

Subsidiary Permit 3 with introductory note

Environment Protection Act (CAP. 549)
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: **Delimara Power Station**

Permit Holder: **Enemalta plc (C65836),
Triq il-Belt il-Ħazna,
Marsa, MRS 1571,
MRS 1571**

Approved Documents: IP 0002/21 – framework document

Sub-permit numbers:

IP 0002/21/i – ElectroGas Malta Ltd.
IP 0002/21/ii – D3 Power Generation Ltd.
IP 0002/21/iii – Enemalta plc.

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Introductory note

The following Permit is issued under Regulation 7 of the Industrial Emissions (Framework) Regulations, (S.L. 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 (S.L. 549.77), to the extent authorised by the Permit, i.e.

“Combustion of fuels in installations with a total 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 Permit Holder to use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Conditions marked with a “∞” shall be construed as conditions which are to be enforced by the Authority responsible for such an issue.

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 gasoil.**

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
<i>Enemalta plc</i>		
<i>ElectroGas Malta Ltd.</i>	IP 0002/07/F	11 January 2017
<i>D3 Power Generation Ltd</i>		
<i>ElectroGas Malta Ltd</i>	IP 0002/07/Fi	11 January 2017
<i>D3 Power Generation Ltd</i>	IP 0002/07/Fii	12 January 2017
<i>Enemalta plc</i>	IP 0002/07/Fiii	11 January 2017
<i>Enemalta plc</i>		
<i>ElectroGas Malta Ltd.</i>	IP 0002/07/G	22 September 2017

<i>D3 Power Generation Ltd</i>		
<i>ElectroGas Malta Ltd</i>	IP 0002/07/Gi	22 September 2017
<i>D3 Power Generation Ltd</i>	IP 0002/07/Gii	22 September 2017
<i>Enemalta plc</i>	IP 0002/07/Giii	22 September 2017

Multiple Operator installations

As indicated in Regulation 6(3) of S.L. 549.76¹, 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 of 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 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 3** (IP 0002/21/iii) which addresses the operations carried out by Enemalta plc. shall be regarded as part of the Permit IP 0002/21 which consists of four main parts structured so as to include:

- **The Regulatory Framework Permit** addressing the obligation of all Permit Holders and coordinating these obligations due to the nature of the facility as a multi-operator installation (IP 0002/21).
- **Subsidiary Permit 1** addressing the operation carried out by ElectroGas Malta Ltd (IP 0002/21/i);
- **Subsidiary Permit 2** addressing the operations carried out by D3 Power Generation Ltd. (IP 0002/21/ii).
- **Subsidiary Permit 3** addressing the operations carried out by Enemalta plc. (IP 0002/21/iii)

Variations to the Permit

This Permit may be varied at any time in the future (If the Permit Holder wants any of the Conditions of either the regulatory framework or this specific 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 Permit Holders 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.

Any change in operations shall only be implemented following the granting of a variation of the permit by the Authority.

¹ SL. 549.76 – Industrial Emissions (Framework) Regulations,

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 Permit Holder. For the application to be successful, the Permit Holder 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 Permit Holder shall notify the other Permit Holders 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 of the Permit Holder specific Subsidiary Permit.

Transfer of the Permit or part of the Permit

Upon the joint application of a Permit Holder and a proposed transferee, the Permit Holder may request to transfer an environmental permit. The permit shall not be transferred from the Permit Holder without prior approval from the Authority. Upon the Authority's decision to transfer the permit to the transferee, all rights, obligations, liabilities shall subsist onto the transferee.

The Permit Holder shall notify the other Permit Holders 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 of the Permit Holder specific Subsidiary Permit.

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
<i>Application IP 0002/07</i>	Received 05 February 2007	Not 'duly made'
<i>Response to request for information</i>	Request dated 16 June 2007	Response dated July 2007
<i>Report on boiler conversion for emission reduction</i>	PDS submitted 24 April 2008	Request for further information dated 14 July 2008. Further information submitted 24 September 2008
<i>Noise survey</i>	Report submitted 25 July 2008	
<i>Application 'duly made'</i>	27 April 2009	
<i>Response to request for information</i>	Request dated 27 April 2009	Response received 18 May 2009

Detail	Date	Comment
		Consolidated version received 18 May 2009
<i>Public consultation</i>	Commenced on 21 May 2009	Concluded on 20 June 2009
<i>Re-classification of the phase 1 boilers (from 380 to 332 MW_{TH})</i>	Official letter dated 28 September 2009 plus supporting documents.	
<i>Permit A determined</i>	01 October 2009	
<i>Permit A issued</i>	29 March 2010	
<i>Application for variation of permit to include diesel engines</i>	Application received on 11 February 2010	
<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 NO_x 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 B determined</i>	5 December 2011	
<i>Permit B 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 C determined</i>	12 July 2012	
<i>Permit C issued</i>	23 July 2012	Permit expires on 6 December 2015

Detail	Date	Comment
		A consolidated permit is being issued
<i>Public consultation on proposed extension for HFO use from June 2013 to March 2014</i>	Started on 28 June 2013	Concluded on 28 July 2013
<i>Variation D determined</i>	5 September 2013	
<i>Permit D Issued</i>	17 September 2013	Permit expires on 6 December 2015 A consolidated permit is being issued
<i>Public consultation on the determination of the choice of fuel for DPS6</i>	Started on 11 February 2014	Concluded on 12 March 2014
<i>Variation E determined</i>	27 March 2014	
<i>Permit E 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 D3 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 F Determined</i>	19 December 2016	

Detail	Date	Comment
<i>Permit F Issued</i>	11 January 2017	Permit expires: 19 December 2020
<i>Request for partial surrender to existing permit by Enemalta plc.</i>	12 April 2017	
<i>Responses to request for information</i>	11 May 2017	
<i>Application Duly made</i>	5 July 2017	
<i>Public Consultation</i>	Between 10 July 2017	Concluded 24 July 2017
<i>Permit G Determined</i>	25 August 2017	
<i>Permit G Issued</i>	22 September 2017	Permit expires: 25 August 2021
<i>Application IP 0002/21</i>	12 February 2021 26 February 2021 25 February 2021	<i>EGM; variation and renewal</i> <i>D3PG; renewal</i> <i>ENE; renewal and variation</i>
<i>Regulatory consultation</i>	<i>between 23rd April 2021 – 7th May 2021 and between 1st June 2021 – 8th June 2021 and 25th October 2021 – 8th November 2021</i>	
<i>Public Consultation</i>	<i>Commenced on 17 December 2021</i>	<i>Concluded on 02 January 2022</i>
<i>Application Determined</i>	18 February 2022	

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 0002/21/iii

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 (S.L.549.76) ("the Industrial Emissions (Framework) Regulations"), hereby authorises:

Ing. Jonathan Scerri & Ing. Trustin Cann Farrugia obo Enemalta plc. (C65836)
 (hereinafter "the Permit Holder" unless specifically mentioned)

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

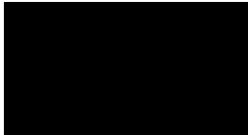
**Triq il-Belt il-Ħażna,
 Marsa,
 MRS 1571.**

to operate specified plant described in the framework permit and this subsidiary permit 3 of this permit at 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.

