Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Permit Number: PPC/A/1013494

Consolidation of Permit

This permit has been consolidated by the Scottish Environment Protection Agency (SEPA) in exercise of its powers under Regulation 16 of the Pollution Prevention and Control (Scotland) Regulations 2012 ("the Regulations"). The terms used in this document, unless otherwise defined, have the same meaning as in the Regulations.

Permit number:	PPC/A/1013494
Variation / partial transfer, surrender or revocation notice / other permit / other mobile plant permit:	VN01, dated 09 November 2012 VN02, dated 22 December 2015 VN03, dated 08 September 2016 VN04, dated 13 June 2018 VN05, dated 23 October 2018 VN06, dated 23 May 2019 VN07, dated 23 August 2019 VN08, dated 26 November 2019 VN09, dated 22 September 2020 VAR01, dated 10 February 2022 VAR02, dated 13 January 2023
Operator:	ExxonMobil Chemical Limited 00867162 Fife Ethylene Plant Cowdenbeath Fife KY4 8EP
Consolidation Number:	CON01
Effective Date of Consolidation:	09/06/2023
Details of Consolidation:	Permit PPC/A/1013494 (as varied by VN01 to VN09, VAR01 and VAR02) is consolidated and replaced with this consolidated permit, to operate an installation, described in Schedule 1 of this Permit, Regulation 16(1) on a site at Fife Ethylene Plant, Cowdenbeath, Fife, KY4 8EP, subject to the requirements of the Regulations and to the conditions as specified in the Schedule(s) attached.

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Permit Number: PPC/A/1013494

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INTERPRETATION OF TERMS

For the purposes of this Permit, and unless the context requires otherwise, the following definitions shall apply:

"Authorised Person" means a person who is authorised in writing under Section 108 of the Environment Act 1995 to carry out duties on behalf of SEPA;

"CEN" means Comité Européen de Normalisation standard and "CEN Standard" is construed accordingly;

"CO2" means carbon dioxide;

"CO" means carbon monoxide;

"combustion plant" has the meaning given in Article 3(25) in IED;

"Industrial Emissions Directive" or "IED" means Directive 2010/75/EU on Industrial Emissions (Integrated Pollution Prevention and Control) (Recast);

"Large Combustion Plant" or "LCP" means any combustion plant subject to Chapter of IED and for the purposes of this Permit means those combustion plants identified in Paragraph 1.1.4.3 of Schedule 1;

"minimum start-up (SU) load for stable generation" has the meaning given in Article 2(1) of the Commission Implementing Decision 2012/249/EU of 7 May 2012 concerning the determination of start-up and shut-down periods for the purposes of IED;

"minimum shut-down (SD) load for stable generation" has the meaning given in Article 2(2) of the Commission Implementing Decision 2012/249/EU of 7 May 2012 concerning the determination of start-up and shut-down periods for the purposes of IED;

"Nitrogen Oxides" or "NOx" means the sum of nitrogen oxide and nitrogen dioxide, and the mass concentration or mass of NOX is expressed as the equivalent nitrogen dioxide concentration;

"the Regulations" means The Pollution Prevention and Control (Scotland) Regulations 2012 SSI 2012 No. 360 (as amended);

"SO2" means sulphur dioxide.

Any term or expression already defined in the Regulations or the Industrial Emissions Directive shall be taken to have the same meaning as provided in the Regulations or the IED itself;

"Start-up" and "shut-down" has the same meaning as in the Commission Implementing Decision (2012/249/EU), OJ L 334, 17.12.2000, p. 17;

"Climate Change Agreement" has the same meaning as in Section 46 of the Finance Act 2000;

"emission" has the same meaning as in the Regulations;

"incident" means any of the following situations:

- Where an accident occurs which has caused or may have the potential to cause pollution;
- Where any malfunction, breakdown or failure of plant or techniques is detected which has caused or may have the potential to cause pollution;

- here any substance, vibration, heat or noise specified in any Condition of this Permit is detected in an emission from a source not authorised by a Condition of this Permit and in a quantity which may cause pollution;
- Where an emission of any pollutant not authorised to be released under any Condition of this Permit is detected;
- Where an emission of any substance, vibration, heat or noise is detected that has exceeded, or is likely to exceed, or has caused, or is likely to cause to be exceeded any limit on emissions specified in a Condition of this Permit.

"Location Plan" means the pian attached to Schedule 1 of this Permit;

"the Permitted Activities" are defined in Schedule 1 of this Permit;

"the Permitted Installation" is defined in Schedule 1 of this Permit and includes references to parts of the Permitted Installation;

"pollutant" and "pollution" have the same meaning as in the Regulations;

"SEPA" means the Scottish Environment Protection Agency;

"the Site Boundary" is defined in Schedule 1 of this Permit;

"Site Plan" means the plan attached at Schedule 1;

"water environment" has the same meaning as in the Water Environment and Water Services (Scotland) Act 2003 that is all surface water, groundwater and wetlands; and "surface water", "groundwater" and "wetlands" shall have the same meanings as in the Act;

"NGL" means Natural Gas Liquids;

"DAC" means distilled aromatic condensate;

"C5+" means hydrocarbon with a molecular chain length with 5 or more carbon atoms;

"SHP" means super high pressure;

"HP" means high pressure; "MP" means medium pressure;

"LP" means low pressure;

"Cracked Gas" means the gas exiting any of the 7 process furnaces;

"Flaring" means any emission of hydrocarbon from emission point numbers A16, A17 and A19, where the flare is lit, as described in Table 4.1;

"Venting" means any emission of hydrocarbon from emission point numbers A16, A17 and A19, where the flare is unlit and from emission point numbers A12, A13, A14 and A15, as described in Table 4.1;

"Major" used with reference to flaring means any emission of hydrocarbon equal to or greater than 15 tonnes/hour for a period of 60 minutes or more; and

"Major" used with reference to venting means any emission of hydrocarbon from emission point numbers A16, A17 and A19, where the flare is unlit.

"Hazardous substance" means substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament on classification, labelling and packaging of substances and mixtures.

Any reference within this Permit to reports or notifications to be made to SEPA in writing shall be read as to include by fax and by email at the fax number and email address respectively specified in the explanatory notes attached to this Permit.

Any reference to a numbered Condition, group of Conditions, Schedule, Table, Appendix, Figure or Paragraph is a reference to the Condition, group of Conditions, Schedule, Table, Appendix, Figure or Paragraph bearing that number in this Permit.

