

## Subsidiary Permit 1 with introductory note

Industrial Emissions (Framework) Regulations, S.L.549.76; Industrial Emissions (Integrated Pollution Prevention and Control) Regulations, S.L. 549.77; Industrial Emissions (Large Combustion Plants) Regulations, S.L. 549.78

Installation	<b>Delimara Power Station</b>
Operator	<b>ElectroGas Malta Ltd. Block D, Ta' Monita Residence Piazza off St. Joseph Street, Marsascala,</b>

Approved Documents:	Permit number IP 0002/07/F – framework document
	Sub-permit numbers IP 0002/07/Fi – ElectroGas Malta Ltd. IP 0002/07/Fii – Delimara 3 Power Generation Ltd. IP 0002/07/Fiii – Enemalta plc.

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## Introductory note

### ***This introductory note does not form part of the Permit***

The following Permit is issued under Regulation 7 of the Industrial Emissions (Framework) Regulations, (SL 549.76) ("the Industrial Emissions (Framework) Regulations") to operate an installation carrying out activities covered by the description in Section 1.1 in Schedule 1 of the Industrial Emissions (IPPC) Regulations (LN 10 of 2013), to the extent authorised by the Permit, i.e

**"Combustion of fuels in installations with a rated thermal input of 50 MW or more".**

Aspects of the operation of the installation which are not specifically regulated by conditions in the Permit may also be subject to the condition implied by Regulation 8 of the Industrial Emissions (IPPC) Regulations, which require the Operator to use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, managed, operated and decommissioned.

In some sections, the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. These conditions do not explain what is BAT.

A non-technical description of the installation is given in the application, but the main activity of the installation is as follows:

- **Generation of electrical energy through the combustion of natural gas.**

Note that the Permit requires the submission of certain information to the Competent Authority as per subsequent specific conditions. In addition, the Competent Authority has the power to seek further information at any time under regulation 11 of the Industrial Emissions (Framework) Regulations, provided that it acts reasonably.

#### **Other IPPC Permits relating to this installation**

Permit holder	Permit Number	Date of Issue
<i>Not applicable</i>		

#### **Superseded Licences/Authorisations/Consents relating to this installation**

Holder	Reference Number	Date of Issue
<i>Enemalta Corporation</i>	IP 0002/07/A	29 March 2010
<i>Enemalta Corporation</i>	IP 0002/07/B	6 December 2011
<i>Enemalta Corporation</i>	IP 0002/07/C	23 July 2012
<i>Enemalta Corporation</i>	IP 0002/07/D	17 September 2013
<i>Enemalta plc</i>	IP 0002/07/E	01 April 2014

## Multiple Operator installations

As indicated in Regulation 6(3) of S.L. 549.76<sup>i</sup>, a permit may regulate several parts of an installation operated by different operators. The importance of integrating the operations of each technical unit stems from the definition of "installation" in the provisions of S.L. 549.76, where this is defined as "a stationary technical unit within which one or more activities listed in the regulations concerning integrated prevention and control or in the regulations concerning organic solvents are carried out, and any other directly associated activities on the same site

<sup>i</sup> L.N. 9 of 2013 – Industrial Emissions (Framework) Regulations, 2013

which have a technical connection with these activities and which could have an effect on emissions and pollution”.

In accordance to guidance provided by the Commission, an activity is considered to be a directly associated activity with a Schedule 1 activity if it shares common features, for example: it is part of the same industrial complex; it operates in the same or a related sector; or operates with some collective aspects such as site security.

This installation is therefore being regarded as a multi operator installation.

## Functions of the permit

This **Subsidiary Permit 1** (IP0002/07/Fi) which addresses the operations carried out by Delimara 3 Power Generation Ltd, shall be regarded as part of the Permit IP0002/07/F which consists of four main parts structured as follows:

- **The regulatory framework permit** addressing the obligation of all operators and coordinating these obligations due to the nature of the facility as a multi-operator installation (IP 0002/07/F).
- **Subsidiary permit 1** addressing the operation carried out by ElectroGas Malta Ltd (IP 0002/07/Fi);
- **Subsidiary permit 2** addressing the operations carried out by D3 Power Generation Ltd.(IP 0002/07/Fii).
- **Subsidiary permit 3** addressing the operations carried out by Enemalta plc. (IP 0002/07/Fiii)

It shall also address the pre commissioning and commissioning phase of plant and equipment being regulated through this permit and operated by ElectroGas Malta Ltd.

## Variations to the Permit

This Permit may be varied at any time in the future (by the Authority serving a Variation Notice on the Operator). If the Operator himself wants any of the Conditions of the Permit to be changed, a formal application must be submitted to the Competent Authority. When such an application is submitted to the Authority for its consideration, the decision shall be carried out in consultation with the other operators within this multi operator installation

The **Status Log** within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

## Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made to the Competent Authority by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Competent Authority that there is no pollution and/or public health risk and that no further steps are required to return the site to a satisfactory state.

The Operator shall notify the Permit Coordinator and the other operators within the installation of any such intent so as to enable these entities to assess the impact of this proposal on their operations and on any obligations arising from either the Framework Permit or the operator specific subsidiary permits.

## Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made to the Competent Authority, by the existing and proposed holders jointly. A transfer will be allowed unless the Authority considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. If, however, the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be a technically competent person.

The Operator shall notify the Permit Coordinator and the other operators within the installation of any such intent so as to enable these entities to assess the impact of this proposal on their operations and on any obligations arising from either the Framework Permit or the operator specific subsidiary permits.

## Public Registers

This IPPC Permit and application is available to the public through the Competent Authority in accordance with the requirements of the Industrial Emissions (IPPC) Regulations. The applicant has made a request for certain information of a commercial nature to be withheld from the public. ERA has been supplied with all this information and has accepted the request of the applicant, because it was deemed to be commercially confidential. Alternative text which provides relevant information but does not include the confidential information, has however been included in the application.

## Status Log

Detail	Date	Comment
Application IP 0002/07	Received 05 February 2007	Not 'duly made'
Response to request for information	Request dated 16 June 2007	Response dated July 2007
Report on boiler conversion for emission reduction	PDS submitted 24 April 2008	Request for further information dated 14 July 2008. Further information submitted 24 September 2008
Noise survey	Report submitted 25 July 2008	
Application 'duly made'	27 April 2009	
Response to request for information	Request dated 27 April 2009	Response received 18 May 2009 Consolidated version received 18 May 2009
Public consultation	Commenced on 21 May 2009	Concluded on 20 June 2009
Re-classification of the phase 1 boilers (from 380 to 332 MW <sub>TH</sub> )	Official letter dated 28 September 2009 plus supporting documents.	
Permit determined	01 October 2009	
Permit issued	29 March 2010	
Application for variation of permit to include diesel engines	Application received on 11 February 2010	

Detail	Date	Comment
<i>Response to request for information</i>	Request dated 19 April 2010	Response received 31 May 2010, 17 June 2010 and 26 July 2010
<i>Response to request for information</i>	Request dated 17 September 2010	Response received 12 May and 2 June 2011
<i>Response to request for information regarding Nox emissions</i>	Request dated 24 June 2011	Response received 4 July 2011
<i>Response to request for information regarding socio-economic assessment</i>	Requests dated 24 June, 4 July and 18 July 2011	Response received on 4 August 2011
<i>Response to request for information</i>	Request dated 5 July 2011	Response received on 22 July, 27 July 2011.
<i>Correspondence regarding flue gas volume calculations</i>	Information submitted by Enemalta on 30 June, 8 and 29 July 2011 and 29 August 2011	Request accepted on 4 August 2011
<i>Request for variations to existing permit</i>	Received on 29 July 2011	
<i>Request for consolidated application</i>	Request made on 26 July 2011	Consolidated application received on 17 August (draft) and 23 August 2011 (final)
<i>Air dispersion model</i>	Report submitted on 24 August 2011	
<i>Updated cooling water dispersion modelling study</i>	Received on 7 September 2011	
<i>Public consultation</i>	Started on 24 August 2011	Concluded on 7 October 2011
<i>Renewal and variation determined</i>	5 December 2011	
<i>Permit issued</i>	6 December 2011	Permit expires on 6 December 2015 A consolidated permit is being issued
<i>Public consultation on proposed extension to condition 2.2.1.7.9 from September 2012 to June 2013</i>	Started on 17 May 2012	Concluded on 18 June 2012
<i>Variation determined</i>	12 July 2012	
<i>Permit issued</i>	23 July 2012	Permit expires on 6 December 2015 A consolidated permit is being issued
<i>Public consultation on proposed extension for HFO use from June 2013 to March 2013</i>	Started on 28 June 2013	Concluded on 28 July 2013
<i>Variation determined</i>	5 September 2013	
<i>Permit Issued</i>	17 September 2013	Permit expires on 6 December 2015 A consolidated permit is being issued
<i>Public consultation on the</i>	Started on 11 February	Concluded on 12 March

Detail	Date	Comment
<i>determination of the choice of fuel for DPS6</i>	2014	2014
<i>Variation determined</i>	27 March 2014	
<i>Permit issued</i>	1 April 2104	Permit expires on 6 December 2015. A consolidated permit is being issued.
<i>Permit extended</i>	1 December 2015	From 06 December 2015 to 06 June 2016
	30 May 2016	From 06 June 2016 to 6 December 2016
	02 December 2016	From 06 December 2016 to 06 June 2017
<i>Request for variations to existing permit by Electrogas Malta Ltd.</i>	13 November 2014	
<i>Request for variations to existing permit by Delimara 3 Power Generation Ltd.</i>	20 February 2015	
<i>Request for renewal and variations to existing permit by Enemalta plc.</i>	4 June 2015	
<i>Responses to request for information</i>	Electrogas Malta Ltd	From 13 November 2014 to 17 October 2016
	D3 Power Generation Ltd	From 20 February 2015 to 17 October 2016
	Enemalta plc	From 4 June 2015 to 17 October 2016
<i>Application Duly made</i>	Electrogas Malta Ltd	18 October 2016
	D3 Power Generation Ltd	18 October 2016
	Enemalta plc	18 October 2016
<i>Public Consultation</i>	Between 19 October 2016 and 27 November 2016	Public consultation extended by 10 days from the original end date of 17 November 2016.
<i>Permit Determined</i>	19 December 2016	
<i>Permit Issued</i>	11 January 2017	Permit Expires:  19 December 2020

### End of Introductory Note

## Permit

Industrial Emissions (Framework) Regulations, S.L.549.76; Industrial Emissions (Integrated Pollution Prevention and Control) Regulations, S.L. 549.77; Industrial Emissions (Large Combustion Plants) Regulations, S.L. 549.78

Permit number

**IP 0002/07/Fi**

The Environment and Resources Authority (hereinafter the Authority; the Competent Authority or ERA) in exercise of its powers under Regulation 7 of the Industrial Emissions (Framework) Regulations, 2013 (SL 549.76) ("the Industrial Emissions (Framework) Regulations"), hereby authorises:

**ElectroGas Malta Ltd. (C60775)** (hereinafter "the Operator" unless specifically mentioned)

Of / Whose Registered Office (or principal place of business) is at

**Block D,  
Ta' Monita Residence  
Piazza off St. Joseph Street,  
Marsascala,  
MSK 1050**

to operate specified plant described in the framework permit and in this subsidiary permit 1 at an the installation at:

**Delimara Power Station, Delimara, Marsaxlokk, MXK 1320**

to the extent authorised by and subject to the conditions of this subsidiary permit and applicable conditions in the regulatory framework permit..

<p>Environment and Resources Authority</p> <p style="text-align: center;"><b>APPROVAL</b></p> <p>Board No. _____ Held on _____</p> <p>Chairman _____ Secretary _____</p>	<p>Date Issued:</p>
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## Conditions

### 1 General

These permit conditions shall be read in conjunction with the IPPC Application received on 02 February 2007, as subsequently clarified and recorded in the status log above, which forms an integral part of these permit conditions.

These permit conditions shall also be read in conjunction with the IPPC applications submitted by Enemalta plc, D3 Power Generation Ltd and ElectroGas Malta Ltd as also recorded in the status log above, which also forms an integral part of these permit conditions.

This permit shall be read in conjunction with the regulatory framework Permit and the subsidiary permits issued to Enemalta plc, and Delimara 3 Power Generation Ltd, together with the regulatory framework permit which together comprise permit IP 00002/07/F

The operator shall undertake all necessary measures and precautions to prevent adverse health risks as identified by the Environmental Health Directorate. If requested the operator has to provide evidence of mitigating measures or removal of any possible public health risks.

This subsidiary permit shall address the pre commissioning phase, the commissioning phase and the operational phases of the plant. The extent of these three phases is addressed in the relevant section of this permit.

Any Authorisation or permit issued by the Authority or Transport Malta is granted saving third party rights, does not exempt the operator from any provisions Laws and Regulations in force and without prejudice to any other permits, licenses or authorizations which may be required from any other Entity or Department.

#### 1.1 Permitted Activities

- 1.1.1 The Operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

Table 1.1.1		
Activity listed in Schedule 1 of the Industrial Emissions (IPPC) Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 1.1: Combustion installations with a rated thermal input exceeding 50 MW	Generation of electrical energy through the combustion of Natural Gas  Installation consists of three Combined cycle gas turbines (DPS7),	From receipt of fuel to delivery of utility.
Associated activity of fuel handling and storage	Handling and storage of Liquid Natural Gas	From receipt of fuel and storage within the Floating Storage Unit to delivery to the Regasification Plant.
	handling of Natural Gas	From the regassification of



		liquid natural gas at the regasification plant to combustion in own plant or delivery to D3PG through the Gas receiving station.
	Handling and storage of gasoil	From receipt of fuel and storage in dedicated tanks to combustion in specified plant
Associated activity of regasification and gas pressure reduction	Operation of a Regasification Compound; including IFV technology, gas compressors, Nitrogen generating plant and non-visible combustion chamber (NVCC) and a gas receiving station	From receipt of liquified natural gas from the floating storage unit to delivery to D3PG (DPS6) and DPS 7 through the gas receiving station
Associated activity of other combustion plant	<p>Operation of:</p> <ul style="list-style-type: none"> <li>• 2 X FSU main Boilers (58.5MWth each operating at 4.3MWth)<sup>i</sup></li> <li>• 2xFSU Aux. boilers (16.25MWth each)</li> <li>• FSU emergency Diesel gen-set 1 (3.6MWth)</li> <li>• FSU emergency Diesel gen-set 2 (0.45MWth)</li> <li>• FSU auxiliary diesel gen set (5 MWth)</li> <li>• 2 X gas heating boilers at the gas receiving station (0.42MWth each)</li> <li>• CCGT emergency diesel gen-set (2.6 MWth)</li> <li>• Re-gas emergency diesel gen-set (0.54 MWth)</li> </ul>	From receipt of natural gas or gasoil to combustion in the specified plant.
Associated activity of demineralised water polishing	Polishing of demineralised water	From receipt of demineralised water from Enemalta plc to delivery of utility
Associated activity of storage, treatment and disposal/recycling of waste materials	Handling, storage, treatment and disposal/recovery of wastes from installation.	From generation of waste to disposal or recycling onsite or offsite.
Associated activity of	Maintenance carried out	From maintenance activity to

<sup>i</sup> the 2 X FSU main Boilers (58.5MWth each operating at 4.3MWth) shall only operate while the LNG FSU is mobilised as per immobilisation procedure detailed in condition 1.8.2.6

maintenance	in any workshop in the installation.	appropriate recovery/ disposal of any wastes created.
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## 1.2 Site

- 1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, as highlighted in blue on the Site Plan in Schedule 1 to this Permit.
- 1.2.2 The Operator shall also be responsible for any additional activities (any relevant extent) as authorised in condition 1.1.1 of the Regulatory Framework Permit.

## 1.3 Information to the public

- 1.3.1 The operator shall make emission data (most recent hourly, daily, diurnal and monthly average values and results of the most recent discontinuous measurement) publicly available via the Internet not later than 24 hours after the production of such data. Such data shall be also provided to the permit coordinator for upload on the Enemalta plc. website
- 1.3.2 The Local Councils most affected by emissions from the Delimara Power Station including Birżebbuġa, Marsaxlokk and Żejtun may jointly and in agreement with both the Authority and the operator, establish independent ambient air monitoring systems to monitor for levels of particulate matter, nitrogen oxides, sulphur dioxide, carbon monoxide, as well as any other parameters that may be agreed with the Authority at the expense of the Operator.
- 1.3.3 The Local Councils most affected by emissions from the Delimara Power Station including Birżebbuġa, Marsaxlokk and Żejtun may jointly and in agreement with the Authority, jointly appoint an independent expert to assist in the interpretation of the emission data made publicly available pursuant to condition 1.3.1.

## 1.4 Overarching Management Conditions

- 1.4.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain an Environmental Management System (EMS), and an organisational structure, and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit. The EMS shall take the form of a standardised system (EN ISO 14001:1996) The EMS shall give information on the person responsible for environmental management on site, and standard operating procedures on environmentally relevant matters including contingency plan. This shall be in place within 1 year of issue of the permit.
- 1.4.2 Until such time that the standardised EMS EN ISO 14001:2015 is implemented by the Operator within one year of issue of the permit, the interim Environment Management Systems submitted as part of the IPPC application shall be fully implemented and adhered to.
- 1.4.3 The Operator shall ensure that the EMS is coordinated with those established by the other operators within the installation.
- 1.4.4 As part of the EMS, the Permit Holder shall submit the following reports annually as part of the AER of the site:

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- 1.3.4.1 Environmental Policy containing the installation's environmental objectives and targets;
  - 1.3.4.2 Environmental Management Programme report (for the reporting year);
  - 1.3.4.3 Environmental Management Programme proposal (for the following year);
- 1.4.5 As part of the EMS, the operator shall ensure that auditing procedures are inclusive of all other operators within the installation. Any corrective actions arising from such audits shall be discussed with other operators and the Authority, especially where these have an effect on any other operator at the installation
  - 1.4.6 All plant subject to the conditions of this Permit shall be managed, controlled and operated as described in the application and subsequent responses to requests for information submitted as per the Status Log above, or as otherwise agreed in writing by the Authority.
  - 1.4.7 All plant, equipment and technical means used in operating the Permitted Installation shall be maintained in good operating condition.
  - 1.4.8 All plant subject to the conditions of this Permit shall be managed, controlled and operated by staff suitably trained and fully conversant with the requirements of this Permit.
  - 1.4.9 The Operator shall ensure that no development and/or consequent operation of the plant would impede further development for use of natural gas, both supplied through pipeline or in liquid form, as major fuel for use in electricity generation.
  - 1.4.10 So as to enable the permit coordinator to fulfil the obligations pertaining to mutual audits as stipulated in condition 1.4.10 of the Regulatory Framework Permit, the Operator shall provide all the necessary information requested by the permit coordinator as may be required.
  - 1.4.11 Once approved by the Authority, such mutual audits shall be carried out within 6 months of the Authority's approval of the proposal and every year thereafter until the expiry of this permit.
  - 1.4.12 Following such audits, the Operator shall ensure that any follow up actions as agreed between all operators, the Permit Coordinator and the Authority are addressed by the Operator within the timeframe approved by the Authority.
  - 1.4.13 Following the commissioning period as described in applicable subsequent conditions and within a timeframe decided upon by the Authority, the Competent Authority shall carry out an audit at the expense of the all operators so as to assess compliance with the permit conditions of this framework permit and subsidiary permits issued to specific operators at the installation.
  - 1.4.14 The operator is liable to the following penalties for breaches related any condition:
    - A daily fine of €200 for every breach notified, for the first seven days following notification.
    - After the lapse of the first seven days the fine will be increased to €500 daily for every breach notified.

## 1.5 Improvement Programme

- 1.5.1 The Operator shall complete the improvements specified in Table 1.5.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Authority within 10 working days of the completion of each such requirement.

