in the case of an applicant which is a body corporate, accompanied by—
  - (i) certified copies of the last balance sheet and profit and loss account, if any, incorporating the results of the last financial year, and which have been audited by the company's auditors, including every document required by law to be annexed or attached to the certified copies;
  - (ii) a certified copy of the report of the auditors;
  - (iii) a detailed statement of the financial resources available to the applicant to undertake the business under the licence;

- (iv) bank statement for the last six months or as applicable;
- (v) nature of financial security (insurance and any other form of security);

\_\_\_\_\_

\_\_\_\_\_

**4. Details of current licence to manage waste (in case of renewal of the licence)**

Licence No. of the current licence to manage waste.

\_\_\_\_\_

Date of issue of the current licence to manage waste.

\_\_\_\_\_

**Part B: Where the application is for transportation of waste;**

1. A description of the nature and type of vessels and equipment to be used for transportation of the waste (include registration number and model as appropriate)

\_\_\_\_\_

\_\_\_\_\_

2. Proof of safety checks of the transportation vehicles for road worthiness and suitability to transport the waste from a competent Government ministry, department or agency (attach copy of certificate of road worthiness)

\_\_\_\_\_

\_\_\_\_\_

3. Carriage capacity of the vessel to be used in transportation of waste

\_\_\_\_\_

\_\_\_\_\_

4. Quantity of waste per vessel to be transported (tonnes/kg per annum) and source of waste

\_\_\_\_\_

\_\_\_\_\_

5. Collection schedule for the transportation of the category of waste for which the licence is sought

\_\_\_\_\_

\_\_\_\_\_

6. Licensed sites or plant to which waste is to be transported (*attach additional information if necessary*)

\_\_\_\_\_

\_\_\_\_\_

**Part C: Where the application is for storage of waste;**

1. Proposed location of the storage facility (*Plot No. village, parish, sub-county, county, district/municipality*)

\_\_\_\_\_

\_\_\_\_\_

2. Description of the layout and design of the facility, including ventilation or other measures, and suitability for storage of the specified waste (*describe and attach proposed structural plans, including site layout and decommissioning plans*)

\_\_\_\_\_

\_\_\_\_\_

3. Source of the waste (*i.e. where the waste was collected from to the point of storage*).

\_\_\_\_\_

\_\_\_\_\_

4. Type of waste to be stored and describe whether liquid, solid or gaseous and their possible impacts.

\_\_\_\_\_

\_\_\_\_\_

5. Quantity of waste to be stored in kg or tonnes for solids; or in cm<sup>3</sup> if liquids or gases and capacity of disposal site

\_\_\_\_\_

\_\_\_\_\_

6. Type of containers in which the waste is to be packaged  
\_\_\_\_\_  
\_\_\_\_\_
7. Labels on the container (*describe and attach sample*)  
\_\_\_\_\_  
\_\_\_\_\_
8. Are there any other materials stored or to be stored in the facility?  
(*describe*)  
\_\_\_\_\_  
\_\_\_\_\_
9. Description of the surroundings of the facility (*whether industrial, residential, commercial and whether it is near schools or recreational areas*)  
\_\_\_\_\_  
\_\_\_\_\_
10. Duration of storage applied for  
\_\_\_\_\_  
\_\_\_\_\_
11. Final destination of the waste  
\_\_\_\_\_  
\_\_\_\_\_
12. Description of safety measures at the facility  
\_\_\_\_\_  
\_\_\_\_\_
13. Measures for containment and treatment of leakage or leachate, if applicable  
\_\_\_\_\_  
\_\_\_\_\_

**Part D: Where the application is for a treatment or disposal facility;**

1. Proposed location of the facility (*Plot No. village, parish, sub-county, county, district/municipality*)  
\_\_\_\_\_  
\_\_\_\_\_

2. Proof of approval by authority responsible for physical planning  
\_\_\_\_\_  
\_\_\_\_\_
3. Specifications of the layout, design and construction of the facility  
*(describe and attach proposed structural plans, including site layout and decommissioning plans)*  
\_\_\_\_\_  
\_\_\_\_\_
4. Type of waste to be treated or disposed and describe whether liquid, solid or gaseous and their potential impacts  
\_\_\_\_\_  
\_\_\_\_\_
5. Quantity of waste to be treated or disposed per annum: in kg or tonnes for solids; or in m<sup>3</sup> if liquids or gases and capacity of treatment or disposal facility  
\_\_\_\_\_  
\_\_\_\_\_
6. Type of treatment or disposal technique to be used at the facility
  - (a) Treatment \_\_\_\_\_  
\_\_\_\_\_
  - (b) Land fill  
\_\_\_\_\_  
\_\_\_\_\_
  - (c) Compost  
\_\_\_\_\_  
\_\_\_\_\_
  - (d) Incineration  
\_\_\_\_\_  
\_\_\_\_\_
  - (e) Other (*specify*)  
\_\_\_\_\_  
\_\_\_\_\_

7. Estimated life span of the facility (*attach a preliminary plan for decommissioning*)

\_\_\_\_\_

\_\_\_\_\_

8. Proposed acreage/area of the site where the facility is to be located

\_\_\_\_\_

\_\_\_\_\_

9. Description of the surroundings of the facility (*describe whether industrial, residential, commercial and whether it is near schools or recreational areas*)

\_\_\_\_\_

\_\_\_\_\_

10. Measures for containment and treatment of leakage or leachate

\_\_\_\_\_

\_\_\_\_\_

11. The proposed methods for pollution prevention and abatement

\_\_\_\_\_

\_\_\_\_\_

12. The proposed operation, monitoring and control plan (attach)

\_\_\_\_\_

\_\_\_\_\_

13. Copy of certificate of approval of environmental and social impact assessment

\_\_\_\_\_

\_\_\_\_\_

**E. Facility Compliance Record in the case of renewal of licence.**

1. Is the waste management facility in operation? Yes \_\_\_\_\_ No \_\_\_\_\_  
Partially \_\_\_\_\_ (*Tick as appropriate*)

- (a). If Yes, please provide date when the waste management facility started operation.

\_\_\_\_\_

\_\_\_\_\_



(b). If partially, provide details

\_\_\_\_\_

(c). If No, please provide reasons for non-operation.

\_\_\_\_\_

2. Is an Environment Management System (EMS) established and implemented for the facility?

Yes \_\_\_\_\_ No \_\_\_\_\_

(a) If yes, provide summary of the Environmental Policy, and level of implementation of the EMS.

\_\_\_\_\_

3. Is the environmental management and monitoring plan upto date?

Yes \_\_\_\_\_ No \_\_\_\_\_ (*Tick as appropriate*)

If No, indicate how it will be updated if the waste management facility is renewed.

\_\_\_\_\_

4. Will the renewal of the licence come with new developments or modification of the waste management facility?

Yes \_\_\_\_\_ No \_\_\_\_\_ Partially \_\_\_\_\_ (*Tick as appropriate*)

If Yes, attach a report of the developments or modifications

\_\_\_\_\_

**Part F: Final provisions and attachments**

1. Any other information/approvals

\_\_\_\_\_

2. Attach a copy of the current licence (*if application is for renewal*)  
\_\_\_\_\_  
\_\_\_\_\_
3. Attach evidence of compliance with the conditions of a licence to be renewed including where applicable, a summary of the most recent environmental compliance audit report and where available, the response of the Authority to the audit report (*if application is for renewal*)
4. Attach a copy of the most recent annual report (*if application is for renewal*)
5. Where applicable, attach a confirmation of the financial security (*if application is for renewal*)
6. Attach a record of safety equipment and measures applied before, including the best available technology and best environment management practices (*if the application is for renewal*).  
\_\_\_\_\_  
\_\_\_\_\_

I declare that the information stated in this application is correct true and correct to the best of my knowledge.

Signature: \_\_\_\_\_

Name of applicant \_\_\_\_\_

Designation and title of applicant \_\_\_\_\_

Contact information (*phone number, e-mail and other*)  
\_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_

Note:

1. *A waste handler shall lodge an application for renewal of a licence within sixty days prior to the expiry of the current licence.*
2. *The waste handler shall be notified in writing in case the Authority rejects the application for renewal of the licence, with reasons for the rejection.*
3. *If the renewal of the licence is approved, a new licence shall be issued.*
4. *If the information given above is false, misleading, wrong or incomplete it may lead to a rejection of the application or the suspension, withdrawal, amendment or cancellation of a licence, if granted.*
5. *This form must be submitted in triplicate on payment of the prescribed fees to the Authority*

\_\_\_\_\_

*(For Official Use Only)*

Comments of the lead agency *(attach additional comment as necessary)*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Where applicable, comments from the public *(attach additional comments as necessary)*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Application received on \_\_\_\_\_ 20 \_\_\_\_\_

Fee paid Shs \_\_\_\_\_ (in words) \_\_\_\_\_

Inspections of the Authority

\_\_\_\_\_  
\_\_\_\_\_

In respect of an application for storage, treatment or disposal of waste –

1. Type of facility

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2. Adequacy of the facility

The availability of adequate and appropriate facilities and equipment to transport, store, treat or dispose of waste for which the application is made.

