

Subsidiary Permit 3 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: **Delimara Power Station**

Operator: **Enemalta plc (C65836),
Triq il-Belt il-Hazna,
Marsa, MRS 1571,
MRS 1571**

Approved Documents: IP 0002/07/F – framework document

Sub-permit numbers:

IP 0002/07/Fi – ElectroGas Malta Ltd.
IP 0002/07/Fii – D3 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 (SL 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 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 heavy fuel oil (HFO) and 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

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

¹ L.N. 9 of 2013 – Industrial Emissions (Framework) Regulations, 2013

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 0002/07/Fiii) which addresses the operations carried out by Enemalta plc. shall be regarded as part of the Permit IP 0002/07/F which consists of four main parts structured so as to include:

- **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)

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 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 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 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 of the operator specific subsidiary permit.

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 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 of the operator 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
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 _{TH})	Official letter dated 28 September 2009 plus supporting documents.	
Permit determined	01 October 2009	
Permit issued	29 March 2010	
Application for variation of	Application received on 11	

Detail	Date	Comment
<i>permit to include diesel engines</i>	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 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

Detail	Date	Comment
<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 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 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 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/F 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:

Enemalta plc. (C65836) (hereinafter "the Operator" 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.

<p>Environment and Resources Authority</p> <p style="text-align: center;">APPROVAL</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 Applications received on 02 February 2007, as subsequently clarified varied 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 D3 Power Generation Ltd. and ElectroGas Malta 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 handover of operations of the four (4) single fuel diesel engines 1 to 4 from the Operator to 3 Power Generation Ltd.

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	<p>Generation of electrical energy through the combustion of heavy fuel oil and gasoil.</p> <p>Installation consists of two boilers making up DPS1 (phase 1A and phase 1B), two open cycle gas turbines (DPS2 and DPS3), two combined cycle gas turbines (DPS4 and DPS5) and four medium-speed combined cycle single fuel (natural gas) diesel engines</p>	From receipt of fuel to delivery of utility.

	(DPS6 – diesel engines 1 to 4) ² .	
Associated activity of fuel handling and storage	Handling and storage of heavy fuel oil	From receipt of the fuel and storage in tank farm to combustion in the diesel engines 1 to 4 ³ and DPS1
	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; combustion in DPS 2 to 5; and combustion in diesel engines 1 to 4. ⁴
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.

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 operator shall also be responsible for any additional activities (and 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.

² Regarding diesel engines 1 to 4, operations shall be retained by Enemalta until such time that that these are fully converted to run on natural gas and operations transferred to D3PG as per conditions 1.7 in IP0002/07/Fii and conditions 1.8.

³ Regarding diesel engines 1 to 4, operations shall be retained by Enemalta until such time that that these are fully converted to run on natural gas and operations transferred to D3PG as per conditions 1.7 in IP0002/07/Fii and conditions 1.8.

⁴ Regarding diesel engines 1 to 4, operations shall be retained by Enemalta until such time that that these are fully converted to run on natural gas and operations transferred to D3PG as per conditions 1.7 in IP0002/07/Fii and conditions 1.8.

- 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 Operators 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 the standardised system EN ISO 14001:2015. 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.
- 1.4.2 Any updates to the existing ISO 14001:2015 currently adopted by Enemalta plc. as a result of the adoption of standardised EMS EN ISO 14001:2015 by D3 Power Generation Ltd. and ElectroGas shall be communicated in writing to the Authority within 3 months of the establishment of the EMS by the other operators and implemented within 3 months of such notification.
- 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:
- 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 subject to the conditions of this Permit 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 Once approved by the Authority, mutual Audits as stipulated in condition 1.4.10, of the regulatory framework permit 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.
- 1.4.11 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
- 1.4.12 Upon the installation's achievement of full operational status, 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.
- 1.4.13 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.

Table 1.5.1: Improvement programme		
Reference*	Requirement	Date
12	Submission of a baseline report and a monitoring strategy.	End December 2017
16	Installation of appropriate abatement to the satisfaction of the Authority to mitigate odours from existing fuel tanks.	Ongoing
17	Submission of proposals regarding methodology for marine ecological surveys.	By end March 2017

Table 1.5.1: Improvement programme		
Reference*	Requirement	Date
20	Updates to the air dispersion modelling study carried out by the Authority as per condition 2.2.1.15.	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
21	For discharge point to sea one (1) in table 2.5.5.1, 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.
22	Further to condition 2.5.1.5 details of the composition of the micro biocides shall be submitted in the first Annual Report	End June 2017
23	Notification of transfer of diesel engines to D3 Power Generation Ltd.	Two weeks prior to handover and confirmation within one week of handover
24	Notification that Delimara 1 Plant has been switched off	Within one week of commencement of operations by EGM
25	Application for the partial surrender of Delimara 1	Within 1 month of notification in item 24 above

* Requirements 12, 16, 17 and 20 refer to obligations under IP 0002/07/E which are ongoing or under discussion with the Authority. Requirements 21 onwards are new.

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 In case any further modification in the piping and instrumentation of the facilities is deemed necessary before commissioning of plant operated by D3PG and Electrogas Malta Ltd. Operated plant , 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 rev03 (9 Sept.2016), it should be notified in detail to the COMAH Authority in advance of that modification (according to reg. 9 of the COMAH Regulations LN 179/2015).
- 1.6.5 The Director of Environment 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 Pre-Operational Conditions

- 1.7.1 There are no pre-operational conditions.

1.8 Transfer and Conversion of specified plant

- 1.8.1 This section of this permit addresses the transfer of Diesel Engines 1 to 4 from the operator to D3 power generation Ltd..
- 1.8.2 Conditions 2, 3, 4, 5 and 6 shall not apply to diesel engines 1 to 4 after the time of handover from the operator to D3 Power Generation Ltd.
- 1.8.3 Two weeks prior to handover of diesel engines 1 to 4 from the operator to D3 Power Generation Ltd, the operator shall provide a written notification to the Authority.
- 1.8.4 Further to condition 1.8.3, The operator shall again notify the Authority within one week of the handover

1.9 Fuel supply to other operators within the installation

- 1.9.1 The operator 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 1.9.1 below

Table 1.9.1 – 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.

- 1.9.1 The operator 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.
- 1.9.3 Ambient pressure and volumes of gasoil shall be as described in the IPPC application and as per applicable industrial standards. .

1.10 Off-site Conditions

- 1.10.1 The Permit holder shall ensure that no 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 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.