This permit is valid until the expiry of the permit which is 4 year/s from the 'permit granted' date below. An application for renewal is to be submitted at least nine (9) months prior to expiry of the permit.

Environment and Resources Authority APPROVAL Board No.154 Held on 18/02/22  Chairman _____  Secretary _____		Permit Granted: 10/05/22
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Authorised to sign on behalf of the Competent Authority

Conditions

1 General

This permit shall be read in conjunction with the regulatory framework Permit and the subsidiary permits issued to D3 Power Generation Ltd. and ElectroGas Malta Ltd., which together comprise permit IP 00002/21.

1.1 Permitted Activities

- 1.1.1 The Permit Holder 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 gasoil Installation consists of two open cycle gas turbines (DPS2 and DPS3), two combined cycle gas turbines (DPS4 and DPS5)	From receipt of fuel to delivery of utility.
Associated activity of steam generation	Generation of steam by means of a 4.15 MW _{TH} auxiliary boiler	
Associated activity of fuel handling and storage	Handling and storage of heavy fuel oil	From receipt of the fuel to storage in tank farm and from tank farm to tanker/barge to third parties.
	Handling and storage of gasoil	From receipt of fuel and storage in tank farm to delivery to D3PG for combustion in the diesel engines 5 to 8 and 3.85MW _{th} Auxiliary Boiler of D3PG and;
		From receipt of fuel and storage in tank farm to combustion in DPS 2 to 5

		and 4.15 MW _{th} auxiliary boiler of Enemalta
		From receipt of the fuel to storage in tank farm and from tank farm to tanker/barge to third parties.
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	Maintenance carried out in any workshop in the installation.	From maintenance activity to appropriate recovery/disposal of any wastes created.
Other loading/Unloading to/from vessels on quay	Handling of equipment, materials and supplies	From DPS quay to vessels and vice-versa

1.2 Site

- 1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, as outlined in green on the Site Plan in Schedule 1 to this Permit.
- 1.2.2 The Permit Holder shall also be responsible for any additional activities (and relevant extent) as authorised in condition 1.1.1 of the regulatory framework permit
- 1.2.3 Site security systems shall be implemented at all times during the subsistence of this Permit, the objective of which shall be to prevent access which is not authorised either by the Permit Holder or under legal powers of entry. These shall be installed, operated and maintained, and shall be fully documented and recorded.

1.3 Information to the public

- 1.3.1 Without prejudice to condition 2.2.27, in the event that the continuous monitoring equipment (CEM) is installed on DPS 2-5, the Permit Holder shall make emission data publicly available via the Internet not later than 30 days after the production of such data. Nonetheless such data shall be made available to the Authority upon request within 24 hours.

1.4 Overarching Management Conditions

- 1.4.1 The Permit Holder shall ensure that the EMS is coordinated with those established by the other Permit Holders within the installation.

1.5 Improvement Programme

- 1.5.1 The Permit Holder 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 on ced.coast@era.org.mt within 10 working days of the completion of each such requirement.

Table 1.5.1: Improvement programme		
Reference	Requirement	Date
Improvements related to residual operations on site		
1.	a) Submission of a method statement showing how the monitoring requirements for air emissions permitted in Table 2.2.42 will be sampled and tested.	a) Within 2 months of the granting of the permit
	b) First measurement for the air monitoring as approved by 1(a) above.	b) Within 4 months of the granting of the permit

1.6 Fuel supply to other Permit Holders within the installation

- 1.6.1 The Permit Holder shall only supply gasoil for combustion in specified plant to D3 Power Generation Ltd through the external tie in point connection as identified in Schedule 2B of the regulatory framework permit and as detailed in Table 1.6.1.

Table 1.6.1 – infrastructure related to receipt of fuel		
Tie in point	Type of Fuel	Description
TP 04 D3	Gasoil	Gasoil connection from Enemalta gasoil tank farm to D3PG diesel day tanks.

- 1.6.2 The Permit Holder shall supply gasoil for combustion in the specified plant permitted in table 1.1.1 and without prejudice to the subsequent conditions of this permit.

2 Operating Conditions

2.1 General Conditions

- 2.1.1 The permit is issued against a Bank Guarantee of € 1,000,000 covering aspects of this permit and operator specific conditions in the Regulatory Framework Permit. This guarantee will have to be maintained throughout the validity of the permit. Following renewal and/or variations to this permit, the Authority may require amendments to the Bank Guarantee.
- 2.1.2 The Permit Holder shall submit a fixed annual fee of €1606 and a variable addition reflecting ERA's cost for inspections. The latter variable component depends on the actual number of site inspections, which is determined by the

performance of the Permit Holder. The total annual contribution has to be paid annually before the anniversary of the date of issue of this permit.

2.2 Emissions to Air

Emissions to Air from Specified Points: General Considerations

- 2.2.1 A release from the authorised process into the atmosphere shall arise only from a release point specified in Table 2.2.2, which shall arise only from the source for that release specified in Table 2.2.2.

Table 2.2.2 Emission points to air					
Release Point	Source	Fuel	Total Thermal Rating	UTM Co-ordinates ²	
			MW _{TH}	x-coordinates	y-coordinates
Chimney D2	DPS2 (OCGT1)	Gas oil	121	459,869	3,965,745
Chimney D3	DPS3 (OCGT2)		121	459,881	3,965,727
Chimney D4A	DPS4 (CCGT32 By-pass stack)		121	460,088	3,965,766
Chimney D4B	DPS4 (CCGT32 Main Stack)			460,072	3,965,789
Chimney D5A	DPS5 (CCGT31 By-pass stack)		121	460,037	3,965,731
Chimney D5B	DPS5 (CCGT31 Main Stack)			460,021	3,965,754
Chimney Auxillary Boiler	Auxiliary Boiler		4	459,964	3,965,833

Emissions to Air: Fuel Source and quality

- 2.2.2 The gasoil used shall comply with the standards laid down by the Quality of Fuels Regulations (S.L. 545.18) shall in no case exceed 1 kg for every tonne of gas oil.[∞]
- 2.2.3 The Permit Holder 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 Zone 33s, datum ED 50, ellipsoid – Hayford International.

- 2.2.4 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. Any change in fuel type shall require the notification and approval of the Authority prior to commencement of its utilisation.
- 2.2.5 The Permit Holder shall obtain certificates of analysis for one representative composite sample of gasoil per delivery for the parameters listed in Table 2.2.5.

Table 2.2.5 Standards for the analysis of physical and chemical parameters			
Physical Parameters	Parameter	Unit	Standard
	Density	kg.m ⁻³	ISO 12185 or ISO 3675 or equivalent
	Flash point	°C	ISO 2719:2016 or equivalent
	Heat Value (Upper and Lower) Gross and Net Heat of Combustion	MJ.kg ⁻¹	ASTM D4868-00 (2005) or equivalent
	Pour Point	°C	ISO 3016:2019 or equivalent
	Viscosity	cSt	ISO 3104:2020 or equivalent
Chemical Parameters	Ash content	%	ISO 6245:2001 or equivalent
	Nickel	mg .kg ⁻¹	-
	Carbon	mg .kg ⁻¹	
	Sulphur Content	mg S.kg ⁻¹	EN ISO 8754:2003 or equivalent
	Water content*	%	ISO 3733, ASTM D95 or equivalent

- 2.2.6 In view that the flue gas volume from DPS6 is calculated rather than measured, the parameters listed in Table 2.2.6 shall be measured in one representative composite sample of each fuel delivery of gas oil intended for use in the diesel engines.