<b>Table 1.5.1: Improvement programme</b>		
<b>Reference*</b>	<b>Requirement</b>	<b>Date</b>
<b>Improvements during pre commissioning</b>		
1	COMAH Actions as per condition 1.8.2.4	Prior to commissioning
2	Full Bureau Veritas certification of the storm mooring system is submitted to Transport Malta for review and approval,	Prior to commissioning
3	Revised operating conditions and procedures related to the quick release procedures for the storm mooring arrangements as per Bureau Veritas issued operating conditions, in line with the "Classification of Mooring Systems for Permanent and Mobile Offshore Units – Rule Note NR 493 DT R03 E" are to be submitted to Transport Malta for review and approval	Prior to commissioning
4	FSU immobilisation procedure	Prior to commissioning
<b>Improvement programme related to the commissioning phase</b>		
1	To obtain a Public Sewer Discharge Permit in line with condition 1.8.3.30	prior end of commissioning phase.
2	Method statement for emissions monitoring from the NVCC	Prior to commencement of commissioning of NVCC
3	Notification on commencement of commissioning of CCGT and GRS	6 days prior to commencement of operation
4	Calibration of CEMS	Prior to conclusion of commissioning of CCGT
5	Submission of monitoring data of pollutants to air for CCGT	Prior to conclusion of commissioning of CCGT
6	Notification of conclusion of full commissioning	Two weeks prior to conclusion
7	COMAH Actions as per condition 1.8.3.21 to 1.8.3.23	Prior to operations
<b>Improvements during operations</b>		
1	For discharge point to sea one (1) in table 2.5.1, permit coordinator to re-confirm the coordinates and submit the shape file in ED-50 projection when submitting their first annual report.	Within 1 month of issue of the permit

<b>Table 1.5.1: Improvement programme</b>		
<b>Reference*</b>	<b>Requirement</b>	<b>Date</b>
2	Full certification from a recognised organisation (Classification Society) for an LNG Marine Terminal shall be provided to Transport Malta within the timeframes agreed upon with Transport Malta	Within 6 months of LNG commissioning
3	Further to condition 2.5.1.5 details of the composition of the micro biocides shall be submitted in the first Annual Report	By End June 2017
4	Updates to the air dispersion modelling study carried out by the Authority	Proposed methodology to be submitted by end January 2017.  First update to the study shall be submitted by end June 2017.  Second update to the study shall be submitted by end June 2018.
5	Submission of a baseline report and a monitoring strategy	By End of December 2017
6	Submission of an outline decommissioning plan	By end June 2018
7	ISO 14001 accreditation	By end January 2018

## 1.6 Operational Changes

- 1.6.1 The Operator shall seek the Authority's written agreement to any operational change as defined by SL 505.54 and its amendments, by sending to the Authority: written notice of the details of the proposed change, including an assessment of its possible effects (including changes in emissions and waste production) on risks to the environment and public health from the Permitted Installation; any relevant supporting assessments and drawings; and the proposed implementation date.
- 1.6.2 Any such change shall not be implemented until agreed to in writing by the Authority. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and relevant provisions in the Application shall be deemed to be amended.
- 1.6.3 In reviewing the request and taking its decision, the Authority may discuss any such operational changes with the other operators of the facility if it deems that any of these changes may impact on the operations of any of the other operators.
- 1.6.4 The Director of Environment Protection and any officials to whom this role is delegated are hereby authorised to make decisions on variations to this permit, with the exception of the following cases:

- (a) variations which could lead to significant impact on human health or the environment;
- (b) any change in the nature or functioning or an extension of an installation where the change or extension in itself reaches the capacity thresholds set out in Schedule 1 of the Industrial Emissions (IPPC) Regulations;
- (c) variations covered by the Environmental Impact Assessment Regulations;
- (d) aspects of the operations specifically prohibited by this permit;
- (e) changes to emission limit values;
- (f) changes to fees;
- (g) renewal of the validity of this permit.

## **1.7 Derogation from BAT**

- 1.7.1 This derogation applies to the Integrated Pollution Prevention and Control Reference Document on Best Available Techniques on Emissions from storage (published in July 2006).
- 1.7.2 The Authority has hereby granted a derogation from section 3.1.18 of the BREF for emissions from storage in line with Regulation 8 (4) of SL 549.77.
- 1.7.3 The justification for the application of the provisions of Regulation 8(4) of SL 549.77 is documented in Schedule 2 of this permit.
- 1.7.4 Subsequent applicable conditions in this permit address the operations of the floating storage unit with the aim of ensuring that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved.

## **1.8 Pre-Operational Conditions**

- 1.8.1 This section of this permit addresses the pre commissioning and commissioning phase of the plant regulated through this subsidiary permit.

### **1.8.2 Pre commissioning phase**

- 1.8.2.1 The following conditions apply to the pre-commissioning phase of the plant regulated through this permit.
- 1.8.2.2 No liquid Natural Gas cargo shall be loaded onto the floating storage unit until such time that, in the opinion of the Authority, the COMAH competent Authority and Transport Malta, all actions required during the pre commissioning phase of the plant have been addressed to their satisfaction.
- 1.8.2.3 None of the plant or part of the plant regulated by this permit shall be commissioned until such time that, in the opinion of the Authority, the COMAH Competent Authority and Transport Malta, all actions required during the pre commissioning phase of the plant have been addressed to their satisfaction.

### **Pre Commissioning phase – specific safety considerations**

- 1.8.2.4 Actions referred to in conditions 1.8.2.2 and 1.8.2.3 shall also address the items listed in the COMAH Competent Authority's report as specific Requirements (or recommendations) to be regarded as conditions, limitations or binding terms for issuing an operational permit before commissioning starts included in the COMAH competent Authority's review and any other communication received by the operator during the COMAH Competent Authority's review during the processing of this IPPC application.

### **Pre commissioning phase – specific maritime considerations**

- 1.8.2.5 The commissioning phase shall not commence until such time that:
- (i) Full Bureau VERITAS certification of the storm mooring system is submitted to Transport Malta for review and approval, and
  - (ii) Revised operating conditions and procedures related to the quick release procedures for the storm mooring arrangements as per Bureau VERITAS issued operating conditions, in line with the "Classification of Mooring Systems for Permanent and Mobile Offshore Units – Rule Note NR 493 DT R03 E" are to be submitted to Transport Malta for review and approval.

### **Pre commissioning phase – Immobilisation of the Floating Storage Unit**

- 1.8.2.6 The commissioning phase shall not commence until such a time that:
- (i) The operator submits a finalised immobilisation procedure to the COMAH Competent Authority and Transport Malta for review.
  - (ii) The COMAH Competent Authority and Transport Malta approve such a procedure in writing.
- 1.8.2.7 The immobilisation procedure shall include but not be limited to:
- 1.8.2.7.1. Detailed list of activities comprising the immobilisation;
  - 1.8.2.7.2 The envisaged timeline and conditions for immobilisation;
  - 1.8.2.7.3 details on any emissions and waste associated with the process of immobilisation
  - 1.8.2.7.4 conditions under which the FSU can operate especially in terms of BOG management dumping steam and any normal or emergency operations.
  - 1.8.2.7.5 Details on any updated certificates required by class or any other nationally recognised certification body

in line with nationally and internationally established obligations.

- 1.8.2.8 In case of any modifications related to the mobilization of the FSU, relevant updates shall be provided and notified in detail to the COMAH Competent Authority in advance of that modification (according to regulation 9 of the COMAH Regulations LN 179/2015), highlighting those modifications related to the major accident hazards and consequences.
- 1.8.2.9 Immobilisation of the vessel shall not commence until such time that the Authority approves the immobilisation procedure in writing following consultation with the COMAH Competent Authority and Transport Malta.
- 1.8.2.10 Further to condition 1.8.2.6, the Authority, the COMAH Competent Authority may, in providing such an authorisation, include operational conditions which shall be read in conjunction with the conditions of this permit.

#### **Pre commissioning phase – Confirmation of completion**

- 1.8.2.10 The pre commissioning phase shall only be deemed concluded following a communication in writing by the Authority that the pre commissioning phase has been regarded as such.
- 1.8.2.11 Following receipt of the Authority's communication referred to in condition 1.8.2.8, the operator shall notify the other operators within the installation that commissioning shall commence.

### **1.8.3 Commissioning Phase**

- 1.8.3.1 The following conditions apply to the commissioning phase of the plant regulated through this permit.
- 1.8.3.2 Further to conditions 1.8.2.10 and 1.8.2.11, the commissioning of the plant regulated through this subsidiary permit shall only commence following a communication in writing by the Authority that the pre commissioning phase has been regarded as concluded and that all actions have been addressed to the satisfaction of the Authority.
- 1.8.3.3 In formulating its opinion and further to condition 1.8.3.2 the Competent Authority shall seek the opinion of other Competent Authorities of direct relevance to this proposal.
- 1.8.3.4 The commissioning phase shall comprise of the activities and operations as submitted by the operator during the IPPC application process or as otherwise instructed by the Authority through direct communication or permit conditions.

#### **Commissioning of the LNG terminal Jetty and Regasification Plant (Re-Gas)**

- 1.8.3.5 Commissioning at the jetty and re-gas plant shall not commence until such time that the Authority confirms in writing that associated activities



- as highlighted in the commissioning procedure submitted by the operator during the IPPC application process or as otherwise instructed by the Authority through direct communication or permit conditions can commence.
- 1.8.3.6 Emissions to air from the non visible combustion chamber (NVCC) during the commissioning shall be monitored for Nox, SOx, Dust CO and hydrocarbons through 2 separate monitoring episodes, one towards the start of commissioning and one towards the end of commissioning.
  - 1.8.3.7 The operator shall submit a method statement for the monitoring exercise of the NVCC detailed in condition 1.8.3.6 for approval by the Authority.
  - 1.8.3.8 During the commissioning phase, the operator shall also submit to the Authority for approval a method statement indicating how monitoring of the NVCC shall be carried out during the operational phase of the plant regulated through this permit. Such a method statement shall include details on how, during flaring episodes the following will be recorded:
    - (i) continuous measurement of gas flow
    - (ii) an estimation of other parameters (e.g. composition of flow gas, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions for NOx, SOx, dust, CO, hydrocarbons and noise.
    - (iii) The estimated/ measured flare gas composition,
    - (iv) the estimated/measured flare gas quantity
    - (v) the duration of each episode.
  - 1.8.3.9 Operation of the NVCC shall not commence until such time that the Authority approves the method statement detailed in condition 1.8.3.7 in writing. Such an approval may be subject to additional operational conditions which are not included in the applicable permit conditions in the relevant sections below

**Commissioning of the Combined Cycle Gas turbines (CCGT) and gas receiving station (GRS)**

- 1.8.3.10 Six (6) days before the projected commencement of the Commissioning of the CCGT and the GRS, the operator shall inform the Authority and the other operators in writing. Commissioning shall not commence until such time that the Authority confirms in writing that associated activities as highlighted in the commissioning procedure submitted by the operator during the IPPC application process or as otherwise instructed by the Authority through direct communication or permit conditions have been addressed.
- 1.8.3.11 Discharge of cooling water shall be subject to the emission limit values detailed in table 2.5.1.2 below.
- 1.8.3.12 Towards the end of the commissioning period of the CCGT and prior to commencement of operations the operator shall carry out a monitoring exercise for the analytes listed in table 2.5.1.2 of this subsidiary permit at external tie in point TP18.D4 as identified in Schedule 2A of the regulatory framework permit and submit them to the Authority for review and to the permit coordinator.
- 1.8.3.13 Further to condition 1.8.3.11, should any of the emission limit values stipulated in table 2.5.2 be exceeded, the operator shall submit a

- detailed plan of how it intends to address such exceedances, either through changes in operation of the plant or through the installation of additional mitigating measures.
- 1.8.3.14 Operation of the plant shall not commence until such time that the Authority reviews the plan detailed in condition 1.8.3.13 and provides a clearance in writing that operations can commence. Such a feedback may include a time bound plan of mitigation and operational aspects which will need to be implemented by the operator.
  - 1.8.3.15 Prior to conclusion of the commissioning phase, calibration of the continuous emissions monitoring systems shall be carried out on emission point sources D7A to D7F.
  - 1.8.3.16 QAL2 and AST Calibration shall be carried out in accordance with the provisions of condition 2.2.6 .
  - 1.8.3.17 Emissions from the CCGTs shall be shall be recorded by means of the continuous emissions monitoring systems once these have been calibrated and certified through methodologies approved by the competent authority according to the standards listed in the applicable operational conditions below.
  - 1.8.3.18 Two weeks prior to the definite completion of the commissioning phase, the operator shall inform the Competent Authority accordingly.
  - 1.8.3.19 Commencement of operations of the plant shall be subject to the written authorisation by the Competent Authority.

**Commissioning of plant – other considerations**

- 1.8.3.20 During the commissioning period the operator shall, immediately and at all times, abide by any instructions, orders and directives given to him by the Authority.
- 1.8.3.21 During the commissioning phase standard operating procedures, manuals and safeguards as highlighted in the safety studies submitted to the COMAH competent Authority for review during the compilation of the IPPC application shall be followed as indicated in such reports or as otherwise instructed during the COMAH Competent Authority's review.
- 1.8.3.22 The commissioning phase will not be deemed as concluded until such time that the Authority, the COMAH competent Authority and Transport Malta, confirm that all actions required during the commissioning phase of the plant have been addressed to their satisfaction.
- 1.8.3.23 Actions referred to in condition 1.8.3.22 shall also address the items listed in the COMAH Competent Authority's report as General Recommendations to be considered after commissioning included in the COMAH competent Authority's review and as highlighted in subsequent communications received by the operator during the COMAH competent Authority's review during the processing of this IPPC application where certain actions were highlighted as requiring completion prior to commencement of operations i.e. during commissioning.
- 1.8.3.24 Two weeks prior to the definite completion of the commissioning phase, the operator shall inform the Competent Authority accordingly.

- 1.8.3.25 The commissioning phase shall only be deemed concluded following a communication in writing by the Authority that the commissioning phase has been regarded as such
- 1.8.3.26 Following receipt of the Authority's communication referred to in condition 1.8.3.25, the operator shall notify the other operators .
- 1.8.3.27 During the commissioning phase, the Authority shall allow the operator to use gasoil as fuel for the FSU auxiliary boilers.
- 1.8.3.28 Further to condition 1.8.3.27, the quality of gasoil used in the FSU Auxiliary boilers shall be as is being stipulated in condition 2.2.11.10.
- 1.8.3.29 Upon completion of the commissioning period, conditions applicable to the operation of the FSU Auxiliary boiler in the operating conditions section of the permit shall start to apply following the notification by the Authority stipulated in condition 1.8.3.37
- 1.8.3.30 Without prejudice to condition 2.3 the operator shall obtain a sewer discharge permit from the WSC prior to commencement of operations.
- 1.8.3.31 Further to applicable conditions above the Competent Authority shall seek the opinion of Transport Malta and the COMAH competent Authority which shall jointly determine whether the installation can commence operations.

## 1.9 Fuel supply points

- 1.9.1 The operator shall only supply natural gas through the external tie in point connection with Delimara 3 power generation Ltd. as identified in schedule 2C of the regulatory framework permit and as detailed in table 1.9.1 below

Table 1.9.1 – infrastructure related to receipt of fuel		
Tie in point	Type of Fuel	Description
TP 05 D3	Natural Gas	Gas connection at ElectroGas Malta Ltd Gas reducing Station

- 1.9.2 The supply of liquid natural gas for combustion in the plant specified in table 1.1.1 of subsidiary permit IP 00002/07/Fii shall be without prejudice to the subsequent conditions of this permit.
- 1.9.3 Delivery pressure and volumes of Natural Gas shall be as described in the IPPC application, safety studies submitted to the COMAH competent Authority and Transport Malta and as per applicable industrial standards..

## 1.10 Off-site Conditions

- 1.10.1 The Permit holder shall take provisions to prevent any chemicals or waste escape to the environment especially when transporting such materials offsite or onsite.

## 2 Operating Conditions

### 2.1 In-Process Controls

- 2.1.1 None of the plant or part of the plant regulated by this permit shall be operated until such time that, in the opinion of the Authority, the COMAH Competent Authority and Transport Malta, all actions required during the pre commissioning and commissioning phases of the plant have been addressed to their satisfaction.
- 2.1.2 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the IPPC application, or as otherwise agreed in writing by the Authority in accordance with conditions 1.6.1 and 1.6.2 of this Permit.
- 2.1.3 Full certification from a recognised organisation (Classification Society) for an LNG Marine Terminal shall be provided to Transport Malta within the timeframes agreed upon with Transport Malta.

## 2.2 Emissions to Air

### 2.2.1 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: General Considerations

- 2.2.1.1 Waste gases from the combustion plants within the Delimara Power Station shall be discharged in a controlled manner by means of a stack.
- 2.2.1.2 A release from the Authorised Process into the atmosphere shall arise only from a release point specified in Table 2.2.1, which shall arise only from the source for that release specified in that Table.

**Table 2.2.1 Emission points to air**

Release Point	Source	Total Thermal Rating	UTM Co-ordinates <sup>i</sup>	
		MW <sub>TH</sub>	x-coordinates	y-coordinates
Chimney D7A	CCGT 1 (main stack)	144	459763.81	3965808.50
Chimney D7B	CCGT 1 (By-pass stack)		459753.82;	3965823.29
Chimney D7C	CCGT 2 (main stack)	144	459750.96;	3965798.51
Chimney D7D	CCGT 2 (By-pass stack)		459739.98;	3965813.33
Chimney D7E	CCGT 3 (main stack)	144	459737.29	3965788.49
Chimney D7F	CCGT 3 (By-pass stack)		459726.41	3965803.37
Chimney D7G	Gas receiving station gas boiler 1	0.42	460017.00	3965650.59
Chimney D7H	Gas receiving station gas boiler 2	0.42	460015.24	3965649.32
Chimney D7I	FSU Main Boiler 1	58.5 <sup>ii</sup> (operating at 4.3)	459771.98	3965155.31
	FSU Main Boiler 2	58.5 <sup>b</sup> (operating at 4.3)		
	FSU Aux Boiler 1	16.25 <sup>i</sup>		

<sup>i</sup> Zone 33s, datum ED 50, ellipsoid – Hayford International.

<sup>ii</sup> the 2 X FSU main Boilers (58.5MWth each operating at 4.3MWth) shall only operate when the LNG FSU is mobilised under conditions stipulated by the COMAH competent Authority, Transport Malta and ERA.

Release Point	Source	Total Thermal Rating	UTM Co-ordinates <sup>i</sup>	
		MW <sub>TH</sub>	x-coordinates	y-coordinates
	FSU Aux Boiler 2	16.25 <sup>b</sup>		
Chimney D7J	FSU emergency Gen Set 1	3.6	459767.92	3965159.89
Chimney D7K	FSU emergency Gen Set 2	0.48	459756.48	3965156.77
	FSU auxiliary diesel Gen Set	5		
Chimney D7L	CCGT emergency Gen Set	2.6	459697.65	3965817.67
Chimney D7M	Re-gas emergency Gen Set	0.54	459991.14	3965291.35
Chimney D7N	NVCC <sup>ii</sup>	226	459965.48	3965248.89

- 2.2.1.3 Gas turbines constituting D7A to D7F shall only fire Natural Gas in the authorised process in accordance with the application as regulated through subsequent permit conditions.
- 2.2.1.4 Gas receiving station boilers 1 and 2 constituting D7G and D7H shall only fire Natural Gas in the authorised process in accordance with the application as regulated through subsequent permit conditions.
- 2.2.1.5 Further to condition 1.8.2.9, the FSU main boilers 1 and 2 constituting D7I shall only fire low sulphur marine diesel oil as per the legal requirements of SL 423.29 in the authorised process in accordance with the application and shall only operate when the LNG FSU is mobilised under conditions stipulated by the COMAH Competent Authority, Transport Malta and ERA.
- 2.2.1.6 Further to conditions 1.8.2.9 and 2.2.1.5, FSU Auxiliary boilers 1 and 2 constituting D7I shall only fire Natural Gas in the authorised process as stipulated in the safety report for the operator and in accordance with conditions stipulated by the COMAH Competent Authority, Transport Malta and ERA. If under exceptional circumstances such boilers shall fire low sulphur marine diesel oil as per the legal requirements of SL 423.29, the operator shall submit a proposal to the Authority for review prior to implementation.
- 2.2.1.7 FSU emergency gen set 1, FSU emergency gen set 2, FSU Auxiliary diesel gen set, CCGT emergency Gen set and Re-gas emergency gen set constituting D7J to D7M shall only fire low sulphur marine diesel oil as per the legal requirements of SL 423.29 in the authorised process in accordance with the application as regulated through subsequent permit conditions.
- 2.2.1.8 The NVCC shall be operated as per applicable conditions in section 2.2.11 of this permit
- 2.2.1.8.1 Gasoil or marine diesel oil used in the Authorised Process in accordance with the Application and the applicable conditions above shall comply with the standards laid down by the Quality of Fuels Regulations (SL 423.29), i.e. the sulphur content of the gas oil or marine diesel oil fired by plant constituting FSU main boilers 1 and 2, FSU emergency gen set 1, FSU emergency gen set 2, FSU

<sup>i</sup> the 2 X FSU Aux. boilers (16.25MWth each) shall only operate in the period following the immobilisation of the LNG FSU.

<sup>ii</sup> Non visible combustion chamber

Auxiliary diesel gen set, CCGT emergency Gen set and Re-gas emergency gen set shall in no case exceed 0.1%.

