



Greenhouse Gas Emission Allowance Trading Scheme Monitoring and Reporting Proposal

Guidance Notes

This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Commission Decision of 29th January 2004 establishing guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council.

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Glossary of Terms

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

Activity Code	Code number assigned to the categories of activity in Annex 1 to the Directive in the Agency's GHG permit application form (Document IRL ETS 001/1) Appendix 1
The Agency	Environmental Protection Agency.
Agreement	Agreement in writing.
Annex IV	Annex IV to Directive 2003/87/EC of the European Parliament and of the Council.
The Directive	Directive 2003/87/EC of the European Parliament and of the Council 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.
GHG	Greenhouse gas.
GHG M&R Proposal	Greenhouse gas emissions permit monitoring and reporting proposal as required by Condition 3.1 of the GHG Permit. (Proposal template IRL ETS 003/1).
GHG Permit	Greenhouse gas emissions permit.
Installation	Any stationary technical unit where one or more activities listed in Annex I to the Directive are carried out. Also any other directly associated activities that have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution.
M&R Guidelines	Commission Decision 2004/156/EC of 29 th January 2004 establishing guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council.
The Operator	The natural or legal person specified in the GHG Permit.
Source	The plant from where permitted emissions of GHG arise for subsequent discharge to the atmosphere.
The Verifier	A competent, independent, accredited verification body with responsibility for performing and reporting on the verification process, in accordance with detailed requirements as established pursuant to Annex V to the Directive.

GUIDANCE NOTES

ON PREPARING A MONITORING AND REPORTING PROPOSAL FOR COMPLIANCE WITH GREENHOUSE GAS EMISSIONS PERMIT ISSUED PURSUANT TO DIRECTIVE 2003/87/EC

These guidance notes have been prepared to assist GHG Permit Operators in the preparation of a GHG M&R proposal as required under Condition 3.1 of their GHG Permit using the template IRL ETS 003/1. It will outline the information required to allow the Agency to process a GHG M&R proposal. This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Directive 2003/87/EC of the European Parliament and of the Council.

INTRODUCTION

Directive 2003/87/EC establishes a scheme for greenhouse gas emission allowance trading within the Community in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner. Article 14 of the Directive requires that Operators in the scheme report emissions from their installations in accordance with the M&R Guidelines. The form IRL ETS 003/1 has been designed by the Agency to facilitate Operators in this task.

OVERVIEW

The proposal form has been designed in MS Excel to allow it to be filled out electronically. Once completed, it should be submitted both by email and also as three signed paper copies to the address listed in the 'Forwarding Instructions' section at the end of this guidance note.

Note that the spreadsheet should be saved as an MS Excel file and together with all electronic attachments should be **no larger than 2MB**. If the completed proposal and related documents are larger than 2MB please include attachments on a separate email referenced accordingly.

Hard copies of the proposal should not be bound and maps should be no larger than A3 in size.

GHG M&R proposals will not be processed or approved until all sections of this form are completed in sufficient detail and to a satisfactory standard with all relevant attachments submitted. Unless expressly instructed in the GHG M&R proposal form

itself or in this guidance document **do not delete any sections of the form, if sections are not relevant to your operation please leave blank.**

All attachments should be clearly numbered, titled and paginated and referenced in the application form in the appropriate spaces provided.

We can accept **additional information** in the following formats **only**:

- Microsoft Word
- Microsoft Excel
- Adobe Acrobat PDF

Additional information in any other form will be not be considered by the Agency and will be returned to the Operator.

Further Guidance

This guidance document and the GHG M&R proposal form must be read in conjunction with the M&R Guidelines. The M&R Guidelines are available online at:

<http://www.epa.ie/emissionstrading>

If, having read the GHG M&R proposal form, this accompanying guidance note and the M&R Guidelines, you feel you have special circumstances which are not catered for in the application or you are unclear as to how to complete the GHG M&R proposal form please contact us by email at trading@epa.ie.

COMPLETION AND SUBMISSION

The GHG M&R proposal must be submitted on the appropriate electronic form (IRL ETS 003/1) together with any relevant supporting documentation as attachments.

Wherever possible all answers, information, etc., must be given in the spaces provided in the form with supporting information **only** forming the attachments.

Under no circumstances should the GHG M&R proposal MS Excel template be altered. If Operators require additional cells or spaces contact should be made with the Agency.

The proposal form is divided into a number of sections of related information, the purpose being to facilitate both the Operator and the Agency in its use.

The completed GHG M&R proposal form(s) and all supporting documentation will be made available to the public on request. Should the applicant consider certain information to be confidential, that information should be submitted in a separate

sealed enclosure bearing the legend “ In the event that this information is deemed not to be held as confidential, it must be returned to....”. In the event that the Agency decides to withhold information from the public the nature of the information withheld and the reason why it is considered confidential will be available for public inspection.