Table 2.2.6 Standards for the analysis of chemical parameters for flow rate calculation		
Parameter	Unit	Standard
Sulphur Content	mg S.kg ⁻¹	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

- 2.2.7 The chemical parameters in Tables 2.2.5 and 2.2.6 shall be analysed to the relevant standards (or equivalent) as specified by the respective table. The methods for analysis of the parameters in Table 2.2.6 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 2.2.6 is not available, calculation of flue gas volume from DPS6 is not authorised; in such cases, flue gas volume shall be measured
- 2.2.8 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 17025:2017 and preferably for each and every test listed in Table 2.2.6
- 2.2.9 A copy of the certificates of analysis referred to in condition 2.2.5 and 2.2.6 shall also be submitted to D3 Power Generation Ltd.
- 2.2.10 Physical parameters in Table 2.2.5 shall be measured using EN, EN ISO or ISO standard methods or equivalent.
- 2.2.11 At the end of every year, the Permit Holder 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.
- 2.2.12 The Permit Holder shall ensure that a quality assurance/quality control programmes for fuel utilised on site is in line with BAT 9 in the Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council for large combustion plants. The Permit Holder shall determine the mass of fuel fired in the Authorised Process for each reporting year and report this as part of section S2.3.2 in the Annual Environmental Report.

Determination of start-up and shut-down

- 2.2.13 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.

- 2.2.14 The Permit Holder 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,
- 2.2.15 The Permit Holder shall make sure that the frequency of start-up and shut down periods are minimised as far as practicable.
- 2.2.16 The Permit Holder shall ensure that all abatement equipment is brought into operation as soon as is technically practicable.
- 2.2.17 Start-up and shut-down of the respective units is defined in the Table 2.2.17:

Table 2.2.17 – Determination of start-up and shut-down for the respective unit at the Delimara Power Station				
Determination of start-up and shut-down for DPS 4 and DPS 5 (CCGT 32 and CCGT 31)				
	DPS 4		DPS 5	
Mode	Open Cycle	Combined Cycle	Open cycle	Combined cycle
End of Start-up period	18% of the rated electrical output	18% of the rated electrical output	18% of the rated electrical output	18% of the rated electrical output
Start of Shut-down period	18% of the rated electrical output	18% of the rated electrical output	18% of the rated electrical output	18% of the rated electrical output
Determination of start-up and shut-down for DPS 2 and DPS 3 (OCGT 1 and OCGT 2)				
	DPS 2		DPS 3	
End of Start-up period	18% of the rated electrical output		18% of the rated electrical output	
Start of Shut-down period	18% of the rated electrical output		18% of the rated electrical output	

Emissions to Air from DPS2-5 (Gas turbines) – Emission limits and calculation methodology

- 2.2.18 Gas turbines constituted of DPS 2 to 5 shall only be utilised as backup plant/emergency plant-.
- 2.2.19 The Permit Holder shall inform the Authority of any test start-ups of these turbines intended to ensure their functioning 48 hours before the test is carried out. The Permit Holder shall follow the procedure as agreed upon by the Authority for such a notification. A log shall be included as part of the AER.

2.2.20 The Permit Holder shall inform the Authority upon utilisation of the specified plants for energy production including the number of hours during which the plant was utilised. Such a notification shall be submitted in the format as specified in Schedule 6 and shall be submitted to the Authority within 24 hours of operations of specified plant.

2.2.21 The Permit Holder shall carry out monitoring from DPS2-5 of the parameters listed in Table 2.2.22, according to the frequency specified in this table.

2.2.22 The emission limit values specified in Table 2.2.22 shall not be exceeded. All concentrations shall be corrected to 273.15 K, 101.3 kPa, dry gas volume and to an oxygen (O₂) content of 15%. These concentrations relate to volume flows without dilution.

Table 2.2.22 Monitoring and emission limits for DPS2-5					
Parameter	Monitoring frequency	Monitoring method	Emission limit value*		Maximum allowable factor subtracted by validation, in accordance with SL 549.78
Dust (TSP)	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	Daily average ³ : 10 mg/ Nm ³	Yearly average ³ 5mg/Nm ³	-
SO ₂	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	Daily average ³ – 55mg/Nm ³	Yearly average ³ - 35mg/Nm ³	-
NO _x (measured as NO ₂)	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	250 mg/Nm ³ as a daily average		20%

³ does not apply to existing plants operated < 1 500 h/yr

CO	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	55 mg/Nm ³ (110% of all 24 hourly mean values) ⁴	50 mg/Nm ³ (monthly average) ⁴	10%
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*ELVs are deemed as being complied with if none of the validated hourly average values exceed 200% of respective ELVs

2.2.23 Emissions from gas turbines DPS2, DPS3, DPS 4 and DPS 5 shall be monitored as per the standard in Table 2.2.22. In case this is not technically feasible, the Permit Holder shall use alternative monitoring techniques or other solutions which would ensure compliance with Regulation 14 of S.L. 549.56 and as agreed upon with the competent Authority.

2.2.24 Until such time that the plant (DPS2-5) is still utilised as an emergency plant and the hours of operation do not exceed 1500 hrs per year for each stack, emissions for NO_x, Dust and SO_x shall be calculated as specified in condition 2.2.25 and 2.2.26. Reporting obligations are however still applicable.

2.2.25 For the calculations of NO_x and dust, the emission factor established from the EMEP/EEA Air Pollutant Emission Inventory Guidebook (latest Revision)⁵ shall be utilised. The monthly and annual loads of dust (TSP), sulphur dioxide (SO₂) and nitrogen oxides (NO_x) shall be reported separately using the Schedule 2.

2.2.26 For SO_x, the emission factor shall be calculated from the fuel's sulphur content (to be taken as 0.1% for gasoil) and the fuel burnt by each of the respective gas turbines during each month.

2.2.27 Further to conditions 2.2.24- 2.2.26, the Authority shall be immediately notified should the Permit Holder intend to deviate from such calculation methodology.

2.2.28 No new calculation methodology shall be applied by the Permit Holder unless approved in writing by the Authority.

Emissions to Air from Specified Points – Monitoring of Gas turbine Emissions (DPS 2-5) in case of exceedance of 1500 hrs/year per stack.

2.2.29 In relation to emissions from DPS 2 -5, the Authority reserves the right to request the re-introduction and/or re-calibration of CEMS in the event the plant is no longer utilised as a back-up plant. The Permit Holder may be requested to carry out a feasibility study in relation to the introduction of CEMS on the chimneys of DPS 2 and 3, as may be required.

⁴ does not apply to existing plants operated < 500 h/yr

⁵ <https://www.eea.europa.eu/themes/air/air-pollution-sources-1/emep-eea-air-pollutant-emission-inventory-guidebook>

- 2.2.30 In the event that CEMS are installed, the commissioning and operation of all automated measuring systems at the Delimara Power station shall follow EN 14181:2014– Stationary Source Emissions – Quality Assurance of automated measurement systems.
- 2.2.31 Further to condition 2.2.30, in case this is not technically feasible, the Permit Holder shall use alternative monitoring techniques or other solutions which would ensure compliance with S.L. 549.78 and as agreed upon with the competent Authority.
- 2.2.32 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 2.2.31, 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.
- 2.2.33 Further to condition 2.2.32, the Permit Holder shall monitor continuously for the parameters listed in Table 2.2.33 using the methods listed in the same table.