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In respect of an application for transportation of waste—

1. Registration number and model of vessels to transport waste

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2. Proof of safety checks of the transportation vessels for road worthiness and suitability to transport the waste from a competent authority (attach additional information if necessary)

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Comments of the Authority (attach additional comment as necessary)

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Decision of the technical committee on pollution control

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\_\_\_\_\_  
Date Chairperson, Technical Committee  
on Pollution Control.

Date when decision was communicated to applicant (attach communication to this form)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Chairperson, Technical Committee on Pollution Control.

### Schedule 6 (Regulations 12(2), 24(3)(h) and 92(2) and (5))

#### Fees\*

	Shs.
Application for licence or renewal of licence	100,000.
Licence fee	
transport of waste	800,000
to own/operate a waste disposal site/plant	1,000,000
export of waste	500,000
import of waste	1,000,000
storage of waste	500,000
Transboundary movement of waste:	

\*

Rationale of fees: to cover administrative costs for processing the application, including inspections and sittings of the technical committee for pollution control.

	Shs.
movement document for transboundary movement	500,000
Notification for transboundary movement of waste	300,000

### **Schedule 7 (Regulation 18(1))**

#### **Form for financial security**

[The Guarantee Bank s headed paper]

Representing the Republic of Uganda

The National Environment Management Authority (NEMA)

[Date]

ON DEMAND BANK GUARANTEE

BANK GUARANTEE NO.: [XX-XX] IN THE AMOUNT OF [USD/ UGX] • insert amount (THE “GUARANTEED AMOUNT”)

BENEFICIARY: THE NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA) (REPRESENTING THE REPUBLIC OF UGANDA) (THE “BENEFICIARY”)

[ • Name of Guarantee Bank], [business/company/etc.] registration no. , as applicable [•] a [commercial bank] incorporated under the laws of [•] with its registered address at [•] (the “Guarantor”) hereby guarantees to the Beneficiary the obligations of [ • Name of company] ([ • nationality] [business/company/etc.] no. [•]) (the “Company”) with respect to certain responsibilities of the Company as a holder of a licence to manage waste under the National Environment (Waste Management) Regulations, 2020 (Regulation No. [•] of 2020) as amended (the “Regulations”) and in accordance with the terms of licence no. [ • Insert reference to the waste management licence (or references)] (the “Licence”) granted by the Beneficiary under the terms of the Regulations and in accordance with the [National Environment, Act 2019].

This Guarantee is given for the purpose of fulfilling the requirements set out in: [(1)] regulation 19(2) of the Regulations and (2) the terms of the Licence.

Other terms of this Guarantee:

1. The Guarantor’s maximum liability hereunder is limited to the Guaranteed Amount. The Guaranteed Amount may only be reduced with the prior written consent of the Beneficiary. Any payments by the Guarantor under this Guarantee will reduce the Guaranteed Amount with a corresponding amount.
2. This guarantee is an irrevocable and unconditional on-demand guarantee. Set-off, counter-claim and other deductions are not permitted and the Guaranteed Amount shall be paid to the Beneficiary in accordance with the provisions of Clause 4 below without any deductions whatsoever.
3. A claim for payment under this Guarantee by the Beneficiary shall be in writing, setting out the amounts to be paid together with a statement from the Beneficiary that the amount is due for payment.
4. The claim for payment must be presented by the close of regular business hours on the expiry date set out in Clause 5 below.
5. The Guaranteed Amount, or such lower amount as may be claimed by the Beneficiary, shall be paid within three business days of demand for payment.
6. The Beneficiary may make multiple demands hereunder, limited upwards to the Guaranteed Amount.

7. This Guarantee will expire on [ • Date] and will automatically be renewed, on an annual basis, until [20\*•] or [ • state event] when the Guarantee will lapse without further notice.
8. The Guarantor may terminate the Guarantee by giving six months' notice to the Beneficiary prior to the date of its annual renewal, [fhe notice period may be less than 6 months depending on the activity guaranteed]
9. If the Guarantee is terminated by the Guarantor, the Guarantee shall nevertheless remain in full force and effect until the ensuing annual renewal date.
10. All notices, requests, demands and other communication required or permitted under this Guarantee shall be in writing and shall be deemed to have been received when (i) delivered by hand or courier to the recipient; (ii) when received via electronic mail (provided that such electronic mail is actually delivered and receipt thereof is acknowledged); or (iii) [• insert number of days] after the date when posted by [registered / air] mail, with postage prepaid, to all addresses as ascribed below:

In case of the Beneficiary:

[• insert address]

In case of the Guarantor:

[• insert address]

11. If the Guarantee has been terminated in accordance with Clause 8 above, the Beneficiary may present a demand under the Guarantee for the full Guaranteed Amount, irrespective of whether the Company fulfils its obligations. The Beneficiary may retain the Guaranteed Amount paid by the Guarantor as security for future obligations for as long as the Company shall provide security to the Beneficiary under the terms of the Licence.
12. This Guarantee and any non-contractual obligations arising out of or in connection with it shall be governed by, and construed in accordance with the laws of [•].
13. The Guarantor hereby submits to the jurisdiction of [•]  
[Date/Place]  
[BANK]  
Signature  
Name with block letters:

## Schedule 8 (Regulation 20(2))

### Licence to manage waste

Licence No: TR/ST/WT/WD/HW\* \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_  
(Plot No., .....village, parish, sub-county, county, district/municipality)

**Collection/transportation of waste:**

You are hereby licensed to transport waste to \_\_\_\_\_  
(location/ village, parish, sub-county, county, district/municipality) from  
\_\_\_\_\_ (location village, parish, sub-county, county, district/  
municipality).

Type and registration number of vehicles licensed (describe details)

\_\_\_\_\_

**Storage of waste:**

You are hereby licensed to operate a storage facility at \_\_\_\_\_  
(location/ village, parish, sub-county, county, district/municipality).

**Owning/operating a waste treatment facility:**

You are hereby licensed to own/operate a treatment facility located at  
\_\_\_\_\_ (Plot No. village parish, sub-county, county, district/  
municipality)

**Owning/operating a waste disposal site:**

You are hereby licensed to own/operate a waste disposal site located at  
\_\_\_\_\_ (Plot No. village parish, sub-county, county, district/  
municipality)

**Classification and categorisation of waste:**

Type of waste indicated by number in ..... Schedule to the National



*Environment (Waste Management) Regulations 2020.*

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This licence is valid from \_\_\_\_\_ 20\_\_\_\_ to \_\_\_\_\_ 20\_\_\_\_

This licence is granted subject to the following conditions:

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Date: \_\_\_\_\_ Signature: \_\_\_\_\_

Chairperson, Technical Committee on pollution Control,  
National Environment Management Authority.

- \*TR/ST/WT/WD/HW-
- TR – transport
- ST – storage
- WT – waste treatment
- WD – waste disposal

**Schedule 9 (Regulation 45(1) and 48(1)(d)(ii))**  
**Guidelines for the determination for the**  
**determination of some hazardous characteristics**

	Testing methods	Judging criteria
1.	Thermal analysis test using 2,4-dinitrotoluene and dibenzoyl peroxides as standard substances, as specified in Annex 1	The results of thermal analysis of test substance are placed on the rectangular coordinates, where the common logarithm of corrected initiation temperature (real-measured initiation temperature - 25°C) is on X axis (horizontal) and the common logarithm of calorific value is on Y axis (vertical). Then, a plot of the common logarithm of corrected initiation temperature and adjusted calorific value (real-measured calorific value multiplied by 0.7) of 2,4-dinitrotoluene and a plot of the common logarithms of corrected initiation temperature and adjusted calorific value (real-measured calorific value multiplied by 0.8) of dibenzoyl peroxide are placed in the same coordinate. The criterion is whether the plot of test substance in question is placed on or above the line to link the plots of 2, 4-dinitrotoluene and dibenzoyl peroxides.
2.	Flash point test by Tag closed cup apparatus, as specified in Annex 2A (Flash point test by Seta closed cup apparatus as specified in Annex 2.B. should be utilized instead, in case that, flash point measured by Tag closed cup apparatus be between 0°C and 80°C and also kinetic viscosity of test substance in question at that flash point is of 10 cent-stokes or more.)	Flash point of 60.5°C or less.

