



EGM-HSE-EP-13

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## **Waste Management Plan**

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	Version	2.2	Date	7 <sup>th</sup> July 2021	Next Review	7 <sup>th</sup> July 2022

## Document Information

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## 1. PURPOSE OF THIS DOCUMENT

This procedure describes the waste management plan for ElectroGas Malta Limited.

## 2. SCOPE

This procedure applies to all waste streams produced by EGM and its designated contractors operating its assets.

## 3. REFERENCE DOCUMENTS

EGM-HSE-EMS            Environmental Management System Manual

EGM-HSE-EMR-09      Waste Register

### 3.1 Standards and Regulations

This Waste Management Plan has been formulated following consideration of the standards and regulations listed below and others:

- ISO 14001:2015
- Waste Management Regulations (S.L.549.63)
- Waste Management (Activity Registration) Regulations (S.L. 549.45).
- Regulation (EC) N° 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste
- Commission Regulation (EC) N° 1418/2007 of 29 November 2007 concerning the export for recovery of certain waste listed in Annex III or IIIA to Regulation (EC) N° 1013/2006 of the European Parliament and of the Council to certain countries to which the OECD Decision on the control of transboundary movements of waste does not apply
- DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE)
- COMMISSION REGULATION (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives
- COMMISSION DECISION of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council

### 3.2 Designated contractors' procedures

Reference is also made to the ISO 14001:2015 procedures adopted by the designated contractors defined in the introduction to this document:

- Reganosa EMS procedure Waste Management Plan – RM E P 002,
- ESBI EMS procedure Waste Management - D4-11-DP-003
- Bumi Armada EMS procedure Waste Management Plan – OPS-MALT-ALM-ENV-PLN-0002

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## 4. DEFINITIONS

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EGM	ElectroGas Malta Limited
HSE Manager	Health, Safety and Environmental Manager

## 5. INTRODUCTION

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### 5.1 Overview

5.1.1 The ElectroGas Malta Ltd (EGM Ltd) D4 power plant and associated Liquefied Natural Gas (LNG) facilities are part of the Delimara power plant complex located on the Delimara peninsula, along the coastline of Marsaxlokk Bay. The power plant complex is managed by Enemalta plc., the entity having the mandate to coordinate between the different operators on site as required by the framework permit IP 00002/07/G, where EGM is one of the operators, holding permit IP 00002/07/Gi.

5.1.2 On 27th September 2017, the Environment & Resources Authority approved IP00002/07/Gi, to renew the operation of the ElectroGas Malta Ltd (EGM Ltd) D4 power plant and associated Liquefied Natural Gas (LNG) facilities, for a period of four years. The permitted operations include the following activities:

- Combustion installations with a rated thermal input exceeding 50 MW using 3 combined cycle gas turbines, and an associated steam turbine
- Associated activity of LNG fuel handling and storage
- Associated activity of regasification and gas pressure reduction
- Associated activity of other combustion plant
- Associated activity of demineralised water polishing from receipt of water from Enemalta to delivery to the utility
- Associated activity of storage, treatment and disposal/recycling of waste materials
- Associated activity of maintenance

5.1.3 The EGM activities are organised into three main areas:

- the Generation area, including power plant and the associated ancillary facilities managed by ESBI,
- the Regasification area, including the metering facilities managed by Reganosa, and
- the jetty with its dolphin structures as mooring infrastructure for the Floating Storage Unit (FSU), where the latter is managed by Bumi Armada.

ESBI, Reganosa and Bumi Armada are defined as the designated contractors by the ISO 14001: 2015 Environmental Management System implemented by EGM.

5.1.4 IP02/07/Gi included various conditions regarding waste management, grouped together in section 2.8 (attached as appendix 1 for ease of reference). In summary, these conditions include provisions regarding:

- The obligation to use BAT for the storage, labelling and handling of wastes;
- To reduce waste generation;
- Prevent litter;

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- iv. The identification and handling of hazardous wastes (the latter including residual quantities of chemicals and associated containers;
- v. Provisions for proper disposal of wastes;
- vi. Provisions regarding the proper transport of wastes
- vii. Provisions regarding the proper maintenance of records and reporting mechanisms.