- 2.2.1.9 Sulphur content of natural gas fired in gas turbines 1, 2 and 3, Gas receiving station boilers 1 and 2 and, FSU Auxiliary boilers 1 and 2 shall not exceed 30mg/Nm<sup>3</sup>. The sulphur content of the natural gas shall however not prejudice the achievement of the emission limit values as stipulated in tables listing the ELVs of individual plants below
- 2.2.1.10 Following the first year of operation, the Authority reserves the right to amend the parameters detailed in condition 2.2.1.9 and 2.2.1.10 following the review of the AER and other air quality data for the installation as a whole.
- 2.2.1.11 Further to condition 2.2.1.10 of subsidiary permit 2 (IP 00002/07/Fii) following conditions shall apply over and above any other condition in the permit:
- 2.2.1.11.1 Upon request by the Authority, a Monitoring Committee shall be set up, which shall be chaired by the Director of Environment Protection, one representative of Delimara 3 power generation Ltd., one representative of ElectroGas Malta Ltd., one representative of the Permit Coordinator, and one representative and technical advisor from each of the local councils of Birżebbuġa and Marsaxlokk. Each member, including the Chairman, shall have one vote.
- 2.2.1.11.2 Any member of the Committee may request the Chairman to convene any other meetings of the Committee and the Chairman shall convene such a meeting within 7 days from such a request.
- 2.2.1.11.3 The air quality data referred to in condition 2.2.1.22 shall be supplied by the Authority to the air quality consultant every two weeks (by not later than two weeks after the last sampling date in each two week period) and published on the operator's website.
- 2.2.1.11.4 The operator shall, immediately and at all times, abide by any instructions, orders and directives given to him by the Authority.
- 2.2.1.12 The operator shall determine the mass of each fuel fired in the Authorised Process for each Reporting Year and report this as part of the AER.
- 2.2.1.13 The operator shall obtain certificates of analysis for one representative composite sample of gasoil per delivery for the parameters listed in table 2.2.2. In addition, if the flue gas volume is calculated rather than measured, the parameters listed in table 2.2.3 shall be measured in one representative composite sample of each fuel delivery intended for use in the operator's plant. The analyses shall be carried out by a lab accredited to at least EN ISO 17025:2005/Cor 1:2006 and preferably for each and every test listed in table 2.2.2.
- 2.2.1.14 Physical parameters in table 2.2.2 shall be measured using EN, EN ISO or ISO standard methods or equivalent.
- 2.2.1.15 The chemical parameters in tables 2.2.2 shall be analysed to the relevant standards (or equivalent) as specified by the said table. The methods for analysis of the parameters in table 2.2.3 shall have a precision suitable for the accurate calculation of flue gas volume. If a suitable method for analysis of any of the parameters in table 2.2.2 is not available, calculation of flue gas volume is not authorised; in such cases, flue gas volume shall be measured.

**Table 2.2.2 Standards for the analysis of physical and chemical parameters**

<b>Physical Parameters</b>		
<b>Parameter</b>	<b>Unit</b>	<b>Standard</b>
Flash point	°C	EN ISO 2719:2002 or equivalent
Heat Value (Upper and Lower)	MJ.kg <sup>-1</sup>	ASTM D4868-00 (2005) or equivalent
<b>Chemical Parameters</b>		
<b>Parameter</b>	<b>Unit</b>	<b>Standard</b>
Sulphur Content	mg S.kg <sup>-1</sup>	EN ISO 8754:2003 or equivalent

**Table 2.2.3 Standards for the analysis of chemical parameters for flow rate calculation**

<b>Parameter</b>	<b>Unit</b>	<b>Standard</b>
Sulphur Content	mg S.kg <sup>-1</sup>	EN ISO 8754:2003 or equivalent
Carbon content	% by weight	ASTM D5291 or equivalent EN or ISO
Hydrogen content	% by weight	ASTM D5291 or equivalent EN or ISO
Nitrogen content	% by weight	ASTM D3228 or equivalent EN or ISO
Oxygen content	% by weight	EN, ISO or equivalent

- 2.2.1.16 At the end of every year, the operator shall forward to the Authority a copy of all the certificates of analysis for every representative composite sample throughout the year as part of the AER, except where these have already been submitted to the Authority.
- 2.2.1.17 The operator shall obtain copies of certificates of analysis for one representative composite sample of Liquid Natural Gas per delivery for the parameters listed in table 2.2.4. In addition, if the flue gas volume from gas turbines CCGT1, 2 or 3 or the any other plant firing natural gas is calculated rather than measured, the parameters listed in table 2.2.4 shall be measured in one representative composite sample of each fuel delivery. intended for use in the plant regulated through this permit. The analyses shall be carried out by a lab accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably for each and every test listed in table 2.2.4.
- 2.2.1.18 Physical parameters in table 2.2.2 shall be measured using EN, EN ISO or ISO standard methods or equivalent.
- 2.2.1.19 The chemical parameters in tables 2.2.4 shall be analysed to the relevant standards (or equivalent) as specified by the said table. The methods for analysis of the parameters in table 2.2.4 shall have a precision suitable for the accurate calculation of flue gas volume. If a suitable method for analysis of any of the

parameters in table 2.2.4 is not available, calculation of flue gas volume is not authorised; in such cases, flue gas volume shall be measured.

**Table 2.2.4 Standards for the analysis of physical and chemical parameters**

<b>Physical Parameters</b>		
<b>Parameter</b>	<b>Unit</b>	<b>Standard</b>
Flash point	°C	EN ISO 2719:2002 or equivalent
Heat Value (Upper and Lower)	MJ.kg <sup>-1</sup>	ASTM D4868-00 (2005) or equivalent
<b>Chemical Parameters</b>		
<b>Parameter</b>	<b>Unit</b>	<b>Standard</b>
Sulphur Content	mg S.kg <sup>-1</sup>	EN ISO 8754:2003 or equivalent

**Table 2.2.5 Standards for the analysis of chemical parameters for flow rate calculation**

<b>Parameter</b>	<b>Unit</b>	<b>Standard</b>
Sulphur Content	mg S.kg <sup>-1</sup>	EN ISO 8754:2003 or equivalent
Carbon content	% by weight	ASTM D5291 or equivalent EN or ISO
Hydrogen content	% by weight	ASTM D5291 or equivalent EN or ISO
Nitrogen content	% by weight	ASTM D3228 or equivalent EN or ISO
Oxygen content	% by weight	EN, ISO or equivalent

- 2.2.1.20 At the end of every year, the operator shall forward to the Authority a copy of all the certificates of analysis for every representative composite sample throughout the year as part of the AER, except where these have already been submitted to the Authority.
- 2.2.1.21 The operator shall collaborate with the permit coordinator to ensure the Coordinator's compliance with Conditions 2.3.4 of the regulatory framework permit in relation to updating of the dispersion modelling study carried out by the Authority using the data from the plant's air emissions monitoring systems, and ambient air monitoring data from Žejtun, Birżebbuġa and Marsaxlokk (including the data collected as required by, 2.2.1.17 and 2.2.1.21).
- 2.2.1.22 In order to ensure compliance with LN 478 of 2010 as amended, the Authority reserves the right to impose any additional conditions it deems necessary on the Operator.
- 2.2.1.23 The Authority and the permit coordinator shall be notified by the Operator of substantial changes in the type of fuel used or in the mode of operation of the installation. The Authority shall then determine whether the monitoring requirements laid down in condition 2.2 are still adequate or require adaptation.
- 2.2.1.24 The operator shall ensure that all operations on-site shall be carried out in a manner such that air emissions and/or odours do not result in significant



impairment of, or significant interference with amenities or the environment or in a public health risk beyond the site boundary.

- 2.2.1.25 The operator shall monitor continuously the speed and the direction of the wind at the site. The results of this monitoring shall be presented in the form of a wind rose as part of the AER. In addition, any meteorological data collected by the operator shall be made available to the Authority upon request.

#### **Determination of start-up and shut-down - CCGT 1, CCGT2, CCGT3.**

- 2.2.1.26 The determination of periods of start-up and shut-down as defined in the following conditions shall be maintained in accordance with the provisions of Commission Implementing Decision 2012/249/EU.
- 2.2.1.27 The operator shall immediately inform the Authority should there be any changes in any aspects relating to each plant that affect start-up and shut-down periods, including the installed equipment, fuel type, plant role in the system and installed abatement technology,
- 2.2.1.28 The operator shall make sure that the frequency of start up and shut down periods are minimised as far as practicable.
- 2.2.1.29 The operator shall ensure that all abatement equipment is brought into operation as soon as is technically practicable.
- 2.2.1.30 Start-up and shut-down of the respective units is defined in the table 2.2.6

<b>Table 2.2.6 – Determination of start-up and shut-down for CCGT 1, CCGT 2 and CCGT 3</b>		
<b>Mode</b>	<b>Open Cycle</b>	<b>Combined cycle</b>
End of Start-up period	16.6 % of the rated electrical output.	16.6 % of the rated electrical output.
Start of Shut-down period	23.9% of the rated electrical output	23.9% of the rated electrical output

#### **2.2.2 Emissions to Air from D7 A to F ( CCGT 1, CCGT 2 and CCGT 3)**

- 2.2.2.1 The Operator shall carry out monitoring from D7 A to F of the parameters listed in Table 2.2.3.1, according to the frequency specified in this table. The monitoring method and the location of sampling points shall be in accordance with this table.
- 2.2.2.2 The emission limit values specified in Table 2.2.7 shall not be exceeded. All concentrations shall be corrected to 273.5 K, 101.3 kPa, dry gas volume and to an oxygen (O<sub>2</sub>) content of 15%. These concentrations relate to volume flows without dilution.

**Table 2.2.7 - Emission Limit values applicable to D7 A to F ( CCGT 1, CCGT 2 and CCGT 3)**

Parameter	Monitoring frequency	Monitoring method	Emission limit value*		Maximum allowable factor subtracted by validation, in accordance with LN 11 of 2013
Dust (TSP)	Continuous	EN 15267-3, EN 14181	5 mg/ Nm <sup>3</sup>		-
SO <sub>2</sub>	Continuous	EN 14181, EN 15267-3, EN ISO 14956	100 mg/Nm <sup>3</sup>		-
NO <sub>x</sub> (measured as NO <sub>2</sub> )	Continuous	EN 14181, EN 15267-3, EN ISO 14956	55 mg/Nm <sup>3</sup> (110% of all 48 hourly mean values)	50 mg/Nm <sup>3</sup> (100% calendar monthly mean value)	20%
CO	Continuous	EN 14181, EN 15267-3, EN ISO 14956	110 mg/Nm <sup>3</sup> (110% of all 24 hourly mean values)	100 mg/Nm <sup>3</sup> (100% calendar monthly mean value)	10%

\*Elvs are deemed as being complied with if none of the validated hourly average values exceed 200% of respective Elvs

2.2.2.3 Measurements of parameters within table 2.2.7 shall be carried out by means of a Continuous Emission monitoring system

2.2.2.4 Continuous measurements shall include the relevant process operation parameters of oxygen content, temperature, pressure and water vapour content, velocity and flue gas volume, as per Condition 2.2.2.2 provided that where the sampled exhaust gas is dried prior to emission analyses, the Operator shall not be required to measure the water vapour content of the exhaust gas.

2.2.2.5 In order to validate the hourly readings, the operator shall subtract a factor determined according to the procedure established by the relevant part of EN14181 and which shall in no case exceed the percentages of the measured valid hourly average value indicated in Table 2.2.7.

### **2.2.3 Emissions to Air from DPS 7A to F ( CCGT 1, CCGT 2 and CCGT 3): Additional Monitoring Requirements**

2.2.3.1 Without prejudice to previous conditions, the operator shall monitor continuously for the parameters listed in table 2.2.3.1 using the methods listed in the same table or their equivalent as may be agreed with the Authority.

**Table 2.2.8 Monitoring of additional parameters**

Parameter	Standard Number /Instrument	Title
Oxygen	ISO 12039:2001 or equivalent	Stationary Source Emissions - - Determination of carbon monoxide, carbon dioxide and oxygen - - Performance characteristics of automated measuring systems.
Water Content	EN 14790:2005	Determination of moisture content in stack gases.
Velocity	ISO 10780:1994	Stationary source emissions -- Measurement of velocity and volume flowrate of gas streams in ducts.
Flue gas volume	ISO 14164:1999	Stationary Source Emissions - - Determination of the volume flow rate of gas streams in ducts - - automated method.
Flue gas temperature (prior to discharge into the atmosphere)	Temperature Sensor	N/A
Flue gas pressure (prior to discharge into the atmosphere)	Pressure Sensor	N/A

## 2.2.4 Emission Ceilings for atmospheric pollutants

- 2.2.4.1 This section 2.2.4 applies to all combustion plants operated by the operator and regulated through this permit
- 2.2.4.2 The operator shall provide all the necessary data to the permit coordinator in order to ensure fulfilment of the obligations highlighted in section 2.3.1 of the regulatory framework permit.
- 2.2.4.3 The operator shall ensure that any data requested by the permit coordinator is provided within the timeframes agreed upon between both parties to ensure that no submission deadlines elapse.
- 2.2.4.4 The Competent Authority reserves the right to reduce these ceilings further particularly but not solely:
- 2.2.4.5.1 in the event of there being a new entrant on the power production market in Malta;
  - 2.2.4.5.2 if it transpires that due to unforeseen circumstances the contributions of other sectors to the National Ceilings as per LN 291 of 2002 as amended by LN 232 of 2004 have been underestimated or if it transpires that sectors which also contribute to the total annual loads of these pollutants have been ignored;
  - 2.2.4.5.3 if it is decided that such a decision is in the national interest

2.2.4.5.4 in the event of further reductions to Malta's ceilings.

2.2.4.5 The ceilings listed in the regulatory framework permit shall expire on the 31 December 2019.

## **2.2.5 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: Total Annual Emissions and Other Reporting**

2.2.5.1 Starting on the 1<sup>st</sup> January 2017 and for each subsequent year, the Operator shall keep an inventory of the total annual emissions of SO<sub>2</sub>, NO<sub>x</sub> and dust (as total suspended particles) from all combustion plants at the Delimara Power Station with a rated thermal input of 50 MW<sub>th</sub> or more, including the FSU main boilers should these be retained beyond the commissioning period. This inventory shall be submitted as part of the AER of the installation in the format specified in Schedule 4.

2.2.5.2 In addition to the total annual emissions of the pollutants listed in 2.2.5.1, the inventories shall also include the total fuel burn per plant, the fuel type and the average heat value of the fuel fired.

2.2.5.3 The Operator must keep record of the following:

2.2.5.3.1 The validated hourly concentration values of TSP, SO<sub>2</sub>, NO<sub>x</sub> and CO for each combustion plant per day (in the format specified in Schedule 5 and clearly indicating any exceedances).

2.2.5.3.2 24-hourly mean values for the concentration of carbon monoxide (CO) (in the format specified in Schedule 5 and clearly indicating any exceedances).

2.2.5.3.3 48-hourly mean concentration values of TSP, SO<sub>2</sub> and NO<sub>x</sub> (in the format specified in Schedule 5, and clearly indicating any exceedances).

2.2.5.3.4 For TSP, SO<sub>2</sub>, NO<sub>x</sub> and CO, calendar monthly mean concentrations (in the format specified in Schedule 5) and monthly loads for TSP, SO<sub>2</sub> and NO<sub>x</sub> (in the format specified in Schedule 4, and clearly indicating any exceedances).

2.2.5.3.5 The total annual load of TSP, SO<sub>2</sub> and NO<sub>x</sub>, which shall be calculated by adding the total mass of pollutant emitted per year, on the basis of the volumetric flow rates of waste gases (in the format specified in Schedule 4).

## **2.2.6 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: Performance and Calibration of Automated Measuring Systems**

2.2.6.1 The commissioning and operation of all automated measuring systems at the Delimara Power station shall follow EN 14181:2004 – Stationary Source Emissions – Quality Assurance of automated measurement systems.

2.2.6.2 Measuring systems shall be subject to control by means of parallel measurements with the reference methods listed in table 2.2.9 at least every year. The calibrations shall be performed by a lab accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or

equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably accredited for each and every calibration.

<b>Table 2.2.9 Calibration of Automated Measuring Systems</b>	
<b>Standard Number</b>	<b>Title</b>
EN 14791:2005	Stationary source emissions - Determination of mass concentration of sulphur dioxide - Reference method.
EN 14792 :2005	Stationary source emissions - Determination of mass concentration of nitrogen oxides (NO <sub>x</sub> ) - Reference method: Chemiluminescence.
EN 13284-1:2001	Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method.

2.2.6.3 For the parameters measured continuously, the data for 1 day shall be invalidated if on that day 3 or more hourly average concentration of dust (TSP), sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) values are invalid due to malfunction or maintenance of the continuous monitoring system.

2.2.6.4 If more than 10 days in a year are invalidated for such situations, the Operator must take adequate measures to improve the continuous monitoring system.

## **2.2.7 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: Emergency Considerations**

2.2.7.1 In the case of an interruption in the supply of low sulphur fuel due to a serious shortage, the Director of Environment Protection may allow a suspension for a maximum of six (6) months from the obligation to comply with the emission limit values for sulphur dioxide.

2.2.7.2 The Director of Environment Protection and Delimara 3 Power Generation Ltd. shall be immediately notified about any interruptions in the supply of low-sulphur fuel.

2.2.7.3 Notwithstanding condition 2.2.7.1 in case of emergency the operator is obliged to use the fuel having the lowest sulphur content available at the time so as to ensure to the fullest extent possible that the ambient levels specified in LN 478 of 2010 and subsequent amendments are not exceeded.

2.2.7.4 The operator shall keep an adequate supply of reagents used for abatement on site to ensure adequate abatement in case of shortage. In case of a malfunction or breakdown of any abatement equipment, or shortage of reagent, the Operator shall reduce or close down operations if a return to normal operations is not achieved within 24 hours.

2.2.7.5 Under no circumstance shall the cumulative unabated operation in any twelve-month period exceed 120 hours.

2.2.7.6 The Director of Environment Protection may allow exceptions to the 24 hours and 120 hours in 2.2.7.4 and 2.2.7.5 respectively in cases where in the Director's judgement:

2.2.7.6.1 there is an overriding need to maintain energy supplies

2.2.7.6.2 the plant with the breakdown would be replaced for a limited period by another plant which would cause an overall increase in emissions.

- 2.2.7.7 The Director of Environment Protection shall be notified about any malfunction or breakdown of the abatement equipment within 24 hours as per Condition 5 of this permit.
- 2.2.7.8 The Operator shall keep together in a log book all notifications compiled after:
- (a) the occurrence of any malfunction to the abatement equipment,
  - (b) an interruption in the supply of low-sulphur fuel.
- 2.2.7.9 The log book shall be made available for inspection upon request.

## **2.2.8 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: Floating Storage Unit**

- 2.2.8.1 Waste gases shall be discharged in a controlled manner by means of a stack.

### **FSU Auxiliary Boilers 1 and 2**

- 2.2.8.2 Waste gases from the FSU auxiliary boilers 1 and 2 shall be discharged in a controlled manner by means of a stack.
- 2.2.8.3 A release into the atmosphere from the FSU auxiliary boilers 1 and 2 shall arise only from release point D7I as specified in Table 2.2.1, which shall arise only from the source for that release specified in that Table.
- 2.2.8.4 Only natural gas shall be utilised as a source of fuel for the FSU auxiliary boilers and the co-incineration of any material or additional fuel including engine or other waste oil is strictly prohibited unless otherwise approved in writing by the Authority as per condition 2.2.1.6. Any change in fuel type shall require the notification and approval of the Authority prior to commencement of its utilisation.
- 2.2.8.5 Sulphur content of natural gas fired in the FSU auxiliary boilers shall be as specified in condition 2.2.1.10
- 2.2.8.6 The operator shall keep the periods of start-up and shut-down of the FSU auxiliary boilers as short as possible to safely complete the required operations explained in the IPPC application.
- 2.2.8.7 The limits for emissions to air for the parameters and emission points set out in Table 2.2.10 shall not be exceeded. The limits are defined at a temperature of 273,5 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O<sub>2</sub> content of 3%.

<b>Table 2.2.10 : Emission limits to air</b>		
<b>Emission point reference</b>	<b>Parameter</b>	<b>Limit (mg/N.m<sup>3</sup>)</b>
D7G	Sulphur Dioxide	80
	Oxides of Nitrogen	200
D7H	Dust	-

- 2.2.8.8 The operator shall submit a certification for the FSU auxiliary boilers referred to in Tables 2.2.1 and 2.2.10. from an independent warranted engineer every 5 years or at least one year before the renewal of the permit, whichever comes first. The certification shall be submitted as part of the Annual Environmental Report (AER)

with the first measurement taken within four months of issue of the permit. The Authority reserves the right to require an increase in the frequency of such measurements.

