



Headquarters,  
Johnstown Castle Estate,  
County Wexford, Ireland

## GREENHOUSE GAS EMISSIONS PERMIT

<b>Permit Register Number:</b>	IE-GHG075-10383-4
<b>Operator:</b>	SSE Generation Ireland Limited Red Oak South South County Business Park Leopardstown Dublin 18
<b>Installation Name:</b>	Tarbert Generating Station
<b>Site Name:</b>	Tarbert Generating Station
<b>Location:</b>	Tarbert Generating Station Tarbert Kerry Ireland

## Introductory Note

***This introductory note does not form a part of the Greenhouse Gas Emissions Permit.***

This Greenhouse Gas Emissions Permit authorises the holder to undertake named activities resulting in emissions of Carbon Dioxide from the listed emission sources. It also contains requirements that must be met in respect of such emissions, including monitoring and reporting requirements. This Greenhouse Gas Emissions Permit places an obligation on the Operator to surrender allowances to the Agency equal to the annual reportable emissions of carbon dioxide equivalent from the installation in each calendar year, no later than four months after the end of each such year.

### Contact with Agency:

If you contact the Agency about this Greenhouse Gas Emissions Permit please quote the following reference: Greenhouse Gas Emissions Permit N<sup>o</sup> IE-GHG075-10383.

All correspondence in relation to this permit should be addressed to:

*Email:* help.ets@epa.ie

*By Post:* Climate Change Unit, Environmental Protection Agency  
P.O. Box 3000, Johnstown Castle Estate,  
Co. Wexford

### Updating of the permit:

This Greenhouse Gas Emissions Permit may be updated by the Agency, subject to compliance with Condition 2. The current Greenhouse Gas Emissions Permit will normally be available on the Agency's website at [www.epa.ie](http://www.epa.ie) and [ETSWAP](#).

### Surrender of the permit:

Before this Greenhouse Gas Emissions Permit can be wholly or partially surrendered, a written application must be made to the on-line ETS portal, and written permission received from, the Agency through [ETSWAP](#).

### Transfer of the permit or part of the permit:

Before this Greenhouse Gas Emissions Permit can be wholly or partially transferred to another Operator a joint written application to transfer this Greenhouse Gas Emissions Permit must be made (by both the existing and proposed Operators) to, and written permission received from, the Agency through the on-line ETS portal [ETSWAP](#).

**Licence held pursuant to the Environmental Protection Agency Act 1992, as amended.** (as of the date of this permit):

<b>IPC/IE Licence Register Number</b>
P0607-02

## Status Log

### Current Permit

Permit number	Date application received	Date Permit issued	Comment
IE-GHG075-10383-4	30 June 2020	11 November 2020	Update of the monitoring plan for determination of HFO consumption. Update of the list of ISO17025 accredited laboratories.

### Previous Permits

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG075-10383-1	GHG Permit Application	02 July 2013	31 July 2013	
IE-GHG075-10383-2	GHG Variation	02 January 2014	17 April 2014	Inclusion of the emission source S9 small diesel sources and the emission source S10 workshop gases.
IE-GHG075-10383-3	GHG Variation	10 July 2015	23 August 2016	Thermal input capacity details updated for S5, S6, S7 and S8. The approach description has been updated to include additional detail on calculation of activity level for HFO. An additional analysis laboratory included for HFO analysis.

### End of Introductory Note



## Glossary of Terms

For the purposes of this permit the terms listed in the left hand column shall have the meaning given in the right hand column below:

The Agency	Environmental Protection Agency.
Agreement	Agreement in writing.
Allowance	Permission to emit to the atmosphere one tonne of carbon dioxide equivalent during a specified period issued for the purposes of Directive 2003/87/EC by the Agency or by a designated national competent authority of a Member State of the European Union.
Annual Reportable Emissions	Reportable Emissions of carbon dioxide made in any calendar year commencing from 1 January 2005 or the year of commencement of the activity, whichever is the later.
A & V Regulation	Commission Regulation (EU) No 600/2012 of 21 June 2012 on the verification of greenhouse gas emission reports and tonne-kilometre reports and the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council and any amendments or revisions thereto.
Category A Installation	As defined in Article 19.2 (a) of the M&R Regulation.
Category B Installation	As defined in Article 19.2 (b) of the M&R Regulation.
Category C Installation	As defined in Article 19.2 (c) of the M&R Regulation.
The Directive	Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.
Emissions	The release of greenhouse gases into the atmosphere from sources in an installation.
EPA	Environmental Protection Agency.
Fall-Back Methodology	As defined in Article 22 of the M&R Regulation.
GHG	Greenhouse gas.
GHG Permit	Greenhouse gas emissions permit.
Greenhouse Gas	Any of the gases in Schedule 2 of the Regulations.
IPC/IE	Integrated Pollution Control/Industrial Emissions.
Installation	Any stationary technical unit where one or more activities listed in Schedule 1 to the Regulations are carried out. Also any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution. References to an installation include references to part of an installation.

Installation with low emissions	As defined in Article 47 of the M&R Regulation.
Major Source Streams	As defined in Article 19.3 (c) of the M&R Regulation.
M&R Regulation	Commission Regulation (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and any amendments or revisions thereto.
Mis-statement	An omission, misrepresentation or error in the Operators reported data, not considering the uncertainty permissible pursuant to Article 12(1)(a) of Regulation (EU) no 601/2012.
N/A	Not applicable.
Monitoring Plan	The Plan submitted and approved in accordance with Condition 3.1 of this permit and attached at Appendix 1.
Non-conformity	Any act or omission by the Operator, either intentional or unintentional, that is contrary to the greenhouse gas emissions permit and the requirements of the Monitoring Plan.
The National Administrator	The person so designated in accordance with the requirements of any Regulations adopted as provided for under Article 19.3 of Directive 2003/87/EC.
The Operator (for the purposes of this permit)	SSE Generation Ireland Limited
“operator”	Any person who operates or controls an installation or to whom decisive economic power over the functioning of the installation has been delegated.
Person	Any natural or legal person.
Reportable emissions	The total releases to the atmosphere of carbon dioxide (expressed in tonnes of carbon dioxide equivalent) from the emission sources specified in Table 2 and arising from the Schedule 1 activities which are specified in Table 1.
The Regulations	European Communities (Greenhouse Gas Emissions Trading) Regulations 2012 (S.I. No 490 of 2012) and any amendments or revisions thereto.
The Verifier	A legal person or another legal entity carrying out verification activities pursuant to Regulation (EU) No 600/2012 and accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008 and Regulation (EU) No 600/2012 or a natural person otherwise authorised, without prejudice to Article 5(2) of Regulation (EC) No 765/2008, at the time a verification report is issued.
The Registry	The Registry as provided for under Article 19 of Directive 2003/87/EC.

Schedule 1

Schedule 1 to the Regulations.



## Reasons for the Decision

The Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this permit, the Operator is capable of monitoring and reporting emissions in accordance with the requirements of the Regulations.

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## Activities Permitted

Pursuant to the Regulations the Agency transfers this Greenhouse Gas Emissions Permit, subject to any subsequent revisions, corrections or modifications it deems appropriate, to:

### The Operator:

SSE Generation Ireland Limited  
Red Oak South  
South County Business Park  
Leopardstown  
Dublin 18

Company Registration Number: 459400

from

### The Former Operator:

XJWB Limited  
85 Merrion Square

Dublin 2

to carry out the following

### Categories of activity:

Annex 1 Activity
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Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
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at the following installation(s):

Tarbert Generating Station **Installation number:** 57

located at

Tarbert Generating Station  
Tarbert  
Kerry  
Ireland

subject to the five conditions contained herein, with the reasons therefor and associated tables attached thereto.

In accordance with Joint Declaration made to the Agency on 17 February 2009, *SSE Generation Ireland Limited* is deemed to have assumed and accepted all liabilities, requirements and obligations provided for in or arising under the permit, regardless of how and in respect of what period, including the period 2005-2007, prior to the transfer of the permit, that may arise.