5.1.5 EGM is certified to ISO 14001:2015, which standard includes the requirement to ensure that operations adhere to applicable waste management regulations, and that the management of wastes is consistent with the requirement of the standard. This document details the procedures applied within EGM Ltd and its associated contractors to ensure that these requirements are satisfied and constitutes a framework for the waste management plans.

## 6. PROCEDURE

### 6.1 General

- 6.1.1 Preparation for recovery or recycling: existing waste management procedures require the proper characterisation and segregation of wastes to allow wastes to be recovered and recycled as far as possible. The potential for recovery of wastes is investigated wherever possible. As highlighted above, used parts are shipped back to the manufacturer wherever possible, and recovery of chemical wastes investigated to determine whether such recovery is feasible.
- 6.1.2 All designated contractors are required to have a waste management plan as part of their ISO 14001:2015 Environmental Management System.
- 6.1.3 Designated contractors are also responsible for ensuring that their EMS and on-site operations conform to the requirements of the legislation and standards documented in section 3.

### 6.2 Waste Identification

- 6.2.1 All designated contractors are responsible for the proper identification and characterisation of wastes generated.
- 6.2.2 This list is to form part of their EMS, shall make reference to the appropriate European Waste Catalogue (EWC) codes, and detail any particular storage or health & safety requirements associated with such wastes.
- 6.2.3 Such identification will include all chemical analysis required for hazardous property identification, such that HP codes are allocated and clearly indicated in the waste label.

### 6.3 Waste Register

- 6.3.1 EGM had identified the wastes expected to be produced on site during the original IPPC permit process, based on an evaluation of the operations expected on site.
- 6.3.2 Following an initial year of operation, this list has been updated, and a list of wastes generated by EGM operations has been produced, and a waste register prepared.
- 6.3.3 The data maintained in this register is as per EGM-EMR-09 Waste register. All transactions in the above register are to be appropriately quantified.

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6.3.4 The waste register shall include the following data:

- Waste generator (EGM, ESBI, Reganosa, BUMI Armada)
- Date of transfer
- EWC Code
- Category of waste (for ship generated wastes)
- Description of waste
- Quantity of waste (in kg)
- Units
- Treatment applied before transfer
- Mode of transport
- Names of agent & transporter of waste
- Ultimate destination (address) of waste
- Consignment note number or receipt (as applicable)
- Name of person responsible for ultimate disposal/recovery
- Disposal/ Recovery
- Details of Recovery (if applicable)

## 6.4 Waste Segregation and Storage

6.4.1 All wastes generated through EGM processes will be kept segregated in areas designated for that purpose. Different wastes will not be mixed, and recyclable wastes shall not be sent to landfill. All areas will be labelled clearly.

6.4.2 Each waste listed in the waste register will be stored under appropriate conditions, as may be applicable to the individual wastes. All necessary containment measures (including provision of cover) will be applied, and all liquid wastes will be banded. All waste will be labelled with the EWC code and the applicable HP codes.

6.4.3 All waste storage areas will be marked and signposted and located in a manner that will facilitate proper access, storage and housekeeping. Each designated contractor will maintain waste storage facilities in their areas, that will clearly be identified in their respective waste management plans as indicated in the list of reference documents.

6.4.4 The coordinated storage area is managed by EGM for use by EGM directly, or for use by the designated contractors as may be considered appropriate.

6.4.5 No wastes are kept on site for longer than a calendar year, and wastes stored on site are removed as soon as practical.

6.4.6 Wastes are sent/exported to permitted waste management facilities using licensed waste carriers. A list of waste management service providers and carriers is maintained.