- 2.2.8.9 The certification shall include measurement of the parameters listed in Table 2.2.10., including CO. During each measurement, the plant shall be operating under stable conditions at a representative even load. In this context, start-up and shut-down periods shall be excluded.
- 2.2.8.10 Sampling and analysis of polluting substances and measurements of process parameters shall be based on methods enabling reliable, representative and comparable results. Methods complying with harmonised EN standards shall be presumed to satisfy this requirement.
- 2.2.8.11 The operator shall keep a record of and process all monitoring results in such a way as to enable the verification of compliance with the emission limit values in Table 2.2.10..
- 2.2.8.12 The operator shall keep the following records:
- (a) the permit or the proof of registration by the competent authority and, if relevant, its updated version and related information;
  - (b) the monitoring results and information referred to in condition 2.2.8.10;
  - (c) a record of operating hours as referred to in Article 6(3) and in Article 6(8);
  - (d) a record of the type and quantities of fuels used in the plant and of any malfunctions or breakdown of secondary abatement equipment;
  - (e) a record of the events of non-compliance and the measures taken, as referred to in condition 2.2.8.13

The data and information referred to in points (b) to (e) of the first subparagraph shall be kept for a period of at least six years.

- 2.2.8.13 The operator shall, without undue delay, make available the data and information listed in condition 2.2.8.11 to the competent authority upon request. The competent authority reserves the right to make such a request if a member of the public requests access to this data.
- 2.2.8.14 In the event of non-compliance with the emission limit values set out in table 2.2.10.1, the operator shall take the measures necessary to ensure that :
- 2.2.8.14.1 The Authority is notified within 24 hrs of the non compliance
  - 2.2.8.14.2 compliance is restored within the shortest possible time agreed upon with the Authority,
  - 2.2.8.14.3 a monitoring exercise against the emission limit values in table 2.2.10.1. is repeated upon completion of any maintenance work
  - 2.2.8.14.4 The boiler is recertified by an independent warranted engineer against the emission limit values in table 2.2.10.
  - 2.2.8.14.5 Such a certification be submitted to the competent Authority upon issue and reported in the Annual Environment report applicable to the reporting period of the occurrence
- 2.2.8.15 Where, in the opinion of the Authority, non-compliance causes a significant degradation of local air quality, the operation of the medium combustion plant shall be suspended until compliance is restored.

- 2.2.8.16 Should the Operator intend to install additional equipment or carry out significant changes to the existing steam boiler which could contribute to the existing emissions to air (e.g. boiler, etc.) from the installation, a variation of this Permit must be secured prior to installation and operation of this equipment.
- 2.2.8.17 The addition of an additional combustion plant within the installation may require air dispersion modelling studies to be carried out by the Authority at the expense of the operator to ensure that the overall emissions from the installation do not exceed 3% of the limit values in annex 7 of of LN 478 of 2010 as subsequently amended as stipulated in LN 11 of 2013.
- 2.2.8.18 The FSU auxiliary boilers shall vent through a stack extending at least 44 metres above sea level

**FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set**

- 2.2.8.19 A release into the atmosphere from the FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set shall arise only from release point D7J and D7K as specified in Table 2.2.1, which shall arise only from the source for that release specified in that Table.
- 2.2.8.20 Only low sulphur marine diesel oil in line with SL 423.29 shall be utilised as a source of fuel for the FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set and the co-incineration of any material or additional fuel including engine or other waste oil is strictly prohibited. Any change in fuel type shall require the notification and approval of the Authority prior to commencement of its utilisation.
- 2.2.8.21 Sulphur content of low sulphur marine diesel oil fired in the FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set shall be as specified in SL 423.29,
- 2.2.8.22 The operator shall keep the periods of start-up and shut-down of the FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set as short as possible.
- 2.2.8.23 The limits for emissions to air for the parameters and emission points set out in Table 2.2.11 shall not be exceeded. The limits are defined at a temperature of 273,5 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O<sub>2</sub> content of 3%.

<b>Table 2.2.11: Emission limits to air</b>			
<b>Emission point reference</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (mg/N.m<sup>3</sup>)</b>
D7J	FSU Emergency gen set 1	Sulphur Dioxide	850
		Oxides of Nitrogen	1931
		Dust	50
D7K	FSU Emergency gen set 2	Sulphur Dioxide	350
		Oxides of Nitrogen	1931
		Dust	277
	FSU Auxiliary diesel gen set	Sulphur Dioxide	350
		Oxides of Nitrogen	1110
		Dust	50



- 2.2.8.24 The operator shall submit a certification for the FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set referred to in Tables 2.2.1 and 2.2.11 from an independent warranted engineer every 3 years or one year before the expiry of the permit, whichever comes first. The certification shall be submitted as part of the Annual Environmental Report (AER) with the first measurement taken within four months of issue of the permit. The Authority reserves the right to require an increase in the frequency of such measurements.
- 2.2.8.25 The certification shall include measurement of the parameters listed in Table 2.2.11, including CO. During each measurement, the plant shall be operating under stable conditions at a representative even load. In this context, start-up and shut-down periods shall be excluded.
- 2.2.8.26 Sampling and analysis of polluting substances and measurements of process parameters shall be based on methods enabling reliable, representative and comparable results. Methods complying with harmonised EN standards shall be presumed to satisfy this requirement.
- 2.2.8.27 The operator shall keep a record of and process all monitoring results in such a way as to enable the verification of compliance with the emission limit values in Table 2.2.11.
- 2.2.8.28 For the FSU emergency diesel gen set 1 and FSU Auxiliary diesel gen set The operator shall keep the following records:
- (a) the permit or the proof of registration by the competent authority and, if relevant, its updated version and related information;
  - (b) the monitoring results and information referred to in condition 2.2.8.27;
  - (c) a record of operating hours
  - (d) a record of the type and quantities of fuels used in the plant and of any malfunctions or breakdown of secondary abatement equipment;
  - (e) a record of the events of non-compliance and the measures taken, as referred to in condition 2.2.8.29
- The data and information referred to in points (b) to (e) of the first subparagraph shall be kept for a period of at least six years.
- 2.2.8.29 The operator shall, without undue delay, make available the data and information listed in condition 2.2.8.28 to the competent authority upon request. The competent authority reserves the right to make such a request if a member of the public requests access to this data.
- 2.2.8.30 In the event of non-compliance with the emission limit values set out in table 2.2.11, the operator shall take the measures necessary to ensure that :
- 2.2.8.30.1 The Authority is notified within 24 hrs of the non compliance
  - 2.2.8.30.2 compliance is restored within the shortest possible time agreed upon with the Authority,
  - 2.2.8.30.3 a monitoring exercise against the emission limit values in table 2.2.11. is repeated upon completion of any maintenance work
  - 2.2.8.30.4 The boiler is recertified by an independent warranted engineer against the emission limit values in table 2.2.11

- 2.2.8.30.5 Such a certification be submitted to the competent Authority upon issue and reported in the Annual Environment report applicable to the reporting period of the occurrence
- 2.2.8.31 Where, in the opinion of the authority, non-compliance causes a significant degradation of local air quality, the operation of FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set shall be suspended until compliance is restored.
- 2.2.8.32 Should the Operator intend to install additional equipment or carry out significant changes to the existing steam boiler which could contribute to the existing emissions to air (e.g. boiler, etc.) from the installation, a variation of this Permit must be secured prior to installation and operation of this equipment.
- 2.2.8.33 The addition of an additional combustion plant within the installation may require air dispersion modelling studies to be carried out by the Authority at the expense of the operator to ensure that the overall emissions from the installation do not exceed 3% of the limit values in annex 7 of LN 478 of 2010 as subsequently amended as stipulated in LN 11 of 2013
- 2.2.8.34 The FSU emergency diesel gen set 1, FSU emergency diesel gen set 2 and FSU Auxiliary diesel gen set shall vent through stacks extending as per IPPC Application

## **2.2.9 Emissions to Air (excluding Odour Noise or Vibration) from specified points: Regasification Plant**

- 2.2.9.1 Waste gases shall be discharged in a controlled manner by means of a stack.

### **Re-gas emergency gen set**

- 2.2.9.2 A release into the atmosphere from the re-gas emergency gen set shall arise only from release point D7M as specified in Table 2.2.1, which shall arise only from the source for that release specified in that Table.
- 2.2.9.3 Only gas oil shall be utilised as a source of fuel for the re-gas emergency gen set and the co-incineration of any material or additional fuel including engine or other waste oil is strictly prohibited. Any change in fuel type shall require the notification and approval of the Authority prior to commencement of its utilisation.
- 2.2.9.4 Sulphur content of gasoil fired in the re-gas emergency gen set shall be as specified in condition 2.2.1.9
- 2.2.9.5 The operator shall keep the periods of start-up and shut-down of the gen set as short as possible.
- 2.2.9.6 The limits for emissions to air for the parameters and emission points set out in Table 2.2.12 shall not be exceeded. The limits are defined at a temperature of 273,15 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O<sub>2</sub> content of 3%.

<b>Table 2.2.12 : Emission limits to air</b>		
<b>Emission point reference</b>	<b>Parameter</b>	<b>Limit (mg/N.m<sup>3</sup>)</b>
D7M	Sulphur Dioxide	850
	Oxides of Nitrogen	200
	Dust	50

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- 2.2.9.7 The operator shall submit a certification for the re-gas emergency gen referred to in Tables 2.2.1 and 2.2.12 from an independent warranted engineer every 3 years or one year before the expiry of the permit, whichever comes first. The certification shall be submitted as part of the Annual Environmental Report (AER) with the first measurement taken within four months of issue of the permit. The Authority reserves the right to require an increase in the frequency of such measurements.
- 2.2.9.8 The certification shall include measurement of the parameters listed in Table 2.2.12, including CO. During each measurement, the plant shall be operating under stable conditions at a representative even load. In this context, start-up and shut-down periods shall be excluded.
- 2.2.9.9 Sampling and analysis of polluting substances and measurements of process parameters shall be based on methods enabling reliable, representative and comparable results. Methods complying with harmonised EN standards shall be presumed to satisfy this requirement.
- 2.2.9.10 The operator shall keep a record of and process all monitoring results in such a way as to enable the verification of compliance with the emission limit values in Table 2.2.12.
- 2.2.9.11 In the event of non-compliance with the emission limit values set out in table 2.2.11.1, the operator shall take the measures necessary to ensure that :
- 2.2.9.13.1 The Authority is notified within 24 hrs of the non compliance
- 2.2.9.13.2 compliance is restored within the shortest possible time agreed upon with the Authority,
- 2.2.9.13.3 a monitoring exercise against the emission limit values in table 2.2.12. is repeated upon completion of any maintenance work
- 2.2.9.13.4 The boiler is recertified by an independent warranted engineer against the emission limit values in table 2.2.12
- 2.2.9.13.5 Such a certification be submitted to the competent Authority upon issue and reported in the Annual Environment report applicable to the reporting period of the occurrence
- 2.2.9.12 Where, in the opinion of the authority, non-compliance causes a significant degradation of local air quality, the operation of the re-gas emergency gen shall be suspended until compliance is restored.
- 2.2.9.13 Should the Operator intend to install additional equipment or carry out significant changes to the existing steam boiler which could contribute to the existing emissions to air (e.g. boiler, etc.) from the installation, a variation of this Permit must be secured prior to installation and operation of this equipment.
- 2.2.9.14 The addition of an additional combustion plant within the installation may require air dispersion modelling studies to be carried out by the Authority at the expense of the operator to ensure that the overall emissions from the installation do not exceed 3% of the limit values in annex 7 of of LN 478 of 2010 as subsequently amended as stipulated in LN 11 of 2013
- 2.2.9.15 The re-gas emergency gen set shall vent as described in the IPPC application

### Non Visible Combustion Chamber (NVCC)

- 2.2.9.18 Further to conditions 1.8.3.7 and 1.8.3.8 the Authority shall issue an authorisation for the use of the NVCC under conditions as stipulated in such an authorisation.
- 2.2.9.19 Further to condition 1.8.3.9 and without prejudice to applicable operating conditions on emissions to air in subsequent parts of the permit, the Authority reserves the right to impose an emission limit value on the emissions to air from the NVCC.
- 2.2.9.20 The operator shall ensure that the use of the NVCC is kept to a minimum.

### 2.2.10 Emissions to Air (excluding Odour Noise or Vibration) from Specified Points: Gas receiving station boilers 1 and 2

- 2.2.10.1 Waste gases from the gas receiving station boilers 1 and 2 shall be discharged in a controlled manner by means of a stack.
- 2.2.10.2 A release into the atmosphere from the gas receiving station boilers 1 and 2 shall arise only from release points D7G and D7H respectively as specified in Table 2.2.1, which shall arise only from the source for that release specified in that Table.
- 2.2.10.3 Only natural gas shall be utilised as a source of fuel for the gas receiving station boilers and the co-incineration of any material or additional fuel including engine or other waste oil is strictly prohibited. Any change in fuel type shall require the notification and approval of the Authority prior to commencement of its utilisation.
- 2.2.10.4 Sulphur content of natural gas fired in the gas receiving station boilers shall be as specified in condition 2.2.1.10
- 2.2.10.5 The operator shall keep the periods of start-up and shut-down of the boilers as short as possible.
- 2.2.10.6 The limits for emissions to air for the parameters and emission points set out in Table 2.2.13 shall not be exceeded. The limits are defined at a temperature of 273,15 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O<sub>2</sub> content of 3%.

<b>Table 2.2.13: Emission limits to air</b>		
<b>Emission point reference</b>	<b>Parameter</b>	<b>Limit (mg/N.m<sup>3</sup>)</b>
D7G	Sulphur Dioxide	80
	Oxides of Nitrogen	200
D7H	Dust	-

- 2.2.10.7 The operator shall submit a certification for the boilers referred to in Tables 2.2.1 and 2.2.13 from an independent warranted engineer every 3 years. The certification shall be submitted as part of the Annual Environmental Report (AER) with the first measurement taken within four months of issue of the permit. The Authority reserves the right to require an increase in the frequency of such measurements.
- 2.2.10.8 The certification shall include measurement of the parameters listed in Table 2.2.13, including CO. During each measurement, the plant shall be operating

under stable conditions at a representative even load. In this context, start-up and shut-down periods shall be excluded.

2.2.10.9 Sampling and analysis of polluting substances and measurements of process parameters shall be based on methods enabling reliable, representative and comparable results. Methods complying with harmonised EN standards shall be presumed to satisfy this requirement.

2.2.10.10 The operator shall keep a record of and process all monitoring results in such a way as to enable the verification of compliance with the emission limit values in Table 2.2.13.

2.2.10.11 The operator shall keep the following records:

- (f) the permit or the proof of registration by the competent authority and, if relevant, its updated version and related information;
- (g) the monitoring results and information referred to in condition 2.2.10.10;
- (h) a record of operating hours;
- (i) a record of the type and quantities of fuels used in the plant and of any malfunctions or breakdown of secondary abatement equipment;
- (j) a record of the events of non-compliance and the measures taken, as referred to in condition 2.2.10.13

The data and information referred to in points (b) to (e) of the first subparagraph shall be kept for a period of at least six years.

2.2.10.12 The operator shall, without undue delay, make available the data and information listed in condition 2.2.10.11 to the competent authority upon request. The competent authority reserves the right to make such a request if a member of the public requests access to this data.

2.2.10.13 In the event of non-compliance with the emission limit values set out in table 2.2.13, the operator shall take the measures necessary to ensure that :

2.2.10.13.1 The Authority is notified within 24 hrs of the non compliance

2.2.10.13.2 compliance is restored within the shortest possible time agreed upon with the Authority,

2.2.10.13.3 a monitoring exercise against the emission limit values in table 2.2.13. is repeated upon completion of any maintenance work

2.2.10.13.4 The boiler is recertified by an independent warranted engineer against the emission limit values in table 2.2.13

2.2.10.13.5 Such a certification be submitted to the Competent Authority upon issue and reported in the Annual Environment report applicable to the reporting period of the occurrence

2.2.10.14 Where, in the opinion of the authority, non-compliance causes a significant degradation of local air quality, the operation of the medium combustion plant shall be suspended until compliance is restored.

2.2.10.15 Should the Operator intend to install additional equipment or carry out significant changes to the existing steam boiler which could contribute to the existing emissions to air (e.g. boiler, etc.) from the installation, a variation of this Permit must be secured prior to installation and operation of this equipment.

2.2.10.16 The addition of an additional combustion plant within the installation may require air dispersion modelling studies to be carried out by the Authority at the expense of the operator to ensure that the overall emissions from the installation do not exceed 3% of the limit values in annex 7 of of LN 478 of 2010 as subsequently amended as stipulated in LN 11 of 2013

2.2.10.17 The gas receiving station boilers 1 and 2 shall vent through stacks extending at least 10 metres

## **2.2.11 Emissions to Air (excluding Odour Noise or Vibration) from Specified Points: CCGT emergency gen set**

2.2.11.1 Waste gases from the CCGT emergency diesel gen set shall be discharged in a controlled manner by means of a stack.

2.2.11.2 A release into the atmosphere from the CCGT emergency diesel gen set shall arise only from release point D7L as specified in Table 2.2.1, which shall arise only from the source for that release specified in that Table.

2.2.11.3 Only gas oil shall be utilised as a source of fuel for the CCGT emergency diesel gen set and the co-incineration of any material or additional fuel including engine or other waste oil is strictly prohibited. Any change in fuel type shall require the notification and approval of the Authority prior to commencement of its utilisation.

2.2.11.4 Sulphur content of gasoil fired in the CCGT emergency diesel gen set shall be as specified in condition 2.2.1.9

2.2.11.5 The operator shall keep the periods of start-up and shut-down of the boiler as short as possible.

2.2.11.6 The limits for emissions to air for the parameters and emission points set out in Table 2.2.14 shall not be exceeded. The limits are defined at a temperature of 273,5 K, a pressure of 101,3 kPa and after correction for the water vapour content of the waste gases and at a standardised O<sub>2</sub> content of 3%.

<b>Table 2.2.14 : Emission limits to air</b>		
<b>Emission point reference</b>	<b>Parameter</b>	<b>Limit (mg/N.m<sup>3</sup>)</b>
D7L	Sulphur Dioxide	850
	Oxides of Nitrogen	200
	Dust	20

2.2.11.7 The operator shall submit a certification for the CCGT emergency diesel gen set referred to in Tables 2.2.1 and 2.2.14 from an independent warranted engineer every 3 years. The certification shall be submitted as part of the Annual Environmental Report (AER) with the first measurement taken within four months of issue of the permit. The Authority reserves the right to require an increase in the frequency of such measurements.

2.2.11.8 The certification shall include measurement of the parameters listed in Table 2.2.14, including CO. During each measurement, the plant shall be operating under stable conditions at a representative even load. In this context, start-up and shut-down periods shall be excluded.

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- 2.2.11.9 Sampling and analysis of polluting substances and measurements of process parameters shall be based on methods enabling reliable, representative and comparable results. Methods complying with harmonised EN standards shall be presumed to satisfy this requirement.
- 2.2.11.10 The operator shall keep a record of and process all monitoring results in such a way as to enable the verification of compliance with the emission limit values in Table 2.2.14.
- 2.2.11.11 The operator shall keep the following records:
- (a) the permit or the proof of registration by the competent authority and, if relevant, its updated version and related information;
  - (b) the monitoring results and information referred to in condition 2.2.11.10;
  - (c) a record of operating hours;
  - (d) a record of the type and quantities of fuels used in the plant and of any malfunctions or breakdown of secondary abatement equipment;
  - (e) a record of the events of non-compliance and the measures taken, as referred to in condition 2.2.11.13
- The data and information referred to in points (b) to (e) of the first subparagraph shall be kept for a period of at least six years.
- 2.2.11.12 The operator shall, without undue delay, make available the data and information listed in condition 2.2.11.11 to the competent authority upon request. The competent authority reserves the right to make such a request if a member of the public requests access to this data.
- 2.2.11.13 In the event of non-compliance with the emission limit values set out in table 2.2.14, the operator shall take the measures necessary to ensure that :
- 2.2.11.13.1 The Authority is notified within 24 hrs of the non compliance
  - 2.2.11.13.2 compliance is restored within the shortest possible time agreed upon with the Authority,
  - 2.2.11.13.3 a monitoring exercise against the emission limit values in table 2.2.13.1. is repeated upon completion of any maintenance work
  - 2.2.11.13.4 The boiler is recertified by an independent warranted engineer against the emission limit values in table 2.2.14
  - 2.2.11.13.5 Such a certification be submitted to the competent Authority upon issue and reported in the Annual Environment report applicable to the reporting period of the occurrence
- 2.2.11.14 Where, in the opinion of the authority, non-compliance causes a significant degradation of local air quality, the operation of the medium combustion plant shall be suspended until compliance is restored.
- 2.2.11.15 Should the Operator intend to install additional equipment or carry out significant changes to the existing steam boiler which could contribute to the existing emissions to air (e.g. boiler, etc.) from the installation, a variation of this Permit must be secured prior to installation and operation of this equipment.
- 2.2.11.16 The addition of an additional combustion plant within the installation may require air dispersion modelling studies to be carried out by the Authority at the expense of the operator to ensure that the overall emissions from the installation do not

exceed 3% of the limit values in annex 7 of LN 478 of 2010 as subsequently amended as stipulated in LN 11 of 2013..