Table 2.2.33 Monitoring of Additional Parameters	
Parameter	Standard Number /Instrument(or equivalent)
Oxygen	ISO 12039:2019
Water Content	EN 14181 EN 15267-3
Velocity	ISO 10780:1994
Flue gas volume	ISO 14164:1999
Flue gas temperature (prior to discharge into the atmosphere)	Temperature Sensor
Flue gas pressure (prior to discharge into the atmosphere)	Pressure Sensor N/A

- 2.2.34 The Permit Holder shall measure the concentration of dust (TSP), sulphur dioxide (SO₂), nitrogen oxides (NO_x) and carbon monoxide (CO) in the exhaust gases of gas turbines DPS2-5. The annual load of dust (TSP), sulphur dioxide (SO₂) and nitrogen oxides (NO_x) shall be reported separately in the format specified in Schedule 2. Load shall be calculated on the basis of the waste gas flow rate unless otherwise specified by the Authority.
- 2.2.35 In the event that continuous emission monitoring equipment is installed, the Permit Holder must keep record of the following:
- The validated hourly concentration values of TSP, SO₂, NO_x and CO for each combustion plant per day (in the format specified in Monthly Reporting Schedule 4 and clearly indicating any exceedances).
 - 24-hourly mean values for the concentration of carbon monoxide (CO) (in the format specified in the Monthly reports [Schedule 4] and clearly indicating any exceedances).

- iii. For TSP, SO₂, NO_x and CO, calendar monthly mean concentrations (in the format specified in Schedule 4) and monthly loads for TSP, SO₂ and NO_x (in the format specified in the AER [Schedule 2], and clearly indicating any exceedances for CO.
 - iv. The total annual load of TSP, SO₂ and NO_x, 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 2).
- 2.2.36 In order to validate the hourly readings from the CEMS, the Permit Holder 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 2.2.22.
- 2.2.37 The data for one day shall be invalidated if on that day three or more hourly average concentration of dust (TSP), sulphur dioxide (SO₂), nitrogen oxides (NO_x) and carbon monoxide (CO) values are invalid due to malfunction or maintenance of the continuous monitoring system.
- 2.2.38 If more than 10 days in a year are invalidated for such situations, the Permit Holder must take adequate measures to improve the continuous monitoring system.

Emissions to Air from Specified Points – Performance and Calibration of Automated Measuring Systems.

- 2.2.39 Measuring systems shall be subject to control by means of parallel measurements with the reference methods listed in Table 2.2.39, 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 17025:2017 or equivalent and preferably accredited for each and every calibration.

Table 2.2.39 Calibration of Automated Measuring Systems	
Standard Number	Title
EN 14791:2017 or equivalent	Stationary source emissions - Determination of mass concentration of sulphur dioxide - Reference method.
EN 14792:2017 or equivalent	Stationary source emissions - Determination of mass concentration of nitrogen oxides (NO _x) - Reference method: Chemiluminescence.
EN 13284-1:2017 or equivalent	Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method.
EN 13284-2:2017	Stationary source emissions. Determination of low range mass concentration of dust. Quality assurance of automated measuring systems

- 2.2.40 For the parameters measured continuously, the data for one day shall be invalidated if on that day three or more hourly average concentration of dust (TSP), sulphur dioxide (SO₂), nitrogen oxides (NO_x) and Carbon Monoxide (CO) values are invalid due to malfunction or maintenance of the continuous monitoring

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

Emissions to Air from Specified Points: Total Annual Emissions and Other Reporting

2.2.41 The Permit Holder shall keep an inventory of the total annual emissions of the following from all combustion plants at the Delimara Power Station with a rated thermal input of 50 MW_{th} or more, including the gas turbines.

- i. The total annual emissions of SO₂, NO_x and dust (as total suspended particles)
- ii. The total fuel burn per plant, the fuel type and the average heat value of the fuel fired.

This inventory shall be submitted as part of the AER of the installation in the format specified in Schedule 2.

Emissions to Air: Combustion plants (rated thermal input < 50MWTH)

2.2.42 Industrial combustion plants (e.g. boilers, generators, etc.) shall be compliant with the provisions of the Limitation of Emissions of Certain Pollutants into the air from Medium Combustion Plant Regulations (S.L. 549.122) and any other applicable subsidiary legislation.

2.2.43 The Permit Holder shall keep the periods of start-up and shut-down of the combustion plants listed in Table 2.2.44 as short as possible.

2.2.44 The limits for emissions to air for the parameters and emission points set out in Table 2.2.44 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 O₂ content of 15%.

Table 2.2.44 : Emission limits to air for CP1			
Emission point reference	Parameter	Limit (mg/Nm³)	Frequency
(CP1)	Oxides of Nitrogen	200	Every three years
	Carbon Monoxide	-	

2.2.45 Monitoring shall be carried out according with the frequency stated in Table 2.2.44. During each measurement, the plant shall be operating under stable conditions at a representative even load. In this context, start-up and shutdown periods shall be excluded. The Authority reserves the right to require an increase in the frequency of such measurements. The monitoring results shall be submitted as part of the Annual Environmental Report (AER) of year in which the monitoring has been carried out. The data shall at the least be kept for a period of six years.

- 2.2.46 The first measurement shall be taken within four months of the granting of the permit
- 2.2.47 The Permit Holder shall maintain a record of the operating hours for each combustion plant referred to in Table 2.2.44
- 2.2.48 Following submission of the AER for the previous reporting year, should the amount of operating hours of the combustion plant be less than 500 hours, as a rolling average over five years, the Permit Holder may apply with the Authority for an exemption from the emission limit values set out in Table 2.2.44, by submitting the information in Schedule 5.
- 2.2.49 The granting of such exemption described in Condition 2.2.48 shall be at the discretion of the Authority and shall be valid until such time that the rolling average of the operating hours over five years exceeds 500 hours, or until such time as prescribed by the Authority. The Authority shall communicate the expiry of the exemption in writing.
- 2.2.50 The exemption described in Condition 2.2.48 shall only exempt the Permit Holder from compliance with the emission limit values set out in Table 2.2.44. Monitoring is still to be carried out with the frequency indicated in the same table.
- 2.2.51 Should the emission limit values in Table 2.2.44 be exceeded, as part of the AER, the Permit Holder is to propose measures that will be taken to ensure compliance with the emission limit values.
- 2.2.52 Without prejudice to condition 2.2.51, should secondary abatement equipment be installed in order to meet the emission limit values indicated in S.L.549.122, the Permit Holder is to keep a record proving the effective continuous operation of that equipment.