	Testing methods	Judging criteria
3.	Small gas flash ignition test, as specified in Annex 3.A. and flash point test by Seta closed cup apparatus, as specified in Annex 3.B.	The criteria are: (a) whether test substance ignites within 10 seconds and burning continues by small gas flash ignition test, or (b) whether flash point is less than 40C by Seta closed cup flash point test.
4.	Spontaneous combustion test as specified in Annex 4.	The criteria: (a) whether gas substance combusts; or (b) whether the filter paper becomes scorched.
5.	Reaction-to-water test, as specified in Annex 5	The criteria are: (a) whether gas generated by the reaction of test substance to water auto ignites or catches fire; or (b) whether gas generated per one kilogram of test substance is one litre or more and also has flammable component.
6.	Burning test using ammonium persulfate as Standard substance, as specified in Annex 6.A. <i>(applicable only for test substance in solid form)</i>	The criterion is whether the burning time of test substance is equal to or shorter than that of the standard substance.
7.	Burning test using 90% nitric acid solution as standard substance, as specified in Annex 6.B. <i>(applicable only for test substance in liquid form)</i>	The criterion is whether the burning time of test substance is equal to or shorter than that of standard substance.
8.	Oral toxicity test, as specified in Annex 7.A.	(a) LD <sub>50</sub> of 200 mg/kg or less <i>(applicable for test substance in solid form)</i> for test substance in solid form  (b) LD <sub>50</sub> of 500 mg/kg or less <i>(applicable for test substance in liquid form)</i> for test substance in liquid form
9.	Dermal toxicity test as specified in Annex 7.B	LD <sub>50</sub> of 1,000 mg/kg. or less.

	Testing methods	Judging criteria
10.	Inhalation toxicity test, as specified in Annex 7.C. ( <i>applicable only for test substance in form of dust or mist.</i> )	LC <sub>50</sub> of 10 mg/kg or less.
11.	Corrosion test for metals, as specified in Annex 8.	Corrosion rate of Metal chip of 6.25 mm/year.
<p><i>[Remarks:</i>  <i>Test substances which are determined not to fall into the groups of class 1 (explosives) and class 5.2 (organic peroxides) based on the rules of the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1/Rev.7) adopted in New York by corresponding test given in the relevant middle row of the same item.</i>  <i>Test substances which are determined not to fall into the group of class 3 (flammable liquids) based on the rules of the United Nations Recommendations shall be recognized as not possessing the properties given in the lower row of item 2 for the corresponding test given in the relevant middle row of the same item.</i>  <i>Test substances which are determined not to fall into the group of class 4 (flammable solids) based on the rules of the United Nations Recommendations shall be recognized as not possessing the properties given in the lower row of item 3 for the corresponding test given in the relevant middle row of the same item.</i>  <i>Test substances which are determined not to fall into the group of class 5.1 (oxidizing substances) based on the rules of the United Nations Recommendations shall be recognized as not possessing the properties given in the lower row of item 4 for the corresponding test given in the relevant middle row of the same item.</i>  <i>Test substances for which no death of laboratory animals are observed as a result of fixed dose toxicity test specified in Annex 7.D., shall be recognized as not possessing the properties given in the lower rows of item 7 for the corresponding tests given in the relevant middle rows of the same item.</i>  <i>Test substances which are determined not to fall into the group of class 8 (corrosive substances) based on the rules of the United Nations Recommendations shall be recognized as not possessing the properties given in the lower row of item 8 for the corresponding test given in the relevant middle row of the same item.]</i></p>		

## Annex 1

The thermal analysis test with 2, 4-dinitrotoluene and dibenzoyl peroxides as standard substances uses the apparatus specified in item 1 to measure the starting heating temperature and the heating value of the waste in question and the standard substances when heated according to the testing methods specified in item 2.

### Apparatus

The apparatus shall be a differential scanning calorimetry (DSC) or a differential thermal analysis (DTA) apparatus using aluminium oxide (a) as standard substance.

### Testing methods

#### (1) Testing methods for 2, 4-dinitrotoluene.

- (a) Encapsulate 1 mg. of 2,4-dinitrotoluene and 1 mg of the standard substance in a pressure-proof stainless steel cell with a burst pressure of 50 kfg/cm<sup>2</sup> or more, and load it on the apparatus. Then, heat it so that the temperature of the 2, 4-dinitrotoluene and the standard substance rises at a rate of 10°C in 60 seconds.

- (b) Determine the initiation temperature of heat generation and calorific value from the chart obtained.
- (2) **Test procedure for dibenzoyl peroxide.**  
Carry out the procedure from (1) (a) to (b), using 2 mg each of dibenzoyl peroxide and the standard substance.
- (3) **Testing methods for testing substance.**  
Carry out the procedure from (1) (a) to (b), using 2 mg. each of the test substance and the standard substance.

## Annex 2

### A. Flash point test by Tag closed cup apparatus

The flash point test by Tag closed cup apparatus uses the apparatus specified in item 1. The flash point of the waste in question is measured in the laboratory specified in item 2 according to the testing methods specified in item 3.

#### 1. Apparatus

The apparatus shall be a Tag closed cup apparatus.

#### 2. Laboratory

The laboratory shall be in a place under atmospheric pressure in almost windless conditions.

#### 3. Testing methods

- (1) Put 50 cm<sup>3</sup> of a test substance in a test cup and then put the lid in place.
- (2) Produce a test flame and adjust its size to a diameter of 4 mm.
- (3) Adjust the heating condition of the bath so that the temperature of the test substance will rise by 1°C per 60 seconds. When the temperature of the test substance reaches the value of 5°C below the expected flash point (the temperature at which the test substance flash is to be confirmed, the same applying hereafter), open the shutter to make the test flame apply to the vapour space of the test cup for about one second and return it to the original position. In this case, do not rapidly adjust the test flame up and down.
- (4) Where the test substance does not flash in (3), open the shutter every time the temperature of the test substance rises by 0.5°C, make the test flame apply to the vapour space of the cup for one second, and return it to the original position. Repeat this operation until the flash is observed.
- (5) Where the test substance flashes at a temperature lower than 60°C in (4) and, in addition, the difference between that temperature and the expected flash point does not exceed 2°C, the temperature at which the test substance flashes shall be deemed the flash point of the test substance.
- (6) When the test substance flashes in (3) or when there is a difference between the temperature at which the test substance flashes in (4) and the expected flash point exceeds 2°C, repeat the procedures from (1) to (4).
- (7) Where the temperature at which the test substance flashes in (4) or (6) is not less than 60°C, carry out the following procedure.
- (8) Carry out the procedure described in (1) and (2).

- (9) Adjust the heating condition of the bath so that the temperature of the test substance rises by 3°C within 60 seconds. When the temperature of the test substance reaches a value 5°C below the expected flash point, open the shutter to make the test flame apply to the vapour space of the cup for about one second and then return it to the original position. In this case, do not rapidly adjust the test flame up and down.
- (10) Where the test substance does not flash in (9), open the shutter every time the temperature of the test substance rises 1°C to make the test flame apply to the vapour space of the cup, and then return it to the original position. Repeat this operation until the test substance catches fire.
- (11) Where the difference between the temperature at which the test substance flashes in (10) and the expected flash point does not exceed 2°C, the temperature at which the test substance flashes shall be deemed the flash point of that test substance.
- (12) When the test substance flashes in (9) and/or when there is a difference between the temperature at which the test substance flashes in (10) and the expected flash point exceeds 2°C, repeat the procedure from (8) to (10).

### **Flash point test by Seta closed cup apparatus.**

The flash point test by Seta closed cup apparatus shall measure the flash point of the waste in question by using the apparatus specified in item 1 at the laboratory specified in item 2 and according to the testing methods specified in item 3.

### **Apparatus**

The apparatus shall be a Seta flash closed cup apparatus.

#### **(a) Testing methods**

- (1) Heat or cool a sample cup to the expected flash point, keep the sample cup at that temperature, pour 2 cm<sup>3</sup> of the test substance (when the expected flash point is lower than the room temperature of the laboratory, the sample shall be cooled down to the expected flash point) in the cup, and then immediately place the lid and close the shutter.
- (2) Retain the temperature of the sample cup at the expected flash point for one minute.
- (3) Produce a test flame and adjust it to a diameter of 4 mm.
- (4) After one minute, open the shutter to make the test flame apply to the sample cup for about 2.5 seconds, and then return it to the original position. In this case, do not rapidly adjust the test flame up and done.
- (5) Where the sample flashes in (4), lower the expected flash point stepwise and perform the procedures from (1) to (4) until it does not flash anymore. Where the sample does not flash in (4), raise the expected flash point stepwise and perform the procedures from (1) to (4) until it flashes.