- 2.2.11.17 The CCGT emergency diesel gen set shall vent through stacks extending at least 12 metres

## **2.2.12 Emissions to Air (excluding Odour Noise or Vibration) from Specified Points: other considerations**

- 2.2.12.1 Further to conditions 2.2.8 to 2.2.11, all plant shall be operated as described in the IPPC application.
- 2.2.12.2 Further to condition 2.2.12.1 the Authority reserves the right to set stricter emission limit values in the event that the operator deviates from operating details disclosed.

## **2.3 Discharges to sewers**

- 2.3.1 The Operator shall abide by the conditions of any Sewer Discharge Permit from the Water Services Corporation. The operator shall also abide by the provisions of the Sewer Discharge Control Regulations (LN139 of 2002 as amended by LN378 of 2005 and as may be amended from time to time).
- 2.3.2 In implementing of condition 2.3.1, the operator shall ensure that monitoring exercises are carried out at locations stipulated by the WSC.
- 2.3.3 Where any of the parameters stipulated by the WSC are exceeded, the operator shall ensure that any follow up actions requested by the WSC are implemented.
- 2.3.4 Further to condition 2.3.3, the Authority shall be notified of any such instances and all actions carried out included in the AER of the installation in the format specified in Schedule 4.
- 2.3.5 Cesspits shall be well maintained and certified by an independent warranted engineer every 4 years to ensure that these are:
- i. maintained in such a manner so as not to allow any leakages or spillages to the surrounding environment, and safely contain the type of waste that they are designated to store.
  - ii. Underground pipe work linking all cesspits is also maintained in such a way so as not to allow any leakages
  - iii. Appropriately ventilated to avoid the accumulation of explosive, toxic or corrosive gasses.
  - iv. The area surrounding the cesspit is impervious and laid to fall towards the cesspit.
- 2.3.6 Collection and transportation of Foul water generated on board the Floating Storage Unit shall be in line with applicable provisions of condition 2.8
- 2.3.7 Rainwater shall be segregated from all process areas that are potentially contaminated with raw materials, intermediates and/or products.
- 2.3.8 Rainwater shall not be discharged into the sewer or cesspits.
- 2.3.9 With the exception of sanitary waters, the Operator shall not discharge any waste waters into the sewers or cesspits.

## **2.4 Discharges to groundwater**



- 2.4.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance as per requirements of S.L.549.53 Protection of Groundwater against Pollution and Deterioration Regulations
- 2.4.2 Further to condition 2.4.1 the operator shall not allow any discharges to groundwater.
- 2.4.3 The operations of the installation shall not hinder the achievement of good chemical and quantitative status of groundwater as prescribed under the Water Policy Framework Regulations, LN194 of 2004 as may be amended from time to time.

## 2.5 Emissions to Marine Water

### 2.5.1 Emissions to Marine Water from Specified Points: General Considerations

2.5.1.1 This Part 2.5 of this Permit shall not apply to discharges to groundwater or sewers.

2.5.1.2 Waste waters shall not be discharged into marine water unless from the sources specified in table 2.5.1, and only from the sources for those release points specified by the table in question.

**Table 2.5.1 Emissions to Marine Water**

Outlet Number (as per Schedule 9)	External Tie in point reference	Details	UTM Co-ordinates <sup>i</sup>	
			x-coordinate	y-coordinate
Point 1	TP 21 D4	<u>Existing storm water overflow from Enemalta</u>  <u>EGM treated interceptor discharge receiving floor washings and rainwater from CCGT area and runoff from waste management area.</u>	459,647	3,965,869
Point 4	TP 18 D4	<u>Main outfall including water treatment, cooling systems, waste water from steam generation, waste water from boiler washdown/ blowdown from Enemalta, D3PG and ElectroGas.</u>	460,154	3,965,839
Point 6	-	Uncontaminated water from	459977.72	3965199.33

<sup>i</sup> Zone 33s, datum ED 50, ellipsoid – Hayford International.

Outlet Number (as per Schedule 9)	External Tie in point reference	Details	UTM Co-ordinates <sup>1</sup>	
		Regasification plant		
Point 7	-	FSU cooling water from auxiliary boilers during STS	459751.26	3965136.67
		Ballast water from FSU		

- 2.5.1.3 In accordance with condition 2.3.2, of the regulatory framework permit, the operators shall ensure that monitoring for discharges to the marine environment prior to connection to the tie-in points specified in table 2.3.2 of the regulatory framework permit and table 2.5.1 of this subsidiary permit shall be carried out in the locations agreed upon with the Authority and on the dates and times specified by the Permit Coordinator.
- 2.5.1.4 Dry outlets and release points whose sources are unidentified shall be securely and permanently disconnected from the discharge pipe-work. Furthermore the operator shall not discharge any waste waters through these outlets.
- 2.5.1.5 Waste waters may contain microbiocidal agents only after having undergone shock treatment with microbiocides. This shall not apply to the use of hydrogen peroxide or ozone.
- 2.5.1.6 No specified emission to water shall exceed the emission limit values set out in Table 2.5.1., without prejudice to condition 2.5.1.19. The emission limits shall apply to the waste water at the point of discharge into the sea. There shall be no other emissions to water of environmental significance.
- 2.5.1.7 Monitoring and analyses of each substance shall be carried out according to the frequencies specified in Table 2.5.2 and according to the methodologies specified in the same table or equivalent methods as approved by the Authority.
- 2.5.1.7.1 Where a method with a detection limit appropriate for the emission limit value in Table 2.5.2 is not available, the Authority may allow a method with a higher detection limit to be used instead. Samples taken shall be representative. This shall be communicated by the permit coordinator to the Authority and approved by ERA prior to application of the method.
- 2.5.1.7.2 The Operator should use standard methodologies which would achieve the required LoQs, subject to agreement on such methodologies with ERA prior to their application. The Authority may also communicate alternative methodologies once these are available .
- 2.5.1.8 The Authority may change monitoring parameters and frequencies as it considers appropriate, depending on the monitoring results submitted by the operator and on the information provided by the operators on the type of chemicals which may be additionally used for the operation of the installation. Such a change shall be reflected in the monitoring requirements within each subsidiary permit. In such cases the provisions of condition 2.5.1.3 shall apply.

The Authority may require monitoring for adsorbable organic halogens (AOX) should the Operator start using organic halogenated compounds.

**Table 2.5.2 Emission limits and monitoring for emissions to marine water**

No.	Parameter	Emission limit value (annual average)	Measurement methodology	Monitoring frequency	
				Point 5	Point 2
1	Flow	-	Flow meter	Continuous or calculated	Continuous or calculated
2	pH	6-10	pH meter	Continuous	-
3	Temperature	8 °C above marine water	Digital thermometer	Continuous	-
4	Biological oxygen demand (BOD5)	25 mg/L	EN 1899: 1998	Annual	Annual
5	Total Nitrogen	10 mg/L	EN 12260:2003	Quarterly	Annual
6	Phosphorous compounds as total phosphorous, as per EN ISO 15681	1 mg/L	EN ISO 15681: 2004	Annual	Annual
8	Chlorine dioxide and oxidants (given as chlorine)	0.3 mg/L	DIN 38408-5	Quarterly	Annual
9	Arsenic	5 µg/L	ISO 17294-2:2004	Quarterly	Annual
10	Cadmium <sup>i</sup>	0.2 µg/L	ISO 17294-2:2004	Quarterly	Annual
11	Chromium (Total)	0.5 mg/L	ISO 17294-2:2004	Every six months	Annual
12	Copper	0.5 mg/L	ISO 17294-2:2004	Quarterly	Annual
13	Lead	1.3 µg/L	ISO 17294-2:2004	Quarterly	Annual
14	Mercury	0.05 µg/L	EN ISO 17852: 2008	Every six months	Annual
15	Nickel	8.6 µg/L	ISO 17294-2:2004	Quarterly	Annual
16	Tin	1.0 mg/L	ISO 17294-2:2004	Annual	Annual
17	Vanadium	4 mg/L	ISO 17294-2:2004	Annual	Annual
18	Zinc	4 mg/L	Method 3125B, AWWA/APHA, 20 <sup>th</sup> Ed, 1999	Every six months	Annual
19	Total petroleum hydrocarbons	5 mg/L	ISO 9377-2: 2000	Every six months	Annual

<sup>i</sup> Tests from the cooling water outfall for cadmium, chromium, copper, nickel, lead and zinc shall be carried out on composite samples consisting of samples of equal size taken at monthly intervals and blended prior to analysis, in accordance with ISO 5667-3:2003 or equivalent.

No.	Parameter	Emission limit value (annual average)	Measurement methodology	Monitoring frequency	
				Point 5	Point 2
20	Tributyl tin compounds (tributyltin cation; CAS number 36643-28-4)	0.0002 µg/L	EN ISO 17353:2005	Quarterly	Annual
21	Total Suspended Solids	35 mg/L	EN 872:2005	Annual	Annual
22	Benzene (CAS number 71-43-2)	8 µg/L	EN ISO 15680:2003	Quarterly	Annual
23	PAHs as follows:				
	Benzo(a)pyrene	1.7 X 10 <sup>-4</sup> µg/L	EN ISO 17993:2003	Annual	Annual
	Benzo(b)fluoranthene, Benzo(k)fluoranthene	Sum of 2 PAHs: 0.03 µg/L	EN ISO 17993:2003	Annual	Annual
	Benzo(g,h,i)-perylene, Indeno(1,2,3-cd)-pyrene	Sum of 2 PAHs: 0.002 µg/L	EN ISO 17993:2003	Annual	Annual
24	C10-C13 chloroalkanes (CAS number 85535-84-8)	0.4 µg/L	EPA 8270D:2007	Annual	Annual
25	Polychlorinated biphenyls (CAS number 1336-36-3)	3 µg/L	USEPA method 8082, EA method 174 and 5109631	Annual	Annual

- 2.5.1.9 In case of any exceedances of the emission limit values in Table 2.5.2, either through the individual monitoring carried out in the location agreed upon with the competent authority or as highlighted by the permit coordinator through the procedure laid down in condition 1.4.4.11 of the regulatory framework permit, the operator shall as part of the AER submit an action programme to the Authority aimed at achieving these emission limits. This plan shall be coordinated through the permit coordinator
- 2.5.1.10 The source of any exceedance reported in the template in schedule 4 and/or as per procedure outlined in Schedule 6 of the regulatory framework permit shall be substantiated by any investigations carried out to identify the source and any corrective action taken to mitigate such an exceedance. Upon implementation of the corrective action there shall be additional monitoring exercise so as to ensure that emissions are returned to the permitted ELVs
- 2.5.1.11 Further to condition 2.5.1.10, the operator and the other operators within the installation may be requested by the Authority assess the possibility of designating a mixing zone in the vicinity of the discharge points in line with the procedures specified in Schedule IX(3) "Mixing Zones" in L.N. 345 of 2015.
- 2.5.1.12 No substance shall be discharged in a manner, or at a concentration which following initial dilution, causes tainting of fish or shellfish.
- 2.5.1.13 The operator is to maintain an operating journal in which the operating and auxiliary substances are listed. The operator shall also attach Material Safety

Data Sheets of the operating and auxiliary substances. These shall be submitted to the Authority upon request.

- 2.5.1.14 An annual report summarising emissions to water from the installation shall be submitted to the Authority as part of the AER. The information contained in this report shall be prepared in accordance with format specified in Schedule 4.
- 2.5.1.15 Further to the requirement in condition 2.5.1.14, the operator shall follow the procedure outlined in condition 2.5.1.3
- 2.5.1.16 The operator shall make sure that any sampling and chemical analysis is carried out by a laboratory accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025: 2005/Cor 1: 2006 and preferably for each and every test listed in table 2.5.2. The operator shall include a copy of the laboratory's accreditation certification in the AER.
- 2.5.1.17 The operations of the installation shall not hinder the achievement of good status for surface water as required under the Water Policy Framework Regulations, LN 345 of 2015 and the operators shall implement all the necessary mitigation measures should deterioration in the ecological and chemical status of the water bodies as monitored by the Competent Authorities is attributed to the operation of the installation.
- 2.5.1.18 The operator shall not use any of the priority substances in the field of water policy listed in schedule 8 at the site covered by this permit.
- 2.5.1.19 As from 1 December 2020, the operator shall not discharge any of the following substances:
- Benzo(a)pyrene
  - Benzo(b)fluor-anthene
  - Benzo(k)fluor-anthene
  - Benzo(g,h,i)-perylene
  - Indeno(1,2,3-cd)-pyrene
  - C10-C13 chloroalkanes
  - Cadmium
  - Mercury
  - Tributyltin compounds
  - Dioxin and dioxin-like compounds (including PCDDs, PCDFs and PCB-DL)
- 2.5.1.20 The operator shall submit all the necessary information requested by the Permit coordinator so as to ensure compliance with condition 2.3.2.20 of the regulatory framework permit..

## 2.5.2 Discharges to Marine Water: General Monitoring Conditions

- 2.5.2.1 All sampling carried out by the operator with the scope of monitoring compliance with the conditions listed in this permit shall be carried out according to the standards listed in table 2.5.3 or equivalent.

Table 2.5.3 Sampling	
Standard	Description
ISO 5667-1: 2006	Water quality -- Sampling -- Part 1: Guidance on the design of sampling programmes and sampling techniques
ISO 5667-3: 2012	Water quality -- Sampling -- Part 3: Guidance on the preservation and handling of water samples

ISO 5667-7: 1993	Water quality -- Sampling -- Part 7: Guidance on sampling of water and steam in boiler plants
ISO 5667-10: 1992	Water quality -- Sampling -- Part 10: Guidance on sampling of waste waters
ISO 5667-14: 1998	Water quality -- Sampling -- Part 14: Guidance on quality assurance of environmental water sampling and handling

2.5.2.2 The operator shall submit all the necessary information requested by the Permit coordinator so as to ensure compliance with condition 2.3.2.19 of the regulatory framework permit..

### **2.5.3 Discharges to Marine Water: Requirements for Waste Water arising from Non-process Water**

2.5.3.1 These requirements apply to discharges from points 1 (through tie in point TP18 D4), 6 and 7.

2.5.3.2 The operator shall carry out a visual examination of the surface water discharge daily and shall maintain a log of such inspections. The operator shall ensure that no visible oil layer is present in surface water prior to discharge either directly or through specified external tie in points. Surface water that appears contaminated shall be treated prior to discharge to seawater.

2.5.3.3 The oily water separator system shall have a continuous hydrocarbon detector with alarm. No discharge of wastewater is allowed if the emission limit value is exceeded. Detection of oily water at external tie in point TP18 D4, 6 or 7 above the emission limit value or following a notification from the permit coordinator regarding detection of oily water at discharge point 1 shall be followed by immediate investigation and appropriate mitigation measures.

2.5.3.4 Detection of oily water at external tie in points TP 18 D4 and TP 21 D4 shall also be followed by an immediate notification to the permit coordinator.

2.5.3.5 Discharge of ballast water from the Floating storage unit shall also follow the ballast water management plan submitted in the IPPC application and approved by Transport Malta

2.5.3.6 Surface run-off (rainwater) that might be contaminated by any spillage of fuel from fuel storage and handling shall be collected and treated prior to discharge.

2.5.3.7 In the event that any analyses or observations made on the quality or appearance of waste water from surface runoff should indicate that a contamination has taken place, the operator shall:

2.5.3.5.1 Carry out an immediate investigation to identify and isolate the source of the contamination;

2.5.3.5.2 Put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment;

and

2.5.3.5.3 Notify the Authority as soon as is possible as per Condition 5 of this permit.

## 2.5.4 Discharges to Marine Water: Other Conditions

2.5.4.1 All storage areas (including for fuel, waste, chemicals, etc.) shall be rendered impervious to the materials stored therein. In addition, areas for storage of liquid hazardous materials shall be bunded, either locally or remotely, to a volume not less than the greater of the following

2.5.4.1.1 110% of the capacity of the largest tank or container within the bunded area.

2.5.4.1.2 25% of the total volume of substance which could be stored within the bunded area.

Areas for storage of solid hazardous materials shall also have appropriate vehicle access control measures.

2.5.4.2 Drainage from bunded areas shall be diverted for collection and safe disposal, or appropriate treatment prior to discharge.

2.5.4.3 The integrity testing of any bunds for tanks/containers as required by condition 2.5.4.1 up to 25 m<sup>3</sup> must be carried out at least once every three years according to CIRIA 163, Construction Industry Research and Information Association Report 163 – Construction of Bunds for Oil Storage Tanks. The test must be carried out by an approved auditor and the inspection report and any ensuing certification must be included in the AER in the format specified in Schedule 2. Testing of bunds for wastes is not required if hazardous liquid wastes are stored on drip trays or prefabricated bunds.

2.5.4.4 For bunds of tanks as required by condition 2.5.4.1 greater than 25 m<sup>3</sup>, visual inspections shall be carried out at least weekly by a warranted engineer, who shall as a minimum examine the following elements:

- Identification of any cracks or faults in the bund walls or floors;
- Whether the bund is holding rainwater during/after episodes of rain;
- Whether drain holes are present in the bund which could lead to emissions (if this is the case, these would need to be sealed with waterproof cement or a material of at least equivalent impermeability);
- The presence of any damp patches which could indicate cracks.

Any faults identified during the inspection must be followed by immediate action to remedy the situation. Such inspections must be recorded, together with any faults and remedial actions taken.

Such bunds shall also be certified annually by a warranted civil engineer.

2.5.4.5 The unloading of gasoil shall be supervised at all times and shall be undertaken in accordance with the standard operating procedure or as amended.

2.5.4.6 The pipes, pumps, valves and flanges forming part of the system which transfers gasoil from the delivery point to the tanks on site shall be certified to be leak-proof by an approved auditor at least once every three years. The inspection report and any ensuing certification must be included in the AER in the format specified in Schedule 4.

2.5.4.7 All gasoil transfers shall be undertaken in accordance with an oil spillage response plan which shall be submitted within one month of issue of the permit for ERA's consideration.

- 2.5.4.8 Once approved in writing by the Authority, the oil spillage response plan required under condition 2.5.4.7 shall be implemented and adopted in cases where spillages occur during fuel transfers.
- 2.5.4.9 All personnel involved in the transfer of gasoil from vehicles to storage or from storage to the generating stations shall be trained in the oil spillage response plan. Records of such training shall be maintained and made available for inspection by Authority personnel.
- 2.5.4.10 The loading and unloading of other materials shall be carried out in designated areas protected against spillage and leachate run-off.
- 2.5.4.11 All gasoil tanks shall be fitted with a high level alarm and, for fuel tanks used for internal gasoil transfer, a high-high liquid level alarm with automatic stoppage of pumps and automatic closure of valves in the event of a high-high level alarm.
- 2.5.4.12 All flanges and valves on over-ground pipes used to transport materials other than uncontaminated water, where no permanent provision for containment of leaks is provided, shall be subject to weekly visual inspection or otherwise monitored for leaks to the satisfaction of the Authority. All such inspections shall be recorded in a log which shall be available for inspection by the Authority.
- 2.5.4.13 All the flanges, valves and over-ground pipes listed in 2.5.4.12 shall be certified by an accredited auditor to be completely leak-proof at least once every three years or as per Operator's standard operating procedures relating to maintenance, whichever comes first. Any ensuing inspection report shall be included in the AER in the format specified in Schedule 4.
- 2.5.4.14 The operator shall have in storage an adequate supply of containment booms skimmers and suitable absorbent material to absorb any spillage either on land or into the marine environment.
- 2.5.4.15 Valves on bunds shall be maintained in closed position except during bund drainage. Drainage of water collecting in bunds shall be carried out under constant supervision. No discharges shall be undertaken from bunds where there is a visible film of oil on the bund water.
- 2.5.4.16 All the oil interceptors shall be monitored on a monthly basis and maintained to ensure efficient operation. A log of monitoring and interceptor waste removal shall be maintained on site for inspection.
- 2.5.4.17 All the oil interceptors shall be inspected by an accredited auditor at least once every three years. The accredited auditor shall amongst other things inspect the interceptor for efficiency of operation. Any ensuing certification shall be included in the AER.,

## **2.6 Fugitive emissions of substances to air**

- 2.6.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the Permitted Installation, in particular from the:
- process areas
  - storage areas, including solvent storage, raw materials (including fuel) storage and waste storage
  - buildings
  - pipes, valves and other transfer systems
  - open surfaces
- provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.