Except where specified otherwise in this Permit:

- "day" means any period of 24 consecutive hours,
- "week" means any period of 7 consecutive days,
- "month" means a calendar month,
- "quarter" means a calendar quarter,
- "year" means any period of 12 consecutive months; and any derived words (e.g. "monthly", "quarterly") shall be interpreted accordingly.

Except where specified otherwise in this Permit, any reference to an enactment or statutory instrument includes a reference to it as amended (whether before or after the date of this Permit) and to any other enactment, which may, after the date of this Permit, directly or indirectly replace it, with or without amendment.

1 THE PERMITTED INSTALLATION

1.1 Description of Installation

1.1.1 The installation ("the Installation") is the stationary technical unit specified in Paragraph 1.1.4 ("the Stationary Technical Unit"), where the activities specified in Paragraph 1.1.3 are carried out ("the Activities"), together with the directly associated activities specified in Paragraph 1.1.5 ("the Directly Associated Activities"). The site of the Installation is delineated in red on the Site Plan ("the Site Boundary").

1.1.2 The general location of the Installation is as shown on the Location Plan.

1.1.3 The Activities carried out at the Stationary Technical Unit are:

1.1.3.1 The burning of gaseous and liquid fuels in eleven combustion appliances with an aggregated net thermal input of approximately 830 MW being an activity listed in Part A Section 1.1 of Chapter 1, Part 1 of Schedule 1 of the Regulations; described as burning any fuel in a combustion appliance with a rated thermal input of 50 megawatts or more.

1.1.3.2 The burning of gaseous fuels in six combustion appliances with an aggregated net thermal input of 150 MW being an activity listed in Part A Section 1.1 of Chapter 1, Part 1 of Schedule 1 of the Regulations; described as burning any fuel in a combustion appliance with a rated thermal input of 50 megawatts or more.

1.1.3.3 The production of ethylene through the cracking of ethane and propane, being an activity falling within paragraph (a) of Part A of Section 4.1 of Schedule 1 of the Regulations described as Organic Chemicals.

1.1.3.4 The processing of natural gas liquids into ethane (plus lighter components), propane, butane and pentene (plus heavier components), being an activity falling within paragraph (f) of Part A of Section 1.2 of Schedule 1 of the Regulations described as the purifying or refining of the products of an activity mentioned in paragraph (a) or its conversion into a different product.

1.1.4 The Stationary Technical Unit comprises the following units:

1.1.4.1 The Fife Ethylene Plant producing ethylene by means of thermal cracking, having a capacity of 820,000 tonnes per year of ethylene; more particularly described below:

(a) seven process furnaces (Furnace K-F-I to K-F-7) fired by fuel gas each with a net rated thermal input of 78 MW;

(b) one gas turbine, fired by fuel gas with a net rated thermal input of 81 MW;

(c) three combustion plants EIONET LCP Numbers 153, 154 and 155 relating to steam boilers Z-SG-OI A, Z-SG-OI B and Z-SG-OI C respectively, all fired by fuel gas and liquid fuel each with a net thermal input of 67 MW;

(d) an elevated flare;

(e) an enclosed ground flare with a capacity of 130 Tonnes per hour;

(f) facilities for the storage and export by road tanker of the C5+ stream;

1.1.4.2 The Fife Natural Gas Liquid (NGL) Plant

1.1.5 The following Directly Associated Activities are carried out on the Site:

1.1.5.1 The operation of utilities and services including; air compression, demineralised water, nitrogen, fuel gas and fuel oil storage and distribution, emergency power and cooling water with associated chemical storage.

1.1.5.2 The operation of storage, handling and dispatch facilities for all raw materials, wastes, firefighting foam, products and their intermediates.

1.1.5.3 A fire water system, including a 17,000m^3 fire water pond and associated fire water pumps, ring main and fire water systems.

1.1.5.4 A Contaminated Storm Drainage System that collects surface water run-off from process areas and blow-down water and comprises effluent storage and oil removal prior to discharge through to the Firth of Forth.

1.1.5.5 An Oily Water Drainage System that collects contaminated water from the process areas and oil discharge from the Contaminated Storm Drainage System and comprises effluent storage, treatment by a corrugated Plate Interceptor (CPI) and neutralisation prior to the Firth of Forth.

1.1.5.6 A By-pass Drainage System that collects non-oil containing effluent from the cooling tower, demineralisation plant and boiler blow-down comprising effluent storage and neutralisation prior to discharge to the Firth of Forth.

1.1.5.7 Directly associated Activities relating to the Fife NGL Plant.

1.1.6 The adjacent Avanti Gas tanker loading facility for the loading and odorising of propane and butane, located to the north of the installation, does not form part of the installation.

1.2 Description of the Permitted Installation

1.2.1 The permitted installation to which this Permit applies ("the Permitted Installation") is:

1.2.1.1 The part of the Installation which comprises the Stationary Technical Unit described in Paragraph 1.1.4.1 where the Activities described in Paragraphs 1.1.3.1 and 1.1.3.3 are carried out, together with the Directly Associated Activities described in Paragraphs 1.1.5.1 to 1.1.5.6. The location of the Permitted Installation on the Site is delineated in blue on the Site Plan.

1.2.1.2 For the purposes of this Permit, the Activities described in Paragraphs 1.1.3.1 and 1.1.3.3 and with the Directly Associated Activities described in Paragraphs 1.1.5.1 to 1.1.5.6 shall be known together as the Permitted Activities.

2 GENERAL CONDITIONS

2.1 Administration

2.1.1 The Operator shall have an appropriate person (and deputy) as the primary point of contact with SEPA and shall notify SEPA in writing of the name of the appointed person (and deputy) within four weeks of the date of this Permit.

2.1.2 In the event of a different person being appointed to act as primary point of contact (or deputy) the Operator shall notify SEPA in writing of the name of the appointed person or deputy without delay.

2.1.3 A copy of this Permit shall be kept at the Permitted Installation and shall be made readily accessible for examination by all staff.

2.1.4 Any systems or procedures used by the Operator to demonstrate compliance with a Condition of this Permit shall be recorded.

2.2 Records

2.2.1 All records made in compliance with this Permit shall be kept in a systematic manner.

2.2.2 Unless otherwise specified in a Condition of this Permit, every record made in compliance with a Condition of this Permit shall be preserved for not less than five years from the date of its being made. Every such record shall be kept at the Permitted Installation for not less than one year from the date of its being made and thereafter preserved at a location, previously notified to SEPA in writing, if that location is not the Permitted Installation.