# Conditions

## Condition 1. The Permitted Installation

- 1.1 This permit is being granted in substitution for the previous GHG permit granted to the Operator as listed in the Status Log of this GHG permit.
- 1.2 The Operator is authorised to undertake the activities and/or the directly associated activities specified in Table 1 below resulting in the emission of carbon dioxide:

**Table 1 - Activities which are listed in Schedule 1 of the Regulations and other directly associated activities carried out on the site:**

Installation No.: 57

Activity Description
Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
Directly Associated Activity Description
N/A

- 1.3 Carbon dioxide from Schedule 1 activities shall be emitted to atmosphere only from the emission sources as listed in Table 2 below:

**Table 2 Emission Sources and Capacities:**

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S1	Boiler No1	170	MW
S2	Boiler No2	170	MW
S3	Boiler No 3	616	MW
S4	Boiler No 4	616	MW
S5	Diesel Generator	1.1	MW
S6	Hydrant - Diesel Fire Pump 1	0.2	MW
S7	Deluge - Diesel Fire Pump 1	0.4	MW

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S8	Deluge - Diesel Fire Pump 2	0.4	MW
S9	Small Diesel Sources	0.1	MW
S10	Workshop Gases	0.1	MW

- 1.4 The activity shall be controlled, operated and maintained so that emissions of carbon dioxide shall take place only as set out in this GHG Emissions Permit. The permit does not control emissions of gases other than carbon dioxide. All agreed plans, programmes and methodologies required to be carried out under the terms of this permit, become part of this permit.
- 1.5 This GHG Permit is for the purposes of GHG emissions permitting under the European Communities (Greenhouse Gas Emissions Trading) Regulations 2012 and any amendments to the same only and nothing in this permit shall be construed as negating the Operator’s statutory obligations or requirements under any other enactments or regulations unless specifically amended by the Regulations.
- 1.6 Any reference in this permit to ‘installation’ shall mean the installation as described in the Greenhouse Gas Emissions Permit application and any amendments approved by the Agency.

*Reason: To describe the installation and clarify the scope of this permit.*

## Condition 2. Notification

- 2.1 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in a change in:
  - 2.1.1 the nature or functioning of the installation;
  - 2.1.2 the capacity of the installation as detailed in this permit;
  - 2.1.3 the fuels used at the installation;
  - 2.1.4 the range of activities to be carried out at the installation
 that may require updating of the GHG permit shall be carried out or commenced without prior notice to and without the prior written agreement of the Agency.
- 2.2 The Operator shall notify the Agency in writing of the cessation of all or part of any activity listed in Table 1 of this permit no later than one month from the date of cessation or by 31 December of the year of cessation, whichever is sooner.
- 2.3 The Operator shall apply for an update of this GHG Permit where there is a change to the Operator name and/or registered address of the Operator, within seven days of the change.
- 2.4 For installations or parts of installations which have not come into operation when the application for this permit was made the Operator shall notify the Agency of the date of commencement of the activity within seven days of commencement.

- 2.5 The Operator shall notify the Agency in writing within three days of becoming aware of any factors which may prevent compliance with the conditions of this permit.
- 2.6 The Operator shall submit to the Agency by 21 January of each year a declaration of operability. The declaration submitted shall be in the format required by the Agency.
- 2.7 All notifications required under Condition 2 above shall be made to the address given in the Explanatory Note included with this permit.

*Reason: To provide for the notification of updated information on the activity.*

### **Condition 3. Monitoring and Reporting**

- 3.1 The Operator shall monitor and record greenhouse gas emissions on site in accordance with the M&R Regulation and the approved Monitoring Plan attached at Appendix 1 to this GHG permit and in compliance with any other guidance approved by the Agency for the purposes of implementing the Directive and/or the Regulations.
- 3.2 The Operator shall modify the monitoring plan in any of the following situations:
- 3.2.1 new emissions occur due to new activities carried out or due to the use of new fuels or materials not yet contained in the monitoring plan;
  - 3.2.2 the change of availability of data, due to the use of new measurement instrument types, sampling methods or analysis methods, or for other reasons, leads to higher accuracy in the determination of emissions;
  - 3.2.3 data resulting from the previously applied monitoring methodology has been found incorrect;
  - 3.2.4 changing the monitoring plan improves the accuracy of the reported data, unless this is technically not feasible or incurs unreasonable costs;
  - 3.2.5 the monitoring plan is not in conformity with the requirements of the M&R Regulation and the Agency requests a change;
  - 3.2.6 it is necessary to respond to the suggestions for improvement of the monitoring plan contained in the verification report.

The Operator shall notify any proposals for modification of the monitoring plan to the Agency without undue delay. Any significant modifications of the monitoring plan, as defined in Article 15 of the M&R Regulation, shall be subject to approval by the Agency. Where approved these changes shall be implemented within a timeframe agreed by the Agency.

- 3.3 Temporary changes to the monitoring methodology:
- 3.3.1 Where it is for technical reasons temporarily not feasible to apply the tier in the monitoring plan for the activity data or each calculation factor of a fuel or material stream as approved by the Agency, the Operator shall apply the highest achievable tier until the conditions for application of the tier approved in the monitoring plan have been restored. The Operator shall take all necessary measures to allow the prompt restoration of the tier in the approved monitoring plan. The Operator shall notify the temporary change to the monitoring methodology without undue delay to the Agency specifying:
    - (i) The reasons for the deviation from the tier;
    - (ii) in detail, the interim monitoring methodology applied by the Operator to determine the emissions until the conditions for the application of the tier in the monitoring plan have been restored;

- (iii) the measures the Operator is taking to restore the conditions for the application of the tier in the approved monitoring plan;
  - (iv) the anticipated point in time when application of the approved tier will be resumed.
- 3.3.2 A record of all non-compliances with the approved monitoring plan shall be maintained on-site and shall be available on-site for inspection by authorised persons of the Agency and/or by the Verifier at all reasonable times.
- 3.4 The Operator shall appoint a Verifier to ensure that, before their submission, the reports required by Condition 3.5 below are verified in accordance with the criteria set out in Schedule 5 of the Regulations, the A&V Regulation and any more detailed requirements of the Agency.
- 3.5 The written report of the verified annual reportable emissions and the verification report in respect of each calendar year shall be submitted to the Agency by the Operator no later than 31 March of the following year. The reports shall be in the format required by the Agency and meet the criteria set out in the M&R and A&V Regulations.
- 3.6 The Operator shall enter the verified annual reportable emissions figure for the preceding year into the Registry no later than 31 March of the following year. This figure shall be electronically approved by the Verifier in the registry no later than 31 March of each year.
- 3.7 Where an Operator is applying the Fall-Back methodology, the Operator shall assess and quantify each year the uncertainties of all parameters used for the determination of the annual emissions in accordance with the ISO Guide to the Expression of Uncertainty in Measurement or another equivalent internationally accepted standard and include the verified results in the written report of the verified annual reportable emissions to be submitted to the Agency by 31 March each year.
- 3.8 An Operator shall submit to the Agency for approval a report containing the information detailed in (i) or (ii) below, where appropriate, by the following deadlines:
  - (a) for a category A installation, by 30 June every four years;
  - (b) for a category B installation, by 30 June every two years;
  - (c) for a category C installation, by 30 June every year.
  - (i) Where the Operator does not apply at least the tiers required pursuant to the first subparagraph of Article 26(1) and to Article 41(1) of the M&R Regulation, the Operator shall provide a justification as to why it is technically not feasible or would incur unreasonable costs to apply the required tiers. Where evidence is found that measures needed for reaching those tiers have become technically feasible and do not incur unreasonable costs, the Operator shall notify the Agency of appropriate modifications to the monitoring plan and submit proposals for implementing appropriate measures and its timing.
  - (ii) Where the Operator applies a fall-back monitoring methodology, the Operator shall provide a justification as to why it is technically not feasible or would incur unreasonable costs to apply at least tier 1 for one or more major or minor source streams. Where evidence is found that measures needed for reaching at least tier 1 for those source streams have become technically feasible and do not incur unreasonable costs, the Operator shall notify the Agency of appropriate modifications to the monitoring plan, submit proposals and a timeframe for implementing appropriate measures.
- 3.9 Where the verification report states outstanding non conformities, misstatements or recommendations for improvements the Operator shall submit a report to the Agency for approval by 30 June of the year in which the verification report is issued. This requirement does not apply to the Operator of an installation with low emissions where the verification report contains recommendations for improvements only. The report shall describe how and when the Operator

has rectified or plans to rectify the non-conformities identified and to implement recommended improvements. Where recommended improvements would not lead to an improvement of the monitoring methodology this must be justified by the Operator. Where the recommended improvements would incur unreasonable costs the Operator shall provide evidence of the unreasonable nature of the costs. The Operator shall implement the improvements specified by the Agency in response to the report submitted in accordance with this Condition in accordance with a timeframe set by the Agency.