## Annex 3

### A. Small gas flash ignition test

The small gas flash ignition test measures the duration of time from when the waste in question makes contact with the flame to when a flame is ignited and observes whether burning continues or not. This test is conducted at the laboratory specified in item 1 and according to the testing methods specified in item 2.

#### 1. Laboratory

The laboratory shall be in a place under atmospheric pressure at a temperature of 20°C and a humidity of 50% in almost windless conditions.

#### 2. Testing methods

- (1) Put 3 cm<sup>3</sup> of the test substance (conditioned for 24 hours or more at a temperature of 20°C in a desiccator containing silica gel for drying) on an impervious low-heat conducting base plate with a thickness of 10 mm or more. In this case, a powdery or granular substance shall be put on the impervious low-heat conducting base plate in a hemispherical shape.
- (2) Keep a flame of liquefied petroleum gas (a diffusion flame from an ignition device with a rod-like nozzle, and the flame length adjusted to 70 mm, with the nozzle of the ignition device held upward) in touch with the test specimen for 10 seconds. (The contact area of the flame and test substance shall be 2 cm<sup>2</sup> and the angle of contact shall be approximately 30°C).
- (3) Measure the time after the flame makes contact with the test substance until it is ignited. Determine whether burning (including burning with no flame) continues. A test substance shall be judged to have undergone continuous burning in the case where it burns out completely during its contact with the flame, where it burns out completely within 10 seconds after the flame is detached, or where it continues to burn for 10 seconds or more after the flame is detached.

### B. Flash point test by Seta closed cup apparatus

The flashpoint test point test by Seta closed cup apparatus measures the flash point of the waste in question using the apparatus specified in item 1 at the laboratory specified in item 2 and according to the testing methods specified in item 3.

#### 1. Apparatus

The apparatus shall be a Seta flash closed cup apparatus.

#### 2. Laboratory

The laboratory shall be in a place under atmospheric pressure in almost windless conditions.

#### 3. Testing methods

- (1) Heat or cool a sample cup to the expected flash point, and while keeping the sample cup at that temperature, put 2 g of the test substance in the cup (where the expected flash point is lower than the room temperature in the laboratory, the sample shall be cooled down to the expected flash point), and immediately place the lid and close the shutter.
- (2) Retain the temperature of the sample cup at the expected flash point for five minutes.
- (3) Produce a test flame and adjust its diameter to 4 mm.
- (4) After five minutes, open the shutter to make the test flame apply to the vapour space of the sample cup for about 2.5 seconds and then return it to the original position. In this case, do not rapidly adjust the test flame up and down.
- (5) Where the sample flashes in (4), lower the expected flash point stepwise and perform the procedures from (1) to (4) until it does not flash anymore. Where the sample does not flash in

(4), raise the expected flash point stepwise and perform the procedures from (1) to (4) until it flashes.

## Annex 4

The spontaneous combustion test is conducted at the laboratory specified in item 1 and according to the testing methods specified in item 2. This test examines whether or not the waste in question combusts and whether or not the filter paper becomes scorched when exposed to air.

### 1. Laboratory

The laboratory shall be in a place under atmospheric pressure at a temperature of 20°C and a humidity of 50% in almost windless conditions.

### 2. Testing methods

#### (1) Testing methods for solid substance.

- (a) Drop 2 cm<sup>3</sup> of the test substance onto an impervious low-heat conducting base plate (with a heat transfer coefficient 86 cal./(m.hr.C) or less) from a height of 1 m and determine whether spontaneous combustion occurs during the fall or within 5 minutes after falling. In this case, when the test substance does not pass through a 0.3 mm sieve, the test substance should be pulverised to pass through the same sieve.
- (b) Where spontaneous combustion does not occur, repeat the same procedure six times, and determine whether spontaneous combustion occurs once or more.

#### (2) Testing methods for liquid substance.

- (a) Fill a porcelain cup with a diameter of approximately 70 mm with diatomaceous earth or silica gel to a height of 5 mm.
- (b) Drop the entire 5 cm<sup>3</sup> of the test substance onto the porcelain cup from a height of 20 mm for 30 seconds at a constant speed using a syringe, and determine whether spontaneous combustion may occur within 5 minutes from first drop.
- (c) Where spontaneous combustion does not occur in (b), repeat this operation six times using new samples of the waste in question. If spontaneous combustion does not occur for any of the six trails, conduct the test shown in (d).
- (d) Drop the entire 0.5 cm<sup>3</sup> of the test substance onto filter paper (conditioned for 24 hours or more at a temperature of 20°C in a desiccators containing silica gel for drying) with a diameter of 90 mm placed on a porcelain cup with a diameter of approximately 70 mm from a height of 20 mm for 30 seconds at a constant speed using a syringe. Determine whether spontaneous combustion or scorching of the filter paper occurs within 5 minutes.

## Annex 5

The reaction to water test is conducted at the laboratory specified in item 1 and according to the testing methods specified in item 2. This test examines whether or not the gas generated by the reaction of the waste in question to demineralised water combusts or whether or not the generated gas ignites when in proximity to flames; measures the amount of gas generated when the waste in question is added to demineralised water; and analyses the composition of the generated gas.

### 1. Laboratory

The laboratory shall be in a place under atmospheric pressure at a temperature of 20°C and a humidity of 50% in almost windless conditions.



## 2. Testing methods

- (1) Pour 20°C demineralised water into a beaker or an evaporating dish and put a 2 mm. diameter of test substance (5 millimetres for liquid substance) into the water, and then determine whether any gas is generated and whether the generated gas is autoignited. Where the generated gas is auto-ignited, the following procedures do not need to be implemented.
- (2) Make the test substance into a pile 20 mm high and 30 mm in diameter with a hollow in the top. Drop a few drops of 20°C demineralised water in the hollow and determine whether any gas is generated and whether the generated gas is autoignited. Where the generated gas is auto-ignited, the following procedures do not need to be implemented.
- (3) Put a filter paper supporting stand at the bottom of a beaker with a capacity of 500 cm<sup>3</sup>, pour 20°C of demineralised water up to the top face of that stand, and put a piece of filter paper with a diameter of 70 mm on it. After adjusting the water volume so that the filter paper floats on the water surface, put 50 mm<sup>3</sup> of the test substance at the centre of the filter paper, and determine whether the generated gas is auto-ignited. Where spontaneous combustion of the generated gas occurs, the following procedures need not be implemented.
- (4) Where the generated gas is not auto-ignited in (3), apply a flame to the gas and determine whether the gas catches fire.
- (5) Where the generated gas is not auto-ignited or generation of gas is not recognized in test (3) or where the generated gas does not catch fire in test (4), put 2 g of the test substance in a roundbottomed flask with a capacity of 100 cm<sup>3</sup>, immerse it in a basin with a temperature kept at 40°C and promptly pour in 50 cm<sup>3</sup> of demineralised water of 40°C. Shaking the contents of the flask with an agitating ball of 12 mm. in diameter and a stirrer agitator, measure the volume of generated gases for one hour.
- (6) The maximum value of the generated gas measurement made every hour (converted into the generation volume per kilogram of test substance) shall be deemed the generated gas volume for one operation.
- (7) Use a detecting tube, gas chromatography, etc., to determine whether the generated gas contains a flammable component.

## Annex 6

### A. Burning test using ammonium persulfate as the standard substance

In a burning test using ammonium persulfate as the standard substance, the burning time shall be measured for a mixture of a standard substance as specified in item 1, and wood powder as specified in item 2, and a mixture of a test substance and wood powder as specified in item 2, burned in a laboratory as specified in item 3, according to the test procedure for confirmation test specified in item 4.

#### 1. Standard substance

The particle size of standard substance shall be such that it can pass through a 300 m (approximately 50 mesh) sieve but cannot pass through a 150 pm. (approximately 100 mesh) sieve.

#### 2. Wood powder

- (1) The wood powder shall be prepared from sapwood of Japanese cedar.
- (2) The particle size of wood powder shall be such that it can pass through a 500 pm. (approximately 30 mesh) sieve but cannot pass through a 250 pm. (approximately 60 mesh) sieve.

### 3. Laboratory

The laboratory shall be in a room under atmospheric pressure at a temperature of 20°C and a humidity of 50% in almost windless conditions.