6.4.7 All wastes leaving EGM Ltd premises are accounted for through appropriate receipts and consignment notes, as applicable to the various waste streams; consignment notes are required for all hazardous wastes.

## 6.5 Waste Handling

6.5.1 Prior to handling any wastes that have hazardous properties, the following are considered:

- Whether specific health and safety precautions are required; and

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- Whether any accident prevention or spillage control measures are required.

Handling is here understood to include packaging or transport. The findings of the above will implement any identified appropriate measures will be applied prior to any waste handling.

## 7. ROLES AND RESPONSIBILITIES

The responsibilities for the implementation of this waste management plan are allocated as follows:

### 7.1 HSE Manager

The HSE Manager is EGM's designate responsible for waste management. The HSE Manager is responsible for:

- Management of common waste management area;
- Coordination between designated contractors;
- Audit and management of waste management operations for EGM;
- Monitoring and auditing of performance of designated contractors;
- Maintenance of waste management register for EGM;
- Reporting to the competent authorities on waste management;
- Raising of non-conformities as appropriate; and
- Directing of implementation of corrective action as required.

### 7.2 Waste Management Representatives of Designated Contractors

The waste management representatives of the designated contractors are responsible for:

- Proper housekeeping of the areas under the responsibility of the individual designated sub-contractors, including proper segregation, and labelling;
- Identification of proper waste codes, including European Waste Catalogue and Hazard Property codes as per applicable standards;
- Proper labelling of waste and maintenance of labels;
- Waste management operations designated by EGM;
- Implementation of waste management plans of designated sub-contractors as referenced previously;
- Logistics and coordination of waste management operations, from research on treatment, transport and dispatch until final disposal;
- Ensuring that all waste carriers have the required waste carriers permits, and ADR certificates where applicable;
- Reporting to EGM on waste management generation and dispatch to approved facilities;
- Provision of waste management data on a monthly basis;
- Raising of non-conformities as appropriate; implementation of waste procedures; and
- Implementation of corrective action as required.



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## 8. APPENDICES

### 8.1 Appendix 1 - EP00002/07/Gi – conditions

#### 2.8 Waste

##### 2.8.1 Waste storage and handling

- 2.8.1.1 The Operator shall use BAT in the design, maintenance and operation of all facilities for the storage and handling of waste on site such that there are no releases to water or land during normal operation and that emissions to air and risk of accidental release to water or land are minimised.

##### 2.8.2 Waste recovery or disposal

###### General considerations

- 2.8.2.1 All operations concerning the management of waste are subject to the Waste Management Regulations (S.L.549.63) and the Waste Management (Activity Registration) Regulations (S.L. 549.45).
- 2.8.2.2 The Operator shall be committed to reduce waste generation where possible
- 2.8.2.3 The operator is to prevent litter or other wastes escaping from the site boundaries, particularly during loading/unloading. Any such escape of waste shall be collected immediately upon detection.
- 2.8.2.4 End-of-waste criteria must be met for any waste to be classified as a product. In such cases, the operator shall comply with relevant criteria set by legislation. In the absence of any relevant legislation, the operator shall follow the procedure laid down in Regulation 6 of S.L. 549.63.
- 2.8.2.5 Packaging and containers containing significant residual quantities of chemicals shall be regarded as hazardous waste and stored in dedicated waste management areas.
- 2.8.2.6 Any packaging waste and separately collected non-hazardous waste including but not limited to glass, plastic, metal, wood, cardboard and paper shall not be disposed of in a landfill.
- 2.8.2.7 On-site disposal of wastes by any means including burning, disposal to drain or surface water, burying or deposition on land is prohibited, unless specifically approved by a permit from the Authority or the Water Services Corporation (WSC).

###### Storage

- 2.8.2.8 All wastes shall be stored within the designated and controlled storage area(s) as described in the IPPC application prior to ultimate disposal; wastes to be recycled shall be stored in a designated labelled container or area and not mixed with other wastes. The operator shall ensure adequate protection and containment of all wastes.