- 3.10 The Operator shall make available to the Verifier and to the Agency any information and data relating to emissions of carbon dioxide which are required in order to verify the reports referred to in Condition 3.5 above or as required by the Agency to facilitate it in establishing benchmarks and/or best practice guidance.
- 3.11 Provision shall also be made for the transfer of environmental information, in relation to this permit, to the Agency's computer system, as may be requested by the Agency.
- 3.12 The Operator shall retain all information as specified in the M&R Regulation for a period of at least 10 years after the submission of the relevant annual report. This shall include all annual emissions reports submitted by the Former Operator(s) in respect of the installation.
- 3.13 A record of independent confirmation of capacities listed in this permit shall be available on-site for inspection by authorised persons of the Agency at all reasonable times.
- 3.14 The Operator shall keep records of all modifications of the monitoring plan. The records shall include the information specified in Article 16.3 of the M&R Regulation.
- 3.15 The Operator shall ensure that members of the public can view a copy of this permit and any reports submitted to the Agency in accordance with this permit at all reasonable times. This requirement shall be integrated with the requirements of any public information programme approved by the Agency in relation to any other permit or licence held by the Operator for the site.
- 3.16 Any discrepancies with regard to reports submitted by the Former Operator(s) in respect of this installation become the liability of the Operator.

*Reason: To provide for monitoring and reporting in accordance with the Regulations.*

## **Condition 4. Allowances**

- 4.1 Surrender of Allowances
  - 4.1.1 The Operator shall, by 30 April in each year, surrender to the Agency, or other appropriate body specified by the Agency, allowances equal to the annual reportable emissions in the preceding calendar year.
  - 4.1.2 The number of allowances to be surrendered shall be the annual reportable emissions for the preceding calendar year plus such allowances as may be necessary to cover any earlier calendar year in respect of which allowances remain outstanding and due, including any liabilities arising from the period before the permit was transferred. This includes allowances to cover the amount of any annual reportable emissions in respect of which allowances were not surrendered in accordance with Condition 4.1.1 in the previous year, and the amount of any reportable emissions which were discovered during the previous year to have been unreported in reports submitted under Condition 3 in that or in earlier years.
  - 4.1.3 In relation to activities or parts of activities which have ceased to take place and have been notified to the Agency in accordance with Condition 2.2 above, the Operator shall surrender to the Agency allowances equal to the annual reportable emissions from such

activities in the preceding calendar year or part thereof, together with such allowances as may be necessary to cover any earlier calendar year in respect of which allowances remain outstanding and due as described in Condition 4.1.2 above.

- 4.1.4 The Operator may, from 2008 onwards, subject to the provisions of the Regulations and the relevant National Allocation Plan for that compliance year, surrender emission reduction units (ERUs) and certified emission reduction units (CERs) in place of allowances.
- 4.2 The holding, transfer, surrender and cancellation of allowances shall be in accordance with the requirements of any Regulations adopted as provided for under Article 19.3 of Directive 2003/87/EC, any amendment or revision to the same and any guidance issued by the Agency or the National Administrator.
- 4.3 The Operator shall provide the National Administrator with all the necessary information for the opening of an Operator holding account for the installation described in Condition 1 of this permit within twenty working days of the issue of this permit, unless such an account is already open.

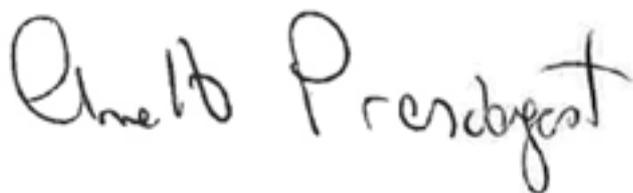
*Reason: To provide for the surrendering, holding, transfer and cancellation of allowances in respect of reported emissions.*

## Condition 5. Penalties

5.1 Any Operator who fails to comply with Condition 4.1 above shall be subject to the provisions of the Regulations, including, but not limited to the payment of penalties.

*Reason: To provide for the payment of excess emissions penalties as required under the Regulations.*

Signed by the Authorised Person on this the 11 November 2020:



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Ms. Annette Prendergast  
Inspector/ Authorised Person

# Appendix 1 to Greenhouse Gas Emissions Permit Number IE-GHG075-10383

## Monitoring Plan

### 1. Guidelines & Conditions

1. Directive 2003/87/EC as amended by Directive 2009/29/EC (hereinafter "the (revised) EU ETS Directive") requires operators of installations which are included in the European Greenhouse Gas Emission Trading Scheme (the EU ETS) to hold a valid GHG emission permit issued by the relevant Competent Authority and to monitor and report their emissions and have the reports verified by an independent and accredited verifier.

The Directive can be downloaded from:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF>

2. The Monitoring and Reporting Regulation (Commission Regulation (EU) No 601/2012) (hereinafter the "MRR") defines further requirements for monitoring and reporting.

The MRR can be downloaded from:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:181:0030:0104:EN:PDF>

Article 12 of the MRR sets out specific requirements for the content and submission of the monitoring plan and its updates. Article 12 outlines the importance of the Monitoring plan as follows:

*The monitoring plan shall consist of a detailed complete and transparent documentation of the monitoring methodology of a specific installation [or aircraft operator] and shall contain at least the elements laid down in Annex I.*

Furthermore Article 74(1) states:

*Member States may require the operator and aircraft operator to use electronic templates or specific file formats for submission of monitoring plans and changes to the monitoring plan as well as for submission of annual emissions reports tonne-kilometre data reports verification reports and improvement reports. Those templates or file format specifications established by the Member States shall at least contain the information contained in electronic templates or file format specifications published by the Commission*

3. All Commission guidance documents on the Monitoring and Reporting Regulation will be published at the link below as they become available:

[http://ec.europa.eu/clima/policies/ets/monitoring/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm)

#### (a) Information sources:

##### EU Websites:

EU-Legislation: <http://eur-lex.europa.eu/en/index.htm>

EU ETS general: [http://ec.europa.eu/clima/policies/ets/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/index_en.htm)

Monitoring and Reporting in the EU ETS: [http://ec.europa.eu/clima/policies/ets/monitoring/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm)

**Environmental Protection Agency Website:**

<http://www.epa.ie>

**Environmental Protection Agency Contact:**

[GHGpermit@epa.ie](mailto:GHGpermit@epa.ie)

## 2. Application Details

The Installation Name, Site Name and the address of the site of the installation are detailed below. The Site Name and address can be updated from the Organisation Details Page on the ETSWAP website. The Installation Name can only be updated by your Competent Authority.

<b>Installation name</b>	Tarbert Generating Station
<b>Site name</b>	Tarbert Generating Station
<b>Address</b>	Tarbert Generating Station Tarbert Kerry Ireland

<b>Grid reference of site main entrance</b>	107679 E 149489 N
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<b>Licence held pursuant to the Environmental Protection Agency Act 1992, as amended.</b>	Yes
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IPC/IE Licence Register Number	Licence holder	Competent body
P0607-02	SSE Generation Ireland Limited	EPA

Has the regulated activity commenced at the Installation? Yes

<b>Date of Regulated Activity commencement</b>	01 January 2008
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This information is only required to identify the first relevant reporting year of an installation. If the installation was in operation from the beginning of 2008 and held a Greenhouse Gas Emissions Permit from this point, 1 January 2008 will be used where the actual date of commencement is not readily known.