### 4. Testing methods

#### (1) Testing methods for standard substance

- (a) Make a uniform mix of the standard substance (conditioned for 24 hours or more at a temperature of 20°C in a desiccators containing silica gel for drying) and the wood powder (dried for 4 hours at a temperature of 105°C, and then conditioned for 24 hours or more at a temperature of 20°C in a desiccators containing silica gel for drying), the same applying to paragraphs (2)(a), B.1. (1)(a) and B.1(2)(a) to provide a 30 g. mixture with a weight ratio of 1:1.
- (b) Put the mixture of (a) in a conical cup with a height to bottom diameter ratio of 1:1.75, then put it upside down on an impervious low-heat conducting base plate with a thickness of 10 mm or more (the heat transfer coefficient at a temperature of 0°C shall be 86 cal/(m.hr.C) or less, the same applying hereafter) to provide a conical pile, followed by shaping and conditioning for one hour.
- (c) Gently press an ignition source (nichrome wire in the form of a circular loop with a diameter of 2 mm heated to a temperature of approximately 1,000°C by applying electricity) around the base part of the conical pile prepared in (b) above until the entire circumference of the base part is ignited. In this case, the duration for which the ignition source is kept in contact with the base part shall be up to 10 seconds.
- (d) Measure the time required for burning (from the time when the entire circumference of the base part of the pile described in (b) is ignited to the time when no flame is observed or, where flaming occurs intermittently, to the time when the final flame is extinguished.

#### (2) Testing methods for test substance

- (a) Uniformly mix up the test substance (which can pass through a 1.18 mm sieve and has been conditioned for 24 hours or more at a temperature of 20°C in a desiccators containing silica gel for drying) and the wood powder to provide 30 g mixtures with a weight ratio of 1:1 and 4:1. In this case, if the test substance does not contain components that can pass through a 1.18 mm sieve, the test substance shall be pulverized to become able to pass through the sieve for the purpose of this test.
- (b) Carry out the same procedure as described in (1) (b) and (c) (d) for each of the mixtures with a weight ratio of 1:1 and 4:1.
- (c) The shorter one of the burning time measures in (b) shall be taken as the burning time of the mixture of the test substance and wood powder.

## B. Burning test using 90% nitric acid solution as the standard substance

In aborning test using nitric acid solution as the standard substance, the burning time shall be measured for a mixture of 90% nitric acid solution and wood powder and a mixture of a test substance and wood powder, which are burned in a laboratory as specified in item A. 3 according to the testing methods specified in item 1.

### 1. Testing methods

#### (1) Testing methods for 90% aqueous solution of nitric acid.

- (a) Put 15 g of the wood powder in a conical cup with a height to bottom diameter ratio of 1:1.75, and then put it upside down on a flat-bottom evaporating dish with a diameter of 120 mm to provide a conical pile, followed by shaping and conditioning for one hour.
- (b) Pour 15 g of the 90% aqueous solution of nitric acid uniformly over the conical pile prepared in (1) (a) using a syringe to ensure its mixing with the wood powder.

- (c) Keep an ignition source (nichrome wire in the form of a circular loop with a diameter of 2 mm heated to a temperature of approximately 1,000°C by applying electricity) in contact with the base part of the conical pile prepared in (b) above until the entire circumference for the base part is ignited. In this case, the duration for which the ignition source is kept in contact with the base part shall be up to 10 seconds.
      - (d) Measure the time required for burning.
- (2) Test procedure for test substance.
  - (a) Put 15 g and 6 g of the wood powder in a conical cup with a height to bottom diameter ratio of 1:1.75, and then put them upside down on flat-bottom evaporating dishes with an outer diameter of 20 mm and 80 mm respectively to form a conical pile, followed by shaping and conditioning for one hour.
  - (b) Pour 15 g and 24 g of the test substance uniformly over the 15 g and 6 g conical piles prepared in (a) using a syringe to ensure their mixing with the wood powder.
  - (c) Carry out the procedure described in (1)(c) to (d) for each of the mixtures prepared in (b).
  - (d) The shorter one of the burning times measured in (c) shall be taken as the burning time of the mixture of the test substance and wood.

## Annex 7

### A. Oral toxicity test

The oral toxicity test measures the amount of substance orally administered to induce mortality in half of the laboratory animals. This test is conducted according to the testing methods specified in item 2 using the animal species specified in item 1.

#### 1. Selection of animal species employed

The animal employed for testing is a rat of commonly used laboratory strains with an age of approximately 6 weeks.

Ten rats (5 male and 5 female) should be used for each dose group. Healthy rats should be selected and acclimatized to the laboratory conditions in the testing cage for at least 5 days. The weight variation in rats used in testing should not exceed +20% of the mean weight.

#### 2. Test methods

- (1) The test substance should be conditioned for the use in testing. Where the test substance is in solid form, the test substance should be dissolved in water or suspended in a suitable vehicle. When some agent for suspending the test substance is utilized, there should be a reference dose group which is dosed only with such an agent. The same procedure should be applied for test substances in liquid form with high kinematic viscosity.
- (2) The test substance administered in a single dose to the rats by gavage using a stomach tube. Dose levels should have three levels or more and be selected so that it would produce evident toxicity and mortality.
- (3) Rats should be observed for 14 days after dosing and the mortality of rats should be observed.
- (4) By using statistical methods on the basis of the number of dead rats within 14 days after dosing, LD<sub>50</sub> should be calculated.

## B. Dermal toxicity test

- (a) The dermal toxicity test measures the amount of substance administered to induce mortality in half of the laboratory animals. This test is conducted according to the testing methods specified in item 2 using the animal species specified in item 1.

(b) **Selection of animal species employed**

The animal employed for testing is a rat of commonly used laboratory strains with an age of approximately 6 weeks.

Ten rats (5 male and 5 female) should be used for each dose group. Healthy rats should be selected and acclimatized to the laboratory conditions in the testing cage for at least 5 days. The weight variation in rats used in testing should not exceed +20% of the mean weight.

### 2. Test procedure

- (1) The test substance should be conditioned for the use in testing. Where the test substance is in solid form, the test substance should be pulverized and moistened with water or other appropriate solvent etc in order to ensure good contact with the skin. When some solvent is utilized, there should be a reference dose group which is dosed only with such a solvent.
- (2) Approximately 24 hours before the test, fur should be removed by close-clipping from the dorsal area of the trunk of rats. Care should be taken to avoid abrading the skin. Area for removal should be more than 10% of the total area of the surface of the body.
- (3) The test substance should be uniformly applied to the area, where fur has been removed, and should be kept in contact for 24 hours. Dose levels should have three levels or more and should be selected so that it produces evident toxicity and mortality. In this case, the part applied should be covered by a gauze patch which is to be held in place with non-irritating tape, or by other appropriate methods, in order to prevent the rats from coming in contact with it.
- (4) Rats should be observed for 14 days after dosing and the mortality of rats should be observed.
- (5) LD50 should be calculated by using statistical methods on the basis of the number of dead rats within 14 days after dosing.

## C. Inhalation toxicity test

The inhalation toxicity test measures the amount of substance administered to induce mortality in half of the laboratory animals.

This test is conducted according to testing methods specified in item 3 using the animal species specified in item 1 and the apparatus specified in item 2.

### 1. Selection of animal species employed

The animal employed for testing is a rat of commonly used laboratory strains with an age of approximately 6 weeks.

Ten rats (5 male and 5 female) should be used for each dose group. Healthy rats should be selected and acclimatized to the laboratory conditions in the testing cage for at least 5 days. The weight variation in rats used in testing should not exceed +20% of the mean weight.

### 2. Apparatus

The apparatus should be the inhalation toxicity testing apparatus which is composed of (1) a device for conditioning the test substance in specific concentration and for supplying the conditioned test substance, (2) an inhalation room where the rats are kept, (3) a device which can measure continuously the concentration of the test substance, and other devices.

### 3. Testing methods

- (1) Rats should be kept in the inhalation room for one hour, where the concentration of the test substance is conditioned and kept at specified concentration. Dose levels should have three levels or more and should be selected so that it produces evident toxicity and mortality.
- (2) Rats should be moved to the feeding cage and observed for 14 days after dosing and the mortality of rats should be observed.
- (3) LDS0 should be calculated by using statistical methods on the basis of the number of dead rats within 14 days after dosing.

## D. Fixed dose toxicity test

The fixed dose toxicity test is conducted according to the testing methods specified in item 2 using the animal species specified in item 1 and examines the presence of mortality among the species tested.

### 1. Selection of animal species employed

The animals employed for testing include 3 males and 3 females each of rats and mice of commonly used laboratory strains with an age of approximately 6 weeks.

### 2. Test methods

- (1) The test substance is administered in a single dose to the rats by gavage using a stomach tube. When the test substance is in a solid form, the test substance should be dissolved in water or suspended in a suitable vehicle.

(When some agent for suspending the test substance is utilized, there should be a reference dose group which is dosed only with such an agent. The same procedures should be applied for a test substance in liquid form with high kinematic viscosity. The dose level of the test substance administered should be 2,000 mg/1 kilogram body weight.