Monitoring Provisions and Emergency considerations

- 2.2.53 In the event of non-compliance causing immediate danger to human health, operation of the activity must be suspended and the Competent Authorities informed within 24 hours.[∞]
- 2.2.54 For CP1 in the event of, malfunction or breakdown leading to abnormal emissions, the Permit Holder must
- i. Investigate immediately and undertake corrective action to ensure compliance is restored without undue delay, and
 - ii. Adjust the process or activity to minimise those emissions, and
 - iii. Record the events and actions taken
- 2.2.55 With respect to emissions emanating from combustion plants, and in furtherance to condition 2.2.54 the Permit Holder shall, at the written request of ERA and within 10 working days, identify the specific cause of the abnormal emission and examine means for its elimination or minimisation including.

- i. Relocating / redesigning/ extending the stack(s) or vent(s) to a point where nuisance is minimised
- ii. Replacement of fuel
- iii. Preventative measures such as replacement of process materials by substances which are less detrimental to the environment
- iv. Improved storage of materials
- v. Use of additional abatement measures in line with condition 2.2.52

2.2.56 All abatement equipment and ducting shall be cleaned and maintained on a regular basis (as per manufacturer specifications).

2.2.57 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.

2.3 Discharges to sewers[∞]

2.3.1 The Permit Holder shall ensure that monitoring exercises are carried out at locations stipulated by the WSC. Where necessary these shall be coordinated with D3 Power Generation Ltd within the timeframes agreed upon with the WSC.

2.3.2 Where any of the parameters stipulated by the WSC are exceeded, the Permit Holder shall ensure that any follow up actions requested by the WSC are implemented. Where necessary these shall be coordinated with D3 Power Generation Ltd within the timeframes agreed upon with the WSC.

2.3.3 During operations involving the pumping of foul water from the D3 Power Generation Ltd. cesspits to the underground pit operated by Enemalta plc. The Permit Holder shall ensure that no spillages occur from TP11.D3 to the main cess pit during such a transfer.

2.4 Emissions to Marine Water

2.4.1 Waste waters shall not be discharged into marine water unless from the sources specified in Table 2.4.1, and only from the sources for those release points specified by the table in question.

Table 2.4.1 Emissions to Marine Water				
Outlet Number (as per Schedule 9)	External Tie in point reference	Details	UTM Co-ordinates ⁶	
			x-coordinate	y-coordinate
Point 1	TP 21 D4	Existing storm water overflow from Enemalta EGM treated interceptor discharge receiving floor washings and rainwater from CCGT area and runoff from waste management area.	459,647	3,965,869
Point 2	TP 13. D3	Existing stormwater overflow from Enemalta D3PG stormwater from FOT area	459, 903	3,965,595
Point 3	TP 14 D3	Enemalta oil interceptor (from HFO and gasoil tank area), water from fuel centrifugation and run-off from access road (near gasoil tank farm) D3PG oil interceptor from fuel tank area and other plant run-off.	459,860	3,965,516
Point 4	TP 18 D3 TP 18 D4	Main outfall including water treatment, cooling systems, waste water from steam generation, waste water from boiler washdown/ blowdown from Enemalta, D3PG and ElectroGas.	460,154	3,965,839

⁶ Zone 33s, datum ED 50, ellipsoid – Hayford International.

	TP 12 D3	D3 PG rainwater runoff to Enemalta reservoir overflowing into Hofra iz-zghira and routed through TP 18 D3		
Point 5	-	Oil interceptor (turbine hall drains)	459,754	3,965,707

- 2.4.2 The monitoring specified in condition 2.5.3 of the framework permit shall apply to emission points Point 2 and Point 5.
- 2.4.3 Monitoring of parameters 1 and 4-25 (in table 2.5.3 in the framework permit) from points 2 and 3 referred to in Table 2.4.1 is required prior to discharge of waste water **only** in case of a spillage of fuel from any tank or notification from D3 power generation Ltd. indicating a spillage of fuel from their tanks. Testing of total petroleum hydrocarbons shall however be carried out continuously whenever water from fuel centrifugation (or other forms of water removal) is being discharged,
- 2.4.4 In case of any exceedances of the emission limit values in Table 2.5.3 in the framework permit for point 5 and point 2 referred to in Table 2.4.1 , the Permit Holder shall:
- (i) In the case of coordinated discharge points apply the procedure outlined in condition 2.5.26 of the regulatory framework permit.
 - (ii) In the case of discharge point 5, as part of the AER submit an action programme to the Authority aimed at achieving these emission limits.

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

- 2.4.5 These requirements apply to discharges from points 1, 2, 3, and 5 (referred to in Table 2.4.1) Conditions 2.5.37– 2.5.40 in the framework permit shall also apply to these points
- 2.4.6 The oily water separator system shall have a continuous hydrocarbon detector with alarm. For point 3, no discharge of wastewater is allowed if the emission limit value is exceeded. Detection of oily water in points 1, 2, 3, or 5 (referred to in Table 2.4.1) above the emission limit value shall be followed by immediate investigation and appropriate mitigation measures. During such an investigation, the procedure highlighted in Schedule 6 of the regulatory framework permit shall be implemented, except for point 5 which is a discharge point exclusive to Enemalta plc.

2.5 Storage

- 2.5.1 The unloading of HFO and gasoil and the transfer of gasoil from the Enemalta main tanks shall be supervised at all times and shall be undertaken in accordance with the standard operating procedure or as amended.
- 2.5.2 The pipes, pumps, valves and flanges forming part of the system which transfers fuel from the delivery ship to the tanks in the tank farm gasoil from the Enemalta main tanks to the D3PG day tanks or D3 auxiliary steam boiler tank up to external tie in point TP 04.D3 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 3.
- 2.5.3 All oil transfers shall be undertaken in accordance with the oil spillage response plan. Oil spillage response plan shall be updated so as to address oil transfers from the Permit Holder to D3 Power Generation Ltd
- 2.5.4 Further to condition 2.5.3, and upon approval by the Authority, such a plan shall be implemented and adopted in cases where spillages occur during fuel transfers.
- 2.5.5 All personnel involved in the transfer of HFO and gasoil from ships 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.
- 2.5.6 All fuel tanks shall be fitted with a high level alarm and, for fuel tanks used for internal fuel 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 were feasible.
- 2.5.7 The Permit Holder shall have in storage an adequate supply of containment booms and suitable absorbent material to absorb any spillage.
- 2.5.8 The Permit Holder shall carry out ultrasonic testing of shell thickness on fuel tanks and report this as part of the AER. Such testing shall be carried out every two years for existing fuel tanks.
- 2.5.9 Fuel tanks shall be connected to appropriate abatement systems to the satisfaction of the Authority, such that fugitive emissions and odours from the fuel tanks are sufficiently mitigated. The Permit Holder shall keep a log of opening and closing times of pressure relief valves
- 2.5.10 All gasoil transfers shall be undertaken in accordance with the Approved Document oil spillage response plan
- 2.5.11 The oil spillage response plan required under condition 2.5.10 shall be implemented and adopted in cases where spillages occur during fuel transfers

2.6 Energy Efficiency

- 2.6.1 In the event that DPS 2-5 is operated $\geq 1\,500$ hr/yr a net electrical efficiency of 25 - 35.7 % shall be met. Such documentation shall be made available on

request.