### 3. About the Operator

The information about the "Operator" is listed below. The "Operator" is defined as the person who it is proposed will have control over the relevant Regulated Activities in the installation in respect of which this application is being made.

#### (b) Operator Details

The name of the operator and where applicable the company registration number are detailed below. These details can only be updated by the Environmental Protection Agency.

**Operator name** SSE Generation Ireland Limited

**Company Registration Number** 459400

#### Operator Legal status

The legal status of the operator is: Company / Corporate Body

**(c) Company / Corporate Body**

Is the trading / business name different to the operator name? No

**Registered office address**

Address Line 1	Red Oak South
Address Line 2	South County Business Park
City/Town	Leopardstown
County	N/A
Postcode	Dublin 18

**Principal office address**

Is the principal office address different to the registered office address? No

**Holding company**

Does the company belong to a holding company? No

**(d) Operator Authority**

Does the operator named above have the authority and ability to:

- |   |     |
|---|-----|
| a. manage site operations through having day-to-day control of plant operation including the manner and rate of operation                   | Yes |
| b. ensure that permit conditions are effectively complied with  | Yes |
| c. control monitor and report specified emissions   | Yes |
| d. be responsible for trading in Allowances so that at the end of a reporting period allowances can be balanced against reported emissions. | Yes |

## 4. Service Contact

### e. Service Contact

Address Tarbert  
Kerry  
Ireland

## 5. Installation Activities

### f. Installation Description

Below is a description of the installation and its activities, a brief outline description of the site and the installation and the location of the installation on the site. The description also includes a non-technical summary of the activities carried out at the installation briefly describing each activity performed and the technical units used within each activity.

Tarbert Generating station is located on the southern bank of the River Shannon, 45 KM west of Limerick City. The station consists of four Generating Units, housed at the centre of the site. Units One and Two have an electrical output capacity of 57MW each, and Units Three and Four have an electrical output capacity of 256MW each. This gives a station Total electrical output capacity of 626MW. Each Unit is independent and consists of a Boiler, Steam Turbine, Generator and auxiliary plant. There is common auxiliary systems line Fuel Storage and Water Treatment, which supports all the Units. The station is fuelled by Heavy Fuel Oil, and Gas Oil is used as a start up fuel. An emergency diesel generator, a fire hydrant and two deluge fire pump are operational as auxiliary plant. These plants operate on gasoil. There are also other small diesel sources onsite such as pumps, power washers, compressors etc. and workshop gases such as propane which is used for welding processes.

### g. Annex 1 Activities

The table below lists the technical details for each Annex 1 activity carried out at the installation.

Note that 'capacity' in this context means:

- Rated thermal input (for combustion installations) which is defined as the rate at which fuel can be burned at the maximum continuous rating of the installation multiplied by the calorific value of the fuel and expressed as megawatts thermal.
- Production capacity for those specified Annex I activities for which production capacity determines ETS eligibility.

Annex 1 Activity	Total Capacity	Capacity units	Specified Emissions
Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)	1574.3	MW	Carbon Dioxide



<b>Emission Source Reference</b>	<b>Emission Source Description</b>
S4	Boiler No 4
S5	Diesel Generator
S6	Hydrant - Diesel Fire Pump 1
S7	Deluge - Diesel Fire Pump 1
S8	Deluge - Diesel Fire Pump 2
S9	Small Diesel Sources
S10	Workshop Gases

The table below lists the emission sources which are linked to the Regulated Activities at the installation.

<b>Emission Source Reference</b>	<b>Emission Source Description</b>
S1	Boiler No1
S2	Boiler No2
S3	Boiler No 3
S4	Boiler No 4
S5	Diesel Generator
S6	Hydrant - Diesel Fire Pump 1
S7	Deluge - Diesel Fire Pump 1
S8	Deluge - Diesel Fire Pump 2
S9	Small Diesel Sources
S10	Workshop Gases

#### **I. Emission Points**

The table below lists all the emission points at the installation, which may include directly associated activities/excluded activities.

<b>Emission Point Reference</b>	<b>Emission Point Description</b>
A1-1	Boiler 1 Stack A
A1-2	Boiler 2 Stack A
A1-3	Boiler 3 Stack B
A1-4	Boiler 4 Stack B
DG1	Diesel Generator
FP1	Hydrant - Diesel Fire Pump 1
FP2	Deluge - Diesel Fire Pump 1
FP3	Deluge - Diesel Fire Pump 2

Emission Point Reference	Emission Point Description
SD1	Small Diesel sources
WG1	Workshop Gases

#### m. Source Streams (fuels and/or materials)

The table below lists the source streams which are used in Schedule 1 Activities at the installation.

Source Stream Reference	Source Stream Type	Source Stream Description
HFO-001	Combustion: Other gaseous & liquid fuels	Residual Fuel Oil
GO-001	Combustion: Commercial standard fuels	Gas/Diesel Oil
PR-001	Combustion: Commercial standard fuels	Propane
GO-002	Combustion: Commercial standard fuels	Gas/Diesel Oil

#### n. Emissions Summary

The table below provides a summary of the emission source and source stream details in the installation.

Source streams ( Fuel / Material )	Emission Source Refs.	Emission Point Refs.	Annex 1 Activity
HFO-001	S1,S2,S3,S4	A1-1,A1-2,A1-3,A1-4	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
GO-001	S1,S2,S3,S4,S5,S6,S7,S8	A1-1,A1-2,A1-3,A1-4,DG1,FP1,FP2,FP3	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
PR-001	S1,S10,S2,S3,S4	A1-1,A1-2,A1-3,A1-4,WG1	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)

Source streams ( Fuel / Material )	Emission Source Refs.	Emission Point Refs.	Annex 1 Activity
GO-002	S9	SD1	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)

**o. Excluded Activities**

Certain activities that result in greenhouse gas emissions may be excluded under the EU ETS Directive for example truly mobile sources such as vehicle emissions.

Do you have any excluded activities which need to be identified in your monitoring plan? No

**7. Low Emissions Eligibility**

**p. Low Emissions Eligibility**

The operator may submit a simplified monitoring plan for an installation where no nitrous oxide activities are carried out and it can be demonstrated that:

(a) the average verified annual emissions of the installation during the previous trading period was less than 25 000 tonnes CO<sub>2(e)</sub> per year or;

(b) where this data is not available or inappropriate a conservative estimate shows that emissions for the next 5 years will be less than 25 000 tonnes CO<sub>2(e)</sub> per year.

Note: the above data shall include transferred CO<sub>2</sub> but exclude CO<sub>2</sub> stemming from biomass.

Does the installation satisfy the criteria for installations with low emissions (as defined by Article 47 of the MRR)? No

**8. Monitoring Approaches**

**q. Monitoring Approaches**

Emissions may be determined using either a calculation based methodology ("calculation") or measurement based methodology ("measurement") except where the use of a specific methodology is mandatory according to the provisions of the MRR. [MRR Article 21].

Note: the operator may subject to competent authority approval combine measurement and calculation for different sources. The operator is required to ensure and demonstrate that neither gaps nor double counting of reportable emissions occurs.

Please specify whether or not you propose to apply the following monitoring approaches. Select all monitoring approaches that are applicable to you. The consecutive sections will become mandatory based on the selected approaches.

Calculation	Yes
Measurement	No
Fall-back approach	No
Monitoring of N <sub>2</sub> O	No
Monitoring of PFC	No
Monitoring of transferred / inherent CO <sub>2</sub>	No

## 9. Calculation

### r. Approach Description

The calculation approach including formulae used to determine annual CO<sub>2</sub> emissions:

The CO<sub>2</sub> emission for HFO consumption is calculated on a delivery basis as the product of Activity \*NCV\*EF\*OF. The activity data is measured by deliveries and stock difference between start and end of year. Stock levels at year end are witnessed by an independent agent. Where the end of year dip is not measured on the 31/12 of the reporting year, and if fuel oil consumption occurs between the 31/12 and the time of the year dip, the stock level will be adjusted based on the generated MW output of the unit divided by the heat rate of the unit. This variation merely adds a second tank to this deliveries and stock difference procedure.