2.2 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 ⁵	
		MW _{TH}	x-coordinates	y-coordinates
Chimney D1	DPS1 (Boilers phase 1A and phase 1B)	332	460,038	3,965,822
Chimney D2	DPS2 (OCGT1)	121	459,869	3,965,745
Chimney D3	DPS3 (OCGT2)	121	459,881	3,965,727
Chimney D4A	DPS4 (CCGT3 By-pass stack)	121	460,088	3,965,766
Chimney D4B	DPS4 (CCGT3 Main Stack)		460,072	3,965,789
Chimney D5A	DPS5 (CCGT4 By-pass stack)	121	460,037	3,965,731
Chimney D5B	DPS5 (CCGT4 Main Stack)		460,021	3,965,754
Chimney D6A	DPS6 (Diesel engines 1 & 2) ⁶	77	460,137	3,965,687
Chimney D6B	DPS6 (Diesel engines 3 & 4) ⁷	77	460,134	3,965,685

2.2.1.3 Boilers constituting DPS1 shall fire only HFO (Heavy Fuel Oil) in the Authorised Process in accordance with the Application.

2.2.1.4 Unless the boilers making up the plant DPS1 are fitted with a flue gas desulphurisation plant, the sulphur content of the fuel fed to the boilers constituting this plant shall in no case exceed that value which will allow the plant to achieve the limit value specified in this permit. Upon purchase of fuel, a copy of the buying specifications must be supplied to the Authority, and prior to delivery of fuel, fuel certificates must be supplied to the Authority for verification of the sulphur content. In case it results that the emissions of sulphur dioxide from DPS1 will exceed this limit value, the competent authority reserves the right to lower the maximum sulphur content of the HFO fired by this plant.

2.2.1.5 Gas Turbines DPS2, DPS3, DPS4 and DPS5 shall fire only gasoil in the Authorised Process in accordance with the Application. The gasoil used shall comply with the standards laid down by the Quality of Fuels Regulations (L.N. 44 of 2008 as may be amended from time to time), i.e. the sulphur content of the gas oil fired by gas turbines DPS2, DPS3, DPS4 and DPS5 shall in no case exceed 1 kg for every tonne of gas oil.

2.2.1.6 Diesel engines constituting DPS6 (diesel engines 1 to 4) may fire either HFO or gasoil. If HFO is used, the sulphur content fed shall in no case exceed 10 kg for every tonne of heavy fuel oil. If gasoil is used, the sulphur content shall be as specified in condition 2.2.1.5.

⁵ Zone 33s, datum ED 50, ellipsoid – Hayford International.

⁶ until such time that operations of these diesel engines are transferred to D3 Power Generation Ltd. For conversion to natural gas.

⁷ until such time that operations of these diesel engines are transferred to D3 Power Generation Ltd. For conversion to natural gas.

- 2.2.1.7 If the operator opts to use HFO in DPS6 (diesel engines 1 to 4) the following conditions shall apply over and above any other condition in the permit:
- 2.2.1.7.1 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 Enemalta Corporation, 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.
 - 2.2.1.7.2 The Committee shall meet at least once every month. 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.
 - 2.2.1.7.3 The air quality data referred to in condition 2.2.5.3 shall be supplied by the Authority to the 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.
 - 2.2.1.7.4 The operator shall, immediately and at all times, abide by any instructions, orders and directives given to him by the Authority.
 - 2.2.1.7.5 The Authority may waive the obligation to monitor the obligation to monitor dust in ambient air once no HFO is used within the installation
- 2.2.1.8 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.
- 2.2.1.9 The operator shall obtain certificates of analysis for one representative composite sample of HFO per delivery for the parameters listed in table 2.2.2. In addition, if the flue gas volume from DPS6 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 diesel engines. 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 2.2.2.
- 2.2.1.10 Further to condition 2.2.1.9, 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 from DPS6 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 diesel engines. 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 2.2.1.1.
- 2.2.1.11 A copy of the certificates of analysis referred to in condition 2.2.1.10 shall also be submitted to D3 Power Generation Ltd.
- 2.2.1.12 Physical parameters in table 2.2.1.1 shall be measured using EN, EN ISO or ISO standard methods or equivalent.
- 2.2.1.13 The chemical parameters in tables 2.2.2 and 2.2.3 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 2.2.3 is not available, calculation of flue gas volume from DPS6 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

Physical Parameters		
Parameter	Unit	Standard
Density*	kg.m ⁻³	ISO 12185 or ISO 3675 or equivalent
Flash point	°C	EN ISO 2719:2002 or equivalent
Heat Value (Upper and Lower)	MJ.kg ⁻¹	ASTM D4868-00 (2005) or equivalent
Pour Point*	°C	ISO 3016:1994 or equivalent
Viscosity*	cSt	EN ISO 3104:1996 or equivalent
Chemical Parameters		
Parameter	Unit	Standard
Ash content*	%	ISO 12185, ISO 3675 or equivalent
Nickel content*	ppm	EN 13131:2000 or equivalent
Sulphur Content	mg S.kg ⁻¹	EN ISO 8754:2003 or equivalent
Vanadium content*	ppm	EN 13131:2000 or equivalent
Water content*	%	ISO 3733, ASTM D95 or equivalent

* only for HFO

Table 2.2.3 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

- 2.2.1.14 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.
- 2.2.1.15 The operator in his role as permit coordinator shall collaborate with the other operators to ensure compliance with Condition 2.3.5 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)

- 2.2.1.16 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.
- 2.2.1.17 The Authority 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.
- 2.2.1.18 Without prejudice to conditions 2.2.2.2, 2.2.3.4 and 2.2.4.2, the boilers constituting DPS1, the gas turbines DPS2, DPS3, DPS4 and DPS5 and the diesel engines constituting DPS6 (diesel engines 1 to 4) shall be operated so as to give a smoke colour less than or equal to shade number 1 on the Ringelmann chart (see Schedule 5) except during periods of start up, and soot blowing. The incidence of this colour being exceeded during normal operations (i.e. excluding startups and soot blowing), shall be cumulatively less than 60 minutes in any 24 hour period from the whole installation.
- 2.2.1.19 The operator shall make sure that the frequency of, soot blowing and malfunctions, is minimised as far as is technically possible.
- 2.2.1.20 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.
- 2.2.1.21 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

- 2.2.1.22 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.
- 2.2.1.23 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,
- 2.2.1.24 The operator shall make sure that the frequency of start up and shut down periods are minimised as far as practicable.
- 2.2.1.25 The operator shall ensure that all abatement equipment is brought into operation as soon as is technically practicable.
- 2.2.1.26 Start-up and shut-down of the respective units is defined in the table 2.2.4:

Table 2.2.4 – 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 1				
	Phase I A		Phase I B	
End of Start-up period	17% of the rated electrical output		17% of the rated electrical output	
Start of Shut-down period	17% of the rated electrical output		17% of the rated electrical output	
Determination of start-up and shut-down for DPS 4 and DPS 5 (CCGT 3 and CCGT4)				
	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 I 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	
Determination of start-up and shut-down for DPS 6 (Diesel Engines 1 to 4)				
	Diesel Engine		Use of more than 1 diesel engine (used in the start up of the second diesel engine)	
End of Start-up period	Upstream and downstream temperature of the SCR is >330°C		Upstream and downstream temperatures of the SCR of both engine 1 and engine 2 is >330 °C	
End of Shut-down period	Engine load ≤13% of the rated DE Electrical output		Engine 1 and Engine 2 ≤13% of the rated DE Electrical output	

2.2.2 Emissions to Air from DPS1 (boilers)

2.2.2.1 The Operator shall carry out monitoring of the parameters listed in Table 2.2.5, according to the frequency specified in this table. The monitoring method and the location of sampling points shall be in accordance with this table. Measurements shall be carried out in the waste gases of the individual units constituting DPS1.