2.2.3 All records shall be legible, and any amendment made to any record made in compliance with a Condition of this Permit shall be made in such a way as to leave the original entry clear and legible. The reason for each amendment shall be explained in the said record.

2.2.4 Without prejudice to Condition 2.2.2, all operator's records relevant to the operation or maintenance of the Permitted Installation shall be kept at the Permitted Installation for not less than one year from the end of the period to which they apply.

2.3 Reporting

2.3.1 Where any Condition of this Permit requires information to be reported, a report shall be forwarded in writing in duplicate to SEPA at the address specified in the explanatory notes attached to this Permit, by the date(s) or within the period or at the frequency specified in Table 2.1 and, where appropriate, the first report shall be due on the date specified in that Table. All such reports shall include the Permit number and the name of the Operator.

2.3.2 Where the Permitted Installation has not operated for the duration of any reporting period specified in Table 2.1, the Operator shall provide written notification to SEPA. This shall confirm that no reports have been made in terms of Condition 2.3.1 because the Permitted Installation has not operated during the said period. Notifications shall be submitted within one month of the end of the reporting period concerned.

2.3.3 All notifications required by any Condition of this Permit shall be made to SEPA in the manner specified in that Condition to the address specified in the explanatory notes attached to this Permit by the date(s) or within the period or at the frequency specified in Table 2.1 and, where appropriate, the first notification shall be due on the date specified in that Table. All such notifications shall include the Permit number and name of the Operator.

2.3.4 Where any Condition of this Permit requires information to be reported, a report shall be forwarded in writing (including electronic mail) to SEPA at the address specified in the explanatory notes attached to this Permit, by the date(s) or within the period or at the frequency specified in Table 2.1 and, where appropriate, the first report shall be due on the date specified in that Table. All such reports shall include the Permit number and the name of the Operator.

2.3.5 Where the Permitted Installation has not operated for the duration of any reporting period specified in Table 2.1, the Operator shall provide written notification to SEPA (including electronic mail). This shall confirm that no reports have been made in terms of Condition 2.3.1 because the Permitted Installation has not operated during the said period. Notifications shall be submitted within one month of the end of the reporting period concerned.

2.3.6 All notifications required by any Condition of this Permit shall be made to SEPA in the manner specified in that Condition to the address specified in the explanatory notes attached to this Permit by the date(s) or within the period or at the frequency specified in Table 2.1 and, where appropriate, the first notification shall be due on the date specified in that Table. All such notifications shall include the Permit number and name of the Operator.

2.3.7 Where any condition of this permit requires a report to be submitted, that report shall contain sufficient and accurate information to allow an assessment of the compliance with the condition requiring the report and the report shall be made in accordance with any guidance published by SEPA.

Table 2.1 – Reporting and Notification Requirements

Summary of Information to be Reported or Notified	Condition	Date/Within period/Frequency to be Reported	Date first report due
Name of an appropriate person and deputy	2.1.1	With 4 weeks of date of Permit	Not applicable
Change of appropriate person or deputy	2. 1.2	Without delay	Not applicable
Location of records if not at the Permitted Installation	2.2.2	Before records are transferred to the new location	Not applicable
Permitted Installation has not operated	2.3.2	Within 1 month of the end of the reporting period	Not applicable

Summary of Information to be Reported or Notified	Condition	Date/Within period/Frequency to be Reported	Date first report due
Incident notification	2.4.4, 2.4.5, 4.3.2 & 4.3.4	Without delay by telephone, confirmation in writing by the next working day	As required
Incident investigation report	2.4.6	Within 14 days of the date of the Incident unless otherwise agreed in writing with SEPA	As required
Resource utilisation report	2.5.2	At least once every 4 years	28 February 2009
Assessment of all measures used to prevent emissions to soil and groundwater.	2.7.4	At least once every 4 years	31 October 2022
Groundwater monitoring assessment	2.7.5	At least every 3 years	28 February 2020
Soil monitoring assessment	2.7.6	At least every 10 years	28 February 2020
Soil and Groundwater monitoring plan	2.7.7	At least 3 months in advance of carrying out the monitoring	No later than 3 months prior the first soil and/or groundwater monitoring
Review of the soil and groundwater monitoring plan	2.7.9	No later than 6 months after each monitoring event	No later than 6 months after the first soil and/or groundwater monitoring
Cessation of Permitted Activities notification	2.9.2	No later than 2 months prior to the proposed date of cessation	Not applicable
Noise assessment report	3.1.2	At least every 4 years	31 August 2008
Odour assessment report	3.2.2 & 3.2.3	At least every 4 years	31 March 2009
VOC fugitive release inventory	3.5.1	Annually within 2 months of the end of every calendar year	28 February 2020
Annual leak repair programme	3.5.3	Annually within 2 months of the end of every calendar year	28 February 2020
Air emission report	4.1.4	Annually within 1 month of the end of every calendar year	31 January 2008
Periodic Monitoring	4.1.4	Quarterly, within 6 weeks of completion of the monitoring.	31 May 2023
Mass and composition emission to air report	4.1.5	Annually within 1 month of the end of every calendar year	31 January 2008

Summary of Information to be Reported or Notified	Condition	Date/Within period/Frequency to be Reported	Date first report due
Water emission report	4.2.5	Annually within 1 month of the end of every calendar year	31 January 2008
Reviewed Sampling Plan report	4.2.6	Annually by 01 December each year	1 December 2008
Flaring and venting events	4.3.1	Annually within 1 month of the end of every calendar year	31 January 2008
Planned flaring and venting notification	4.3.3	At least 7 days before the planned flaring	Not applicable
Flare or vent out of service notification	4.3.6	At least 24 hours before the flaring is taken out of service	Not applicable
Flaring prevention and minimisation review	4.3.12	Every 12 months	31 January 2020
Progress report towards installation and operation of the totally enclosed ground flare	4.3.18	Every calendar month	28 February 2022
Periodic Monitoring	5.2.5	Six Monthly within 6 weeks of completion of the monitoring	Report for first half of 2016 due within 6 weeks of completion of the monitoring
Mass emissions to air	5.2.5	Annually within 2 months of the end of the calendar year	28 February 2016 for year ending 31 December 2015
Operating hours	5.2.5	Annually within 1 month of the end of the calendar year	31 January 2017 for first annual report
Energy input per fuel	5.2.5	Annually within 1 month of the end of the calendar year	31 January 2017 for first annual report
LCPs where Article 30(5) may apply	5.3.5.1 a)	As required	Without delay
LCPs where Article 30(5) may apply	5.3.5.1 b)	As required	Without delay
Notification of change of SUSD periods for LCPs	5.3.5.1 c)	As required	14 days prior to changes