Should there be any apparent contradiction between the information requirements set out in this guidance note, the GHG M&R proposal form (IRL ETS 003/1), and the M&R Guidelines, then the requirements in the M&R Guidelines shall take precedence.

GUIDANCE ON PROPOSAL FORM

Article 14 (3) of Directive requires that ‘*Member States shall ensure that each operator of an installation reports the emissions from that installation during each calendar year to the competent authority after the end of that year in accordance with the guidelines*’. To meet with this requirement Operators must submit to the Agency emissions data on an installation basis.

Where Operators have a GHG Permit issued with one installation, a single GHG M&R proposal will suffice. Operators who have a GHG Permit issued with more than one installation must complete the GHG M&R proposal on an individual installation basis i.e. a GHG permit with two installations will have two GHG M&R proposals, one per installation as defined in the GHG Permit.

GHG M&R PROPOSAL DETAILS

Section 1 General Details

1.1 GHG Permit Details

The Permit Register Number, Operator and Site Name are to be found on the cover page of the GHG Permit and the same wording and numbers should be used.

The European Pollutant Emission Register (EPER) was established by a [Commission Decision of 17 July 2000](#). Not all GHG permitted installations have a reporting requirement under the decision (only those activities that are listed in Annex A3 of the EPER Decision). If the installation for which this GHG M&R proposal is being made does not have an EPER number then this cell should be left blank.

A scaled map or maps clearly showing the outline of the installation, the locations, of all critical metering devices with their unique codes, direction of the flow of fuel and materials at the installation and the GHG emission points should be supplied with the

GHG M&R proposal and referenced in Section 7 of the form. Maps should be no larger than A3 in size.

1.2 Details of Person Responsible for Monitoring and Reporting at the Installation

The Operator should nominate a person (name and specific job title), at the installation level who will be responsible for ensuring that all the data collected for the GHG Emissions Annual Report meets the requirements of the M&R Guidelines. This person should be available to meet on-site with Agency personnel at reasonable notice. The nominated person must be able to demonstrate competency and have the necessary resources to carry out their duties as required by the GHG Permit and the M&R Guidelines. Where the Operator considers more than one person necessary, the senior team member should be identified here.

1.3 Tier Designation

During the period 2005-2007, **Operators should apply as a minimum the tiers as set out in Table 1 of the M&R Guidelines**, unless this is technically not feasible. Columns labelled A of the table contain tier values for major sources from installations with total annual GHG emissions less than or equal to 50 ktonnes. Columns labelled B contain tier values for major sources from installations with total annual GHG emissions of more than 50 ktonnes and up to 500 ktonnes. Columns labelled C contain tier values for major sources from installations with total annual GHG emissions of more than 500 ktonnes.

The thresholds contained in the table refer to total annual GHG emissions from each installation separately as predicted for 2005. Operators will be required to demonstrate to the Agency the basis on which the annual emissions were estimated.

The highest tiers of the selected columns shall be used by all Operators for all major sources within each installation. Only if it is shown to the satisfaction of the Agency that the highest tier approach is technically not feasible or will lead to unreasonably high costs, may a next lower tier be used for that variable within a monitoring methodology.

Section 2 Installation and Activity Details

2.1 Fuel and Material giving rise to GHG at the Installation

Each fuel or material that gives rise to GHG emissions at the installation should be listed here. Each fuel or material is to be given a unique identifier code. This code shall be used throughout the monitoring and reporting period to identify that fuel or material.

Each fuel and material should be identified and coded at the point of metering to the installation e.g. where a site has two installations which use the same HFO supplied

from a combined storage tank area, this fuel should be metered at the point it enters the individual installations. In this case a site will have two HFO oil streams as they are metered to the installation, even though they are being used on the same site.

Suggested identifiers and code are:

Fuel & Material Description	Suggested Code	Fuel & Material Description	Suggested Code
Heavy Fuel Oil	HFO-001	MgCO ₃	MgCO ₃ -001
Light Fuel Oil	LFO-001	Molasses	Mol-001
Milled Peat	Peat-001	CaCO ₃	CaCO ₃ -001
Coal	Coal-001	Gas Oil	GO-001
PET Coke	PET-001	Na ₂ CO ₃	Na ₂ CO ₃ -001
LPG	LPG-001	Wood Pulp	WP-001
Tallow	TAL-001	Diesel	DSL-001
		Natural Gas	NG-001

Section 3 Monitoring Method

3.1 Proposed Monitoring Method

The Operator shall select either Calculation or Measurement (or in certain limited circumstances both), as the method for the determination of GHG emissions at the installation, subject to the requirements of Annex IV of the Directive as outlined below.