2.2.2.2 The emission limit values specified in Table 2.2.5 shall not be exceeded. All concentrations shall be corrected to 273.5 K, 101.3 kPa, dry gas volume and to an oxygen (O₂) content of 3%. These concentrations relate to volume flows without dilution.

Table 2.2.5 Monitoring and emission limits for DPS1

Parameter	Monitoring frequency	Monitoring method	Sampling points located according to	Emission limit value*		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Dust (TSP)	Continuous	EN 13284-2:2004	EN 13284-1: 2004	55 mg/Nm ³ (97% of all 48 hourly mean values)	50 mg/Nm ³ (calendar monthly mean value)	30%
SO ₂	Continuous	ISO 7935:1992 or the equivalent EN standard	ISO 10396:2007 or the equivalent EN standard.	1639 mg/Nm ³ (97% of all 48 hourly mean values)	1490 mg/Nm ³ (calendar monthly mean value)	20%
NO _x	Continuous	ISO 10849:1996 or the equivalent EN standard	ISO 10396:2007 or the equivalent EN standard	495 mg/Nm ³ (95% of all 48 hourly mean values)	450 mg/Nm ³ (calendar monthly mean value)	20%
CO	Continuous	EN 10558:2006	ISO 10396:2007 or the equivalent EN standard	110 mg/Nm ³ (110% of all 24 hourly mean values)	100 mg/Nm ³ (monthly average)	10%
Dioxins and furans (PCDDs and PCDFs)	Every two years	EN 1948-1,2,3,4:2006, sampling to be carried out over at least 6 hours		0.1 ng TEQ /Nm ³ (annual average) calculated as per schedule 6		-

Parameter	Monitoring frequency	Monitoring method	Sampling points located according to	Emission value* limit	Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Cadmium (Cd) and Thallium (Tl) together	Every six months	EN 14385:2004, sampling to be carried out over at least 6 hours	EN 13284-1: 2004	0.05 mg/Nm ³ (annual average)	-
Arsenic (As), Chromium (Cr), Cobalt (Co), Copper (Cu), Manganese (Mn), Nickel (Ni), Lead (Pb), Antimony (Sb) and Vanadium (V) together	Every six months	EN 14385:2004, sampling to be carried out over at least 6 hours	EN 13284-1: 2004	0.5 mg/Nm ³ (annual average)	-
PAHs as per Schedule 8	Annually	ISO 11338-1:2003 or equivalent, sampling to be carried out over at least 6 hours	ISO 12884:2000 or equivalent	-	-

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

- 2.2.2.3 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 2.2.5.1, 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.
- 2.2.2.4 Discontinuous analyses shall be 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 analyte.
- 2.2.2.5 The operator may alternatively determine the concentration of heavy metals in the flue gases by subtracting the concentration of the metals in the boiler bottom-ash from the concentration of the metals in the fuel; taking into consideration the relative waste gas flow rates. Samples should be analysed to the relevant EN or EN ISO standards or equivalent.
- 2.2.2.6 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 2.2.5.

- 2.2.2.7 If the operator shows that carbon monoxide emissions are negligible through the submission of in-situ monitoring data which is representative of the operating mode of each plant, then the continuous monitoring requirement will be waived. These measurements shall be carried out by an auditor approved by ERA.
- 2.2.2.8 If the continuous monitoring requirement is waived as per condition 2.2.2.7, the operator will be required to monitor carbon monoxide (CO) emissions discontinuously at least once daily. The sampling point shall be located as per BS 1756-4:1976 or the equivalent EN standard and the sampling time shall not be less than 6 hours.
- 2.2.2.9 Upon commencement of full operations of the ElectroGas Malta Ltd. Combined Cycle Gas Turbines (DPS7), Enemalta shall cease to operate units constituting DPS1 and apply for partial decommissioning of the IPPC permit issued to this installation..

2.2.3 Emissions to Air from DPS2-5 (Gas turbines)

- 2.2.3.1 Gas turbines constituted of DPS 2 to 5 shall only be utilised as backup plant as described in the IPPC application.
- 2.2.3.2 The operator 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 operator shall follow the procedure as agreed upon by the Authority for such a notification. A log of notifications shall be included as part of the AER.
- 2.2.3.3 The Operator shall carry out monitoring from DPS2-5 of the parameters listed in Table 2.2.6, according to the frequency specified in this table. The monitoring method and the location of sampling points shall be in accordance with this table.
- 2.2.3.4 The emission limit values specified in Table 2.2.6 shall not be exceeded. All concentrations shall be corrected to 273.5 K, 101.3 kPa, dry gas volume and to an oxygen (O₂) content of 15%. These concentrations relate to volume flows without dilution.

Table 2.2.6 Monitoring and emission limits for DPS2-5

Parameter	Monitoring frequency	Monitoring method	Emission value* limit	Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Dust (TSP)	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	-	-
SO ₂	Continuous	ISO 11042-2: 1996 or the	-	-

Parameter	Monitoring frequency	Monitoring method	Emission limit value*		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
		equivalent EN standard			
NO _x (measured as NO ₂)	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	495 mg/Nm ³ (95% of all 48 hourly mean values)	450 mg/Nm ³ (calendar monthly mean value)	20%
CO	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	55 mg/Nm ³ (110% of all 24 hourly mean values)	50 mg/Nm ³ (monthly average)	10%

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

- 2.2.3.5 Emissions from gas turbines DPS2 and DPS3 shall be monitored as per the standard in Table 2.2.6 above. In case this is not technically feasible, the operator shall use alternative monitoring techniques or other solutions which would ensure compliance with Regulation 14 of LN 172 of 2010.
- 2.2.3.6 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 2.2.6
- 2.2.3.7 For NO_x and dust, the emission factor shall be taken to be the worst case scenario emission factor calculated from the pollutant emissions in tonnes reported for NEC during 2012, 2013 and 2014 and the electricity generated in MWh for each respective gas turbine. The highest emissions from these years will be the chosen pollutant emission factor which will be multiplied by the power generated per month for the respective gas turbine in order to provide the respective pollutant emission.
- 2.2.3.8 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.
- 2.2.3.9 Further to conditions 2.2.3.6, 2.2.3.7 and 2.2.3.8, the Authority shall be immediately notified should the operator intend to deviate from such calculation methodology.
- 2.2.3.10 No new calculation methodology shall be applied by the operator unless approved in writing by the Authority
- 2.2.3.11 Emissions from DPS4 and DPS 5 shall be measured by means of continuous measurement monitoring systems.
- 2.2.3.12 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 2.2.5, 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.

- 2.2.3.13 When applicable, in order to validate the hourly readings from the CEMS, 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 2.2.6.