Summary of Information to be Reported or Notified	Condition	Date/Within period/Frequency to be Reported	Date first report due
Major Flaring Event noise assessment report	6.1.5	From 01 April 2022 within 6 weeks of cessation of a Major Flaring Event	As required
Updated Environmental Monitoring Programme	6.1.6	At least every two years or following a change in operation	31 December 2023

2.4 Incidents

2.4.1 In the event of an incident all necessary measures shall immediately be taken:

(a) to prevent, or where that is not practicable to reduce, emissions from the permitted installation;

(b) to limit the environmental consequences as a result of that incident; and

(c) to prevent further possible incidents,

2.4.2 Without prejudice to the requirements of condition 2.4.1, in the event of a breach of any condition of this permit the operator shall immediately take the measures necessary to ensure that compliance is restored in the shortest possible time.

2.4.3 Notwithstanding the requirements of condition 2.4.1 and 2.4.2 where a breach of any condition of this permit or an incident poses an immediate danger to human health, or threatens to cause an immediate significant adverse effect on the environment, the operator shall suspend operation of the permitted installation or relevant part thereof until such time as it can be operated in compliance with this permit.

2.4.4 In the event of an incident and/or a breach of any condition of this permit, the operator shall notify SEPA by telephone without delay to 0800 80 70 60. A notification that relates to an incident shall include as far as practicable the information specified in condition 2.4.5.

2.4.5 The operator shall confirm any incident to SEPA in writing by the next working day after identification of the incident. This confirmation shall include: the time and duration of the incident, the receiving environmental medium or media where there has been any emission as a result of the incident, an initial estimate of the quantity and composition of any emission, the measures taken to prevent or minimise any emission or further emission and a preliminary assessment of the cause of the incident.

2.4.6 Any incident notified to SEPA shall be investigated by the Operator, and a report of the investigation sent to SEPA. The report shall detail, as a minimum, the circumstances of the incident, an assessment of any harm to the environment and the steps taken by the Operator to bring the incident to an end. The report shall also set out proposals for remediation, where necessary, and for preventing a repetition of the incident.

2.4.7 By 31 March 2008 the Operator shall prepare, implement and maintain an "Incident Prevention and Mitigation Plan".

2.4.8 At least every four years, the operator shall review the incident prevention and mitigation plan required under condition 24.7. Each review of the said incident prevention and mitigation plan shall be recorded and where the operator makes any revisions to the said plan, said revisions shall be recorded.

2.5 Resource Utilisation

2.5.1 At least every four years, the Operator shall carry out a systematic assessment to determine:

2.5.1.1 how and where raw materials (including water and fuel) and energy are used within the Permitted Installation;

2.5.1.2 the quantities of raw materials (including water and fuel) and energy used within the Permitted Installation;

2.5.1.3 how and where material losses and wastes are generated within the Permitted Installation;

2.5.1.4 the quantities of material losses and wastes are generated within the Permitted Installation;

2.5.1.5 how and where raw materials (including water) and energy can be utilised more efficiently within the Permitted Installation to reduce resource use and minimise material losses and waste; and

2.5.1.6 which of the resource efficiency measures identified in 2.5.1.5 will be implemented at the Permitted Installation during the four year assessment cycle.

2.5.2 The assessment required by condition 2.5.1 shall be recorded using the SEPA "systematic assessment of resource use and efficiency template" (IED-T-04), or an equivalent format as agreed by SEPA, and reported to SEPA as specified in Table 2.1.

2.5.3 The operator shall implement the resource efficiency measures identified in the systematic assessment within the timescales specified in the systematic assessment.

2.5.4 The information required in 2.5.1.2 and 2.5.1.4 shall be recorded annually.

2.5.5 For the purposes of condition 2.5.1 "raw materials, "energy" and "fuel" shall, as a minimum, include the materials listed in Table 2.2.

Table 2.2 – Raw Materials, Energy and Fuel

Raw materials/Energy/Fuel	Unit of Measurement
Ethane	Tonnes and MWhr
Propane	Tonnes and MWhr
Natural Gas (imported from national grid)	Tonnes and MWhr
Total quantity of hydrocarbons lost through fugitive emissions.	Tonnes and MWhr
Fuel consumed (by type as process gas, methane gas, ethane, propane, propane and distilled aromatic condensate	Tonnes and MWhr

Raw materials/Energy/Fuel	Unit of Measurement
Ethylene exported (by destination)	Tonnes and MWhr
C5+ exported (by destination)	Tonnes and MWhr
Electricity	MWhr
Diesel	m^3 and MWhr
Sulphuric Acid	Tonnes
Caustic Soda	Tonnes
Lube Oil	Tonnes
Water additives and scavengers (by type)	Tonnes
Sulphur feed additives (by type)	Tonnes
Corrosion Inhibitors & anti-foulants (by type)	Tonnes
Biocides (by type)	Tonnes
Feed Treatment Solvent	Tonnes
Flushing medium (compressors & exchangers)	Tonnes
Methanol	Tonnes
Nitrogen (Bought in / Produced)	Tonnes
Mono-ethylene Glycol	Tonnes
Water	m^3
Steam (used and exported)	Tonnes and MWhr
Molecular sieve bed material (by type)	Tonnes
Fire Fighting Foam (by type)	m^3

2.6 Waste Management

2.6.1 Waste shall not be stored at the Permitted Installation for periods in excess of one year unless otherwise agreed in writing with SEPA. The Operator shall prepare and thereafter maintain a register of the wastes stored on the installation. The said register shall contain the following records for each waste type:

(a) A unique reference name or number for identification purposes;

(b) A description of the activity that generated the waste stream, including an indication whether the activity is of a permanent or temporary nature;

(c) Quantities of waste generated with reference to mass, volume or number of items;

(d) Date on which storage of the waste commenced and date of removal of the waste from the Permitted Installation; and

(e) Location and method of on-site handling and storage of the waste.

2.7 Protection of Soil and Groundwater

2.7.1 Unless specified elsewhere in this permit there shall be no emission of any pollutants to groundwater or soil from the permitted installation.