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- 2.8.2.9 Wastes to be recycled shall be stored in a designated container or area and shall not be mixed with other wastes.
- 2.8.2.10 Waste produced at the Permitted Installation shall be recycled, reused or recovered unless technically and/or economically impossible. When practical recyclable wastes should be segregated to facilitate recycling.
- 2.8.2.11 Unless approved in writing by the Authority, the Operator is prohibited from mixing a hazardous waste of one category with a hazardous waste of another category or with any other non-hazardous waste.
- 2.8.2.12 No storage of waste, equipment or materials is permitted on property outside the site premises.
- 2.8.2.13 Non-hazardous waste awaiting collection may be placed outside the site premises for a period not exceeding 12 hours.
- 2.8.2.14 Any liquid or hazardous wastes shall be stored in a labelled, closed container(s) within a designated and controlled storage area(s) prior to ultimate disposal. Wastes of different natures shall not be mixed in the same container.
- 2.8.2.15 Drums and containers of chemicals/oils shall be stored in designated and secure storage areas. Storage areas shall be bunded or otherwise designed so that surface and ground waters cannot be contaminated by spillages.
- 2.8.2.16 Liquid and hazardous wastes shall be stored in a labelled, closed container(s) within a designated and controlled storage area(s) prior to ultimate disposal which shall be appropriately contained to ensure no contamination of the environment in case of spillage. Wastes of different natures should not be mixed in the same container.
- 2.8.2.17 Waste oils must be stored in a secure leakproof container and may only be disposed of through a company authorised for the collection of waste oils or at an authorised site. A record must be maintained of the quantities, nature, manner and date of dispatch of the oil.
- 2.8.2.18 All storage of materials or waste shall take place only in locations where thorough clean-up and site reinstatement can be readily undertaken.
- 2.8.2.19 All wastes leaving the site after storage and/or processing must only be sent to facilities licensed to accept the individual waste stream, either locally or abroad.
- 2.8.2.20 No storage of waste is permitted for a period exceeding 12 months.
- 2.8.2.21 No storage of waste is permitted on property outside the site premises. However, non-hazardous waste awaiting collection may be placed outside the site premises for a period not exceeding 6 hours.
- 2.8.2.22 The Operator shall ensure that waste transferred to another person is packaged and labelled in accordance with national, European and any other standards which are in force in relation to such labelling. While awaiting collection, recovery or disposal all waste shall be stored in designated areas protected, as may be appropriate, against spillage, leachate run-off and accidental damage. The waste is to be clearly labelled and appropriately segregated.

### Transport

- 2.8.2.23 Transboundary movement of waste shall be carried out in accordance with the following regulations, as amended from time to time:

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- (i) Regulation (EC) N° 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste
- (ii) Commission Regulation (EC) N° 1418/2007 of 29 November 2007 concerning the export for recovery of certain waste listed in Annex III or IIIA to Regulation (EC) N° 1013/2006 of the European Parliament and of the Council to certain countries to which the OECD Decision on the control of transboundary movements of waste does not apply; and
- (iii) Any other applicable legislation.

2.8.2.24 Waste sent off-site for recovery or disposal shall be conveyed only by an authorised waste carrier as per Activity 38 of Schedule 1 of S.L.549.45. The waste shall be transported only from the site of the activity to the site of recovery/disposal in a manner which shall not adversely affect the environment and in accordance with all relevant National and European legislation.

2.8.2.25 None of the waste streams listed in Annexes 3, 4 and 5 of the EU Transfrontier Shipment of Wastes Regulations Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste (as may be amended from time to time) shall be consigned for recovery/disposal without the prior agreement of the Authority.

2.8.2.26 Transport of hazardous waste within the Maltese Islands shall be accompanied by the necessary waste transfer permits issued by the Authority. Applications for such permits are made through the hazardous waste consignment note procedure available from the Authority's Offices.