2.2.4 Emissions to Air from DPS6 (diesel engines)

- 2.2.4.1 The Operator shall carry out monitoring from DPS6 of the parameters listed in Table 2.2.7, according to the frequency specified in this table. The monitoring method and the location of sampling points shall be in accordance with this table.

- 2.2.4.2 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 (O₂) content of 15%. These concentrations relate to volume flows without dilution. The Authority may revise emission limits and monitoring frequencies for metals depending on the monitoring results. Monitoring for metals and PAHs shall not be required if DPS6 is operated using solely gasoil.

Table 2.2.6 Monitoring and emission limits for DPS6

Parameter	Monitoring frequency	Monitoring method	Emission limit value*		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Dust (TSP)	Continuous	EN 15267-3, EN 14181	55 mg/Nm ³ (97% of all 48 hourly mean values)	50 mg/Nm ³ (calendar monthly mean value)	30%
SO ₂	Continuous	EN 14181, EN 15267-3, EN ISO 14956	132 mg/Nm ³ (97% of all 48 hourly mean values)	120 mg/Nm ³ (calendar monthly mean value)	20%
NO _x (measured as NO ₂)	Continuous	EN 14181, EN 15267-3, EN ISO 14956	176 mg/Nm ³ (95% of all 48 hourly mean values)	160 mg/Nm ³ (calendar monthly mean value)	20%

Parameter	Monitoring frequency	Monitoring method	Emission limit value*		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
CO	Continuous	EN 14181, EN 15267-3, EN ISO 14956	264 mg/Nm ³ (97% of all 24 hourly mean values)	240 mg/Nm ³ (calendar monthly mean value)	10%
Ammonia	Continuous	EN 14181, EN 15267-3, EN ISO 14956	2.6 mg/Nm ³ (annual average)		-
Cadmium (Cd) and thallium (Tl) together	Every three months	EN 14385:2004, sampling to be carried out over at least 6 hours (sampling points located according to EN 13284-1:2004)	0.02 mg/Nm ³ (annual average)		-
Chromium (Cr), cobalt (Co), copper (Cu), manganese (Mn), lead (Pb) and antimony (Sb) together	Every three months		0.2 mg/Nm ³ (annual average)		-
Arsenic (As)	Every three months		0.005 mg/Nm ³ (annual average)		-
Nickel (Ni)	Every three months		0.345 mg/Nm ³ (annual average)		-
Vanadium (V)	Every three months		3.1 mg/Nm ³ (annual average)		-
PAHs as per Schedule 8	Annually	ISO 11338-1:2003 or equivalent, sampling to be carried out over at least 6 hours (sampling points located according to ISO 12284:2000)	0.009 mg/Nm ³		-

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

- 2.2.4.3 Measurements of parameters within table 2.2.6 shall be carried out by means of a Continuous Emission monitoring system
- 2.2.4.4 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 2.2.5, 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, and provided that flue gas volume and velocity may be calculated instead of measured where the parameters listed in table 2.2.3 are measured as per conditions 2.2.1.9, 2.2.1.10 and 2.2.1.12.
- 2.2.4.5 Discontinuous analyses shall be 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 analyte.
- 2.2.4.6 The operator may alternatively determine the concentration of heavy metals in the flue gases by subtracting the concentration of the metals in the boiler bottom-ash from the concentration of the metals in the fuel; taking into consideration the relative waste gas flow rates. Samples should be analysed to the relevant EN or EN ISO standards or equivalent.
- 2.2.4.7 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 2.2.6.

2.2.5 Emissions to Air from DPS 1-6: Additional Monitoring Requirements

- 2.2.5.1 Without prejudice to previous conditions, the operator shall monitor continuously for the parameters listed in table 2.2.7 using the methods listed in the same table or their equivalent as may be agreed with the Authority.

Table 2.2.7: Monitoring of additional parameters

Parameter	Standard Number /Instrument	Title
Oxygen	ISO 12039:2001	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

Parameter	Standard Number /Instrument	Title
Flue gas pressure (prior to discharge into the atmosphere)	Pressure Sensor	N/A

2.2.5.2 In its dual role as permit coordinator and operator of specified plant, Enemalta shall coordinate an update the dispersion modelling study carried out by the Authority twice, using the data from the plant's air emissions monitoring systems, and ambient air monitoring data from Żejtun, Birżebbuġa and Marsaxlokk

2.2.5.3 Starting in the first half of January 2017, Enemalta plc shall, in its dual role as permit coordinator and operator of specified plant, coordinate the daily monitoring of PM10 and PM2.5 at a location in Marsaxlokk to be agreed with the Authority, in accordance with the standards specified in LN 478 of 2010 (as amended)

2.2.5.4 Conditions 2.2.5.2 and 2.2.5.3 shall be read in conjunction with condition 2.3.4 of the regulatory framework permit

2.2.6 Emission Ceilings for atmospheric pollutants

2.2.6.1 Enemalta's obligations in its dual role as operator and permit coordinator are highlighted in section 2.3.1 of the regulatory framework permit.

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

2.2.7.1 Starting on the 1st January 2017 and for each subsequent year, the Operator shall keep an inventory of the total annual emissions of SO₂, NO_x and dust (as total suspended particles) from all combustion plants at the Delimara Power Station with a rated thermal input of 50 MW_{th} or more, including the gas turbines and diesel engines. This inventory shall be submitted as part of the AER of the installation in the format specified in Schedule 3.

2.2.7.2 In addition to the total annual emissions of the pollutants listed in 2.2.7.1, the inventories shall also include the total fuel burn per plant, the fuel type and the average heat value of the fuel fired.

2.2.7.3 The Operator must keep record of the following:

2.2.7.3.1 The validated hourly concentration values of TSP, SO₂, NO_x and CO for each combustion plant per day (in the format specified in Schedule 4 and clearly indicating any exceedances).

2.2.7.3.2 24-hourly mean values for the concentration of carbon monoxide (CO) (in the format specified in Schedule 4 and clearly indicating any exceedances).

2.2.7.3.3 48-hourly mean concentration values of TSP, SO₂ and NO_x (in the format specified in Schedule 4, and clearly indicating any exceedances).

- 2.2.7.3.4 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 Schedule 3, and clearly indicating any exceedances).
- 2.2.7.3.5 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 3).
- 2.2.7.3.6 For DPS1 and DPS6, the total annual load of Ni and V, 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 and by multiplying concentrations in the fuel by fuel use (in the format specified in Schedule 3).
- 2.2.7.3.7 For DPS6, the total annual load of ammonia, 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 3).

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

- 2.2.8.1 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.
- 2.2.8.2 Measuring systems shall be subject to control by means of parallel measurements with the reference methods listed in table 2.2.8 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.

Table 2.2.8 Calibration of Automated Measuring Systems	
Standard Number	Title
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 _x) - Reference method: Chemiluminescence.
EN 13284-1:2001	Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method.