- 2.6.2 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

## **2.7 Fugitive emissions of substances to water and sewer**

- 2.7.1 Subject to condition 2.7.2, the Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to water (other than groundwater) and sewer from the Permitted Installation, in particular from:
- All structures under or over ground
  - Surfacing
  - Storage areas
  - Bunded areas.
- 2.7.2 The Operator shall undertake all necessary measures and precautions to prevent spillage of raw materials, intermediates, products, waste and any other materials.
- 2.7.3 Connection points for fuel unloading must be appropriately contained. Any accidental release of substances shall be duly treated prior to discharge or disposed/recovered appropriately. Records shall be kept of such discharges, including the volume discharged.
- 2.7.4 Rainwater shall be segregated from all areas (including areas for fuel storage and raw materials) that are potentially contaminated.
- 2.7.5 Rainwater shall not be discharged into the sewer or onto a public place or thoroughfare.
- 2.7.6 The rate of flow into treatment chambers (e.g. interceptors) shall not exceed design capacity.

## **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 (Legal Notice 184 of 2011, as amended) and the Waste Management (Activity Registration) Regulations (Legal Notice 106 of 2007).
- 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 Legal Notice 184 of 2011 as amended.
- 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.
- 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:
- 2.8.2.6.1 Regulation (EC) N° 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste
  - 2.8.2.6.2 Commission Regulation (EC) N° 1379/2007 of 26 November 2007 amending Annexes IA, IB VII and VIII of Regulation (EC) N° 1013/2006 of the European Parliament and of the Council of Shipments of waste, for the purposes of taking account of technical progress and changes agreed under the Basel Convention; and
  - 2.8.2.6.3 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.
- 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 Legal Notice 106 of 2007 as may be amended from time to time. 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:

2.8.2.31.1 The tonnages and EWC Codes for the waste materials removed off site as per Schedule 1 of Legal Notice 184 of 2011 as amended.

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 3.9.2.24 and 3.2.9.28, 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**

- 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 Legal Notice 106 of 2007 as may be amended from time to time. 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.

## **2.9 Odour**

- 2.9.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce odorous emissions from the Permitted Installation, in particular by:
- 2.9.1.1 limiting the use of odorous materials;
  - 2.9.1.2 restricting odorous activities;
  - 2.9.1.3 controlling the storage conditions of odorous materials;
  - 2.9.1.4 controlling processing parameters to minimise the generation of odour;
  - 2.9.1.5 optimising the performance of abatement systems;
  - 2.9.1.6 timely monitoring, inspection and maintenance;

- 2.9.1.7 employing, where appropriate, an approved odour management plan; provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.
- 2.9.2 There shall be no significant offensive odour, as perceived by an Authorised Officer of the Competent Authority, at sensitive locations.

## **2.10 Emissions to Land**

- 2.10.1 This Part 2.10 of this Permit shall not apply to emissions to groundwater.
- 2.10.2 The operator shall take all precautions to ensure that no emission from the Permitted Installation shall be made to land.
- 2.10.3 In the event of accidental contamination of land, the operator shall notify the Authority immediately, forward a decontamination plan and execute it within 1 week of the event.

## **2.11 Noise and Vibration**

- 2.11.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:
- 2.11.1.1 equipment maintenance, e.g. circulating pumps, extraction fans, compressors, silencers.
  - 2.11.1.2 use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;
  - 2.11.1.3 appropriate timing and location of noisy activities and vehicle movements;
  - 2.11.1.4 periodic checking of noise emissions, either qualitatively or quantitatively; and
  - 2.11.1.5 maintenance of building fabric
- provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.
- 2.11.2 Emergency generators/alarms/sirens/release valves shall only be tested between the hours of 7.00 and 19.00 Monday to Friday and not on any Public Holiday.
- 2.11.3 The level of noise emitted from the installation at all operational times shall not exceed the background noise level by 5dB at the noise sensitive receptors, excluding during the use of emergency sirens and alarms and start-ups.

### **Noise Monitoring**

- 2.11.4 This section shall apply to:

- 2.11.4.1 the assessment of complaints at noise sensitive receptors resulting from noise emissions generated by the operator
- 2.11.4.2 The annual noise monitoring exercise required by subsequent conditions in this permit
- 2.11.5 Noise monitoring is to be carried annually, to ensure that the above limits are not exceeded. The locations shall be chosen and the measurements and assessment made according to BS 4142:1997.
- 2.11.6 Following receipt of any complaints related to noise emissions or a request by the Competent Authority or a notification from any of the other operators within the installation or a notification by the permit coordinator, the operator shall ensure that such complaints are investigated and where necessary accompanied by the necessary noise monitoring as per proposal submitted with the IPPC application for this renewal and variation.
- 2.11.7 Such investigations and monitoring shall be carried out in collaboration with the other operators and where necessary led by the permit Coordinator.
- 2.11.8 Further to condition 2.11.7, where initial investigations result in the requirement for noise monitoring, this shall be carried out in accordance with BS 4142:2014 or standard ISO8297: 1994 and any revision thereof, and ISO37XX series or specifically ISO 96142:1996.
- 2.11.9 Records of noise monitoring resulting from investigations carried out shall be submitted to the Competent Authority in the format specified in Schedule 5 of this permit. A detailed report shall also accompany such results. The report and accompanying results shall also be submitted as part of the AER.
- 2.11.10 The locations, measurements and assessment must be made according to BS 4142:2014, all the series of ISO 1996 and any other standard methodology stipulated by the Authority. This shall be subject to the submission of a method statement and subsequent approval by the Authority prior to the commencement of any monitoring.
- 2.11.11 Further to conditions 2.11.6 to 2.11.10, the results of investigations which have identified a specific operator as the source of exceedances, together with the corrective actions taken by the operator shall be submitted as part of the AER in Schedule 4 of this permit

## **2.12 Management and Technically Competent Person**

- 2.12.1 A copy of this Permit and those parts of the application referred to in this Permit shall be available at the place of work, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

### **Training**

- 2.12.2 The operator shall ensure that the part of the permitted Installation falling within the responsibility of Electrogas Malta Ltd. shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.
- 2.12.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to effectively carry out their duties.

- 2.12.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and public health and shall keep records of all relevant training.

#### **Maintenance**

- 2.12.5 All plant and equipment used in operating the Permitted Installation shall be maintained in good operating condition.
- 2.12.6 The Operator shall maintain a record of plant and equipment covered by condition 2.12.5, and for such plant and equipment:
- 2.12.6.1 a written or electronic maintenance programme; and
  - 2.12.6.2 records of its maintenance.

#### **Maintenance operations on the Floating Storage Unit**

- 2.12.7 Only hull cleaning operators registered with ERA shall be allowed to carry out in-water vessel cleaning and maintenance.
- 2.12.8 Registrations shall be renewed yearly with the operator submitting a renewal request in writing and addressed to ERA at least one month prior the expiry of the registration
- 2.12.9 The operator shall not carry out blasting and spray painting activities within the permitted installation. Where such activity would be required, notification and method statement approval is to be obtained in advance from the relevant Authorities.
- 2.12.10 Maintenance work that is to be carried out on the FSU must be covered by relevant permit from Transport Malta. These permits do not exempt the operator from obtaining any other licence, permit or authorisation required by law, and, or from complying with any other applicable legislation in force.
- 2.12.11 No marine fouling removed during the underwater cleaning operation shall be released into the sea.
- 2.12.12 No in-water cleaning and maintenance shall be carried out on hulls having paint coatings containing TBT (Tributyltin).
- 2.12.14 Underwater cleaning of soft marine growth on hulls which are coated with ablative paints (self-polishing) shall only be allowed if soft sponges are used for the removal of the fouling in question. In cases when hard encrusted growths are found on hull which are coated with ablative paints (self-polishing) no cleaning shall be allowed in-water and cleaning has to be carried out in dry dock.
- 2.12.15 The operator shall inform the Authority one week before the hull cleaning operation is to take place by means of a notification procedure to be agreed upon with the Authority.
- 2.12.16 If vessel is covered with sealing agents, it's MSDS has to be submitted with the notification. ERA reserves the right to refuse the hull cleaning operation if it is felt that the paint surface might have been jeopardised.
- 2.12.17 No sanding, stripping and chipping of antifouling paint shall be carried out at sea unless notification and method statement approval is to be obtained in advance from the relevant Authorities.



- 2.12.18 No antifouling paint chips accidentally removed during cleaning or maintenance shall be released into the sea.
- 2.12.19 If paint stripping occurs (potentially indicated through underwater plumbing or clouding) during removal of fouling operations are to be immediately suspended and ERA to be informed forthwith.
- 2.12.20 Any cleaning agents used must have approval from ERA prior to notification.
- 2.12.21 Any application of antifouling and/or protective coatings to the hull of the FSU during maintenance operations shall be preceded by an authorisation from ERA and Transport Malta.
- 2.12.22 Without prejudice to condition 2.12.22 ERA shall not allow the application of any coatings containing TBT (Tributyltin).

### **Incidents and Complaints**

- 2.12.21 The Operator shall maintain and implement written procedures for:
- 2.12.21.1 taking prompt remedial action, investigating and reporting to the Competent Authority actual or potential non-compliance with operating procedures or emission limits and if such events occur;
  - 2.12.21.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short-term and long-term remedial measures and near-misses) and prompt implementation of appropriate actions; and
  - 2.12.21.3 ensuring that detailed records are made of all such actions and investigations.
- 2.12.22 The Operator shall record and investigate complaints concerning the ElectroGas permitted plant's effects or alleged effects on the environment and public health. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.
- 2.12.23 As part of the AER of this subsidiary permit, the Operator shall provide report on incidents and complaints in the format specified in Schedule 4. This shall also include incidents and complaints which were addressed collectively with the other operators or one specific operator.
- 2.12.14 Details of incidents and complaints shall also be divulged to the other operators of the permitted installation

### **Attendance of Technically Competent Person(s)**

- 2.12.24 Attendance of the technically competent person(s) at the Site shall be recorded in the Site diary on arrival and departure.
- 2.12.25 For the whole operational hours permitted for the Site under this Permit, the Technically Competent Person/s or his/their delegate shall be physically in attendance at the Site. The Technically competent Person/s or their delegate/s has/ve to be permanently present on site during generation of electrical energy. The

operator is to provide details as to how he intends to provide this coverage in order to take into account unavoidable absences due to continuous operation, vacation or sick leave.

- 2.12.26 Where the Site has been notified to the Authority as being either non-operational or closed, the Technically Competent Person shall be capable of attending the Site within one hour.

#### **Changes in Technically competent Person(s) delegate(s)**

- 2.12.27 Any changes in technically competent management (Person/s) or their delegate(s) and the name of any incoming person together with evidence that such person has the required technical competence shall be submitted to the Authority in writing within 5 working days of the change in management.
- 2.12.28 In the event of the death, dismissal, resignation, leave, or of extended sick leave of the Technically Competent Management of the Site, the Permit Holder shall immediately inform the Authority, and prove to the Authority that the Permit Holder is actively seeking a replacement.

### **2.13 Energy Efficiency**

- 2.13.1 As part of the AER, the Operator shall produce a report on the energy and fuel consumed at plant permitted through this permit over the previous calendar year, providing the information listed in Schedule 2 in the format specified therein.
- 2.13.2 The Operator shall maintain and operate the plant permitted through this permit so as to secure energy efficiency, in particular by:
- 2.13.2.1 ensuring that the appropriate operating and maintenance systems are in place;
  - 2.13.2.2 ensuring that all plant permitted through this permit is adequately insulated to minimise energy loss or gain;
  - 2.13.2.3 ensuring that the type of lighting used is energy-efficient;
  - 2.13.2.4 ensuring that all appropriate containment methods (e.g. seals) are employed and maintained to minimise energy loss;
  - 2.13.2.5 maintaining and implementing an energy management system which shall include the monitoring of main energy flows for each generating unit, and an energy efficiency plan which targets areas for improving energy efficiency and identifies energy-saving techniques that are applicable to the activities and their associated environmental benefit, and prioritises them. The energy efficiency plan shall be updated at least once every 2 years.

### **2.14 Accident prevention and control**

- 2.14.1 In the case of an accident, the Operator will be responsible for notifying the other operators and the Permit Coordinator of such an incident and each operator shall follow the procedures stipulated in the Internal Emergency Plan submitted by each operator as part of the IPPC application.

- 2.14.2 If the case of a controllable emergency situation (within an individual operator plant) or in a non-controllable emergency (emergency escalated to a site level) (as defined in the Coordinated Emergency Plan (CERP) submitted as part of the IPPC application, the procedures and coordinated actions stipulated within the Coordinated Emergency Plan (CERP) shall apply. The operator shall ensure communication and coordination with the other operators and stakeholders together with the local area emergency response organisations and Authorities.
- 2.14.3 The level of application of the CERP shall be at least the communication of the emergency situation, with a possible escalation of the full activation of the CERP as detailed in the documentation submitted as part of the IPPC application or subsequently revised and approved.
- 2.14.4 The CERP shall be reviewed at least every three years or as soon as practicable after an accident, whichever is the earlier, and the Authority notified of the results of the review within 2 months of its completion.
- 2.14.5 The Operator shall, in collaboration with the other operators at the installation maintain and implement all health and safety measures in compliance with Act XXVII of 2000; Occupational Health and Safety Authority Chapter 424 and all relevant subsidiary legislation, in particular but not limited to implemented a risk assessment which covers the operation of the whole installation.
- 1.14.6 The operator is to keep the Authority updated on any major changes in operations that may impact on the health and safety of the employees and the other operators at the installation.
- 2.14.7 the operator is to ensure that all Health and Safety documentation is freely available and provided upon request to either the Competent Authority or to the Occupational Health and Safety Authority.

### **Safety Considerations**

- 2.14.8 The Operator shall comply with the relevant provisions of the Control of Major Accident Hazards Regulations, 2015 (Legal Notice 179 of 2015). Any actions deemed necessary during the operational phase as identified in the COMAH competent Authority's review of the safety studies submitted by the operator shall be addressed within the timeframes stipulated by the COMAH competent Authority.
- 2.14.9 During the operational phase of the plant regulated through this subsidiary permit the COMAH Competent Authority may carry out inspections so as to ensure that the details provided by the operators in the safety studies submitted to the Authorities as part of the obligations arising from LN 179 of 2015 are implemented. Additional Audits may be conducted by the COMAH Competent Authority during the operational phase of the plant.
- 2.14.10 Such inspections shall also address the review of the safety studies submitted by Enemalta, the Hazid and Hazop submitted by D3 PG in cases where amendments need to be carried out as a result of any changes identified during the commissioning phase.
- 2.14.11 Further to the provisions of Regulation 14 of LN 179 of 2015 and without prejudice to the operator's responsibilities, the COMAH Competent Authority shall, if necessary, appoint individuals or set-up bodies to assist the COMAH competent authority at technical level at the expense of the operators.
- 2.14.12 Any actions required as a result of the COMAH Competent Authority's review of the safety studies submitted during this IPPC application specific to the operator

are to be carried out and reviewed during the operational phase shall be followed up in subsequent COMAH inspections.

- 2.14.13 In carrying out its inspections, the COMAH Competent Authority reserves the right to issue a prohibition of use in cases where deficiencies are identified.
- 2.14.14 Where instructed by the COMAH Competent Authority, the safety studies submitted by the operator shall be amended to address the COMAH competent Authority's Audit and any resulting changes which may be required.
- 2.14.15 Without prejudice to regulation 9 of the COMAH Regulations, the operator shall ensure that any information requested by the permit Coordinator for the scope of the periodic review and where necessary update the Safety report, MAPP and IEP, at least every five years. The updated documentation shall be sent to the COMAH competent authority without delay
- 2.14.16 operations at the installation shall allow the periodic review and where necessary update the Safety report, MAPP and IEP, at least every five years. The updated documentation shall be sent to the COMAH competent authority without delay

#### **Fire fighting considerations**

- 2.14.16 The operator shall be responsible for the maintenance and certification of all internal and external fire fighting systems from the tie in point connection with Enemalta as identified in schedule 2A of the regulatory framework permit and as detailed in table 2.14.1 below

<b>Table 2.14.1 – infrastructure related to shared fire fighting system</b>		
<b>Tie in point</b>	<b>Name</b>	<b>description</b>
TP7A.D4 TP7B. D4	Internal fire-fighting system	Freshwater stored within Enemalta's 330m <sup>3</sup> tank which is supplied from evaporated water tanks and distributed through metered tie-in point for own use, D3PG and EGM.
TP8.D4	External fire-fighting system	Seawater taken from the intake of seawater from Marsaxlokk Bay to delivery and distribution through metered tie-in point to D3PG, EGM and own use.

- 2.14.17 Further to condition 2.14.16, The operator shall also be responsible for the maintenance and certification of all internal and external fire fighting systems operated independently from the other operators
- 2.14.18 The pipes, pumps, valves and flanges forming part of the fire-fighting system which transfers fire-fighting water from external Tie in point connection to distribution to the Operator shall certified by an approved auditor at least once every three years or as otherwise identified in applicable studies and procedures submitted as part of the IPPC application and as per requirements of LN 179 of 2015. The inspection report and any ensuing certification must be included in the AER in the format specified in Schedule 4.
- 2.14.18 The operator shall be responsible for the maintenance and certification of all gas pipelines up to the tie in point connection with Delimara 3 Power Generation Ltd as identified in schedule 2C of the regulatory framework permit and as detailed in table 1.9.1 of this permit.

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- 2.14.19 Unless otherwise specified in this permit, emergency shutdown procedures shall be implemented as described in the IPPC application and as agreed upon with the other operators
  - 2.14.20 The operator shall ensure that the installation is fitted with natural gas detection systems capable of detecting gas at concentrations as identified during the compilation of the safety studies submitted to the COMAH competent Authority and as certified according to industry standards.
  - 2.14.21 The activation of any gas detector within the part of the installation shall trigger the automatic shutdown of the gas pumps and lines and communicated to the operator's control room.
  - 2.14.22 The procedure detailed in condition 2.14.21 shall not apply in the event that the gas detection is the result of the activation of the pressure release valves installed throughout the pipeline.
  - 2.14.23 Condition 2.14.22 shall not apply in the event that the overpressure in the pipe work resulting in the release of natural gas from the pressure release valves is the result of any malfunction in the natural gas conveyance system
  - 2.14.24 Upon execution of procedure detailed in condition 2.14.21, the operator shall immediately notify the other operators within the installation and the competent Authority.
  - 2.14.25 Further to condition 2.14.24, the operator shall ensure that any leak or malfunction in the gas distribution system is rectified within the shortest time possible and recertified prior to recommencement of operations.
  - 2.14.26 Further to condition 2.14.25, certification shall be submitted to the Competent Authority and the COMAH competent Authority. for review.
  - 2.14.27 Further to 2.14.26 operations shall commence unless otherwise specified by the Competent Authority. the operator shall also notify the other operators within the installation accordingly
  - 2.14.28 The operator shall abide by the instructions provided by the CPD and ensure that the type and amounts of fire fighting agents requested by the CPD to be present at any one time within the part of the installation covered by this permit are on site at any given time.
  - 2.14.29 It shall be the responsibility of the operator to ensure that such fire fighting agents and systems are well maintained and certified periodically as per supplier's specifications.

### **Port security**

- 2.14.30 The operator shall maintain of the port security document as requested by Transport Malta as per legal provisions of Port Security Regulations (SL 499. 36)
- 2.14.31 Where any updates to the port security document requested by Transport Malta result in changes to standard operating procedures adopted, the operator shall ensure that these are implemented within the timeframes requested by Transport Malta

## **2.15 Transport**

- 2.15.1 Independent of any Environment Management System, the Operator shall be responsible for making use of the services of an ADR (The European Agreement concerning the International Carriage of Dangerous Goods by Road) certified carrier for transport of hazardous chemicals and hazardous wastes on land.
- 2.15.2 Condition 2.15.1 shall also apply to the transport of specific waste streams as detailed in condition 2.8.2

## **2.16 Land and groundwater investigations, Closure and Decommissioning**

- 2.16.1 As part of the improvement programme for the installation, the operator shall submit a baseline report and a monitoring strategy in line with European Commission Guidance concerning baseline reports under article 22(2) of Directive 2010/75/EU on industrial emissions (2014/C 136/03).
- 2.16.2 In the event that the baseline report carried out by Enemalta plc as part of IP 00002/07/E shall be regarded as partial fulfilment of the operator's obligations under condition 2.16.1, any new baseline report submitted shall include relevant information and findings from such a report .
- 2.16.3 The operator shall submit for approval by the Authority a sampling strategy for its review and approval. The operator shall subsequently carry out any land and groundwater investigations as agreed with the Authority which will be utilised to produce a coordinated baseline report.
- 2.16.4 The baseline report and monitoring strategy shall include a report by a qualified geologist on the likelihood of their being a significant contamination of the land on the site.
- 2.16.5 The operator shall provide the permit coordinator or his appointed consultant with all the necessary information including existing testing results, studies and investigations and the baseline report compiled in fulfilment of condition 2.16.1 to enable the compilation of a coordinated baseline report addressing the entire installation.
- 2.16.6 The investigations and reports compiled in compliance with conditions 2.6.1 to 2.6.3 shall be utilised to formulate a coordinated outline decommissioning plan as per condition 2.3.15.9 of the regulatory framework permit.
- 2.16.7 Any Land and groundwater monitoring of the points identified in the monitoring strategy and agreed upon with the Authority shall be repeated at least every four years, prior to or together with the renewal application of this permit. Land monitoring shall be carried out by the operator on monitoring points within their responsibility but submitted to the Authority through the Permit Coordinator.
- 2.16.8 The operator shall ensure that the land and groundwater monitoring programme ensures that:
- 2.16.8.1.1 The list of the pollutants to be monitored
  - 2.16.8.1.2 The location of the points for the sampling of land, the sampling methods, the handling of the samples, the pre-treatment/extraction of the analytes (where applicable) and

the methods used in order to analyse the samples are clearly detailed.