2.8.2.27 Each movement of hazardous waste to authorised facilities shall be covered by a valid consignment permit obtainable from the Authority. Each movement shall also be covered by a consignment note obtainable from the Authority.

2.8.2.28 Conditions related to the transport of chemicals and hazardous waste on land are included in section 2. 15

## Records

2.8.2.29 Records shall be maintained for the disposal of all waste, including quantities, dates, contractor name and manner of disposal. The records should be maintained for a period of 5 years and be made available for inspection by the Authority upon request.

2.8.2.30 The Operator shall ensure to keep records for every consignment of wastes removed from the Site indicating the EWC Code, description, quantities, date of removal, contractor name (including for transport), consignment note number (where applicable) and manner and place of final disposal/recovery.

2.8.2.31 A full record which shall be open to inspection by authorised persons of the Authority at all times, shall be kept by the Operator on matters relating to the waste management operations and practices at this site. This record shall as a minimum contain details of the following:

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- 2.8.2.31.1 The tonnages and EWC Codes for the waste materials removed off site as per Schedule 1 of S.L. 549.63..
- 2.8.2.31.2 The names of the Company and carrier of the waste and their Permit details (either waste registration or waste management permit).
- 2.8.2.31.3 Details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its Waste Management Permit details and number.
- 2.8.2.31.4 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.
- 2.8.2.31.5 Details of all wastes consigned abroad for disposal or recovery and classified as Green, Amber or Red in accordance with the EU Transfrontier Shipment of waste regulations (Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, as may be amended from time to time.) The rationale for the classification must form part of the record.
- 2.8.2.31.6 Details of any approved waste mixing as per condition 2.8.2.6.
- 2.8.2.32 Disposal certificates shall be kept on record and made available for inspection for a period of at least 5 years from date of their issue.
- 2.8.2.33 As part of the AER, the operator shall submit the name of each carrier used in the transport of the substances specified in Conditions 2.8.2.24 and 2.8.2.28, in the format specified therein, by end of June after the end of each reporting year.
- 2.8.2.34 For any decommissioned equipment, the operator shall submit to the Authority a proposal for the screening of the intended equipment to be discarded which should include the details of any hazardous materials in the equipment (including but not limited to radioactive sources, hazardous chemicals, etc.), decontamination procedures and the procedures for final disposal.
- 2.8.2.35 Within three (3) months of issue of this permit the operator shall provide to the authority all information requested in Schedule 6.
- 2.8.2.36 A summary record of the waste quantities removed from the site shall be made for each quarter of the reporting year (January-March, April-June, July-September and October-December) and shall be submitted to the Authority in the format specified in schedule 6 of this Permit within 1 month following the end of the quarter.
- 2.8.2.37 As part of the Annual Environmental Report for the installation, the Operator shall produce a report on the off-site transfers of waste from the Permitted Installation over the previous calendar year, by end of June of each year, providing the information listed in the format specified in schedule 4.

#### **Additional provisions for specified operations**

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- 2.8.2.38 All waste barges utilised for the transport of waste off the vessel shall be registered with the Authority as per Activity 38 of Schedule 1 of S.L.549.45. The waste shall be transported only from the site of generation to the site of recovery/disposal in a manner which shall not adversely affect the environment and in accordance with all relevant National and European legislation.
- 2.8.2.39 Further to conditions 2.8.2.24 and 2.8.2.38 the transfer of waste from the registered barge to the registered waste carrier shall be supervised at all times to ensure that no spillages occur to land or the aquatic environment.
- 2.8.2.40 All waste produced during the cleaning and maintenance of the Floating Storage Unit shall be treated as hazardous waste, unless proven otherwise by the operator (e.g. marine fouling removed from unpainted parts namely the propeller)
- 2.8.2.41 No marine fouling removed during the underwater cleaning operation shall be released into the sea.
- 2.8.2.42 No antifouling paint chips accidentally removed during cleaning or maintenance shall be released into the sea.