During periods when a ship to shore HFO transfer is taking place from an oil tanker to the HFO "reception tank" - the approach shall incorporate the steps as outlined in the Section "About the Variation" Sub-Section "Description of the Proposed Change which states that the tank taking delivery of HFO from a berthed tanker shall not be in service supplying HFO to the boilers.

An independent agency will take samples every 20,000 tonnes and at least 6 times per year. These samples will be sent to an independent ISO 17025-accredited laboratory for analysis for Carbon content and NCV and Density. The Carbon Content and NCV will be applied per batch of fuel and an emission factor tCO<sub>2</sub>/TJ determined for each batch. The oxidation factor is unity. The reportable CO<sub>2</sub> is calculated on an annual basis. Density is used to update our calculations for HFO consumption and closing stocks.

Gas oil consumption is calculated based on the product of the Activity (with a known density)\*EF\*NCV. Activity data is measured by reference to deliveries (invoices) and stock difference between the start and end of the year. Data for EF and NCV are taken from the latest national tables submitted to the UNFCCC. The oxidation factor is 1. The calculation is done on an annual basis.

Gas oil consumption for the small diesel sources will be based on the "de-minimis" approach. Consumption will be based on delivery (invoice) dockets only. Data for EF and NCV are taken from the latest national tables submitted to the UNFCCC. The oxidation factor is 1. The calculation is done on an annual basis.

Propane consumption is based on the "de-minimis" approach. Consumption will be based on delivery (invoice) dockets only. Propane is calculated based on the activity (with a known density)\*NCV\*EF. Data for NCV and EF are taken from the latest National tables submitted to the UNFCCC. The oxidation factor is 1. The calculation is done on an annual basis.

**s. Measurement Devices**

Below is a description of the specification and location of the measurement systems used for each source stream where emissions are determined by calculation

Also a description of all measurement devices including sub-meters and meters used to deduct non-Annex I activities to be used for each source and source stream.

Source Stream Refs.	Emission Source Refs.	Measurement Device Ref.	Type of Measurement Device	Measurement Range	Metering Range Units	Specified Uncertainty (+/- %)	Location
HFO-001	S1,S2,S3,S4	MD1	Deliveries	15 - 0	Metric - Meters	0.076	Common Heavy Fuel Oil Tanks
GO-001	S1,S2,S3,S4,S5,S6,S7,S8	MD5	Tank dip	15 - 0	Meters	0.02	Diesel Tank 1
PR-001	S1,S2,S3,S4,S10	MD7	Delivery note	0 - 1500	Litres	N/A	Purchase records
HFO-001	S1,S2,S3,S4	MD2	Tank dip	15 - 0	Meters	0.02	Common Heavy Fuel Oil Tanks
GO-001	S1,S2,S3,S4,S5,S6,S7,S8	MD4	Delivery note	500 to 2200	Litres	0.06	Purchase records
HFO-001	S1,S2,S3,S4	MD8	Fiscal Meter	0-36000L	Litres	0.06	Suppliers Depot
GO-002	S9	MD6	Delivery note	0-36000L	Litres	n/a	Purchase records
HFO-001	S1,S2,S3,S4	MWh Electrical Export Integrator	Power Output meter	0 to 700 MW	Mega Watts	0.444	On output line from Tarbert Generating Station

Source Stream Refs.	Measurement Device Ref.	Determination Method	Instrument Under Control Of	Conditions Of Article 29(1) Satisfied	Invoices Used To Determine Amount Of Fuel Or Material	Trade Partner And Operator Independent
HFO-001	MD1	Batch	Operator	N/A	N/A	N/A
GO-001	MD5	Batch	Operator	Yes	Yes	Yes

Source Stream Refs.	Measurement Device Ref.	Determination Method	Instrument Under Control Of	Conditions Of Article 29(1) Satisfied	Invoices Used To Determine Amount Of Fuel Or Material	Trade Partner And Operator Independent
PR-001	MD7	Batch	Trade partner	Yes	Yes	Yes
HFO-001	MD2	Batch	Trade partner	Yes	No	Yes
GO-001	MD4	Batch	Trade partner	Yes	Yes	Yes
HFO-001	MD8	Batch	Trade partner	Yes	Yes	Yes
GO-002	MD6	Batch	Trade partner	Yes	Yes	Yes
HFO-001	MWh Electrical Export Integrator	Continual	Operator	N/A	N/A	N/A

#### t. Applied Tiers

The table below identifies the tiers applied against the relevant input data for each source stream and confirms whether a standard (MRR Article 24) or mass balance (MRR Article 25) approach is applied.

(i) The highest tiers as defined in Annex II of the MRR should be used by Category B and C installations to determine the activity data and each calculation factor (except the oxidation factor and conversion factor) for each major source stream. Category A installations should apply as a minimum the tiers listed in Annex V.

(ii) Operators may apply a tier one level lower than those referred to in sub paragraph (i) above for Category C installations and up to two levels lower for Category A and B installations with a minimum of tier 1 if the operator can demonstrate to the satisfaction of the competent authority that this is not technically feasible or would lead to unreasonable cost to apply the higher tier. The justification for not applying the higher tier should be recorded when completing the tier table.

(iii) The competent authority may allow an operator to apply even lower tiers than those referred to in the sub paragraph (ii) with a minimum of tier 1 for a transition period of up to three years if the operator can demonstrate to the satisfaction of the competent authority that this is not technically feasible or would lead to unreasonable cost to apply the higher tier and provides an improvement plan detailing how and by when at least the tier referred to in sub paragraph (ii) will be achieved. The improvement plan should be referenced in subsequent table and provided to the competent authority at the time of submission of this plan.

(iv) For minor source streams operators shall apply the highest tier which is technically feasible and will not lead to unreasonable costs with a minimum of tier 1 for activity data and each calculation factor. For de-minimis source streams operators may use conservative estimations rather than tiers unless a defined tier can be achieved without additional effort (MRR Article 26(2)).

(v) Installations with low emissions as identified in section 6(d) may apply as a minimum tier 1 for determining activity data and calculation factors for all source streams unless higher accuracy is achievable without additional effort.

\* Note 1: For commercial standard fuels the minimum tiers listed in Annex V of the MRR may be applied for all activities in all installations.

\* Note 2: If you are intending to apply a fall-back approach please complete the table below and select "n/a" for the tiers to be applied for each source stream where a fall-back approach is used. Section 10 "Fall-back" must also be completed for these source streams.

\* Note 3: For biomass or mixed fuels the emission factor is the preliminary emission factor as defined in Definition 35 Article 3 of the MRR.

Source Stream Refs.	Emission Source Refs.	Measurement Device Refs.	Overall Metering Uncertainty (less than +/- %)	Applied Monitoring Approach	Activity Data Tier Applied	Net Calorific Value Tier Applied	Emission Factor Tier Applied	Carbon Content Tier Applied	Oxidation Factor Tier Applied	Conversion Factor Tier Applied	Biomass Fraction Tier Applied	Estimated Emissions tCO <sub>2(e)</sub>	% of Total Estimated Emissions	Source Category	Highest Tiers Applied	Justification for not applying the highest tiers	Improvement Plan Reference (where applicable)
HFO-001	S1,S2,S3,S4	MD1, MD2, MD8, MWh Electrical Export Integrator	<1.5%	Standard	4	3	3	N/A	1	N/A	N/A	423873.36	99.36	Major	Yes	n/a	n/a
GO-001	S1,S2,S3,S4,S5,S6,S7,S8	MD4, MD5	<1.5%	Standard	4	2a	2a	N/A	1	N/A	N/A	2712.44	0.64	Minor	Yes	n/a	n/a
PR-001	S1,S10,S2,S3,S4	MD7	N/A	Standard	No tier	2a	2a	N/A	1	N/A	N/A	15.78	0	De-minimis	Yes	n/a	n/a

Source Stream Refs.	Emission Source Refs.	Measurement Device Refs.	Overall Metering Uncertainty (less than +/- %)	Applied Monitoring Approach	Activity Data Tier Applied	Net Calorific Value Tier Applied	Emission Factor Tier Applied	Carbon Content Tier Applied	Oxidation Factor Tier Applied	Conversion Factor Tier Applied	Biomass Fraction Tier Applied	Estimated Emissions tCO <sub>2(e)</sub>	% of Total Estimated Emissions	Source Category	Highest Tiers Applied	Justification for not applying the highest tiers	Improvement Plan Reference (where applicable)
GO-002	S9	MD6	N/A	Standard	No tier	2a	2a	N/A	1	N/A	N/A	0	0	De-minimis	Yes	n/a	n/a

Total Estimated Emissions for Calculation (tonnes CO<sub>2(e)</sub>)

426601.58

**u. Uncertainty Calculations**

The table below lists evidence attached to the application that demonstrates compliance with the applied tiers in accordance with Article 12 of the MRR.