Annex IV of the Directive permits a determination of emissions using either:

- a calculation based methodology (“calculation”);
- a measurement based methodology (“measurement”).

The operator may propose to use ‘measurement’ as a means of determining emissions if he can demonstrate that:

- it reliably gives higher accuracy than the relevant calculation applying a combination of the highest tiers; and
- the comparison between measurement and calculation is based on an identical list of sources and emissions.

The **use of a measurement base methodology** shall be subject to the approval of the Agency. For each reporting period the Operator shall corroborate the measured emissions by means of calculation in accordance with these guidelines. The rules for the selection of the tiers of the corroborating calculation shall be the same as those applied for a calculation approach, set out in paragraph 4.2.2.1.4. of the M&R Guidelines.

The Operator may **only**, with the approval of the Agency, combine measurement and calculation for different sources belonging to one installation. The Operator shall

ensure and demonstrate that neither gaps nor double counting concerning emissions occur.

Having selected a monitoring method the Operator should select the appropriate tab ‘Calculation’ or ‘Measurement’ on the bottom left of the worksheet.

Section 4 Calculation

If you are not using a ‘calculation’ based method for the determination of GHG emissions ignore this section and continue to Section 5.

4.1 Specification of all Metering Devices to be Used

Using the unique fuel and material codes as identified in Section 2.1 above the Operator must identify the critical metering devices required to calculate the fuel and material usage at the installation. Each metering device shall be given a unique code and shall be shown on a site map. Examples of metering devices are gas mains meters, weigh-belts or bridges for solid fuel and limestone deliveries and input meters to tank farms, etc. A description of the type, range, measuring units and level of accuracy of the meter must be provided.

Even where a third party, such as a fuel vendor, controls a metering device then the onus is still on the Operator to provide evidence that the metering device is compliant with the requirements of the selected tiers. The Operator should identify a third party metering device with the suffix (TP) when choosing an ID.

4.1 Specification of all Metering Devices to be Used:				
Fuel or Material Code	Description of Metering Device	Unique ID of Metering Device	Metering Device Range and Units	Metering Accuracy (+/- %)
NG-001	Bord Gais Main Meter (venturi)	BG-001-(TP)	5-500 m ³	0.02%
NG-002	Bord Gais Secondary Supply Meter (venturi)	BG-002-(TP)	5-500 m ³	0.02%
HFO-001	Branson Turbine Meter	BTM-001	5-250 m ³	5.00%

4.2 Monitoring and Reporting Tiers for Each Activity

As a minimum the Operator shall for the 2005-2007 pilot period use the tiers as set out in the appropriate column of Table 1 in the M&R Guidelines. The Operator may use the next lower tier for a variable within the monitoring methodology only if the Operator can demonstrate to the satisfaction of the Agency that the use of the required tier is technically not feasible or will lead to unreasonably high costs.

4.3 Reasons for the Application of Lower Tiers or No-Tier Methodologies

The Operator must state the reason for using a lower or no tier method in this section. The Operator must also state how and when it will achieve the required monitoring tier as required in Table 1 of the M&R Guidelines.

4.4 Standard Methods used for Sampling of Fuel and Materials

Where required by the applied tier, the Operator should list the standard methods used for the sampling of fuel and materials. The Operator should also state if the sampling is done internally, externally or not applicable.

4.5 Standard Methods for Analysis of Fuel and Material

For each fuel or material identified in Section 2.1, briefly describe the source of information or analytical approaches for the determination of net calorific values, carbon content, emission factor or biomass fraction of the materials. Where the information is from sources such as Table 4 in the M&R Guidelines it should be referenced here. Where further analysis is required the recognised standard method should be listed e.g. *DIN 51900-1:2000 Testing of solid and liquid fuels – Determination of gross calorific value by the bomb calorimeter and calculation of net calorific value – Part 1: Principles, apparatus, methods.*

The Operator should also state if the testing is carried out internally, externally or not applicable.

Section 5 Measurement

If you are not using a ‘measurement’ based method for the determination of GHG emissions ignore this section and continue to Section 6.

5.1 Reason for the use of a Measurement Based Methodology

The Operator should demonstrate how the proposed measurement based methodology will:

- reliably give a higher accuracy than the relevant calculation applying a combination of the highest tiers; and
- the comparison between measurement and calculation is based on an identical list of sources and emissions.

5.2 Continuous Emission Monitoring Systems

The Operator should provide a description of the Continuous Emissions Monitoring Systems (CEMS), to be employed, the points of measurement, frequency of measurement, equipment used, calibration procedures, data collection and storage procedures. The emission point reference should be the same as that identified in the Operator's GHG Permit.