2.16.8.1.3 Samples will be analysed to the relevant EN or EN ISO standards or equivalent.

2.16.8.1.4 Samples shall be managed by a lab accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably accredited for each and every analysis

2.16.9 Two years before the planned decommissioning of the part of the installation covered by this permit, the operator shall submit to the Authority a full Decommissioning Plan which shall at least include all the following information:

2.16.9.1.1 The results of any land and groundwater monitoring carried out to date.

2.16.9.1.2 A detailed monitoring programme which will illustrate how the Operator will measure the current levels of various pollutant in the land in line with the monitoring requirements of the baseline report

2.16.9.1.3 The levels to which the installation and any affected land will have to be decontaminated.

2.16.9.1.4 A waste management plan which shall include:

- (i) The identification and characterisation of sources, types and quantities of waste (including equipment, fuels, by-products such as ash, etc.);
- (ii) Criteria for segregation of wastes;
- (iii) Proposed treatment, conditioning, transport, storage and disposal/recovery methods;
- (iv) Potential reuse/recycling of such wastes.

2.16.9.1.5 The identification of potential sources of emissions to the atmosphere, land and water (both seawater and groundwater) pollution which might arise from the decontamination process and corresponding mitigation measures to minimise the likelihood of such emissions.

2.16.10 The full decommissioning plan shall also be submitted to the permit coordinator to formulate a coordinated full decommissioning plan as per condition 2.3.15.10 of the regulatory framework permit.

2.16.11 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the installation in the permitted activity, the operator shall to the satisfaction of the Authority, decommission, render safe or remove for disposal/recovery, any land, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution and that may pose a public health risk.

2.16.12 The Operator shall maintain and operate the Permitted Installation so as to prevent or minimise any pollution and public health risk, including the generation of waste, on closure and decommissioning in particular by:-

- (i) Attention to the design of new plant or equipment;
- (ii) The maintenance of and record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out; and
- (iii) The maintenance of a decommissioning plan to demonstrate that the installation can be decommissioned avoiding any pollution and public health risk and returning the site of operation to a satisfactory state.

2.16.13 Notwithstanding condition 2.16.11 of this Permit, the operator shall carry out a review of the Outline Decommissioning Plan at least every 4 years and provide all the necessary information to the permit coordinator in compilation of the coordinated outline decommissioning plan

2.16.14 The Operator shall notify the Authority and the permit coordinator immediately upon a decision being taken to decommission the site regulated through this permit.

2.16.15 The operator covered by this permit shall inform the other operators of any decision being taken to decommission any plant falling within their responsibility in part or as a whole.

2.16.16 The approved Decommissioning Plan shall be implemented within 18 months of final cessation or decommissioning of the activities regulated through this permit or part thereof, or according to a timeframe as may be agreed with the Authority.

## **2.17 Ozone Depleting Substances and Fluorinated Greenhouse Gases**

2.17.1 All maintenance and servicing of equipment containing Ozone Depleting Substances shall abide by the requirements of Regulation (EC) No. 1005/2009 on substances that deplete the Ozone Layer & L.N. 280 of 2010 on substances that deplete the ozone layer, Regulations 2010. No new equipment or components containing substances falling within the scope of this legislation shall be installed within the site.

2.17.2 The use of HCFCs in the maintenance and servicing, in particular refilling, of products and equipment whose function relies on such substances shall be prohibited.

2.17.3 All installation, maintenance and servicing of equipment containing Fluorinated Greenhouse Gases shall abide by the requirements of Regulation (EU) No 517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No. 842/2006, Commission Regulation (EC) Nos 1493/2007, 1516/2007, 1494/2007, 1497/2007, 303/2008, 304/2008, 305/2008, 306/2008, 308/2008 and L.N. 93 of 2010 on Certain Fluorinated Greenhouse Gases, Regulations 2010

2.17.4 maintenance and servicing of equipment containing ozone depleting substances and fluorinated greenhouse gases shall be carried out in accordance with the legal provisions of Regulation (EU) No 517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No. 842/2006 and Regulation (EC) No. 1005/2009 on substances that deplete the Ozone Layer. All maintenance and servicing shall be reported in the AER as per template in schedule 4



- 2.17.5 For all equipment installed on site utilising Ozone Depleting Substances or Fluorinated Greenhouse Gases, information pertaining to installation, maintenance and servicing shall be provided as Schedule 4. When any equipment is replaced by new equipment, The Authority shall be notified in this regard and details provided on the new equipment installed.
- 2.17.6 Upon decommissioning of all equipment containing substances falling within the scope of EC Regulation No. 1005/09 on substances that deplete the Ozone Layer & L.N. 280 of 2010 on substances that deplete the ozone Layer, together with Regulation (EU) No 517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No. 842/2006 , or containing foam and insulation panels utilising such substances the waste gas should be treated as hazardous waste and any foam containing components need to be disposed of at specialised facilities where possible ODS/ F gas can be extracted prior to disposal.
- 2.17.7 No new equipment or components containing substances falling within the scope of EC Regulation No. 1005/2009 on substances that deplete the Ozone Layer & L.N. 280 of 2010 on substances that deplete the Ozone Layer, regulations 2007, shall be installed within the site
- 2.17.8 Where required, leak detection systems as per the legal provisions of Regulation (EU) No 517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No. 842/2006 shall be installed and well maintained

### **3 Records**

- 3.1 The Operator shall ensure that all records required to be made by this subsidiary permit and any other records made by it in relation to the operation of the Permitted Installation shall:-
- 3.1.1 be made available for inspection by the Authority at any reasonable time;
  - 3.1.2 be supplied to the Authority on demand and without charge and in the format requested;
  - 3.1.3 be legible;
  - 3.1.4 be made as soon as reasonably practicable;
  - 3.1.5 indicate any amendments which have been made and shall include the original record wherever possible; and
  - 3.1.6 be retained by the operator at the site office, or other location agreed by the Authority in writing, for a minimum period of 5 years from the date when the records were made, unless otherwise agreed in writing with the Authority.

### **4 Reporting**

- 4.1 All reports and written and/or oral notifications required by this subsidiary permit and notifications required by Regulation 7 of the Industrial Emissions (IPPC) Regulations shall be made and sent to the Authority using the contact details notified in writing to the Operator by the Authority.
- 4.2 The Operator shall submit to the Authority an AER of the previous year by not later than end of June of each year, providing the information listed in Schedule

4 of this Permit and in the format specified therein. The AER shall be forwarded to the Authority in electronic format.

- 4.3 The Operator shall submit to the Authority the information listed in Schedule 6 Quarterly Reporting and in the format specified therein within two months after the end of each quarter. This information shall be forwarded to the Authority in electronic format.
- 4.4 The Operator shall submit to the Authority the information listed in Schedule 5 Monthly Reporting and in the format specified therein within two weeks after the end of each month. This information shall be forwarded to the Authority in electronic format.
- 4.5 The European Pollutant Release and Transfer Register (E-PRTR) report for the installation shall be submitted by end of March of each year, or as required by Legislation. All quantities shall be reported, even when these do not exceed the thresholds mentioned in EC Regulation 166/2006. The format used for reporting shall be that established by Legislation, notably Legal Notice 152 of 2007, as may be amended from time to time.
- 4.6 Where the submissions required under condition 4.5 are related to coordinated release points, the operator shall submit the information to the permit coordinator to allow submission of information related to the entire installation to be submitted in the AER for the regulatory framework permit.
- 4.7 The Operator shall, within 6 months of receipt of written notice from the Authority, submit to the Authority a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the installation unless a derogation has been granted by the Authority. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.
- 4.8 Further to condition 2.3.12.2.3 of the regulatory framework permit, the operator shall ensure that all the data required by Permit Coordinator for the compilation of the European Pollutant Release and Transfer Register (E-PRTR) report for the installation is provided within the timeframes agreed upon with the coordinator. All quantities shall be reported, even when these do not exceed the thresholds mentioned in EC Regulation 166/2006. The format used for reporting shall be that established by Legislation, notably Legal Notice 152 of 2007, as may be amended from time to time.
- 4.9 Where the submissions required under condition 4.5 are related to coordinated release points, the operator shall submit the information to the permit coordinator to allow submission of information related to the entire installation to be submitted in the AER for the regulatory framework permit.

## 5 Notifications

This section is without prejudice to any other notification requirement in this permit.

- 5.1 The Operator shall notify the Authority without delay of:-
  - 5.1.1 the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;

- 
- 5.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution and/or a public health risk unless the quantity emitted is so trivial that it would be incapable of causing significant pollution and/or a public health risk or incapable of being detected;
  - 5.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution and /or a public health risk; and
  - 5.1.4 any accident which has caused, is causing or has the potential to cause significant pollution and /or a public health risk.
- 5.2 The Operator shall submit written confirmation to the Authority of any notification under condition 5.1, by sending:-
- 5.2.1 the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and
  - 5.2.2 the more detailed information listed in Part B of Schedule 1 as soon as practicable thereafter;
  - 5.2.3 the information listed in Schedule 2 according to the timeframe specified in Condition 4.2;
- and such information shall be in accordance with that Schedule.
- 5.3 The Operator shall give written notification as soon as practicable prior to any of the following:-
- 5.3.1 permanent cessation of the operation of part or all of the Permitted Installation;
  - 5.3.2 cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and
  - 5.3.3 resumption of the operation of part or all of the Permitted Installation after a cessation notified under condition 5.3.2.
- 5.4 The Operator shall notify the Authority, as soon as practicable, of any information concerning the state of the site which affects or updates that provided to the Authority as part of the Site Report submitted with the application for this Permit.
- 5.5 The Operator shall notify the following matters to the Authority in writing within 10 working days of their occurrence:-
- 5.5.1 Where the Operator is a registered company:-
    - 5.5.1.1 any change in the Operator's trading name, registered name or registered office address;
    - 5.5.1.2 any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary); and
    - 5.5.1.3 any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.
  - 5.5.2 Where the Operator is a corporate body other than a registered company:
    - 5.5.2.1 any change in the Operator's name or address; and

5.5.2.2 any steps taken with a view to the dissolution of the Operator.

5.5.3 In any other case: -

5.5.3.1 the death of the named Operator (where the Operator consists of more than one named individual);

5.5.3.2 any change in the Operator's name(s) or address(es);

5.5.3.3 any steps taken with a view to the Operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership.

## **6. Greenhouse gas emissions permit**

6.1 The conditions in this subsidiary permit are without prejudice to any condition in the Greenhouse gas Emissions Permit pursuant to LN 434 of 2013 – European Union Greenhouse Gas Emissions Trading Scheme for Stationary Installations, Regulations, 2013.

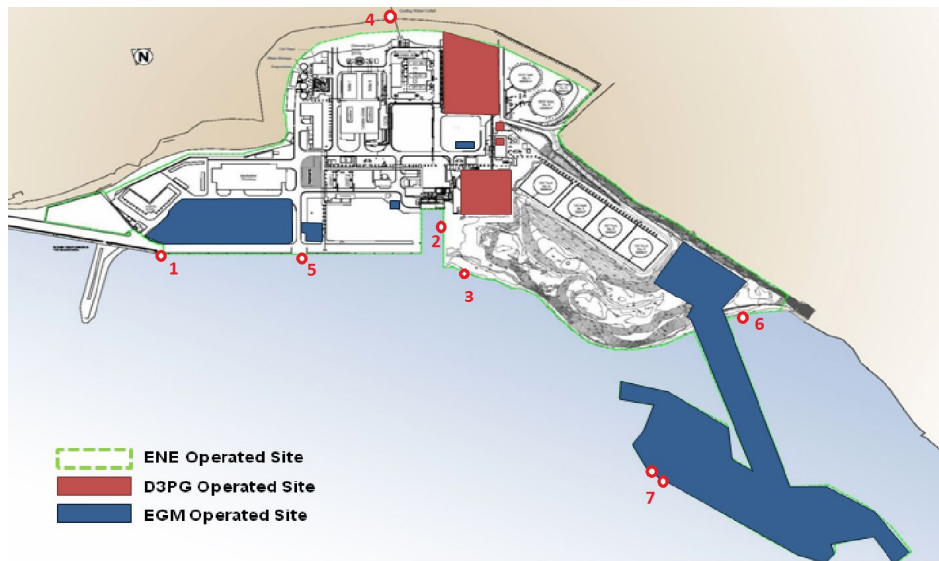
## **7. Interpretation**

- 7.1 The interpretation and relevant expressions as defined in Condition 4 of the Regulatory Framework Permit (IP0002/07/F) shall also apply to this subsidiary permit.
- 7.2 Where a minimum limit is set for an emission parameter such as pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.
- 7.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means:-
- 7.3.1 in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
  - 7.3.2 in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.
- 7.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the Regulatory Framework Permit shall prevail to the extent of such conflict.

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**Schedule 1**  
**Operational Boundary for ElectroGas Malta Ltd**  
**(parts highlighted in blue)**

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## Schedule 2

### Derogation from BAT

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Floating storage was selected as the preferred LNG storage technology for this project during pre-conceptual design at development stage. The decision for choosing the FSU was based on safety and was analysed in the Quantitative Risk Assessment (QRA) prepared for this project.

The QRA assessed three different options:

- 1 Onshore LNG tanks and regasification plant and a jetty designed for mooring the LNG visitor cargo and transferring the LNG to the LNG tanks.
- 2 A floating storage unit with an onshore regasification plant and a jetty as in option 1 but with higher capacity, designed for mooring the FSU and the visitor cargo.
- 3 A floating storage unit with regasification plant installed in the FSU and a jetty as in option 2.

The QRA conclusions are included below. The QRA study is included in an appendix. Gas cloud extension drawings and individual risk curves for each option can be found within this study for the different options.

The Quantitative Risk Assessment (QRA) included in the EIS indicated that the offshore LNG terminal (FSU) was preferable to an on-shore LNG terminal because the offshore facility would be located further from the CCGT power plant and the heavy fuel oil (HFO) storage tanks. In the event of a major gas leak the ignition points in the CCGT could trigger a fire, which would damage the CCGT and possibly DPS 3. Although the track record of LNG storage facilities indicates that such accidents are highly unlikely (see Section 4.3 of the EIS), it is advisable for the distance between the power plant and the storage facility to be 'safe', especially in cases where room for multiple power stations is unavailable. The 'safe distance' would allow the re-gas system to be used to contribute to the cooling requirements of the power plant, whilst at the same time prevent serious accidents, no matter how unlikely their occurrence may be.

On the basis of the risk assessment exercise, the QRA identified an area offshore within which the unloading hoses connecting the supply carrier with the LNG storage facility could be located. Following discussions with the Ports and Yachting Directorate (PYD) of Transport Malta, a suitable location for the offshore LNG terminal and jetty was identified.

The conclusions of the QRA, with regard to the safety of the LNG terminal, are summarised below:

- 1 Individual risk curve: The QRA identified that incompatibility was identified between the projected terminal and the LNG terminal (or consequences which may affect people, the environment and neighbouring facilities), however the offshore LNG terminal would provide the softest in terms of impacts. In the event of liquid or gas release, effects would be: fire (pool, jet or flash fire); gas cloud generation or unconfined vapour cloud explosion (UVCE), however these scenarios can be isolated in the event of an accident, through the closure of emergency shut-down valves;
  - 2 Gas cloud extension: the QRA studied the spread of a gas cloud in case of a major gas leak at the CCGT and HFO tanks. On the basis of this assessment the QRA identified the location of potential leak points within the development, namely the loading hoses and the re-gas unit, as well as where these should be located should a leak occur. The QRA identified a location wherein the flammable part of the gas cloud would not encounter any ignition points which would be located in the new CCGT and/or the existing DPS 3, 2A and 2B. The QRA indicates that a gas release would not cause a domino effect on the HFO tank. The QRA also identified that as natural gas is lighter than air, when the LNG transforms to NG it would diffuse and rise progressively, therefore avoiding the inlets located on the eastern side of the peninsula, and avoiding potential human health risks.
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The conclusions of this QRA assessment indicated that the offshore LNG floating-storage option was considered, on balance, the safer option with reference to both human life and security of supply, and was therefore seen as the preferred option.

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### Schedule 3

#### Notification of abnormal emissions

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the Industrial Emissions (IPPC) Regulations..

#### Part A

Permit Number	
Name of Operator	
Location of Installation	
Location of the emission	
Time and date of the emission	

Substance(s) emitted	Media (e.g. air, groundwater)	Best estimate of the quantity or the rate of emission (include units)	Time between which the emission took place

Measures taken, or intended to be taken, to stop the emission	
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#### Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment and any public health risk or harm which has been or may be caused by the emission.	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name <sup>9</sup>	
I.D. Card No./Passport No.	
Post	
Signature	
Date	

<sup>9</sup> authorised to sign on behalf of Operator

## Schedule 4

### Annual Environmental Report

**Important note**

By this submission, you confirm that you give your explicit consent for the entire contents of this Annual Environment Report to be made available on the Authority's public website.

**S4.1 Introduction**

IPPC Permit Number	
Reporting Year	
Name and location of Site	
Brief description of activities at the site	

**S4.2 Environment Management System & Reporting**

Please attach a supporting document with the following:

1. Environmental Policy containing the installation's environmental objectives and targets;
2. Environmental Management Programme report (for the reporting year);
3. Environmental Management Programme proposal (for the following year);
4. European Pollutant Release and Transfer Register Report (as per Condition 4.5)<sup>10</sup>.

Tick (✓)


**S4.3 Process Data****S4.3.1 Annual Summary**

	Units	Previous reporting year <sup>11</sup>	Current reporting year
Quantity of energy produced	MWh		
Total Annual Energy Consumption (from electricity and other sources)	MWh		
Energy consumption per unit product	MWh consumed/ MWh produced		
Annual water consumption	m <sup>3</sup>		
Water consumption per unit product	m <sup>3</sup> /MWh		
Annual quantity of waste produced	tonnes		
Waste produced per unit product	tonne waste/ MWh		

**S4.3.2 Fuel consumption**

	Units	Sulphur Content <sup>12</sup>	Consumption	
			Previous Year	Current Year
Natural Gas	m <sup>3</sup>			
Gas Oil	m <sup>3</sup>			

<sup>10</sup> The format used for reporting shall be that published in the Government Gazette (<http://www.doi.gov.mt/EN/gazetteonline/2007/07/gazts/GG%2013.7.pdf>)

<sup>11</sup> In this Annual Environmental Report, "previous reporting year" is not applicable for the first reporting year (2012) for the diesel engines (DPS6) only

<sup>12</sup> Specify units (e.g. as percentage, or mg/kg)

#### S4.4 Monitoring Data of Emissions to Air

##### S4.4.1 Summary of emissions to air (concentrations)

##### S4.4.1.1 Emissions of Dust (TSP), Nitrogen Oxides (NO<sub>x</sub>) and Sulphur Dioxide (SO<sub>2</sub>)

Parameter	Emission point reference	Standard methodology used	Annual average pollutant concentration	Mean Monthly Limit Value	Total annual number of exceedances of monthly mean value after validation		48 hourly Mean Limit Value (% compliance)	Percentage of exceedances of 48 hourly mean limit value after validation	
			mg.Nm <sup>-3</sup>	mg.Nm <sup>-3</sup>	Previous year	Present year	mg.Nm <sup>-3</sup>	Previous year	Present year
Total Suspended Particulates	CCGT 1								
Oxides of Nitrogen	CCGT 1								
Sulphur Dioxide	CCGT 1								
Total Suspended Particulates	CCGT 2								
Oxides of Nitrogen	CCGT 2								
Sulphur Dioxide	CCGT 2								
Total Suspended Particulates	CCGT 3								
Oxides of Nitrogen	CCGT 3								
Sulphur Dioxide	CCGT 3								

Additional documentation to be submitted:

Accreditation certificate(s) of laboratory ☐ Tick (✓)

**S4.4.1.2 Emissions of Carbon monoxide (CO)**

Emission point reference	Standard methodology used	Annual average pollutant concentration	Monthly Limit Value	Total annual number of exceedances of monthly mean value after validation	
		mg.Nm <sup>-3</sup>	mg.Nm <sup>-3</sup>	Previous year	Present year
CCGT 1					
CCGT 2					
CCGT 3					

**S4.4.1.6 Emissions of Ammonia**

Emission point reference	Standard methodology used	Mean Annual Limit Value	Annual average Pollutant Concentration (mg.Nm <sup>-3</sup> )	
		mg.Nm <sup>-3</sup>	Present year	Previous year
CCGT 1, 2, 3				

**S4.4.2 Monthly Loads of Particulates, SO<sub>2</sub> and NO<sub>x</sub>***ONE PAGE PER PLANT TO BE SUBMITTED*

Operator: ElectroGas Malta Ltd	Plant no. CCGT ____
Location: Delimara.	Heat Value of Fuel fired: _____ GJ.Mg <sup>-1</sup>
Reporting year: _____	

Month	Fuel Burn During this period  Mg . month <sup>-1</sup>	Monthly SO <sub>2</sub> Load  Mg	Monthly NO <sub>x</sub> Load  Mg	Monthly Dust Load  Mg
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTAL				

Pollutant Load (Mg) = Pollutant concentration (µg.Nm<sup>-3</sup>) × 1×10<sup>-9</sup> × WGF (m<sup>3</sup>.month<sup>-1</sup>)  
(WGF = waste gas flow rate).