<b>Attachment</b>	<b>Description</b>
Gasoil Example_Uncertainty_Calculations_(TBT) Rev 1.xls	Revised GO Uncertainty calculations. Meter uncertainty is from calibration certificates
Stock Accuracy Jan 2013.doc	Stock accuracy for stock determination from Marine Surveyors
Diesel Calibaration Certs EMO March 2012.pdf	Gas Oil delivery calib certs, showing uncertainty of 0.015%-0.035%
HFO Meter Calibrations 29Feb2012.TIF	HFO delivery cal certs
02JUL_HFO Uncertainty_Calcs_Incl density_(TBTfm)_Clarified.xls	Updated HFO uncertainty calculations using temp, density and metrology report
29 JUL_Gas Oil Uncertainty_Calcs_Incl density_(Tarbert-fm)_Clarified.xls	Gas Oil Uncertainty Calculations Final (29 July)
TB1_UTMADJ-signed_Integrator Calib Cert.pdf	Elec output Integrator Calibration Certificate
TB2_UTM-signed_INTGRTR_CALIB CERT.pdf	Second Calibration Cert for Integrator

**v. Applied tiers**

Applied tiers for each source stream

Source Stream Ref.	Emission Source Refs.	Activity Data Tier Applied	Net Calorific Value Tier Applied	Emission Factor Tier Applied	Carbon Content Tier Applied	Oxidation Factor Tier Applied	Conversion Factor Tier Applied	Biomass Fraction Tier Applied
HFO-001	S1,S2,S3,S4	4	3	3	N/A	1	N/A	N/A
GO-001	S1,S2,S3,S4,S5,S6,S7,S8	4	2a	2a	N/A	1	N/A	N/A
PR-001	S1,S10,S2,S3,S4	No tier	2a	2a	N/A	1	N/A	N/A
GO-002	S9	No tier	2a	2a	N/A	1	N/A	N/A

**w. Justification for Applied tiers**

Justifications for the applied tiers for each major source stream where highest tiers are not currently achieved.

<b>Source Stream Ref.</b>	<b>Emission Source Refs.</b>	<b>Justification for the applied tier</b>	<b>Improvement Plan Reference (where applicable)</b>
N/A	N/A	N/A	N/A

## 10. Calculation Factors

### x. Default Values

The table below lists, for each parameter, where default values are to be used for calculation factors.

Source Stream Refs.	Emission Source Refs.	Parameter	Reference Source	Default Value applied (where appropriate)
GO-001,GO-002,HFO-001,PR-001	S1,S10,S2,S3,S4,S5,S6,S7,S8,S9	OxF	MRR annex 2, section 2.3	1
GO-001,GO-002	S1,S2,S3,S4,S5,S6,S7,S8,S9	EF, NCV	National Inventory for Ireland	n/a
PR-001	S1,S10,S2,S3,S4	NCV, EF	National Inventory for Ireland	n/a

### Sampling and Analysis

Do you undertake sampling and analysis of any of the parameters used in the calculation of your CO<sub>2</sub> emissions? Yes

### y. Analysis

The table below lists, for each source stream, where calculation factors are to be determined by analysis.

Source Stream Refs.	Emission Source Refs.	Parameter	Method of Analysis	Frequency	Laboratory Name	Laboratory ISO17025 Accredited	Evidence Reference
HFO-001	S1,S2,S3,S4	NCV	ASTM D 240	Every 20,000 Tonnes and at least 6 times per year	SGS UK Ellesmere Port	Yes	n/a
HFO-001	S1,S2,S3,S4	Carbon Content	ASTM D 5291	Every 20,000 Tonnes and at least 6 times per year	SGS UK, Ellesmere Port	Yes	n/a



Detail about the written procedures for the above analysis.

Where a number of procedures are used details of an overarching procedure which covers the quality assurance of analyses methods and links together individual analytical methods is listed.

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	<p>The procedure describes how :</p> <p>All HFO samples are taken by independent contractor in accordance with ISO 3170, and are sent to independent ISO 17025 accredited laboratories for analysis of NCV, Carbon Content and Density.</p> <p>Gas Oil and Propane NCV, EF and OF are based on the current National Inventory reported to UNFCC.</p>

Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company share drive
List of EN or other standards applied	<p>EN ISO 3170</p> <p>EN ISO 17025</p> <p>ASTM D 240</p> <p>ASTM D 5291</p>

**z. Sampling Plan**

Details about the procedure covering the sampling plan for the analysis table above.

The procedure below covers the elements of a sampling plan as required by Article 33 of the MRR. Where a number of procedures are used, details of an overarching procedure which covers the sampling methods and links together individual sampling methods are listed.

Attachment	Description
PHASE_3_HFO_SAMPLING_PLAN.docx	Batch Sampling Plan
TBT_EMS 9.1-07 Green House Gas Procedure_Rev 13.docx	GHG procedure. The Sampling Plan is contained in Appendix 2
EP 17025-2017 Certificate_for SGS.pdf	SGS UK 17025 Cert 2020
SGS HFO Test Certification.pdf	17025 scope SGS UK 2020

<p>Title of procedure</p> <p>Reference for procedure</p> <p>Diagram reference</p> <p>Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Compliance with the Requirements of the EU Emissions Trading Scheme</p> <p>EMS 9.1-07</p> <p>N/A</p> <p>Information that is gathered in relation to fuel delivery, sampling and analysis and consumption will be used for verification, auditing and calculation of Green House Gas Emissions.</p> <p>This procedure deals with the delivery of Heavy Fuel Oil (HFO), Gas Oil and Propane; the sampling and analysis of Heavy Fuel Oil, dipping of Heavy Fuel Oil tanks; and the recording, verification and reporting of all information used in the calculation of annual CO2 emissions.</p> <p>Sampling is conducted on the basis of 6 batch samples taken on a two monthly basis, as described in HFO Sampling and Analysis section of EMS_9.1-07. Sampling is in compliance with ISO 3170.</p>
<p>Post or department responsible for the procedure and for any data generated</p> <p>Location where records are kept</p> <p>Name of IT system used</p> <p>List of EN or other standards applied</p>	<p>Environmental Coordinator</p> <p>Tarbert Generating Station</p> <p>Company shared drive</p> <p>EN ISO 3170</p> <p>EN ISO 17025</p> <p>ASTM D 240</p> <p>ASTM D 5291</p>

**aa. Sampling Plan Appropriateness**

The procedure to be used to revise the appropriateness of the sampling plan.

<p>Title of procedure</p> <p>Reference for procedure</p> <p>Diagram reference</p> <p>Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Compliance with the Requirements of the EU Emissions Trading Scheme</p> <p>EMS 9.1-07</p> <p>N/A</p> <p>This procedure is part of the station’s ISO 14001 accredited Environmental Management System and therefore regularly audited.</p> <p>The sampling plan appropriateness is reviewed annually to ensure that it is representative of the fuel being sampled and that it is reproducible and reliable. All fuels are very homogeneous materials so the sampling plan is uncomplicated. All laboratories used are accredited for the relevant analytical methods in accordance with EN ISO 17025. Actions from the audit and review process shall be monitored through to completion. This sampling plan may be adapted following agreement of the analysis laboratory and the EPA where analytical results indicate that the</p>
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Post or department responsible for the procedure and for any data generated	heterogeneity of the fuel differs significantly from the information on which the original sampling plan was based. Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company share drive
List of EN or other standards applied	ISO 14001  EN ISO 3170  EN ISO 17025
Are stock estimates carried out as part of the emission calculations?	Yes

#### bb. Year-end reconciliations

The procedure to be used to estimate stocks at the beginning/end of a reporting period where applicable. This should include any source streams monitored using batch metering e.g. where invoices are used.