- 2.2.8.3 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 (SO₂), nitrogen oxides (NO_x) and carbon monoxide (CO) values are invalid due to malfunction or maintenance of the continuous monitoring system.
- 2.2.8.4 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.

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

- 2.2.9.1 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 from DPS1. In such cases, the operator shall operate DPS6 using diesel.
- 2.2.9.2 The Director of Environment Protection and D3 Power Generation Ltd. shall be immediately notified about any interruptions in the supply of low-sulphur fuel.
- 2.2.9.3 In case the operator opts to control sulphur dioxide emissions from DPS1 through the use of low sulphur fuel, condition 2.2.9.1 above shall not apply unless the operator secures a supply through a long term supply contract of low sulphur fuel to ensure compliance with the limit value for sulphur dioxide.
- 2.2.9.4 Notwithstanding condition 2.2.9.1, in case of emergency the operator is obliged to use and supply 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.
- 2.2.9.5 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.
- 2.2.9.6 Under no circumstance shall the cumulative unabated operation in any twelve-month period exceed 120 hours.
- 2.2.9.7 The Director of Environment Protection may allow exceptions to the 24 hours and 120 hours in 2.2.9.5 and 2.2.9.6 respectively in cases where in the Director's judgement:
- 2.2.9.7.1 there is an overriding need to maintain energy supplies
 - 2.2.9.7.2 the plant with the breakdown would be replaced for a limited period by another plant which would cause an overall increase in emissions.
- 2.2.9.8 The Director of Environment Protection shall be notified about any malfunction or breakdown of the abatement equipment within 24 hours as per Condition 5.15.1.2 of this permit.
- 2.2.9.9 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;
 - (c) Notifications communicated to D3 Power Generation Ltd in relation to (b) above.

2.2.9.10 The log book shall be made available for inspection upon request.

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. Where necessary these shall be coordinated with D3 Power Generation Ltd within the timeframes agreed upon with the WSC.
- 2.3.3 Condition 2.3.1 shall be read in conjunction with condition 2.3.4 of the regulatory framework permit.
- 2.3.4 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. Where necessary these shall be coordinated with D3 Power Generation Ltd within the timeframes agreed upon with the WSC.
- 2.3.3 Further to condition 2.3.4, 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 3.
- 2.3.4 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 pipework 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.
- 2.3.5 During operations involving the pumping of foul water from the D3 Power Generation Ltd cesspits to the underground pit operated by Enemalta plc., the operator shall ensure that no spillages occur from TP11.D3 to the main cess pit during such a transfer.
- 2.3.6 Rainwater shall be segregated from all process areas that are potentially contaminated with raw materials, intermediates and/or products.
- 2.3.7 Rainwater shall not be discharged into the sewer or cesspits.
- 2.3.8 With the exception of sanitary waters, the Operator shall not discharge any waste waters into the sewers or foul 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 groundwaters 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 ⁸	
			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 2	TP 13. D3	<u>Existing stormwater overflow from Enemalta</u> <u>D3PG stormwater from FOT area</u>	459, 903	3,965,595
Point 3	TP 14 D3	<u>Enemalta oil interceptor (from HFO and gasoil tank area), water from fuel centrifugation and run-off from access road (near</u>	459,860	3,965,516

⁸ Zone 33s, datum ED 50, ellipsoid – Hayford International.

Outlet Number (as per Schedule 9)	External Tie in point reference	Details	UTM Co-ordinates ⁸	
		<u>gasoil tank farm)</u> <u>D3PG oil interceptor from fuel tank area and other plant run-off.</u>		
Point 4	TP 18 D3 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>		
	TP 12 D3	<u>D3 PG rainwater runoff to Enemalta reservoir overflowing into Hofra iz-zghira and routed through TP 18 D3</u>		
			460,154	3,965,839
Point 5	-	Oil interceptor (turbine hall drains)	459,754	3,965,707

- 2.5.1.3 The monitoring requirements stipulated in condition 2.5 shall be read in conjunction with condition 2.3.2, of the regulatory framework permit.
- 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 2.5.2, without prejudice to condition 2.5.1.20. 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 Monitoring of parameters 1 and 4-25 from point 3 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.

2.5.1.9 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

No.	Parameter	Emission limit value (annual average)	Measurement methodology	Monitoring frequency	
				Point 5	Point 2
9	Arsenic	5 µg/L	ISO 17294-2:2004	Quarterly	Annual
10	Cadmium ⁹	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 th Ed, 1999	Every six months	Annual
19	Total petroleum hydrocarbons	5 mg/L	ISO 9377-2: 2000	Every six months	Annual
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 ⁻⁴ 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

⁹ 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
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

2.5.1.10 In case of any exceedances of the emission limit values in Table 2.5.2, the operator shall:

- (i) In the case of coordinated discharge points apply the procedure outlined in condition 1.4.4.11 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..

2.5.1.11 The source of any exceedance reported in the template in schedule 3 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

2.5.1.12 Further to condition 2.5.1.10, the operator, in its dual role as permit coordinator, 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.

2.5.1.13 No substance shall be discharged in a manner, or at a concentration which following initial dilution, causes tainting of fish or shellfish.

2.5.1.14 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.

2.5.1.15 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 3.

2.5.1.16 Further to the requirement in condition 2.5.1.15, the operator shall follow the procedure outlined in condition 2.5.1.3

2.5.1.17 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 2.5.1.2. The operator shall include a copy of the laboratory's accreditation certification in the AER.

- 2.5.1.18 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.
- 2.5.1.19 The operator shall not use any of the priority substances in the field of water policy listed in schedule 7 at the site covered by this permit.
- 2.5.1.20 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)
- 2.5.1.21 The operator shall, in his dual role as permit Coordinator 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 2.5.2 or equivalent.

Table 2.5.2 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 in his dual role as permit Coordinator, 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, 2, 3, and 5.

- 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. 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. 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 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
- 2.5.3.4 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.
- 2.5.3.5 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 25m³ 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 25m³, 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 HFO and gasoil and the transfer of gasoil from the Enemalta main tanks to the D3PG day tanks or the auxiliary steam boiler tank 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 fuel from the delivery ship to the tanks in the tank farm gasoil from the Enemalta main tanks to the D3PG day tanks or the 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.

2.5.4.7 All oil transfers shall be undertaken in accordance with the oil spillage response plan submitted as part of the IPPC permit application. Oil spillage response plan shall be updated so as to address oil transfers from the operator to D3 Power Generation Ltd.

2.5.4.8 Further to condition 2.5.4.7, and upon approval by the Authority, such a plan shall be implemented and adopted in cases where spillages occur during fuel transfers

2.5.4.9 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.

2.5.4.10 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 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.

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. Any ensuing inspection report shall be included in the AER in the format specified in Schedule 3.
- 2.5.4.14 The operator shall have in storage an adequate supply of containment booms and suitable absorbent material to absorb any spillage.
- 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.
- 2.5.4.18 The operator 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 (starting in 2017) for existing fuel tanks, and every five years (starting in 2017) for new fuel tanks servicing DPS6.