In case that the test substance is in the form of dust or mists, the animal employed should be kept for one hour in the inhalation room where the concentration should be conditioned and kept at 10mg/litre.

- (2) Rats should be observed for 14 days after dosing and the mortality of rats should be observed.

Remarks.

Half-death weight refers to the value in milligrams for one kilogram by weight of test species when the mortality of half of the species number has been confirmed.

## Annex 8

1. The corrosion test for metals uses the apparatuses specified in item 1 and, according to the testing methods specified in item 2, soaks the test metal chip into the test substance and measures the decrease in mass after soaking.

### 1. Apparatuses

#### (1) Soaking devices

A flat-bottom glass triangular flask with a capacity of 1,000 cm<sup>3</sup> which is attached with a glass vertical reverse condenser with enough capacity for cooling.

#### (2) Heating device

A pyrostat and other necessary devices which can keep the test substance at 55°C (hereafter referred to as heating devices).

(3) **Chemical balance**

A chemical balance which can measure at the level of 1 milligram.

(4) **Polishing paper**

Polishing paper No. 600 specified by the JISR 6252 "Polishing Paper" (1976).

**2. Testing methods**

- (1) Polishing a test metal chip of 10 cm. long, 1 cm. wide and 1 cm. thick, which is specified in JISG 3101 (1987) with the polishing paper. After washing the polished chip by water, remove the oil compound with an appropriate solvent such as ethanol.
- (2) Measure the weight of the test chip by using a chemical balance.
- (3) Pour the test substance in liquid form into the soaking device and keep the test metal chip with an appropriate holder so that one half of the test metal chip in the distance of length will be in the test substance.
- (4) Use the heating device to heat the test substance and the test metal chip up to 55°C and keep the temperature for 120 hours.
- (5) After 120 hours soaking, take out the test metal chip and wash it by water. Then remove the oil component as described in (1). Measure the weight by using a chemical balance.

Calculate the corrosion rate by using the following formula—

$$X = W \times 10 \times 365 / d \times S \times T$$

X = corrosion rate (unit: mm./year)

W = weight reduction after soaking (unit: grams)

d = density of the test metal chip (unit: g/cm<sup>3</sup>)

S - surface area of the test metal chip soaked into the test substance (unit: cm<sup>2</sup>)

T = time length for soaking (unit: days)

*Remarks.*

*The conditions of the soaked portion and unsoaked portion (part in contact with the steam) of the test chip should be observed and recorded in as much detail as possible.*

**Schedule 10 (Regulation 53(1))****Waste manifest**

*[Please print or type]*

Waste manifest	1. Wastegenerator ID	2. Page of ...	3. Emergency Response Phone	4. Manifest tracking number
5. Name and mailing address of the person generating the waste The site address (if different from mailing address) Contact information (phone number and e-mail)				

6. Transporter 1 company name			ID Number	
7. Transporter 2 company name			ID Number	
8. Details of other transporter(s)			ID Number	
9. Name of storage, treatment or disposal facility and physical address Contact information for the facility (phone number and e-mail			ID Number	
10. Specific site of origin of the waste				
11. Waste description (including transportation proper name, hazard class, ID number and packaging group, if any)	12. Containers	13. Total quantity	14. Unit Wt/vol.	15. Waste codes
	No	Type		
1.				
2.				
16. Chemical and physical composition of the waste				
17. Any other special characteristics, requirements or knowledge related to the waste; and waste control measures, if deemed necessary. (Some waste like E-waste may have to be stored until sufficient quantities are realized).				
18. Special handling instructions, and information on: 1. any potential safety or environmental hazards; 2. normal storage stability and methods for safe storage; 3. the name and percentage of weight of active ingredients and names and percentages by weight of other ingredients; 4. flash point, if appropriate; 5. address and telephone or fax number for specialist advice; 6. precautions and action required in the event of a spillage; 7. the name and percentage of weight of active ingredients and names and percentages by weight of other ingredients; 8. a statement of first aid measures and a direction that a physician must be contacted immediately; 9. directions for the disposal of the container and the waste in accordance with the National Environment Act, 2019, the national Environment (Waste Management) Regulations, 2020 and any other applicable law; 10. Any other information which may be in a safety data sheets.				

19. Location of storage, final treatment or disposal site.

20. Date of waste dispatch or transfer.

21. Expected date and time of arrival at the storage, treatment or disposal site.

22. CERTIFICATION.

I hereby declare that the contents of this consignment are fully and accurately described, classified, packaged, marked and labelled/package in accordance with the National Environment (Waste Management) Regulations, 2020, and are in proper condition for transportation in accordance with applicable law.

If waste is for export (for the primary exporter); I certify that the contents of this consignment conform to the terms of National Environment Management Authority provided in the consent attached hereto.

23. Waste minimization statement (describe how the waste has been minimized)


I certify that the waste minimization statement contained herein is true.







<b>24. The name and signature of the waste generator</b>					
Signature					
Day Month Year					
<b>25. Export transportation.</b>		Export from		Port of exit	
Transporter's signature (for export only)		Uganda (Name site location)		Date of leaving Uganda	
<b>26. Transporter acknowledgement of receipt of waste.</b>					
Transporter 1 Printed/types name Signature Day Month Year					
Transporter 2 Printed/types name Signature Day Month Year					
Other transporter(s) Printed/types Year name Signature Day Month					
<b>27. Description of any discrepancies</b>					
<b>28a. Details of discrepancy</b>		<b>Quantity</b>	<b>Type</b>	<b>Residue</b>	<b>Partial rejection</b>
					<b>Full rejection</b>
<b>Manifest Reference Number</b>					
<b>28b. Alternate facility (or waste handler) NEMA ID Number</b>					
<b>Contact information (phone number and e-mail)</b>					
<b>28c. Signature of alternate facility (or licensee) Day Month Year</b>					
<b>29. Waste Report Management Method Codes (i.e. codes for waste treatment, disposal and recycling systems)</b>					
1.		2.		3.	4.
<b>30. Designated waste management facility owner: Certification of receipt of waste covered by the manifest except as noted in item 28a.</b>					
Printed/types name Signature Day Month Year					


### Schedule 11 (Regulation 57(3)(e)(v))


#### Pictograms and symbols for labelling of hazardous waste


Pictogram	Name	Description
	Gas under pressure	<p><b>What does it mean?</b> Contains gas under pressure; may explode if heated.</p> <p>Contains refrigerated gas; may cause cryogenic burns or injury.</p> <p><b>Examples of precautionary statements</b></p>

	Oxidising	<p><b>What does it mean?</b>          May cause or intensify fire; oxidiser.          May cause fire or explosion; strong oxidiser.</p> <p><b>Examples of precautionary statements</b>          Keep away from heat/sparks/open flames/hot surfaces.          No smoking.          Wear protective gloves/protective clothing/eye protection/face protection.          Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.</p>
	Flammable	<p><b>What does it mean?</b>          Extremely flammable gas.          Flammable gas.          Extremely flammable aerosol.          Flammable aerosol.          Highly flammable liquid and vapour.          Flammable liquid and vapour.          Flammable solid.</p> <p><b>Examples of precautionary statements</b>          Do not spray on an open flame or other ignition source.          Keep away from heat/sparks/open flames/hot surfaces          No smoking          Keep container tightly closed.          Keep cool.          Protect from sunlight.</p>
	Corrosive	<p><b>What does it mean?</b>          May be corrosive to metals.          Causes severe skin burns and eye damage.</p> <p><b>Examples of precautionary statements</b>          Do not breathe dust/fume/gas/mist/vapours/spray.          Wash thoroughly after handling.          Wear protective gloves/protective clothing/eye protection/face protection.          Store locked up.          Keep only in original container.</p>