2.7.2 The operator shall maintain a record of any incident that has, or might have, impacted on the condition of any soil or groundwater under the permitted installation, either as a result of that incident or as a result of an accumulation of incidents, together with a record of any further investigation or remediation work carried out.

2.7.3 Notwithstanding the requirements of condition 2.2.2, the record required by condition 2.7.2 shall be preserved until this permit is surrendered.

2.7.4 At least every four years, the operator shall carry out a systematic assessment of all measures used to prevent emissions from the permitted installation to soil and groundwater. A written report of each assessment shall be recorded and reported to SEPA. The report shall include details of and timescales for any additional measures that are required to prevent emissions to soil and groundwater.

2.7.5 The operator shall monitor the groundwater at the site for the relevant hazardous substances specified in Table 2.3 at the frequency specified in Table 2.3, the purpose of which shall be to identify groundwater contamination associated with the activities specified in Table 2.3 by those relevant hazardous substances. Each assessment shall be recorded and reported to SEPA. The first assessment shall be completed by 28 February 2020. The assessment shall include interpretation of the results with reference to previous monitoring undertaken (including the site and where applicable baseline reports) and operations at the permitted installation and details of corrective actions that are required to protect groundwater and remedy any contamination that has occurred a result of permitted activities.

Table 2.3 – Groundwater Monitoring Requirements

Relevant hazardous substance	Activity to be monitored	Frequency
As specified in the plan required by Condition 2.7.7	As specified in the plan required by Condition 2.7.7	Every 3 years

2.7.6 The operator shall monitor the soil at the site for the relevant hazardous substances specified in Table 2.4 at the frequency specified in Table 2.4, the purpose of which shall be to identify soil contamination associated with the activities specified in Table 2.4 by those relevant hazardous substances. Each assessment shall be recorded and reported to SEPA. The first assessment shall be completed by 28 February 2020. The assessment shall include interpretation of the results with reference to previous monitoring undertaken (including the site and where applicable baseline reports) and operations at the permitted installation and details of corrective actions that are required to protect soil and remedy any contamination that has occurred as a result of permitted activities.

Table 2.4 – Soil Monitoring Requirements

Relevant hazardous substance	Activity to be monitored	Frequency
As specified in the plan required by Condition 2.7.7	As specified in the plan required by Condition 27.7	Every 10 years

2.7.7 The operator shall submit a detailed soil and groundwater monitoring plan, for the monitoring required by conditions 2.7.5 and 2.7.6 to SEPA at least three months in advance of carrying out the monitoring, which shall include the locations at which monitoring shall be carried out and the methodology which shall be used.

2.7.8 The operator shall carry out the monitoring required by conditions 2.7.5 and 2.7.6 in accordance with the soil and groundwater monitoring plan required by condition 2.7.7.

2.7.9 The operator shall review the plan required by Condition 2.7.7 no later than six months after each monitoring event. The purpose of the review shall be to determine whether any changes to monitoring locations, frequency or parameters are required and where changes are proposed, submit a revised plan to SEPA.

2.7.10 Notwithstanding the requirements of Condition 2.2 all plans, monitoring and assessments reports undertaken in accordance with Conditions 2.7.4, 2.7.5, 2.7.6, 2.7.7 and 2.7.8 shall be preserved until the permit is surrendered.

2.7.11 The operator shall maintain the groundwater monitoring wells detailed in the plan required in Condition 2.7.7 in a condition fit for purpose, unless otherwise agreed in writing with SEPA. Where a well's function is compromised it shall be repaired or replaced to allow sample collection in accordance with Conditions 2.7.5 and 2.7.6.

2.8 Start Up

2.8.1 By 31 March 2008 the Operator shall prepare, implement and maintain a plan ("the Start Up Plan") setting out the necessary steps to be taken by the Operator prior to start up of operations of the Permitted Installation to ensure that all appropriate preventative measures are taken against pollution and that no significant pollution is caused.

2.8.2 At least every four years, the Operator shall review the Start Up Plan required under Condition 2.8.1. Each review of the said Start Up Plan shall be recorded and where the Operator makes any revisions to the said plan, said revisions shall be recorded.

2.9 De-commissioning

2.9.1 By 31 March 2009 the Operator shall prepare and maintain a plan ("the De-commissioning Plan") for the decommissioning of the Permitted Installation. The De-commissioning Plan shall set out the steps to be taken by the Operator after final cessation of the Permitted Activities.

2.9.2 The Operator shall notify SEPA in writing of its intention to cease the Permitted Activities, or any part thereof, for any period exceeding 12 months, no later than two months prior to the proposed date of cessation.

2.9.3 The Operator shall implement the De-commissioning Plan on final cessation of the Permitted Activities or any part thereof.

2.9.4 The Operator shall review, record and, where necessary, update the Decommissioning Plan as follows:

2.9.4.1 At least every four years; and

2.9.4.2 Where the Operator plans to make a substantial change in the extent or nature of the Permitted Installation.

2.10 Sampling and Monitoring Facilities

2.10.1 Sampling measurement and monitoring facilities at the Permitted Installation shall conform to the requirements of the relevant test methods specified in any Condition of the Permit or as otherwise agreed in writing by SEPA.

2.10.2 Unrestricted access to all sampling points required by any Condition of this Permit shall be provided at all times.

3 CONDITIONS APPLYING TO THE PERMITTED INSTALLATION AS A WHOLE

3.1 Noise and Vibration

3.1.1 Subject to Condition 3.1.2, at least every four years, the Operator shall carry out a systematic assessment of noise and vibration emissions associated with the Permitted Activities, the purpose of which shall be to identify methods of reducing noise and vibration emissions. Each assessment shall be recorded and reported to SEPA.

3.1.2 Notwithstanding Condition 3.1.1 the first systematic assessment of noise and vibration emissions required under Condition 3.1.1 shall be carried out by 31 August 2008.

3.1.3 The Operator shall by 31 August 2008 produce a noise and vibration management plan which shall specify the methods to be utilised for the purposes of reducing noise and vibration emissions associated with the Permitted Activities in accordance with the findings of the first assessment required under Condition 3.1.2 above and estimated dates for implementation of those methods ("the Noise and Vibration Management Plan"). The Noise and Vibration Management Plan shall be reviewed at least every four years and updated, as necessary, to take account of any subsequent assessment or assessments carried out in accordance with Condition 3.1.1 above.