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 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 operator shall keep a log of opening and closing times of pressure relief valves.
- 2.6.3 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 during operations

General

- 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 12 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 The Operator shall have in place a waste collection, transport and export service contract for flue gas desulphurisation waste, a copy of which shall be submitted to the Authority prior to the first generation of flue gas desulphurisation waste. Otherwise, DPS6 (diesel engines 1 to 4) shall be operated using solely diesel until the situation is rectified.
- 2.8.2.29 When the maximum site capacity for storage of flue gas desulphurisation waste has been reached, DPS6 (diesel engines 1 to 4) shall be operated using solely diesel until the situation is rectified.
- 2.8.2.30 Conditions 2.8.2.28 and 2.8.2.29 shall cease to apply upon handover of diesel engines 1 to 4 to D3 Power Generation Ltd.
- 2.8.2.31 Conditions related to the transport of chemicals and hazardous waste on land are included in section 2.15.

Records

- 2.8.2.32 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.
- 2.8.2.33 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.
- 2.8.2.34 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:
- 2.8.2.34.1 The tonnages and EWC Codes for the waste materials removed off site as per Schedule 1 of Legal Notice 184 of 2011 as amended.
 - 2.8.2.34.2 The names of the Company and carrier of the waste and their Permit details (either waste registration or waste management permit).
 - 2.8.2.34.3 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.
 - 2.8.2.34.3 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.

2.8.2.34.4 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.

2.8.2.34.5 Details of any approved waste mixing as per condition 2.8.2.6.

2.8.2.35 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.

2.8.2.36 As part of the AER, the operator shall submit the name of each carrier used in the transport of the substances specified in Conditions 2.8.2.24 and 2.8.2.28, in the format specified therein, by end of June after the end of each reporting year.

2.8.2.37 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.

2.8.2.38 Within three (3) months of issue of this permit the operator shall provide to the authority all information requested in Schedule 5.

2.8.2.39 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 5 of this Permit within 1 month following the end of the quarter.

2.8.2.40 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 3.

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.

2.9.3 In case of complaints from sensitive receptors regarding odours from the urea solution, the Authority may require the Operator to submit an odour management plan, which would include recommendations for abatement of the odour and timeframes for implementation.

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, 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, 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.
- 2.11.6 Such investigations and monitoring shall be carried out in collaboration with the other operators and where necessary led by the permit Coordinator.
- 2.11.7 Further to condition 2.11.6, 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.
- 2.11.8 In order to ensure compliance with condition 2.11.7 and to ensure that the Permit coordinator can achieve compliance with condition 1.4.5.2 of the regulatory framework permit , the operator shall provide the permit coordinator with any operational details which may be necessary for the Coordinator to conduct the required investigations.
- 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 3 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 In ensuring that the permit Coordinator can achieve compliance with condition 1.4.5.6 of the regulatory framework permit, the operator shall provide all the necessary operational information to the permit coordinator upon request.
- 2.11.11 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.
- 2.11.12 Further to conditions 2.11.6 to 2.11.11, 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 3 of this permit
- 2.11.13 As part of the AER, records of noise monitoring of the previous year shall be submitted to the Competent Authority by not later than end of June after the end of each reporting year, in the format specified in Schedule 3 of this permit. A detailed report shall also accompany such results.

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 Enemalta plc. 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 The operator shall ensure that 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.

Incidents and Complaints

- 2.12.7 The Operator shall maintain and implement written procedures for:
- 2.12.7.1 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;
 - 2.12.7.2 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
 - 2.12.7.3 ensuring that detailed records are made of all such actions and investigations.
- 2.12.8 The Operator shall record and investigate complaints concerning the Enemalta 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.
- 2.12.9 As part of the AER of this subsidiary permit, the Operator shall provide report on incidents and complaints in the format specified in Schedule 3. This shall

also include incidents and complaints which were addressed collectively with the other operators or one specific operator.

- 2.12.10 Details of incidents and complaints shall also be divulged to the other operators of the permitted installation

Attendance of Technically Competent Person(s) or delegate(s)

- 2.12.10 Attendance of the technically competent person(s) at the Site shall be recorded in the Site diary on arrival and departure.
- 2.12.11 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 permit holder 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.
- 2.12.12 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) or delegate(s)

- 2.12.13 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.
- 2.12.14 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 the 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 shall follow the Internal Emergency Plan submitted as part of the IPPC application and updated according to the according to 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.
- 2.14.2 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. All 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.
- 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 Act Chapter 424 of the laws of Malta and all relevant subsidiary legislation, in particular but not limited to implemented a risk assessment which covers the operation of the whole installation.
- 2.14.6 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 defined 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 commissioning phase of the D3PG Plant and EGM plant as defined in the relevant sections of this permit and subsidiary permit 1 the COMAH Competent Authority may carry out an Inspection 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.
- 2.14.10 Such an inspection shall also address the review of the safety studies submitted by the operator especially in cases where amendments need to be carried out as a result of any changes identified during the commissioning phase of the D3PG Plant and EGM plant.
- 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 specific to particular operators are included in the respective subsidiary permits. These address actions to be carried out and reviewed during the commissioning phase and action to be carried out during the operational phase to be followed up in subsequent COMAH inspections.
- 2.14.13 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.
- 2.14.14 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.

Fire fighting considerations

- 2.14.15 The operator shall be responsible for the maintenance and certification of all internal and external fire fighting 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 2.14.1 below.

Table 2.14.1 – infrastructure related to fire fighting system		
Tie in point	Name	description
TP 07.D3	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 07A.D4		
TP 07B.D4		

TP 08.D3	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.
TP 08.D4		

- 2.14.16 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 operators 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.
- 2.14.17 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.
- 2.14.18 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

- 2.14.19 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.
- 2.14.20 Condition 2.14.20 is without prejudice to obligations on the operator in his dual role as permit coordinator arising from the regulatory framework permit.

2.13 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 1.6.1, the updated baseline 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 also 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 ensure that such reports contribute to the 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 2.16.1 to 2.16.3 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 regulatory framework permit.
- 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/Cor1:2006 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 operator shall ensure that such reports contribute towards the formulation of 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 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.

Decommissioning of DPS1

- 2.16.17 Further to condition 2.2.2.9, the operator shall submit a decommissioning plan for DPS 1 and any ancillary infrastructure as part of the application for partial surrender of the application. This shall at least include all the information listed in condition 2.16.9, and any changes required to the remaining plant operated both by Enemalta and the other operators as a result of this decommissioning.
- 2.16.18 Such an application may require a review of:
- 2.16.18.1 the safety studies conducted by the operator
 - 2.16.18.2 the safety studies conducted by the other operators
 - 2.16.18.3 air dispersion modelling carried out for the installation
 - 2.16.18.4 any other studies as may be deemed necessary by the Comah Competent Authority, the Authority and/or its regulatory Consultees.

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 3
- 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 prescribed in Schedule 3. 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 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 3 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 5 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 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.
- 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 operator shall submit the information on the individual operations through the AER of this permit and collectively for the entire installation 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. 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.