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure.	The procedure describes how opening stocks, closing stocks and deliveries to site are reconciled for each year by an independent marine surveyor. Where the end of year dip is not measured on the 31/12 of the reporting year, and if fuel oil consumption occurs between the 31/12 and the time of the year dip, the stock level will be adjusted based on the generated MW output of the unit divided by the heat rate of the unit. In house tracking tables are maintained to monitor consumption and for crossreferencing with the year end results. Upon approval of this variation the SOP EMS 9.1-07 shall be changed to add the second tank to the sampling and stock take activities.
Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Compant share drive
List of EN or other standards applied	N/A

#### cc. Tracking Instruments

The procedure used to keep track of instruments installed in the installation used for determining activity data.

Title of procedure	n/a
Reference for procedure	n/a

Diagram reference	n/a
Brief description of procedure.	n/a
Post or department responsible for the procedure and for any data generated	n/a
Location where records are kept	n/a
Name of IT system used	n/a
List of EN or other standards applied	N/A

## 11. Management

### dd. Monitoring and Reporting Responsibilities

Responsibilities for monitoring and reporting emissions from the installation are listed below:

Relevant job titles/posts and provide a succinct summary of their role relevant to monitoring and reporting are listed below.

Job Title / Post	Responsibilities
Environmental Coordinator	Responsible for management of Environmental Information through the verification of data, maintenance of records, production of reports communication with the EPA. Review all procedures and ensure compliance with the Directive.
Station Manager	Overall responsibility for compliance with requirements of EU ETS.
Operations Technicians	Responsible for tracking fuel deliveries and recording. Organizing year end dips. Organizing fuel analyses.

Attachment	Description
Tarbert_Organisation_Chart_2015.doc	Tarbert Organisation Chart

**ee. Assignment of Responsibilities**

Details of the procedure used for managing the assignment of responsibilities for monitoring and reporting within the installation and for managing the competencies of responsible personnel in accordance with Article 58(3)(c) of the MRR:

This procedure identifies how the monitoring and reporting responsibilities for the roles identified above are assigned and how training and reviews are undertaken.

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The procedure for the assignment of responsibilities is contained in EMS 9.1-07. It covers assignment of responsibilities for monitoring and reporting within the station and for managing the competencies of responsible personnel in accordance with Article 58(3)(c) of the MRR. It identifies the roles assigned to relevant personnel and how training reviews are undertaken.
Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company Shared Drive
List of EN or other standards applied	ISO 14001

**ff. Monitoring Plan Appropriateness**

Details of the procedure used for regular evaluation of the monitoring plan's appropriateness covering in particular any potential measures for the improvement of the monitoring methodology:

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The Monitoring plan appropriateness procedure is contained within EMS 9.1-07 procedure.
	This procedure is part of the station's ISO 14001 accredited Environmental Management System and therefore regularly audited.
	The monitoring plan appropriateness is evaluated and reviewed annually to ensure that compliance with the monitoring plan is achieved and identifying improvements

to the plan where possible. It evaluates the following:

Checking the list of emissions sources and source streams,  
Assessing compliance with the uncertainty thresholds for activity data and other parameters and Assessment of potential measures for improvement of the monitoring methodology applied.

Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company Shared Drive
List of EN or other standards applied	ISO 14001

**gg. Data Flow Activities**

Details of the procedures used to manage data flow activities in accordance with Article 57 of the MRR:

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The management of data flow activities procedure is contained within EMS 9.1-07 procedure. It covers the following:  Identification of the primary data sources; A description of each step in the data flow from primary data to annual emissions which reflects the sequence and interaction between the data flow activities; A description of the relevant processing steps related to each specific data flow activity including formulas and data used to determine emissions; Details of electronic data processing and storage systems used and interaction between such systems and other inputs including manual input; A description of how outputs of data flow activity are recorded.
Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company Shared Drive
List of EN or other standards applied	ISO 14001 and ISO 14064.
List of primary data sources	Delivery dockets (HFO, Gasoil, propane)

Tank dips HFO and Gasoil

HFO analysis

Irish National Inventory

Weekly production report

Description of the relevant processing steps for each specific data flow activity.

The calculation approach including formulae used to determine annual CO2 emissions:

Identify each step in the data flow and include the formulas and data used to determine emissions from the primary data. Include details of any relevant electronic data processing and storage systems and other inputs (including manual inputs) and confirm how outputs of data flow activities are recorded

The CO2 emissions for HFO consumption is calculated on a delivery basis as the product of Activity\*NCV\*EF\*OF. The activity data is measured by deliveries (delivery dockets for roadborne deliveries) and stock difference between start and end of year. Stock levels at year end are witnessed by an independent 3rd party verification body. Where the end of year dip is not measured on the 31/12 of the reporting year, and if fuel oil consumption occurs between the 31/12 and the time of the year dip, the stock level will be adjusted based on the generated MW output of the unit divided by the heat rate of the unit. An independent agent takes a sample of HFO every 20,000 tonnes and at least 6 times per year. Carbon Content, density and NCV analysis is conducted by an independent ISO 17025 accredited laboratory (SGS UK). The NCV and Carbon content will be applied to batches of fuel and weighted NCV and weighted Carbon content is determined. The oxidation factor used is unity. The reportable CO2 is calculated on an annual basis. Gasoil Consumption is calculated by reference to deliveries (invoices) and stock difference between start and end of year. CO2 emissions are based on the product of the Activity\*NCV\*EF\*OF. Data for NCV and EF are taken from the latest National tables submitted to the UNFCCC. The calculation is done on an annual basis. The oxidation factor is 1.0. Gas oil consumption for the small diesel sources is based on the De minimis approach. Consumption is based on delivery (invoice) dockets only. CO2 emissions are based on the product of the Activity\*NCV\*EF\*OF. Data for NCV and EF are taken from the latest National tables submitted to the UNFCCC. The calculation is done on an annual basis. The oxidation factor is 1.0. Propane consumption is calculated by reference to deliveries (invoices) only. CO2 emissions are based on the Activity\*NCV\*EF\*OF. As consumption is very low, a deminis approach has been adopted. Data for NCV and EF are taken from the latest National tables submitted to the UNFCCC. The calculation is conducted on an annual basis. Oxidation factor is taken as 1.0.

Submit relevant documents to record data flow activities

Attachment	Description
N/A	N/A

**hh. Assessing and Controlling Risks**

Details of the procedures used to assess inherent risks and control risks in accordance with Article 58 of the MRR:

<p>Title of procedure</p> <p>Reference for procedure</p> <p>Diagram reference</p> <p>Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Compliance with the Requirements of the EU Emissions Trading Scheme</p> <p>EMS 9.1-07</p> <p>N/A</p> <p>A Risk Assessment is conducted to ensure that risks associated with data acquisition, handling activities and control activities are managed sufficiently, so that any associated hazards are either controlled or significantly reduced. The Risk assessment is included in Appendix 3 of EMS 9.1-07.</p> <p>A risk assessment is carried out for the whole data flow from obtaining primary data to the final annual emissions report following the guidance given in chapter 4 of the MRR Guidance Document on Data Flow Activities and Control System. For each data handling or processing step an assessment of what can go wrong is undertaken and the consequence of this hazard is assessed. An appropriate control activity is then determined (how can the risk be mitigated). A final overall risk remaining after implementation of control activities is then determined.</p>
<p>Post or department responsible for the procedure and for any data generated</p> <p>Location where records are kept</p> <p>Name of IT system used</p> <p>List of EN or other standards applied</p>	<p>Environmental Coordinator</p> <p>Tarbert Generating Station</p> <p>Company Shared Drive</p> <p>ISO 14001</p>

**ii. Quality Assurance of Metering / Measuring Equipment**

Details of the procedures used to ensure quality assurance of measuring equipment in accordance with Article 58 and 59 of the MRR.