3.1.4 The Noise and Vibration Management Plan and all actions taken in accordance with the Noise and Vibration Management Plan shall be recorded.

3.1.5 The Operator shall ensure that all appropriate preventative measures are taken against noise and vibration emissions through the application of BAT and ensure that no significant pollution is caused.

3.2 Odour Conditions

3.2.1 All emissions to air from the Permitted Installation shall be free from offensive odour, as perceived by an Authorised Person, outside the Site Boundary.

3.2.2 Subject to Condition 3.2.3, at least every four years, the Operator shall carry out a systematic assessment of odour emissions associated with the Permitted Activities, the purpose of which shall be to identify methods of reducing odour emissions and their impact. Each assessment shall be recorded and reported to SEPA.

3.2.3 Notwithstanding Condition 3.2.2, the first systematic assessment of odour emissions required under Condition 3.2.2 shall be carried out by 31 March 2009.

3.2.4 The Operator shall by 31 March 2009 produce an odour management plan which shall specify the methods to be implemented for the purposes of reducing odour emissions associated with the Permitted Activities in accordance with the findings of the first assessment required under Condition 3.2.2 above and estimated dates for implementation of those methods ("the Odour Management Plan"). The Odour Management Plan shall be reviewed at least every four years and updated, as necessary, to take account of any subsequent assessment or assessments carried out in accordance with Condition 3.2.2 above.

3.2.5 The Odour Management Plan and all actions taken in accordance with the Odour Management Plan shall be recorded.

3.3 Groundwater and Soil Protection

3.3.1 The Operator shall maintain plan(s) that identify the configuration and specification of all drains and subsurface pipework and the position and purpose of all sub-surface sumps and storage vessels that are used or have been used within the Permitted Installation from the date of this Permit until the Permit is surrendered.

3.4 Waste Incineration

3.4.1 The Operator shall not burn waste (as defined in Article 3 (37) of IED at the Permitted Installation.

3.5 Fugitive VOC Emissions

3.5.1 The Operator shall prepare, implement and maintain a VOC fugitive release inventory for all plant (and tanks) included within the Permitted Installation. The said inventory shall list the main sources of fugitive releases on each plant along with the techniques in place to prevent or minimise VOC emissions from each source. Fugitive VOC emissions shall be quantified (based on composition and mass in kilograms) for each source including the total for each production plant based on monitoring estimates on an annual basis. The fugitive release inventory shall be reported to SEPA on an annual basis, within two months of the end of the calendar year. The first assessment shall be completed by 28 February 2020.

3.5.2 The Operator shall implement and maintain an on-going annual Leak Detection and Repair Programme (LDAR) designed to reduce fugitive VOC emissions to air from the production plants and tanks identified in Condition 3.5.1. The repair programme shall use monitoring including optical gas imaging techniques and the annual VOC fugitive release inventory as the basis for targeting improvements.

3.5.3 The Operator shall record and report to SEPA the annual leak repair programme for the forthcoming calendar year along with a review of the previous year's repair programme identifying any improvements made, within two months of the end of the calendar year. The first assessment shall be completed by 28 February 2020.

4 CONDITIONS APPLYING TO THE ETHYLENE PLANT

4.1 Air Emission Conditions

4.1.1 The emissions to air specified in Table 4.1 shall only be permitted from the emission locations specified in that Table and shall not exceed the limits for the parameters specified in said Table.

4.1.2 The Operator shall carry out spot sampling (SS) and continuous (C) monitoring of emissions of the parameters specified in Table 4.2, at the sampling location specified in Table 4.1 and subject to the requirements for monitoring specified in Table 4.2.

4.1.3 For any parameter specified in Table 4.1, all results of monitoring carried out under Condition 4.1.2 shall be corrected to the reference conditions as specified in Table 4.3. The results of all tests and data used to correct the monitoring results to the reference condition specified in Table 4.3 shall be recorded.

4.1.4 The Operator shall record the date, time, duration and results of all monitoring carried out under Condition 4.1.2 and report said results. For each result, the report shall include the operational mode and throughput of the Permitted Installation and plant at the time of monitoring, the operating rate of each furnace expressed in MW net thermal input, the designation and company name and post of the person carrying out the monitoring, any deviations from the methods specified in Table 4.2 and the associated confidence interval.

4.1.5 The Operator shall record and report the mass emission results for the parameters of the combined emissions specified in Table 4.4 using the method agreed in writing with SEPA. This information shall be reported in a format agreed in writing with SEPA.

4.1.6 Information used to estimate mass emissions in compliance with Condition 4.1.5 shall be recorded for each estimate.

4.2 Water Environment and Sewer Discharge Conditions

4.2.1 The emissions to the water environment specified in Table 4.5 shall only be permitted from the emission points specified in that Table to the destinations specified in said Table and only after having passed through the sample points specified in that Table.

4.2.2 Subject to Condition 4.2.3, no emission specified in Table 4.5 shall exceed the limit, or be outwith the range, as appropriate, for the parameters specified in said Table.

4.2.3 Where the limit for any parameter in Table 4.5 is prefixed with CL, CU, A, IL or the following Conditions shall apply in respect of that parameter:

4.2.3.1 Subject to Condition 4.2.3.2 and 4.2.3.3, no sample of any emission shall exceed the instantaneous lower limit (IL) or composite lower limit (CL) as appropriate;

4.2.3.2 The limit in Condition 4.2.3.1 may be exceeded where, in any series of samples of any emission taken by SEPA at regular but randomised intervals over a year (as listed in column 1 (and 3) of Table 4.7), no more than the number of samples (as listed in column 2 (and 4) of Table 4.7) exceed the IL or CL, as appropriate;

4.2.3.3 The limit in Condition 4.2.3.1 may be exceeded where, in any series of samples of any emission taken in accordance with the sampling plan required under Condition 4.2.6 over any year (as listed in column 1 (and 3) of Table 4.7), no more than the number of samples (as listed in column 2 (and 4) of Table 4.7) exceed the IL or CL, as appropriate;

4.2.3.4 Notwithstanding Condition 4.2.3.2 and 4.2.3.3, no sample of any emission shall exceed the instantaneous upper limit (IU) or composite upper limit (CU), as appropriate;

4.2.3.5 Notwithstanding Conditions 4.2.3.2, 4.2.3.3 and 4.2.3.4, where the limit for any parameter in Table 4.5 is prefixed with CL or CU, no sample of any emission shall exceed the absolute limit (A).