	<p>Health hazard</p>	<p><b>What does it mean?</b>  May cause respiratory irritation.  May cause drowsiness or dizziness.  May cause an allergic skin reaction.  Causes serious eye irritation.  Causes skin irritation.  Harmful if swallowed.  Harmful in contact with skin.  Harmful if inhaled.  Harms public health and the environment by destroying ozone in the upper atmosphere.</p> <p><b>Examples of precautionary statements</b>  Avoid breathing dust/fume/gas/mist/vapours/spray.  Use only outdoors or in a well-ventilated area.  If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing.  If swallowed: call a POISON CENTER or a doctor/physician if you feel unwell.  Wear protective gloves/protective clothing/eye protection/face protection.  If on skin: wash with plenty of soap and water.  If in eyes: rinse cautiously with water for several minutes. Remove contact lens, if present and easy to do. Continue rinsing.</p> <p>Do not eat, drink or smoke when using this product.</p>
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	Acute toxicity	<p><b>What does it mean?</b>  Fatal if swallowed.  Fatal in contact with skin.  Fatal if inhaled.  Toxic: if swallowed.  Toxic in contact with skin.  Toxic if inhaled.</p> <p><b>Examples of precautionary statements</b>  Wash thoroughly after handling.  Do not eat, drink or smoke when using this product.  If swallowed: immediately call a POISON CENTER or a doctor/physician.  Rinse mouth.  Store in a closed container.  Do not get in eyes, on skin, or on clothing.  Wear protective gloves/protective clothing/eye protection/face protection.  If on skin: gently wash with plenty of soap and water.  Remove/take off immediately all contaminated clothing.  Wash contaminated clothing before reuse.  Do not breathe dust/fume/gas/mist/vapours/spray.  Use only outdoors or in a well-ventilated area  Wear respiratory protection.  If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  Store locked up.</p>
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	<p>Serious health hazard</p>	<p><b>What does it mean?</b>  May be fatal if swallowed and enters airways.  Causes damage to organs.  May cause damage to organs.  May damage fertility or the unborn child.  Suspected of damaging fertility or the unborn child.  May cause cancer.  Suspected of causing cancer.  May cause genetic defects.  Suspected of causing genetic defects.  May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p><b>Examples of precautionary statements</b>  If swallowed: immediately call a POISON CENTER or a doctor/physician.  Do NOT induce vomiting.  Store locked up.  Do not breathe dust/fume/gas/mist/vapours/spray.  Wash thoroughly after handling.  Do not eat, drink or smoke when using this product.  Get medical advice/attention if you feel unwell.  If exposed: Call a POISON CENTER or doctor/physician.  Obtain special instructions before use.  Do not handle until all safety precautions have been read and understood.  Use personal protective equipment as required.  If exposed or concerned: Get advice/attention.  Avoid breathing dust/fume/gas/mist/vapours/spray.  In case of inadequate ventilation wear respiratory protection.  If inhaled: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.</p>
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	<p>Hazardous to the environment</p>	<p><b>What does it mean?</b>                  Very toxic to aquatic life with long lasting effects.                  Toxic to aquatic life with long lasting effects.</p> <p><b>Examples of precautionary statements</b>                  Avoid release to the environment.                  Collect spillage.</p>
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**Schedule 12 (Regulation 92(2) and (5))**

**Form I**

**Movement document for transboundary movements/shipments of waste**

<b>1. Corresponding to notification no:</b>		2. Serial/total number of shipments:	
<b>3. Exporter - notifier</b> Registration No: Name: Address: Contact person: Tel: Fax: E-mail:		<b>4. Importer - consignee</b> Registration No: Name: Address: Contact person: Tel: Fax: E-mail:	
<b>5. Actual quantity:</b> Tonnes (Mg): ..... m <sup>3</sup> : ..... (kgs):		6. Actual date of shipment:	
7. Packaging Type(s)(1): Number of packages: <b>Special handling requirements: (2)</b> Yes: <input type="checkbox"/> No: <input type="checkbox"/>		7. Packaging Type(s)(1): Number of packages: <b>Special handling requirements: (2)</b> Yes: <input type="checkbox"/> No: <input type="checkbox"/>	
8. To be completed by transporter's representative			
<b>8. (a) 1<sup>st</sup> Transporter:</b> Registration No: Name: Address: Tel: Fax: E-mail: Means of transport (1): Date of transfer: ..... Signature: .....	<b>8. (b) 2<sup>nd</sup> Transporter:</b> Registration No: Name: Address: Tel: Fax: E-mail: Means of transport (1): Date of transfer: ..... Signature: .....	<b>8. (c) Last Transporter:</b> Registration No: Name: Address: Tel: Fax: E-mail: Means of transport (1): Date of transfer: ..... Signature: .....	

<b>9. Person(s) who generate waste:</b> Registration No: Name: Address: Contact person: Tel: Fax: E-mail: Site of generation:	<b>10. Disposal facility or recovery facility</b> Registration No: Name: Address: Contact person: Tel: Fax: E-mail: Actual site of disposal/recovery
<b>11. Disposal/recovery operation(s) D-code / R-code (1) (See note below form):</b>	<b>12. Designation and composition of the waste:</b>
<b>13. Physical characteristics of waste:</b>	<b>14. Waste identification (fill in relevant codes)</b> (i) Schedule 3: (ii) OECD code (if different from (i)): (iii) EC list of waste: (iv) National code in country of export: (v) National code in country of import: (vi) Other (specify): (v) Y-code: (vi) H-code (1): (vii) UN class (1): (viii) UN Number: (ix) UN Shipping name: Customs code(s) (HS):
<b>15. Exporter's - notifier's / generator's - producer's declaration:</b>  I certify that the above information is complete and correct to my best knowledge. I also certify that legally enforceable written contractual obligations have been entered into, that any applicable insurance or other financial guarantee is in force covering the transboundary movement and that all necessary consents have been received from the competent authorities of the countries concerned.  Name:  Date:  Signature:	

<i>For use by any person involved in the transboundary movement in case additional information is required</i>			
<b>16. Shipment received by importer - consignee (if not facility):</b>			
Date:			
Name:			
Signature:			
<b>TO BE COMPLETED BY DISPOSAL/RECOVERY FACILITY</b>			
<b>17. Shipment received at disposal facility <input type="checkbox"/> or recovery facility <input type="checkbox"/></b>		<b>18. I certify that the disposal/recovery of the waste described above has been completed.</b>	
Date of reception:		Name:	
Accepted:		Date:	
Rejected*:		Signature and stamp:	
*immediately contact competent authorities			
Quantity received: Tonnes (Mg):m3:			
Approximate date of disposal/recovery:			
Disposal/recovery operation (1):			
Name:			
Date:			
Signature			
(1) List of abbreviations and codes are below			
(2) If more than 3 carriers, attach information as required in blocks 8 (a, b, c).			
<b>FOR USE BY CUSTOMS OFFICES</b>			
<b>19. Country of export - dispatch or customs office of exit</b>		<b>20. Country of import - destination or customs office of entry</b>	
The waste described in this movement document left the country on:		The waste described in this movement document entered the country on:	
Signature:		Signature:	
Stamp:		Stamp:	
21. Stamps of customs offices of transit countries			
Name of country:	Exit:	Name of country:	Exit:
Entry:		Entry:	



List of Abbreviations and Codes Used in the Movement Document	
<b>DISPOSAL OPERATIONS (Item 11)</b>	<b>RECOVERY OPERATIONS (Item 11)</b>
D1 Deposit into or onto land, (e.g., landfill, etc.)	R1 Use as a fuel (other than in direct incineration) or other means to generate energy
D2 Land treatment, (e.g. biodegradation of liquid or sludgy discards in soils, etc.)	R2 Solvent reclamation/regeneration
D3 Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)	R3 Recycling/reclamation of organic substances which are not used as solvents
D4 Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds or lagoons, etc.)	R 4 Recycling/reclamation of metals and metal compounds
D5 Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment), etc.	R 5 Recycling/reclamation of other inorganic materials
D6 Release into a water body except seas/oceans	R6 Regeneration of acids or bases
D7 Release into seas/oceans including seabed insertion	R7 Recovery of components used for pollution abatement
D8 Biological treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this list	R8 Recovery of components from catalysts
D9 Physico-chemical treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this list (e.g., evaporation, drying, calcination, etc.)	R9 Used oil re-refining or other reuses of previously used oil
D10 Incineration on land	R10 Land treatment resulting in benefit to agriculture or ecological improvement
D11 Incineration at sea	R11 Uses of residual materials obtained from any of the operations numbered R1-R10
D12 Permanent storage, (e.g., emplacement of containers in a mine, etc.)	R12 Exchange of waste for submission to any of the operations numbered R1-R11
D13 Blending or mixing prior to submission to any of the operations in this list	R13 Accumulation of material intended for any operation in this list
D14 Repackaging prior to submission to any of the operations in this list	
D15 Storage pending any of the operations in this list	

<b>PACKAGING TYPES (Item 7)</b> 1. Drum 2. Wooden barrel 3. Jerrican 4. Box 5. Bag 6. Composite packaging 7. Pressure receptacle 8. Bulk 9. Other (specify)	<b>H-CODE AND UN CLASS (Item 14)</b>	
	UN class	H-code
	1	H1 Explosives
	3	H3 Flammable liquids
	41	H41 Flammable solids
	42	H42 Substances or waste liable to spontaneous combustion
	43	H43 Substances or waste which, in contact with water, emit flammable gases
	51	H51 Oxidizing
	52	H52 Organic peroxides
	61	H61 Poisonous (acute)
	62	H62 Infectious substances
	8	H8 Corrosives
	9	H10 Liberation of toxic gases in contact with air or water
9	H11 Toxic (delayed or chronic)	
9	H12 Ecotoxic	
9	H13 Capable, by any means, after disposal of yielding another material, e. g., leachate, which possesses any of the characteristics listed above	
<b>MEANS OF TRANSPORT (Item 8)</b> R = Road      W = Inland waterways A = Air        S = Sea T = Train/rail	<b>PHYSICAL CHARACTERISTICS (Item 13)</b> 1. Powdery / powder 2. Solid 3. Viscous / paste 4. Liquid 5. Gaseous 6. Sludgy 7. Other (specify)	