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 any 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

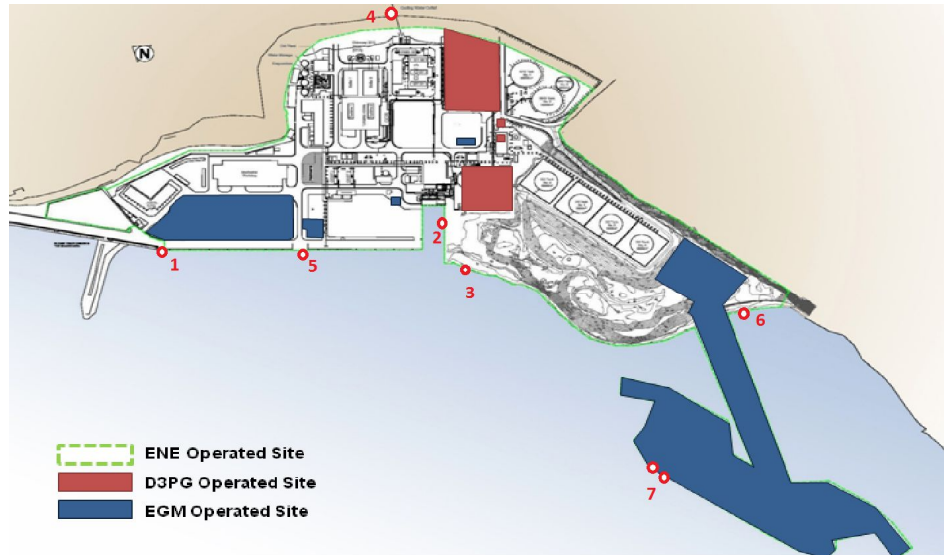
- 6.1 The conditions in this subsidiary permit are without prejudice to any condition in the Greenhouse gas Emissions Permit pursuant to LN 434 of 2013 – European Union Greenhouse Gas Emissions Trading Scheme for Stationary Installations, Regulations, 2013.

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.

Schedule 1

Operational Boundary for Enemalta (parts outlined in green)



Schedule 2

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	
---	--

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 ¹⁰	
I.D. Card No./Passport No.	
Post	
Signature	
Date	

¹⁰ authorised to sign on behalf of Operator

Schedule 3

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.

S3.1 Introduction

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

S3.2 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)¹¹.

Tick (✓)

S3.3 Process Data**S3.3.1 Annual Summary**

	Units	Previous reporting year ¹²	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		

S3.3.2 Fuel consumption

	Units	Sulphur Content ¹³	Consumption	
			Previous Year	Current Year
Heavy Fuel Oil	m ³			
Gas Oil	m ³			

¹¹ 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>)

¹² In this Annual Environmental Report, "previous reporting year" is not applicable for the first reporting year (2012) for the diesel engines (DPS6) only

¹³ Specify units (e.g. as percentage, or mg/kg)

S3.4 Monitoring Data of Emissions to Air

S3.4.1 Summary of emissions to air (concentrations)

S3.4.1.1 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 monthly mean value after validation		48 hourly Mean Limit Value (% compliance)	Percentage of exceedances of 48 hourly mean limit value after validation	
			mg.Nm ⁻³	mg.Nm ⁻³	Previous year	Present year	mg.Nm ⁻³	Previous year	Present year
Total Suspended Particulates	DPS1								
Oxides of Nitrogen	DPS1								
Sulphur Dioxide	DPS1								
Total Suspended Particulates	DPS2								
Oxides of Nitrogen	DPS2								
Sulphur Dioxide	DPS2								
Total Suspended Particulates	DPS3								
Oxides of Nitrogen	DPS3								
Sulphur Dioxide	DPS3								
Total Suspended Particulates	DPS4								
Oxides of Nitrogen	DPS4								
Sulphur Dioxide	DPS4								
Total Suspended Particulates	DPS5								
Oxides of Nitrogen	DPS5								
Sulphur Dioxide	DPS5								
Total Suspended Particulates	DPS6								
Oxides of Nitrogen	DPS6								
Sulphur Dioxide	DPS6								

Additional documentation to be submitted:

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

S3.4.1.2 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 ⁻³	mg.Nm ⁻³	Previous year	Present year
DPS1					
DPS2					
DPS3					
DPS4					
DPS5					
DPS6					

S3.4.1.3 Emissions of Dioxins and Furans (PCDDs and PCDFs)

Sampling last carried out in (year)	
Sampling due in (year)	

If monitoring was due in current reporting year, the following information shall be submitted:

Emission point reference	Standard methodology used	Mean Annual Limit Value	PCDD & PCDF concentration	Annual average Pollutant Concentration ¹	
		ng.Nm ⁻³	ng.Nm ⁻³	Present year	Previous report
				ng.Nm ⁻³	ng.Nm ⁻³
DPS1					

Additional documentation to be submitted:

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

¹ All exceedances in this Annual Environmental Report are to be clearly highlighted in red.

S3.4.1.4 Emissions of Metals

Dates on which sampling was carried out:

	DPS1	DPS6 (when applicable)
1 st six months:		
2 nd six months:		

Emission point reference	Metals	Standard methodology used	Mean Annual Limit Value	Concentration 1 st six months	Concentration 2 nd six months	Annual average Pollutant Concentration	
			mg.Nm ⁻³	mg.Nm ⁻³	mg.Nm ⁻³	Present year mg.Nm ⁻³	Previous year mg.Nm ⁻³
DPS1	Cadmium and thallium together						
DPS1	Arsenic, chromium cobalt, copper, manganese, nickel, lead, antimony and vanadium together						
DPS6	Cadmium and thallium together						
DPS6	Chromium cobalt, copper, manganese, lead and antimony together						
DPS6	Arsenic						
DPS6	Nickel						
DPS6	Vanadium						

Additional documentation to be submitted:

Tick (✓)

Accreditation certificate(s) of laboratory

☐

S3.4.1.5 Emissions of PAHs

	Date on which sampling was carried out
DPS1	
DPS6 (when applicable)	

Emission point reference	Standard methodology used	Naphthalene	Anthracene	Phenanthrene	Fluoranthene	Benzo(a) anthracene	Chrysene	Benzo(a) pyrene	Benzo(ghi) perylene	Benzo(k) fluoranthene	Indeno(1,2,3-cd)pyrene
		mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust	mg.kg ⁻¹ dust
DPS1											
DPS6											

Emission point reference	Emission limit value	PAH (sum 10) measurements mg.kg ⁻¹ dust	
		Present year	Previous year
DPS1			
DPS6			

Additional documentation to be submitted:

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

S3.4.1.6 Emissions of Ammonia

Emission point reference	Standard methodology used	Mean Annual Limit Value	Annual average Pollutant Concentration (mg.Nm ⁻³)	
		mg.Nm ⁻³	Present year	Previous year
DPS6				

S3.4.2 Monthly Loads of Particulates, SO₂ and NO_x*ONE PAGE PER PLANT TO BE SUBMITTED*

Operator: Enemalta Corporation Ltd.	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 ($\mu\text{g.Nm}^{-3}$) $\times 1 \times 10^{-9} \times \text{WGF (m}^3\text{.month}^{-1}\text{)}$
(WGF = waste gas flow rate).