**S4.4.3 Annual Data****S4.4.3.1 Annual Load of Particulates, SO<sub>2</sub> and NO<sub>x</sub>**

Units	Rated Thermal Input  <b>MW<sub>TH</sub></b>	Type	Fuel	Fuel Burn  <b>Mg.yr<sup>-1</sup></b>	Heat Value  <b>GJ.Mg<sup>-1</sup></b>	Annual Emissions SO <sub>2</sub>  <b>Mg.yr<sup>-1</sup></b>	Annual Emissions NO <sub>x</sub>  <b>Mg.yr<sup>-1</sup></b>	Annual Emissions dust  <b>Mg.yr<sup>-1</sup></b>
CCGT 1, 2, 3	308	CCGT						

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\* Sum of the total emissions during normal operations + total emissions during start-up/shut down periods.

**S4.4.3.3 Annual Load of Ammonia***ONE PAGE TO BE SUBMITTED*

Operator: ElectroGas Malta Ltd  
 Location: Delimara.  
 Reporting year: \_\_\_\_\_

Plant no. CCGT \_\_\_\_  
 Heat Value of Fuel fired \_\_\_\_\_ GJ.Mg<sup>-1</sup>

Year	Annual Ammonia Load (Mg)
Previous	
Current	

Additional documentation to be submitted:

Accreditation certificate(s) of laboratory ☐ Tick (✓)



**S4.5: Certificates of Analysis for physical and chemical parameters of fuels**

Documentation to be submitted:

Certificates of analysis for physical and chemical parameters of fuels for reporting year (indicate number of certificates submitted)

Accreditation certificate(s) of laboratory

Tick (✓)


**S4.6: Wind Rose**

Documentation to be submitted:

Wind rose for the reporting year showing wind speed and direction at the site

Tick (✓)

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**S4.7: Ambient Air Quality Monitoring**

Sampling location	
Number of PM <sub>10</sub> daily samples taken during reporting year	
Number of PM <sub>2.5</sub> daily samples taken during reporting year	
Number of samples analysed for arsenic, cadmium, nickel, lead and vanadium during reporting year	

	PM <sub>10</sub> (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )
Annual limit value (in accordance with LN 478 of 2010)	40	25
Annual average measurement		
Highest recorded measurement during reporting year		
Daily limit value (in accordance with LN 478 of 2010)	50	n/a
Number of exceedances of daily limit value		n/a

Sampling dates	Monitoring result (specify units)				
	Arsenic	Cadmium	Nickel	Lead	Vanadium
<b>Average</b>					

*Note: In the table above, underline values which exceed the target/limit values specified in LN 478 of 2010.*

Name of laboratory carrying out sampling and measurement	
--	--

Additional documentation to be submitted:

Tick (✓)

Accreditation certificate(s) of laboratory

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## S4.8 Emissions to Marine Water

### S4.8.1 Emissions to Marine Water: Physical and Chemical Monitoring

*ONE REPORT PER OUTLET TO BE SUBMITTED*

Name of outlet and reference number: \_\_\_\_\_

N o.	Parameter	Limit (annual average)	Standard methodol ogy used	Concentration (annual average) <sup>1</sup>			Total annual mass emissions		
				Unit s	Previo us year	Prese nt year	Unit s	Previo us year	Prese nt year
1	Flow			-	-	-			
2	pH								
3	Temperature								
4	Biological oxygen demand (BOD5)								
5	Total Nitrogen								
6	Phosphorous compounds as total phosphorous, as per EN ISO 15681								
8	Chlorine dioxide and oxidants (given as chlorine)								
9	Arsenic								
10	Cadmium								
11	Chromium (Total)								
12	Copper								
13	Lead								
14	Mercury								
15	Nickel								
16	Tin								
17	Vanadium								
18	Zinc								
19	Total petroleum hydrocarbons								
20	Tributyl tin compounds (tributyltin cation; CAS number 36643-28-4)								

<sup>1</sup> Exceedances are to be clearly highlighted in red.

N o.	Parameter	Limit (annual average)	Standard methodology used	Concentration (annual average) <sup>1</sup>			Total annual mass emissions		
				Units	Previous year	Present year	Units	Previous year	Present year
21	Total Suspended Solids								
22	Benzene (CAS number 71-43-2)								
23	PAHs as follows:								
	Benzo(a)pyrene								
	Benzo(b)fluoranthene, Benzo(k)fluoranthene								
	Benzo(g,h,i)-perylene, Indeno(1,2,3-cd)-pyrene								
24	C10-C13 chloroalkanes (CAS number 85535-84-8)								
25	Polychlorinated biphenyls (CAS number 1336-36-3)								

Name of laboratory where tests in this section have been carried out	
Is this laboratory accredited (certified) for the above tests?	Yes <input type="checkbox"/> No <input type="checkbox"/>

Additional documentation to be submitted:

Tick (✓)

Accreditation certificate(s) of laboratory

Were there any exceedances in the present reporting year?	Yes <input type="checkbox"/> No <input type="checkbox"/>
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If yes, one of the following is also to be submitted:

Tick  
(✓)

Action programme aimed at achieving emission limits

Document designating a mixing zone following the procedures specified in Schedule IX(3) "mixing Zones" in LN 345 of 2015


**S4.8.2 Emissions to Marine Water: Ecological Monitoring**

<b>Date on which survey was carried out:</b>	
Did the survey reveal a decline in the conservation status of any of the habitat types and species in the area, especially those listed in the Schedules LN 311/06?	Yes <input type="checkbox"/> No <input type="checkbox"/>

Additional documentation to be submitted:

Ecological survey for reporting year

Proposals for mitigation measures (only required if the survey revealed a decline in the conservation status)

Tick  
(✓)


**S4.9 Noise monitoring<sup>i</sup>**

Monitoring point <sup>ii</sup>	Date sampled	Time sampled	Operating conditions	Noise measurement	Units	Other comments (if any)

Additional documentation to be submitted:

	Tick (✓)
Map showing monitoring points	<input type="checkbox"/>
Detailed noise report <sup>iii</sup>	<input type="checkbox"/>

<sup>i</sup> Noise monitoring shall be carried out according to BS 4142:1997.

<sup>ii</sup> Monitoring points should be labelled using a unique code, and should be suitably sited. A corresponding labelled map showing the location of each monitoring points shall be submitted.

<sup>iii</sup> The detailed noise report should include information about the various monitoring points chosen, an analysis of the results and suggestions for improvement (if applicable).

#### S4.10 Off-site transfers of waste

[illegible]

European Waste Catalogue Code (Reference: Decision 2000/532/EC)

<sup>ii</sup> For hazardous waste only. If waste is not hazardous, please write "n/a".

#### S4.11 Testing of bunds, pipes, pumps, valves, flanges, over-ground pipes and tanks

Number of bunds on site for tanks/containers $\leq 25 \text{ m}^3$ requiring testing in accordance with condition 2.5.4.3	
Number of oil interceptors on site	
Number of tanks on site	
Date of last test for bunds for tanks/containers $\leq 25 \text{ m}^3$	
Testing for bunds for tanks/containers $\leq 25 \text{ m}^3$ due on (date)	
Number of existing fuel tanks on site	
Number of fuel tanks on site for DPS7	
Date of last test for pipes, pumps, valves and flanges for fuel delivery from delivery ship to tank farm	
Testing of pipes, pumps, valves and flanges for fuel delivery from delivery to fuel storage due on (date)	
Date of last test for other flanges, valves and over-ground pipes on site	
Testing of other flanges, valves and over-ground pipes on site due on (date)	
Date of last test for oil interceptors	
Testing for oil interceptors due on (date)	

Additional documentation to be submitted if test was carried out during previous reporting year:

	Tick (✓)
Inspection report and certification by approved auditor for bunds for tanks/containers $\leq 25 \text{ m}^3$ on site	
Inspection report and certification by approved auditor for pipes, pumps, valves and flanges for fuel delivery from delivery to storage tank	
Inspection report and certification by approved auditor for other flanges, valves and over-ground pipes on site	
Inspection report and certification by approved auditor for oil interceptors	

*Bunds for tanks/containers  $> 25 \text{ m}^3$ :*

Number of bunds on site for tanks $> 25 \text{ m}^3$	
Number of visual inspections carried out during reporting year on each bund	
Total number of faults identified during reporting year	
Total number of faults rectified during reporting year	

Additional documentation to be submitted for bunds for tanks/containers  $> 25 \text{ m}^3$ :

	Tick (✓)
Bund certification by warranted civil engineer	
Summary report by warranted engineer on the visual inspections undertaken during the reporting year (including reports on faults and remedial actions taken)	

## S4.12 Incidents and Complaints

### S4.12.1 Non-Compliance Incidents during Reporting Year

Date of incident	Brief description of Incident	Cause	Corrective action

Total number of non-compliance incidents for previous year:

Total number of non-compliance incidents for current reporting year:

### S4.12.2 Complaints made by the public

Date of complaint	Description of complaint	Actions taken

Total number of complaints for previous year:

Total number of complaints for current reporting year:

## S4.13 Transport

Name of ADR certified carrier used during reporting year	Material(s) transported

Name of registered waste carrier used during reporting year	Waste type(s) transported

## S4.14 Land monitoring

Land monitoring carried out in (year):

Land monitoring due in (year)

*If land monitoring was due in current reporting year:*

Sampling date/s	
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Additional documentation to be submitted:

Land monitoring programme

Land monitoring results

Accreditation certificates of laboratory

Tick (✓)




## S4.15 Data on Ozone depleting substances and Fluorinated greenhouse gases

### S 4.15.1 Registration of equipment<sup>i</sup>

Equipment code	Type of equipment	Use	Charge		Type of substance
			Kg	CO <sub>2</sub> (eq)	
EQ 1					
EQ 2					
EQ 3					
EQ 4					
Continue as required					

### S 4.15.2 Maintenance Schedule<sup>ii</sup>

Data Submitted for each scheduled inspection <sup>iii</sup>	Equipment Code							
	EQ 1	EQ 2	EQ 3	EQ 4	EQ 5	EQ 6	EQ 7	Continue as required
Date of inspection								
All amounts of leakages detected (in Kg/ CO <sub>2</sub> equiv <sup>iv</sup> )								
Actions taken to eliminate such leakages								
Quantity and nature of the substances involved								
Serial number of the personnel involved								
Quantities added <sup>v</sup> and/or recovered (in Kg/ CO <sub>2</sub> equiv).								

<sup>i</sup> This table should only include information on any equipment commissioned or decommissioned during the reporting year, where relevant.

<sup>ii</sup> (a) for equipment that contains fluorinated greenhouse gases in quantities of 5 tonnes of CO<sub>2</sub> equivalent or more, but of less than 50 tonnes of CO<sub>2</sub> equivalent: at least every 12 months; or where a leakage detection system is installed, at least every 24 months; (b) for equipment that contains fluorinated greenhouse gases in quantities of 50 tonnes of CO<sub>2</sub> equivalent or more, but of less than 500 tonnes of CO<sub>2</sub> equivalent: at least every six months or, where a leakage detection system is installed, at least every 12 months; (c) for equipment that contains fluorinated greenhouse gases in quantities of 500 tonnes of CO<sub>2</sub> equivalent or more: at least every three months or, where a leakage detection system is installed, at least every six months

<sup>iii</sup> Table to be repeated for every scheduled inspection as per 'footnote 1' above.

<sup>iv</sup> Carbon Dioxide equivalent – use Annex 1 and Annex IV of EC517/2014 for calculation.

<sup>v</sup> The quantities of added fluorinated greenhouse gases are from recycled or reclaimed stocks, please include the name and address of the recycling or reclamation facility and, where applicable, the certificate number

## Schedule 5

### Monthly reporting

**Important note**

By this submission, you confirm that you give your explicit consent for the entire contents of this Monthly Report to be made available on the Authority's public website.

**S5.1 Daily Statistical Analysis of Continuous Monitoring****S5.1.1 Data for Particulates**

ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT  
(CCGT 1- 3)

Operator: ElectroGas Malta Ltd.	Emission Limit Value: ____ mg . Nm <sup>-3</sup>
Location: Delimara	
Date: ____ / ____ / ____	Plant no.: ____

Time	Validated Hourly average (mg . Nm <sup>-3</sup> )	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

**Validated mean daily  
concentration of  
particulates**

**mg . Nm<sup>-3</sup>**

Notes:

- (a) The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 30% from the hourly average.
- (b) Validated mean daily concentration average is calculated from the validated hourly averages

\*In this column mark valid data entries with a ✓ and invalid data entries with a ×.

**S5.1.2 Data for Sulphur Dioxide**

*ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT  
(CCGT 1-3)*

Operator: ElectroGas Malta Ltd.	Emission Limit Value: _____ mg . Nm <sup>-3</sup>
Location: Delimara	
Date: ____ / ____ / ____	Plant no.: _____

Time	Validated Hourly average (mg . Nm <sup>-3</sup> )	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

<b>Validated mean daily concentration of sulphur dioxide</b>	<b>mg . Nm<sup>-3</sup></b>
--	-----------------------------

Notes:

- (a) The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 20% from the hourly average.
- (b) Validated mean daily concentration average is calculated from the validated hourly averages.

\*In this column mark valid data entries with a ✓ and invalid data entries with a ×.

**S5.1.3 Data for Nitrogen Oxides**

**ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT  
(CCGT 1-3)**

Operator: ElectroGas Malta Ltd.	Emission Limit Value: _____ mg . Nm <sup>-3</sup>
Location: Delimara	
Date: ____ / ____ / ____	Plant no.: _____

Time	Validated Hourly average (mg . Nm <sup>-3</sup> )	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

<b>Validated mean daily concentration of nitrogen oxides</b>	<b>mg . Nm<sup>-3</sup></b>
--	-----------------------------

Note:

- (a) The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 20% from the hourly average.
- (b) Validated mean daily concentration average is calculated from the validated hourly averages

\*In this column mark valid data entries with a ✓ and invalid data entries with a ×.

**S5.1.4 Data for Carbon Monoxide**

**ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT  
(CCGT 1-3)**

Operator: ElectroGas Malta Ltd.	Emission Limit Value: _____ mg . Nm <sup>-3</sup>
Location: Delimara.	
Date: ____ / ____ / ____	Plant no.: _____

Time	Validated Hourly average (mg . Nm <sup>-3</sup> )	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

<b>Validated mean daily concentration of carbon monoxide</b>	<b>mg . Nm<sup>-3</sup></b>
--	-----------------------------

Note:

- (a) *The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 10% from the hourly average.*
- (b) *Validated mean daily concentration average is calculated from the validated hourly averages.*

*\*In this column mark valid data entries with a ✓ and invalid data entries with a ×.*



**S5.2.2 Diurnal Data for Sulphur Dioxide**

*ONE PAGE PER MONTH TO BE SUBMITTED FOR EACH PLANT  
(CCGT 1-3)*

Operator: ElectroGas Malta Ltd.	Emission Limit Value (if applicable): _____ mg . Nm <sup>-3</sup>
Location: Delimara.	97% of all mean validated 48 hourly values must not exceed _____ mg . Nm <sup>-3</sup>
	Plant no.: _____

Period	48 Hourly average (validated) (mg . Nm <sup>-3</sup> )
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____ hrs	
Ends on: ____/____/____ at ____ hrs	

Note:

*In the table above underline 48 hourly averages which exceed the diurnal emission limit value.*







Note:  
In the table above underline daily averages which exceed the daily emission limit values.

## S5.4 Monthly Statistical Analysis of Continuous Monitoring

### S5.4.4 Monthly Concentration Data for Particulates, SO<sub>2</sub>, NO<sub>x</sub> and CO

ONE PAGE PER MONTH TO BE SUBMITTED FOR EACH PLANT

Reporting year	
Month	
Plant	

	Particulates	SO <sub>2</sub>	NO <sub>x</sub>	CO
Monthly average concentration for the period (mg . Nm <sup>-3</sup> )				
No of exceedances of 48-hour limit in period				-
Highest individual 48-hour average in period (mg . Nm <sup>-3</sup> )				-
Mean 48-hourly average, in period (mg . Nm <sup>-3</sup> )				-
No of exceedances of 24 hr limit in period	-	-	-	
Highest individual 24 hr average in period (mg . Nm <sup>-3</sup> )				
Mean daily average, in period (mg . Nm <sup>-3</sup> )				
Highest individual 1 hr average in period (mg . Nm <sup>-3</sup> )				
Mean 1 hr average in period (mg . Nm <sup>-3</sup> )				
Percentage of boiler operating time that continuous monitors available during reporting period				



## Schedule 6

### Quarterly Reporting

**Important note**

By this submission, you confirm that you give your explicit consent for the entire contents of this Quarterly Report to be made available on the Authority's public website.

Period covered by this report: \_\_\_\_\_

**S6.1 Waste**

Waste removed from site (EWC code & description)	Quantity	Units

**S6.2 Air emissions****S6.2.1 Quarterly reporting of SO<sub>2</sub> and NO<sub>x</sub> loads****S6.2.2.1 SO<sub>2</sub> load**

Period	Projected load <sup>i</sup>	Actual load	Revised projected load
	tonnes	tonnes	tonnes
January – March			
April – June			
July – September			
October – December			
<b>Total annual load</b>			

**S6.2.2.2 NO<sub>x</sub> load**

Period	Projected load <sup>i</sup>	Actual load	Revised projected load
	tonnes	tonnes	tonnes
January – March			
April – June			
July – September			
October – December			
<b>Total annual load</b>			

<sup>i</sup> As submitted to the Authority in September of previous year

## Schedule 7

### Equivalence Factors

The concentrations of the following dioxins and furans determined in the waste gas shall be multiplied by the given equivalence factors and summed up in order to assess compliance with emission limit values for these substances.

Substance	Equivalence factor
2,3,7,8-Tetrachlordibenzodioxin (TCDD)	1
1,2,3,7,8-Pentachlordibenzodioxin (PeCDD)	0.5
1,2,3,4,7,8-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,7,8,9-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,6,7,8-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,4,6,7,8-Heptachlordibenzodioxin (HpCDD)	0.01
Octachlordibenzodioxin (OCDD)	0.001
2,3,7,8-Tetrachlordibenzofuran (TCDF)	0.1
2,3,4,7,8-Pentachlordibenzofuran (PeCDF)	0.5
1,2,3,7,8-Pentachlordibenzofuran (PeCDF)	0.05
1,2,3,4,7,8-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,7,8,9-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,6,7,8-Hexachlordibenzofuran (HxCDF)	0.1
2,3,4,6,7,8-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,4,6,7,8-Heptachlordibenzofuran (HpCDF)	0.01
1,2,3,4,7,8,9-Heptachlordibenzofuran (HpCDF)	0.01
Octachlordibenzofuran (OCDF)	0.001

### Schedule 8

#### List of Priority Substances and Certain Other Pollutants in the field of Water Quality

Alachlor	Hexachloro-cyclohexane
Anthracene	Isoproturon
Atrazine	Naphtalene
Brominated diphenylether	Nonylphenol
Carbon tetrachloride	Octylphenol
Chlorpyrifos	Pentachloro-benzene
Chlorfenvinphos	Pentachloro-phenol
Aldrin	Simazine
Dieldrin	Tetrachloroethylene
Endrin	Trichloroethylene
Isodrin	Trichloro-benzenes
DDT	Trichloro-methane
1,2-Dichloroethane	Trifluralin
Dichloromethane	Dicofol
Di(2-ethylhexyl)-phthalate	Perfluorooctane sulfonic acid and its derivatives
Diuron	Quinoxifen
Endosulfan	Aclonifen
Fluoranthene	Bifenox
Hexachloro-benzene	Cybutryne
Hexachloro-butadiene	Cypermethrin
Dichlorovos	Hexabromo-cyclododecane
Heptachlor and heptachlor epoxide	Terbutryn

END OF PERMIT