2.7 Accident prevention and control[∞]

- 2.7.1 In the case of an accident, the Permit Holder shall follow the Internal Emergency Plan submitted and updated according to the instructions provided by the COMAH competent Authority. Such a plan submitted as a legal requirement of the COMAH regulations shall be put into effect in case of a major accident.
- 2.7.2 If the case of an emergency situation within an individual operator plant or in an emergency escalated to a site level), 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.
- 2.7.3 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.
- 2.7.4 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.
- 2.7.5 The Permit Holder shall, in collaboration with the other Permit Holders 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 the implementation of a risk assessment which covers the operation of the whole installation.
- 2.7.6 The Permit Holder 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 Permit Holders at the installation.
- 2.7.7 The Permit Holder 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[∞]

- 2.7.8 The Permit Holder shall comply with the relevant provisions of the Control of Major Accident Hazards Regulations, 2015 (S.L. 424.19). Any actions deemed necessary during the operational phase as defined in the COMAH competent authority's review of the safety studies submitted by the Permit Holder shall be addressed within the timeframes stipulated by the COMAH competent authority.
- 2.7.9 Operations at the installation shall allow the periodic review and where necessary update of the safety report, MAPP and IEP, at least every five years. The updated documentation shall be sent to the COMAH competent authority without delay.
- 2.7.10 Further to the provisions of Regulation 14 of S.L. 424.19 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.

- 2.7.11 Without prejudice to regulation 9 of the COMAH Regulations, the Permit Holder shall ensure that any instructions provided and any follow up actions requested by the COMAH competent authority shall be carried out without undue delay and within the timeframes stipulated by the COMAH Competent Authority.
- 2.7.12 Where instructed by the COMAH Competent Authority, the safety studies submitted by the operator shall be amended to address the COMAH Competent Authority's inspections and any resulting changes which may be required.
- 2.7.13 In case any further modification in the piping and instrumentation of the facilities is deemed necessary by D3PG and Electrogas Malta Ltd., which could have significant consequences for major-accident hazards in relation to the information provided in the P&IDs (Pipe& Instrumentation Diagrams) submitted along with the ENE Safety Report), it should be notified in detail to the COMAH Authority in advance of that modification (according to reg. 9 of the COMAH Regulations S.L.424.19).

Fire fighting considerations[∞]

- 2.7.14 The Permit Holder shall be responsible for the maintenance and certification of all internal and external firefighting systems up to the tie in point connection with D3 Power Generation Ltd. and ElectroGas Malta Ltd. as identified in schedules 2A and 2B of the regulatory framework permit and as detailed in Table 2.7.14 below.

Table 2.7.14 – infrastructure related to fire fighting system		
Tie in point	Name	description
TP 07.D3 TP 07A.D4 TP 07B.D4	Internal fire-fighting system	Freshwater stored within Enemalta's 330m ³ tank which is supplied from evaporated water tanks and distributed through metered tie-in point for own use, D3PG and EGM.
TP 08.D3 TP 08.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.

- 2.7.15 The pipes, pumps, valves and flanges forming part of the fire-fighting system which transfers fire-fighting water to external tie in point connection to distribution to the other Permit Holders shall be certified 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 3.
- 2.7.16 The Permit Holder shall abide by the instructions provided by the CPD and ensure that the type and amounts of firefighting 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.

- 2.7.17 It shall be the responsibility of the Permit Holder to ensure that such firefighting agents and systems are well maintained and certified periodically as per supplier's specifications.

Port security[∞]

- 2.7.18 Where any updates to the port security document requested by Transport Malta result in changes to standard operating procedures adopted, the Permit Holder shall ensure that these are implemented within the timeframes requested by Transport Malta.
- 2.7.19 Condition 2.7.18 is without prejudice to obligations on the Permit Holder in his dual role as permit coordinator arising from the regulatory framework permit

3 Reporting

- 3.1 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 Permit Holder by the Authority.
- 3.2 The Permit Holder 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.
- 3.3 The Permit Holder shall submit to the Authority the information listed in Schedule 5 Quarterly Reporting and in the format specified therein within one month after the end of each quarter. This information shall be forwarded to the Authority in electronic format.
- 3.4 The Permit Holder shall submit to the Authority the information listed in Schedule 4 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.
- 3.5 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 S.L. 549.47 and Government Notice 138 of 2017 or as subsequently amended.
- 3.6 Where the submissions required under condition 3.5 are related to coordinated release points, the Permit Coordinator shall submit the information to the Authority. The Permit Holder shall submit on the obligations arising from this permit through the AER (Schedule 2) and collectively for the entire installation in the AER for the regulatory framework permit (Schedule 4 of the Framework Permit).

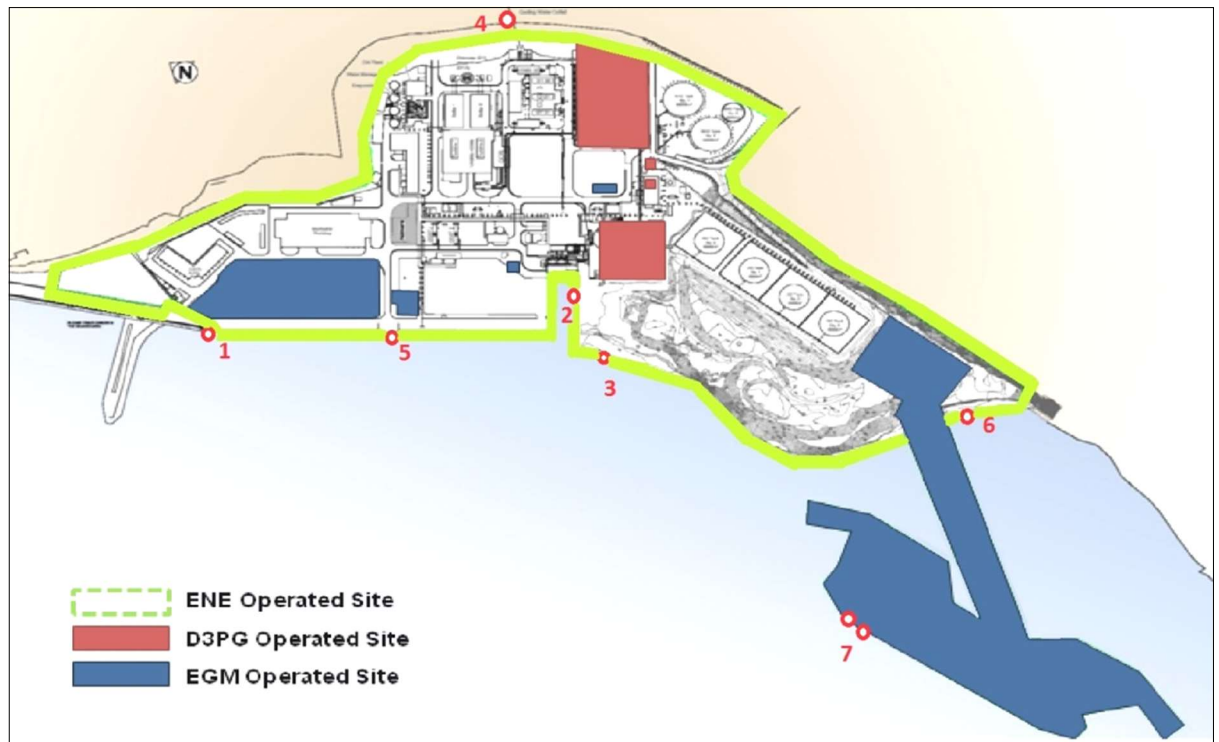
- 3.7 The Permit Holder shall, within 6 months of receipt of written notice from the Authority, submit to the Authority a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the installation. 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 Permit Holder, that may provide environmental improvement.