Section 6 Greenhouse Gas Source List

6.1 List of GHG Sources

Select the 'Source list' tab at the bottom of the page and complete the details as required. It is very important that the same emission point reference and description as identified in the GHG Permit are used here. The 'Source Description' should describe the plant that produces the GHG emission e.g. HFO Boiler and the next column the Operator should give a unique ID code for that plant. Finally the codes of the fuels or materials that are used in the plant should be the same as used in Section 2.1 of the GHG M&R proposal.

Where a number of plants feed into the same emission point, then each plant should be listed with the fuel or material used. Where a plant is capable of using more than one fuel and or material source a separate entry should be made for each.

Example One: A Combustion installation with two emission points from two independent boilers that are both using the same gas supply.

6.1 List of GHG Sources:

Emission Point Reference	Emission Point Description	Source Description	Plant ID	Unique Fuel or Material Code
EMP001	Boiler Stack 1	Natural Gas Boiler - Hamworthy	BP-001	NG-001
EMP002	Boiler Stack 2	Natural Gas Boiler - Branson	BP-002	NG-001

Example Two: A Combustion installation with a single emission point into which two multi-fuel boilers discharge. The boilers can use heavy fuel oil, diesel and natural gas as required.

6.1 List of GHG Sources:

Emission Point Reference	Emission Point Description	Source Description	Plant ID	Unique Fuel or Material Code
EP001	Boiler House Stack	Hamworthy Multi-Fuel Boiler	HBP-001	NG-001
EP001	Boiler House Stack	Hamworthy Multi-Fuel Boiler	HBP-001	HFO-001
EP001	Boiler House Stack	Hamworthy Multi-Fuel Boiler	HBP-001	Diesel-001
EP001	Boiler House Stack	Branson Multi-Fuel Boiler	BBP-001	NG-001
EP001	Boiler House Stack	Branson Multi-Fuel Boiler	BBP-001	HFO-001
EP001	Boiler House Stack	Branson Multi-Fuel Boiler	BBP-001	Diesel-001

Example Three: A cement installation with a single emission point that uses a number of fuels for combustion as well as limestone (Lstone-001), all of which give rise to CO₂ emissions.

6.1 List of GHG Sources:

Emission Point Reference	Emission Point Description	Source Description	Plant ID	Unique Fuel or Material Code
MS-001	Main Stack	Gross Rotary Kiln	GMRK-001	NG-001
MS-001	Main Stack	Gross Rotary Kiln	GMRK-001	PET-001
MS-001	Main Stack	Gross Rotary Kiln	GMRK-001	Lstone-001
MS-001	Main Stack	Gross Rotary Kiln	GMRK-001	HFO-001
MS-001	Main Stack	Gross Rotary Kiln	GMRK-001	Coal-001

Section 7 Management

7.1 Quality Assurance and Control Procedures for Data Handling:

The Operator shall state how the listed items are to be addressed so as to comply with the requirements of Section 7 of Annex I of the M&R Guidelines. Statements should be concise and to the point.

It is recognised by the Agency that the Operator may not have completed all Quality Assurance and Control procedures by the date set for submission of this proposal in Condition 3.1 of the GHG Permit. However, the Operator must outline how and when such procedures will be established. These procedures must be in place before the commencement of the trading period.

The Operator should as a minimum state the name of the proposed procedure, its current status and the date by which it will be operational.

7.2 Quality Management Systems

The Operator should tick the boxes as appropriate.

7.3 Environmental Management Systems

The Operator should tick the boxes as appropriate.

7.4 Integration of GHG Emissions Monitoring and Reporting into Management System(s):

The Operator should describe briefly how the proposed monitoring and reporting plan is to be integrated into existing quality and/or environmental management systems.

7.5 Reporting Format:

The M&R guidelines specify a reporting format in Section 5 and 11 of Annex I. The operator is required to commit to using this format by ticking the box provided.

Section 8 Additional Information

All attachments should be clearly numbered, titled and paginated and referenced in the application form in the appropriate spaces provided.

We can accept **additional information** in the following formats only:

- Microsoft Word
- Microsoft Excel

- Adobe Acrobat PDF

Section 9 Declaration

9.1 Declaration

The Operator must confirm that the information enclosed in the GHG M&R proposal is complete and accurate by signing the proposal.

Forwarding Instructions

Applicants must submit three hard copies of the completed GHG M&R proposal, one of which must **be a signed original**, plus an electronic copy. The electronic copy should **not exceed 2MB** in size when forwarded to the Agency by e-mail. The completed forms and attached documents should reach the Agency no later than 5 pm May 31st 2004.

Email: <mailto:GHGPermit@epa.ie>

By Post:

**GHG M&R Proposals,
Emissions Trading Unit,
Environmental Protection Agency,
Regional Inspectorate, McCumiskey House,
Richview,
Clonskeagh Road,
Dublin 14.**