<p>Title of procedure</p> <p>Reference for procedure</p> <p>Diagram reference</p> <p>Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Compliance with the Requirements of the EU Emissions Trading Scheme</p> <p>EMS 9.1-07</p> <p>N/A</p> <p>The procedure describes the processes used to calculate CO2 emissions for installations as required by the MRR Guidelines to the EU Emissions Trading Scheme. All metering is by 3rd parties and load point fiscal metering. To ensure the stated activity data tier levels are met, up to date calibration certificates are kept on file. Calibration records are examined annually as a Quality Assurance measure.</p>
<p>Post or department responsible for the procedure and for</p>	<p>Environmental Coordinator</p>

any data generated	
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company Shared Drive
List of EN or other standards applied	ISO 14001 and ISO 14064.

**jj. Quality Assurance of Information Technology used for Data Flow Activities**

Details of the procedures used to ensure quality assurance of information technology used for data flow activities in accordance with Article 58 and 60 of the MRR:

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The procedure for quality assurance of information technology (IT) is contained within the EMS 9.1-07 procedure. It describes processes implemented to ensure that the IT system is designed, documented, tested, implemented and controlled and maintained in a way to process reliable, accurate and timely data. All systems are backed up regularly in case of computers crashing. The system is backed up external to the Generating station to ensure continuity of business in the case of access issues at the station. The files can be recovered from the back-up system, if required. The company shared drives are protected from security breaches as each user requires a login username and password to access the share drive. Access to the data is controlled, with access only to those directly involved in the process.
Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company Shared Drive
List of EN or other standards applied	ISO 14001 and ISO 14064 parts 1 and 3.

**kk. Review and Validation of Data**

Details of the procedures used to ensure regular internal reviews and validation of data in accordance with Articles 58 and 62 of the MRR.

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The procedure for review and validation of data is contained within the EMS 9.1-07 procedure.

<p>Post or department responsible for the procedure and for any data generated</p> <p>Location where records are kept</p> <p>Name of IT system used</p> <p>List of EN or other standards applied</p>	<p>A number of reviews and cross checks are inbuilt into the procedure to ensure that the data is validated including; comparisons with data over previous years, comparison of fuel consumption reported with purchase records, comparison of year end reconciliations with monthly consumptions etc. The CO2 emissions data is checked regularly by the Operations Manager and the Environmental Coordinator for internal review and reporting purposes. Internal audits are carried out annually to review and validate the accuracy of the calculation spread sheet. This person should be independent and not be involved in the determination and recording of GHG data. An additional independent bi annual internal quality audit should be carried out to verify accuracy and quality of data supplied for the calculation of CO2</p> <p>Environmental Coordinator</p> <p>Tarbert Generating Station</p> <p>Company Shared Drive</p> <p>ISO 14001 and ISO 14064 parts 1 and 3.</p>
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**II. Corrections and Corrective Actions**

Details of the procedures used to handle corrections and corrective actions in accordance with Articles 58 and 63 of the MRR:

<p>Title of procedure</p> <p>Reference for procedure</p> <p>Diagram reference</p> <p>Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Compliance with the Requirements of the EU Emissions Trading Scheme</p> <p>EMS 9.1-07</p> <p>N/A</p> <p>The procedure for corrections and corrective actions is contained within the EMS 9.1-07 procedure. It outlines what appropriate actions are undertaken if data flow activities and control activities are found not to function effectively. It details how the validity of the outputs are assessed, it describes the process of determining the cause of errors and implementing appropriate corrective and preventative actions.</p> <p>If corrective actions identify the use of an alternative methodology to that outlined in the monitoring plan and this procedure, approval is required of the EPA prior to undertaking it.</p>
<p>Post or department responsible for the procedure and for any data generated</p> <p>Location where records are kept</p> <p>Name of IT system used</p> <p>List of EN or other standards applied</p>	<p>Environmental Coordinator</p> <p>Tarbert Generating Station</p> <p>Company Shared Drive</p> <p>ISO 14001</p>

**mm. Control of Outsourced Activities**

Details of the procedures used to control outsourced processes in accordance with Articles 59 and 64 of the MRR.

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The procedure for the control of outsourced activities is contained within the EMS 9.1-07 procedure. It details how data flow activities and control activities of outsourced processes are checked and what checks are undertaken on the quality of the resulting data. Out sourced processes include fuel metering and annual independent survey of opening and closing stocks. It describes how it is ensured that the third party equipment used for tank dips and third party fuel metering equipment is calibrated and checked at regular intervals and how any non-compliance with the required performance is dealt with.
Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company Shared Drive
List of EN or other standards applied	ISO 14001

**nn. Record Keeping and Documentation**

Details of the procedures used to manage record keeping and documentation:

Title of procedure	Compliance with the Requirements of the EU Emissions Trading Scheme
Reference for procedure	EMS 9.1-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The procedure used to manage record keeping and documentation is contained within the EMS 9.1-07 procedure. It details the process of document retention, specifically in relation to the data and information stipulated in Annex IX of the MRR and to how the data is stored such that information is made readily available upon request of the competent authority or verifier and the data is stored for ten years.
Post or department responsible for the procedure and for any data generated	Environmental Coordinator
Location where records are kept	Tarbert Generating Station
Name of IT system used	Company Shared Drive
List of EN or other standards applied	ISO 14001

**oo. Risk Assessment**

The results of a risk assessment that demonstrates that the control activities and procedures are commensurate with the risks identified:

Attachment	Description
Appendix 3 Risk Register.docx	Risk Register

**pp. Environmental Management System**

Does your organisation have a documented Environmental Management System? Yes

Is the Environmental Management System certified by an accredited organisation? Yes

The standard to which the Environmental Management System is certified: ISO 14001

**12. Changes in Operation****qq. Changes in Operation**

Article 24(1) of Commission Decision 2011/278/EC requires that Member States must ensure that all relevant information about any planned or effective changes to the capacity activity level and operation of an installation is submitted by the operator to the competent authority by 31 December each year. Article 12(3) of the MRR further provides that Member States may require information to be included in the monitoring plan of an installation for the purposes of meeting these requirements.

Details of the procedure used to ensure regular reviews are carried out to identify any planned or effective changes to the capacity activity level and operation of the installation that have an impact on the installation's allocation:

The procedure specified below cover the following:

- planning and carrying out regular checks to determine whether any planned or effective changes to the capacity activity level and operation of an installation are relevant under Commission Decision 2011/278/EC; and
- Procedures to ensure such information is submitted to the competent authority by 31 December of each year.

Title of procedure	N/A
Reference for procedure	N/A
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	N/A
Post or department responsible for the procedure and for any data generated	N/A
Location where records are kept	N/A
Name of IT system used	N/A

### 13. Abbreviations

**rr. Abbreviations Acronyms or definitions**

Abbreviations acronyms or definitions that have been used in this monitoring plan:

Abbreviation	Definition
N/A	N/A

### 14. Additional Information

Any other information:

Attachment	Description
N/A	N/A

### 15. Confidentiality

**ss. Confidentiality Statement**

It is the Environmental Protection Agency's policy to make information received by it in the course of its work open to inspection by any person on request. This is in accordance with the provisions of the European Communities (Access to Information on the Environment) Regulations 2007 to 2011.

In the event that you considered that some of the information being submitted of a confidential nature, then the nature of this information and the reasons why it should be considered confidential, with reference to the European Communities (Access to Information on the Environment) Regulations 2007 to 2011 and any amendments must be explicitly requested using the facility below. The Board of the Environmental Protection Agency will consider the requests and if the information can be deemed as confidential and necessary.

Notwithstanding any request for confidentiality, the Environmental Protection Agency explicitly reserves the right to release data to the Commission, including emissions and allocations to the public, on the basis that the data will be used for the purposes foreseen in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

Please tick this box if you consider that any part of your form should be treated as commercially confidential/sensitive:  false

**END of Appendix I.**