4 Interpretation

- 4.1 The interpretation and relevant expressions as defined in Condition 4 of the Regulatory Framework Permit (IP0002/21) shall also apply to this Subsidiary Permit

Schedule 1A

Operational Boundary for Enemalta



Site of installation, showing the extent of area authorised for activity for the carrying out of the activities specified in Condition 1.1.1 (shown in green). The extent of the site boundary is indicative and shall not be used for interpretation purposes.

Schedule 1B

Emission site layout

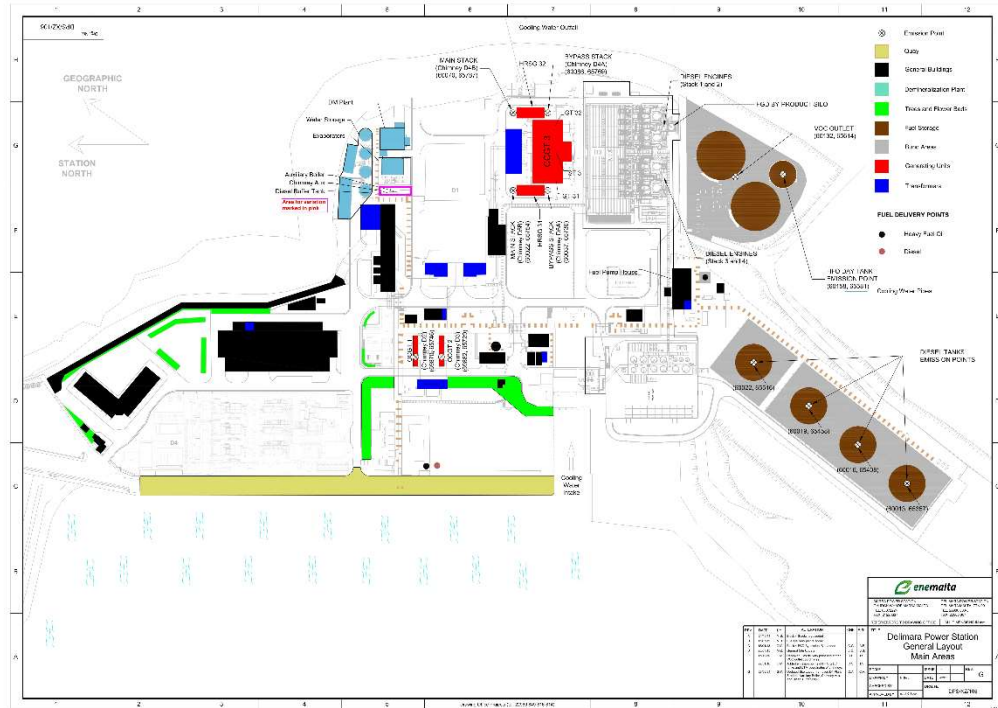


Figure 1: Site plan indicating the various emissions points including CP1 (auxiliary boiler)

Schedule 2

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.

S2.1 Introduction

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

S2.2 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 3.5)⁷.

Tick (✓)

S2.3 Process Data**S2.3.1 Annual Summary**

	Units	Previous reporting year ⁸	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 ³		
Water consumption per unit product	m ³ /MWh		
Annual quantity of waste produced	tonnes		
Waste produced per unit product	tonne waste/ MWh		

⁷ 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>)

Flue Gas Volume for combustion plants with a rated thermal input >50 MWth	Nm ³		
Yearly operating hours per combustion plant with a rated thermal input >50 MWth	hours		

S2.3.2 Fuel consumption

	Units	Sulphur Content ⁹	Consumption	
			Previous Year	Current Year
Gas Oil	m ³			

⁹ Specify units (e.g. as percentage, or mg/kg)

S2.4 Monitoring Data of Emissions to Air

Summary of emissions to air (concentrations)

S2.4.1 Emissions of Dust (TSP), Nitrogen Oxides (NO_x) and Sulphur Dioxide (SO₂)

Parameter	Emission point reference	Standard methodology used	Annual average pollutant concentration	Mean Monthly Limit Value	Total annual number of exceedances of after validation	
			mg.Nm ⁻³	mg.Nm ⁻³	Previous year	Present year
TSP	DPS2					
NO _x	DPS2					
SO ₂	DPS2					
TSP	DPS3					
NO _x	DPS3					
SO ₂	DPS3					
TSP	DPS4					
NO _x	DPS4					
SO ₂	DPS4					
TSP	DPS5					
NO _x	DPS5					
SO ₂	DPS5					

Additional documentation to be submitted:

Tick (✓)

Accreditation certificate(s) of laboratory

☐

S2.4.2 Emissions of Carbon monoxide (CO)

Emission point reference	Standard methodology used	Annual average pollutant concentration	Total annual number of exceedances of daily value after validation		Total annual number of exceedances of monthly mean value after validation	
		mg.Nm ⁻³	Previous year	Present year	Previous year	Present year
DPS2						
DPS3						
DPS4						
DPS5						

S2.4.3 Monthly Loads of Particulates, SO₂ and NO_x*ONE PAGE PER PLANT TO BE SUBMITTED*

Permit Holder: Enemalta plc.	Plant no. DPS ____
Location: Delimara.	Heat Value of Fuel fired: ____GJ.Mg ⁻¹
Reporting year: _____	

Month	Fuel Burn During this period Mg. month ⁻¹	Monthly SO ₂ Load Mg	Monthly NO _x 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⁻³) × 1×10⁻⁹ × WGF (m³.month⁻¹)
(WGF = waste gas flow rate).

S3.4.4 Annual Data

S3.4.3.1 Annual Load of Particulates, SO₂ and NO_x

Units	Rated Thermal Input	Type	Fuel	Fuel Burn	Heat Value	Annual Emissions* SO ₂	Annual Emissions* NO _x	Annual Emissions* dust
	MW _{TH}			Mg.yr ⁻¹	GJ.Mg ⁻¹	Mg.yr ⁻¹	Mg.yr ⁻¹	Mg.yr ⁻¹
Delimara 2	121	Gas Turbine	Gasoil					
Delimara 3	121	Gas Turbine	Gasoil					
Delimara 4	121	Gas Turbine	Gasoil					
Delimara 5	121	Gas Turbine	Gasoil					
Total								

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

S2.4.3 Monitoring Data from Medium Combustion Plants

Table 2.4.3.1: Emissions to Air

Medium Combustion Plant reference Point	Parameter	Limit Value (mg/Nm ³)	Standard methodology used	Type of monitoring (in-situ / at an accredited lab)	Measurement Error	Total annual number of exceedances ⁱ		Concentration (Annual Average)			Total Annual Load		
						Previous year ⁱⁱ	Present year	Unit	Previous year	Present year	Unit	Previous year	Present year
CP1	CO	-						mg/m ³			kg		
	NOx	200						mg/m ³			kg		

Name of laboratory where tests in this section have been carried out	
Is this laboratory accredited (certified) for the above tests?	Yes ☐ No ☐
Additional documentation to be submitted:	Tick (✓)
Accreditation certificate(s) of laboratory	

Table 2.4.3.2: Annual Operating hours for

Point Sources	Operating Hours during previous reporting year	Operating Hours during reporting year
CP1		

ⁱ If the total number of exceedances exceeds 0, the value of each of these exceedances (for the reporting year) must be submitted in a separate report, together with action taken to regularise the situation.