4.2.4 Measurement and/or sampling of the emissions in Table 4.5 shall be carried out by the Operator at the sampling locations specified in that Table subject to the requirements for monitoring specified in Table 4.6.

4.2.5 The date, time and results of all samples and measurements carried out in compliance with Condition 4.2.4 shall be recorded by the Operator and reported.

4.2.6 A sampling plan shall be agreed in writing with SEPA and shall be maintained and reviewed annually. The reviewed sampling plan shall be reported each year for the forthcoming calendar year.

4.2.7 No emission shall be made from emission point number W02, as described in Table 4.5, except when:

4.2.7.1 The recycle pump to the rain water pond or water storage fails; or

4.2.7.2 Prolonged rainfall causes or is likely to cause the capacity of the discharge pumps or rainwater storage pond be exceeded; or

4.2.7.3 In the event of an emergency requiring the pond to overflow;

4.2.8 Without prejudice to Condition 4.2.7 in the event that any emission is made from emission point number W02, as described in Table 4.5, the following information shall be recorded:

4.2.8.1 the dates and times any emission so made started and stopped;

4.2.8.2 the reason for the emission;

4.2.8.3 details of any action taken to minimise both the volume and impact of any emission;

4.3 Flaring and Venting Operations

4.3.1 All flaring and venting events shall be recorded and reported to SEPA. The record shall contain:

4.3.1.1 The date, time and duration of each flaring or venting event;

4.3.1.2 The flare or vent employed;

4.3.1.3 An estimate of the quantity of hydrocarbons flared or vented;

4.3.1.4 The reason for the flaring or venting event with identification of the root cause of the event;

4.3.1.5 The duration of any occurrence of black smoke, greater than Ringelmann shade 2;

4.3.1.6 Actions taken to minimise emissions during the flaring or venting event; and

4.3.1.7 Actions taken to prevent reoccurrence of the flaring or venting event.

4.3.2 Flaring which gives rise to, or is likely to give rise to dark smoke emissions greater than the equivalent of Ringelmann shade 2 for periods greater than 15 minutes shall be treated as an Incident.

4.3.3 SEPA shall be notified in writing of any Major planned flaring. The notification shall be given at least seven days before the planned flaring event and shall include:

4.3.3.1 The reason why the planned flaring is required;

4.3.3.2 An estimate of the quantity of hydrocarbons to be flared;

4.3.3.3 An estimate of the date, time and duration that the major flaring will take place over.

4.3.4 Any Major flaring events not notified under Condition 4.3.3 shall be recorded and reported in terms of Conditions 2.4.1 through to and including 2.4.6.

4.3.5 Any Major flaring event shall be recorded and reported in terms of Conditions 2.4.1 through to and including 2.4.6.

4.3.6 SEPA shall be notified in writing when any flare or vent is to be taken out of service. The notification shall be given at least 24 hours before the flare or vent is taken out of service and shall include:

4.3.6.1 The reason why the flare or vent is out of service;

4.3.6.2 An estimate of the time that the flare or vent will be out of service; and

4.3.6.3 A description of how flaring or venting operations are to be managed during the period when the flare is out of service.

4.3.7 Where all flares are to be taken out of service or are unavailable for any reason, a temporary flare shall be employed. The temporary flare shall have a maximum emission capacity of 5 tonnes per hour of hydrocarbon vapour and shall have a release point of at least 11 metres above ground level. The temporary flare shall be provided with an air blower to assist combustion and reduce formation of black smoke.

4.3.8 Continuous monitoring of the performance of all elevated flare stacks shall be provided in the control room, by colour television monitor.

4.3.9 Colour time lapse recording of all elevated flare stacks shall be provided. The time and date shall be superimposed on the recorded pictures. The records shall be kept for a minimum of one month.

4.3.10 Flaring from the installation shall take place preferentially on the Enclosed Ground Flare.

4.3.11 Where the Enclosed Ground Flare is not employed the reason for this should be included within the report required by Condition 4.3.1.

4.3.12 By the 31 January each year the Operator shall prepare, and submit to SEPA, a flaring prevention and minimisation review including:

i. progress against delivery of the actions identified in Section 5: implementation Plan of the Fife Ethylene Plant Flaring BAT Evaluation;
ii. the outcome of each action delivered including any reductions in flaring frequency, rates and/or duration achieved; and
iii. how any improvements have been incorporated into the Noise and Vibration Management Plan and/or Operating Procedures.

4.3.13 From 23 August 2019 the Operator shall continuously monitor and record:

i. The gas flow and composition to the enclosed ground flare (emission point A17);
ii. gas flow to the FEP elevated flare (emission point A16); and
iii. the composition of flare gas and the steam flow rate to the FEP elevated Flare (emission point A16).

4.3.14 From 08 May 2021 the FEP elevated Flare (emission point A16) shall not be operated unless using a John Zink steamizer XP 60/54” flare tip which has;

i. acoustic insulation installed on the steam valves; and
ii. the ratio of steam to flare gas in the elevated flare shall be automatically recorded via the Distributed Control System (DCS) in the control room and shall have alarms set in the DCS to alert the Operator of any deviation or faults in the ration of steam to flare gas.

4.3.15 Deleted

4.3.16 The totally enclosed ground flare system design basis shall have, as a minimum:

i. A minimum operational capacity of 100 tph for the gas compositions at the permitted installation;
ii. Continuous monitoring and recording of gas flows to the ground flare system;
iii. Continuous monitoring and recording of the composition of flare gas to the ground flare system;
iv. A maximum ground flare noise of 85 dB(A) at 1 metre from the wind/noise barrier of the ground flare;
v. A smokeless capacity of 100%;
vi. Availability of 99%;
vii. A minimum combustion efficiency of 99%.

4.3.17 From 30 June 2023 a new enclosed ground flare shall be operational and maintained to meet the requirements in Condition 4.3.16.