## Form II

**Licence to import/export waste (Regulation 92(5))**

Licence No. IM/EX/HW\* \_\_\_\_\_

Name and Address of importer/exporter \_\_\_\_\_  
*(Plot no. Village, parish, sub-county, county, district/municipality)*

**Import or export (specify):**

You are hereby licensed to import/export the following waste *(indicate by type, classification, characterization or categorization)*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**If import of waste:**

From *(name and address)*

\_\_\_\_\_  
\_\_\_\_\_

To *(name and address)*

\_\_\_\_\_  
\_\_\_\_\_

Imported waste approved for

\_\_\_\_\_  
\_\_\_\_\_

**If export of waste:**

To *(name and address)*

\_\_\_\_\_  
\_\_\_\_\_

**Import or export (specify):**

This import/export shall be made through \_\_\_\_\_  
border/custom control post.

This licence shall be valid from \_\_\_\_\_ 20\_\_\_\_ to \_\_\_\_\_ 20 \_\_\_\_

This licence is subject to the following conditions:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

*(Attach a copy of authorization by the state from which the importation is to be made/to which the export is to be made.)*

\_\_\_\_\_  
*Chairperson, Technical Committee on pollution Control,  
National Environment Management Authority.*

IM/EX/HW\*  
IM-Import  
EX-Export  
HW-Hazardous waste

### **Schedule 13 (Regulation 92(7))**

#### **Ports of entry and exit**

1. Malaba
2. Busia
3. Mpondwe
4. Katuna
5. Entebbe International Airport
6. Mutukula
7. Port Bell
8. Mirama Hills
9. Elegu
10. Goli
11. Vurra
12. Kampala
13. Jinja
14. Mombasa

**Schedule 14 (Regulation 93(2))****Notification document for transboundary movement of waste***[for transit purposes only]**(To be filled in triplicate)***1. Notifier.<sup>2</sup>**

Name	
Address	
Telephone	
Telefax	
E-mail	
Contact person ( <i>name, address, telephone, e-mail</i> )	

**2. Person who generates waste(s).**

Name	
Address	
Telephone	
Telefax	
E-mail	
Contact person ( <i>name, address, telephone, telefax, e-mail</i> )	
Process by which waste was generated	

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<sup>2</sup> The notifier is the exporter or importer of waste.

Site of generation	Started ____/____/____
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## 3. Reason for waste export/import.

Why the waste cannot be disposed in the country of origin	
Why the waste has to be exported/imported through Uganda.	

## 4. Waste.

Description of the waste			
Y Number	H Number	UN Class	UN number
UN Shipping name		IWIC code	
Physical state at 20°C:			
<input type="checkbox"/> powder <input type="checkbox"/> solid <input type="checkbox"/> paste/viscous <input type="checkbox"/> sludge <input type="checkbox"/> liquid <input type="checkbox"/> gaseous <input type="checkbox"/> other( <i>specify</i> )			
Estimated quantity ( <i>kg. or l.</i> ) per shipment:			
Type of Packaging _____			
Number of packages _____			
Special handling requirements, including emergency provisions in case of accidents			
Method of disposal			

## 5. Exporter/importer of the waste.

Competent authority and details of approval	
Exporter/Importer of the waste in the country of origin/destination	
Name	
Address	
Telephone	
Telefax	
E-mail	

## 6. Disposer of the waste.

Contact person in case of emergency	
Name	
Address	
Telephone	
Telefax	
E-mail	
Approximate date of disposal	
Actual site of disposal	
Signature and official stamp of disposer	

## 7. Transit.

Projected length of time the waste shipment shall be in transit in Uganda	
Expected date of Entry	
Expected date of exit	

Means of Transport envisaged	
Information relating to insurance <i>(Guarantee that the person responsible shall fully compensate any damage caused to human health, property or to the environment by the waste in question during transit)</i>	

## 8. Declaration.

<p>I/We _____ being the exporter/importer hereby declare that on _____ I/we entered into a contract with the disposer and that I/we shall be bound by the terms of the said contract. <i>(attach a copy of contract)</i></p> <p>Signed _____ <i>(Exporter/Importer)</i></p> <p>I/We _____ being the exporter/importer hereby guarantee/declare that the above information is correct and true.</p> <p>Signed _____ <i>(Exporter/Importer)</i></p>
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### Schedule 15 (Regulation 97)

#### Security of waste management facility

A waste handler shall not operate a hazardous waste facility unless access to the facility by unauthorised persons or by animals is prevented by—

- (a) a 24 hour surveillance system that continuously monitors and controls entry to the facility, and for this purpose television monitors or an approved system, or surveillance guards present at the facility shall be used, or;
- (b) a barrier such as—
  - (i) a 2.13 m high chain link fence topped with 3 strands of barbed wire to prevent scaling of the fence, or equally effective approved barrier, and
  - (ii) a means of controlled entry, at all times, through gates or other entrances;
- (c) locks or locked covers on all valves, pumps, electrical controls and other operational controls which would be accessible if the prevention measures referred to in paragraph (a) or (b) above were breached, and
- (d) a sign, legible from a distance of at least 10 m, reading—
  - (i) “DANGER — UNAUTHORIZED PERSONNEL KEEP OUT”;
  - (ii) “DANGER — AUTHORIZED PERSONNEL ONLY”;
  - (iii) “RESTRICTED AREA — AUTHORIZED PERSONNEL ONLY”;
  - or
  - (iv) equivalent wording, posted at each entrance to the facility and at such other locations as the Authority may fix.



The owner of any hazardous material facility which manages reactive or ignitable hazardous substances shall—

- (a) provide and maintain a continuous 24 hour fire alarm system with smoke sensing alarms and heat sensing alarms capable of automatically stopping any forced air ventilation systems in the facility and summoning a 24 hour external emergency response through—
  - (i) a local fire department;
  - (ii) a local response team; or
  - (iii) on site security staff who have immediate communication access to a local response agency;
- (b) provide and maintain a fire suppression system specified by the Uganda Police Fire Brigade or where not so specified provide and maintain—
  - (i) a permanent, automatic system which uses foam, inert gas or dry chemical; or
  - (i) one portable ABC rated fire extinguisher with a minimum 10 kg capacity for every 250 m<sup>2</sup> of the facility's space;

*[Please note: numbering as in original.]*
- (c) provide and maintain sufficient aisle space between containers of hazardous waste to allow the unobstructed movement of persons, fire protection equipment, spill control equipment and decontamination equipment to any part of the facility;
- (d) design and construct the facility so that the walls, doors and floor are non-combustible with a minimum fire rating of 2 hours; and
- (e) ensure that any heat required for the facility is provided only by indirect means such as hot water, steam or electrical resistance and not by any device which uses an open flame within 10 m of where waste are located, nor by any other device prohibited by the Uganda Police Fire Brigade.

### **Schedule 16 (Regulation 100(3))**

#### **Format and content of annual report**

A person who generates industrial waste and a waste handler shall report to the Authority within 31st January on the waste handled and emissions/ discharges from the treatment of the waste the previous year using these forms.

**Form I – Reporting by the person who generates waste**

Type of waste	Amount of waste produced	Storage of waste			Amount of waste transported to treatment or disposal	Amount of waste exported
		maximum amount stored during the year	amount stored on 1 <sup>st</sup> January	amount stored by 31 <sup>st</sup> December		

**Form II – Reporting by the waste handler**General information*Name of company:**Type of license(s) held by the company:**Number of operational days in the reporting year:*

Type of waste	Amount of waste transported	Amount of waste received	Storage of waste			Amount of waste treated	Amount of waste exported	Amount of waste disposed	Waste rejected, if any
			maximum amount stored during the year	amount stored on 1 <sup>st</sup> January	amount stored by 31 <sup>st</sup> December				

<i>Discharges</i>			
Compound	Average concentration	Maximum concentration	Total amount
Water	N.a.	N.a.	
TOC			
Oil			
Pb			

Cd			
Ni			
Hg			
...			

<i>Emissions</i>			
Compound	Average concentration	Maximum concentration	Total amount
Dust/particulate matter			

Areas of improvement:

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Incidents/accidents/near misses including response measures:

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Any other relevant information:

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