ⁱⁱ "Previous year" is not applicable for the first reporting year (2021).

Table 2.4.3.3: Corrective Action (to be compiled if emission limit values in S2.4.3.1 above are exceeded)	
Emission Point Reference	Proposed Action (may include reference to additional documentation)
CP1	

S2.5: 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 (✓)

S2.6: Wind Rose

Documentation to be submitted:

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

Tick (✓)

--

S2.7 Emissions to Marine Water

Emissions to Marine Water: Physical and Chemical Monitoring

ONE REPORT PER OUTLET TO BE SUBMITTED

Name of outlet and reference number: _____

No.	Parameter	Limit (annual average)	Standard methodology used	Concentration (annual average) ⁱ			Total annual mass emissions		
				Units	Previous year	Present year	Units	Previous year	Present 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								

ⁱ Exceedances are to be clearly highlighted in red.

No.	Parameter	Limit (annual average)	Standard methodology used	Concentration (annual average) ⁱ			Total annual mass emissions		
				Units	Previous year	Present year	Units	Previous year	Present year
16	Tin								
17	Vanadium								
18	Zinc								
19	Total petroleum hydrocarbons								
20	Tributyl tin compounds (tributyltin cation; CAS number 36643-28-4)								
21	Total Suspended Solids								
22	Benzene (CAS number 71-43-2)								
23	PAHs as follows:								
	Benzo(a)pyrene								
	Benzo(b)fluor-anthene, Benzo(k)fluor-anthene								
	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 ☐ No ☐

Additional documentation to be submitted:

Tick (✓)

Accreditation certificate(s) of laboratory

Were there any exceedances in the present reporting year?	Yes ☐ No ☐
---	--

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 S.L. 549.100

2.8 Off-site transfers of waste

[illegible]

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

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

S2.9 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 2.6.3 of the regulatory framework permit	
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 $< 25 \text{ m}^3$ due on (date)	
Number of existing fuel tanks on site	
Date of last ultrasonic testing of shell thickness for above tanks	
Ultrasonic testing of shell thickness for above tanks due on (date)	
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 ship to tank farm 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 ship to tank farm

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

Ultrasonic test report of tank shell thickness

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)

S2.10 Incidents and Complaints

S2.10.1 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:

S2.10.2 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:

S2.11 Transport

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

S2.12 DPS plants 2- 5 operational hours

Date	Release Point	Source	Operating hours in test/emergency condition	Cumulative number of Operating hours in test/emergency condition to date

Schedule 3

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: _____

S3.1 Waste

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

Schedule 4

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.

S4.1 Daily Statistical Analysis of Continuous Monitoring**S 4.1.1 Data for Particulates**

*ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT
(DPS 2 - 5)*

Permit Holder: Enemalta plc.

Emission Limit Value: ____ mg . Nm⁻³

Location: Delimara

Date: ____ / ____ / ____

Plant no.: ____

Time	Validated Hourly average (mg . Nm ⁻³)	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⁻³

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 ×.*

S4.1.2 Data for Sulphur Dioxide

**ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT
(DPS 2 - 5)**

Permit Holder: Enemalta plc.	Emission Limit Value: _____ mg. Nm ⁻³
Location: Delimara	
Date: ____/____/____	Plant no.: _____

Time	Validated Hourly average (mg . Nm ⁻³)	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 sulphur dioxide	mg . Nm⁻³
--	-----------------------------

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 ×.*

S4.1.3 Data for Nitrogen Oxides

*ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT
(DPS 2 - 5)*

Permit Holder: Enemalta plc.	Emission Limit Value: _____ mg . Nm ⁻³
Location: Delimara	
Date: ____/____/____	Plant no.: _____

Time	Validated Hourly average (mg . Nm ⁻³)	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 nitrogen
oxides**

mg . Nm⁻³

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 ×.

S4.1.4 Data for Carbon Monoxide

**ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT
(DPS 2 - 5)**

Permit Holder: Enemalta plc.	Emission Limit Value: _____ mg . Nm ⁻³
Location: Delimara.	
Date: ____/____/____	Plant no.: _____

Time	Validated Hourly average (mg . Nm ⁻³)	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 carbon
monoxide**

mg. Nm⁻³

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 ×.

S4.1 Daily Statistical Analysis of Continuous Monitoring

S4.3.1 Daily Data for Carbon Monoxide

*TWO PAGES PER MONTH TO BE SUBMITTED FOR EACH PLANT
(DPS2-5)*

Permit Holder: Enemalta plc.	Emission Limit Value: _____ mg. Nm ⁻³
Location: Delimara.	97% of all mean validated daily values must not exceed _____ mg. Nm ⁻³
	Plant no.: _____

[illegible]

[illegible]

Note:

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

S4.2 Monthly Statistical Analysis of Continuous Monitoring

S4.2.1 Monthly Concentration Data for Particulates, SO₂, NO_x and CO

ONE PAGE PER MONTH TO BE SUBMITTED FOR EACH PLANT

Reporting year	
Month	
Plant	

	Particulates	SO ₂	NO _x	CO
Monthly average concentration for the period (mg . Nm ⁻³)				
No of exceedances of 24 hr limit in period	-	-	-	
Highest individual 24 hr average in period (mg . Nm ⁻³)				
Mean daily average, in period (mg . Nm ⁻³)				
Highest individual 1 hr average in period (mg . Nm ⁻³)				
Mean 1 hr average in period (mg . Nm ⁻³)				
Percentage of boiler operating time that continuous monitors available during reporting period				

Schedule 5**Template for Exemption from Emission Limit Values**

In view of the operating hours of combustion plant CP1 as described in IP 0002/21/iii, I [INSERT NAME AND SURNAME], as the Permit Holder responsible for the combustion plant at [ADDRESS], submit my request to Authority to be exempt from the Emission Limit Values set out in Table 2.2.42 of the above-mentioned permit for the year [INSERT YEAR].

Operating Hours in 20XX	
Operating Hours in 20XX	
Operating Hours in 20XX	
Operating Hours in 20XX	
Operating Hours in 20XX	
Rolling Average over 5 Years	

I declare that, to the best of my knowledge, all the above information is correct and substantiated.

Name
(in block letters)

ID Card Number

On behalf of / in my own name
(in block letters)

Schedule 6

Notification of operation of DPS 2 to 5 plant

This notification shall be submitted to the Competent Authority within 24 hours of utilisation of the following plants:

Release Point	Source
Chimney D2	DPS2 (OCGT1)
Chimney D3	DPS3 (OCGT2)
Chimney D4A	DPS4 (CCGT32 By-pass stack)
Chimney D4B	DPS4 (CCGT32 Main Stack)
Chimney D5A	DPS5 (CCGT31 By-pass stack)
Chimney D5B	DPS5 (CCGT31Main Stack)

Date	Release Point	Source	Operating hours in test/emergency condition	Cumulative number of Operating hours in test/emergency condition to date

END OF PERMIT