S3.4.3 Annual Data

S3.4.3.1 Annual Load of Particulates, SO₂ and NO_x

Units	Rated Thermal Input MW _{TH}	Type	Fuel	Fuel Burn Mg.yr ⁻¹	Heat Value GJ.Mg ⁻¹	Annual Emissions* SO ₂ Mg.yr ⁻¹	Annual Emissions* NO _x Mg.yr ⁻¹	Annual Emissions* dust Mg.yr ⁻¹
Delimara 1	332	Steam Boiler	HFO					
Delimara 2	121	Gas Turbine	Gasoil					
Delimara 3	121	Gas Turbine	Gasoil					
Delimara 4	121	Gas Turbine	Gasoil					
Delimara 5	121	Gas Turbine	Gasoil					
Delimara 6	308	Diesel engines						
Total								

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

S3.4.3.2 Annual Load of Ni and V**ONE PAGE PER PLANT (DPS1, DPS6ⁱ) TO BE SUBMITTED**

Operator: Enemalta Corporation Ltd.	Plant no. DPS ____
Location: Delimara.	Heat Value of Fuel fired ____ GJ.Mg ⁻¹
Reporting year: _____	

Method 1: Metal content of fuel x fuel burn

Year	Fuel Burn (Mg . year ⁻¹)	Average Ni content (mg Ni.Mg ⁻¹)	Average V content (mg V.Mg ⁻¹)	Annual Ni Load (Mg)	Annual V Load (Mg)
Previous					
Current					

$$\text{Metal Load (Mg)} = \text{metal content (mg metal .Mg}^{-1}) \times 1 \times 10^{-9} \times \text{FB (Mg.year}^{-1})$$

FB = Fuel Burn.

*Metal = nickel or vanadium.**Method 2: Metal concentration in flue gas x flue gas volume*

Year	Flue gas volume	Average Ni content	Average V content	Annual Ni Load (Mg)	Annual V Load (Mg)
Previous					
Current					

Additional documentation to be submitted:

 Accreditation certificate(s) of laboratory Tick (✓)
☐
ⁱ When applicable.

S3.4.3.3 Annual Load of Ammonia*ONE PAGE TO BE SUBMITTED FOR DPS 6*

Operator: Enemalta Corporation Ltd.	Plant no. DPS ____
Location: Delimara.	Heat Value of Fuel fired _____ GJ.Mg ⁻¹
Reporting year: _____	

Year	Annual Ammonia Load (Mg)
Previous	
Current	

Additional documentation to be submitted:

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

S3.4: 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 (✓)

S3.5: Wind Rose

Documentation to be submitted:

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

Tick (✓)

--

S3.6: Ambient Air Quality Monitoring

Sampling location	
Number of PM ₁₀ daily samples taken during reporting year	
Number of PM _{2.5} daily samples taken during reporting year	
Number of samples analysed for arsenic, cadmium, nickel, lead and vanadium during reporting year	

	PM ₁₀ (ug/m ³)	PM _{2.5} (ug/m ³)
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
Average					

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

--

S3.7 Emissions to Marine Water

S3.7.1 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) ¹			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								
16	Tin								
17	Vanadium								
18	Zinc								
19	Total petroleum hydrocarbons								

¹ Exceedances are to be clearly highlighted in red.

No.	Parameter	Limit (annual average)	Standard methodology used	Concentration (annual average) ¹			Total annual mass emissions		
				Units	Previous year	Present year	Units	Previous year	Present year
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 <input type="checkbox"/> No <input type="checkbox"/>

Additional documentation to be submitted:

Accreditation certificate(s) of laboratory Tick (✓)

Were there any exceedances in the present reporting year?	Yes <input type="checkbox"/> No <input type="checkbox"/>
---	--

If yes, one of the following is also to be submitted:

Action programme aimed at achieving emission limits
Document designating a mixing zone following the procedures specified in Schedule IX(3) "Mixing Zones" in L.N. 345 of 2015

Tick (✓)

S3.7.2 Emissions to Marine Water: Ecological Monitoring

Date on which survey was carried out:	
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 (✓)

S3.8 Noise monitoringⁱ

Monitoring point ⁱⁱ	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 ⁱⁱⁱ	<input type="checkbox"/>

ⁱ Noise monitoring shall be carried out according to BS 4142:1997.

ⁱⁱ 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.

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

S3.9 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".

S3.10 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	
Date of last ultrasonic testing of shell thickness for above tanks	
Ultrasonic testing of shell thickness for above tanks due on (date)	
Number of fuel tanks on site for DPS6	
Date of last ultrasonic testing of shell thickness (DPS6)	
Ultrasonic testing of shell thickness (DPS6) 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)	

S3.11 Incidents and Complaints

S3.11.1 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:

S3.11.2 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:

S3.12 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

S3.13 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	
-----------------	--

Additional documentation to be submitted:

Land monitoring programme

Land monitoring results

Accreditation certificates of laboratory

Tick (✓)

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**S4.1.1 Data for Particulates**

ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT
(DPS 1 - 6)

Operator: Enemalta Corporation Ltd.

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 1 - 6)**

Operator: Enemalta Corporation Ltd.	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 1 - 6)**

Operator: Enemalta Corporation Ltd.	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 1 - 6)**

Operator: Enemalta Corporation Ltd. 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
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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 ×.

[illegible]

Note:

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

S4.4 Monthly Statistical Analysis of Continuous Monitoring

S4.4.1 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 48-hour limit in period				-
Highest individual 48-hour average in period (mg . Nm ⁻³)				-
Mean 48-hourly average, in 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				

Sampling location	
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Note:
In the table above underline measurements which exceed the daily limit value of $50 \mu\text{g}/\text{m}^3$ for PM_{10} , in accordance with LN 478 of 2010.

Accreditation certificate(s) of laboratory Tick (✓)

Schedule 5

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: _____

S5.1 Waste

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

S5.2 Air emissions**S5.2.1 Quarterly reporting of SO₂ and NO_x loads****S5.2.2.1 SO₂ load**

Period	Projected load ⁱ	Actual load	Revised projected load
	tonnes	tonnes	tonnes
January – March			
April – June			
July – September			
October – December			
Total annual load			

S5.2.2.2 NO_x load

Period	Projected load ⁱ	Actual load	Revised projected load
	tonnes	tonnes	tonnes
January – March			
April – June			
July – September			
October – December			
Total annual load			

ⁱ As submitted to the Authority in September of previous year

Schedule 6

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 7

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
Dichlorovos	Cypermethrin
Heptachlor and heptachlor epoxide	Hexabromo-cyclododecane
	Terbutryn

END OF PERMIT