4.3.18 From 28 February 2022, and then every calendar month until the totally enclosed ground flare specified in condition 4.3.16 is operational, the operator shall submit to

SEPA a report on progress towards installation and operation of the totally enclosed ground flare. These reports should contain as a minimum:

i. an update on the achievement of, and progress towards, key milestones in bringing the totally enclosed ground flare into operation;
ii. the anticipated date for the totally enclosed ground flare coming into operation; and
iii. where there has been a change in the anticipated date for the totally enclosed ground flare coming into operation, an explanation of any reasons for the change

Table 4.1 – Emissions to Air ELVs

Source of Emission	**Emission point number**	A01	A02	A03	A04	A05	A06	A07
	Emission source	Furnace No. 1 (K-F-1)	Furnace No. 2 (K-F-2)	Furnace No. 3 (K-F-3)	Furnace No. 4 (K-F-4)	Furnace No. 5 (K-F-5)	Furnace No. 6 (K-F-6)	Furnace No. 7 (K-F-7)
	Stack height/ diameter (m)	61/2	61/2	61/2	61/2	61/2	61/2	61/2
	Location on Site Plan	A01	A02	A03	A04	A05	A06	A07
	NGR	NT 18585 89849	NT 18565 89928	NT 18573 89844	NT 18549 89924	NT 18558 89839	NT 18533 89916	NT 18539 89834
Monitoring Details	**Type of Monitoring**	SS	SS	SS	SS	SS	SS	SS
	Sampling Location	Furnace Exhaust	Furnace Exhaust	Furnace Exhaust	Furnace Exhaust	Furnace Exhaust	Furnace Exhaust	Furnace Exhaust
Limits for Parameters from Emission Source	**Oxides of Nitrogen mg/m3**	350	350	350	350	350	350	350
	Oxides of Sulphur mg/m3	-	-	-	-	-	-	-
	Carbon Monoxide mg/m3	-	-	-	-	-	-	-
	Maximum oxygen in discharged combustion gas % oxygen v/v	7	7	7	7	7	7	7
	Smoke	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1

Table 4-1 – Emissions to Air ELVs (continued)

Source of Emission	**Emission point number**	A11	A12	A13	A14
	Emission source	Gas Turbine Dump Stack	Caustic Oxidiser Vent	Dilution Steam Vent	Feed Treatment Unit Vent
	Stack height/ diameter (m)	30/3	12/0.1	20/1.8	50/0.2
	Location on Site Plan	A11	A12	A13	A14
	NGR	NT 185896 89948	NT 18644 690110	NT 186 899	NT 188 900
Monitoring Details	**Type of Monitoring**	SS	SS	SS	SS
	Sampling Location	Vent Outlet	Vent Outlet	Vent Outlet	Vent Outlet
Limits for Parameters from Emission Source	**Oxides of Nitrogen mg/m3**	550	-	-	-
	Oxides of Sulphur mg/m3	-	-	-	-
	Carbon Monoxide mg/m3	-	-	-	-
	Maximum oxygen in discharged combustion gas % oxygen v/v	-	-	-	-
	Smoke	-	-	-	-

Table 4-1 – Emissions to Air ELVs (continued)

Source of Emission	**Emission point number**	A15	A16	A17	A19
	Emission source	Acetylene Converter Regeneration Vent	Elevated Flare	Enclosed Ground Flare	Temporary Flare (Condition 4.3.6)
	Stack height/ diameter (m)	22/0.25	100/1.4	31/18.3	11 / N/A
	Location on Site Plan	A15	A16	A17	A19
	NGR	NT 188 899	NT 187 901	NT 188 901	N/A
Monitoring Details	**Type of Monitoring**	SS	SS	SS	SS
	Sampling Location	Vent Outlet	Flare Exhaust	Flare Exhaust	Flare Exhaust
Limits for Parameters from Emission Source	**Oxides of Nitrogen mg/m3**	-	-	-	-
	Oxides of Sulphur mg/m3	-	-	-	-
	Carbon Monoxide mg/m3	-	-	-	-
	Maximum oxygen in discharged combustion gas % oxygen v/v	-	-	-	-
	Smoke	Ringelmann Shade 2 > 15 mins	Ringelmann Shade 2 > 15 mins	Ringelmann Shade 1 > 15 mins	Ringelmann Shade 2 > 15 mins

Table 4.2 – Emissions to Air Monitoring Requirements

Parameter	Emission point number	Spot Sampling (SS)		
		Standard	Frequency	Operational Mode
Oxides of Nitrogen	A01 to A07 and A11	BS EN 14792	Quarterly	Operational
Oxides of Sulphur	A11	BS EN 14791	Quarterly	Operational
Smoke	A01 to A07 inclusive, A16, A17 & A19	BS 2742:1969	Start Up/ Shut Down	Start Up/ Shut Down
			Daily	Operational
Thermal Input	A01 to A07 inclusive	Continuous online Measurement	Monthly	Operational
Temperature	A01 to A07 inclusive	Continuous online measurement	Continuous	Operational
Operating Rate	A01 to A07 inclusive	Continuous online measurement	Continuous	Operational
Type of fuel being burned	A01 to A07 inclusive	Continuous online measurement	Continuous	Operational
Oxygen %	A01 to A07 and A11	Continuous online measurement	Continuous	Operational

Table 4.3 – Reference Conditions

Emission Point Number	Reference Condition
A01 to A07 inclusive	Dry, 273K, 101.3kPa, Oxygen 3%v/v
A11	Dry, 273K, 101.3kPa, Oxygen 15%v/v

Table 4.4 – Mass Emissions to Air

Parameter	Combined Emissions (Number)	Method (Summary)	Mass Emissions Result to be recorded as
Oxides of Nitrogen (expressed as nitrogen dioxide)	A01 to A07 inclusive, A11, A16, A17 & A19	As agreed in writing with SEPA	Tonnes per month
Oxides of Sulphur	A11		Tonnes per month
Carbon Dioxide	A01 to A07 inclusive, A11, A14, A16, A17 & A19		Tonnes per month
H_2S	A14		Tonnes per month
Total Organic Carbon	A11, A13, A16, A17 & A19		Tonnes per month

Table 4.5 – Emissions to Water Environment ELVs

	Emission number Point	W01	W02
Source of Emission	Source of Emission	Effluent Treatment Pit Discharge	Overflow
	Destination	Firth of Forth	Dronachy Bum
	Emission location NGR	NT 1857 9018	NT 187 903
	Emission location on Figure 4.2	W01	W02
	Sampling location	Discharge Outlet	Overflow Outlet
Limits for Parameters from Emission Source	pH	5–9	5–9
	COD kg/day	CL 1250 CU 2250	-
	Total Petroleum Hydrocarbons (Oil in Water) kg/day	CL 60 CU 100	None visible
	Flowrate m^3/hour	A 470	-
	Temperature ^oC	A 40	-
	BOD mg/l	-	-
	Copper mg/l	-	-
	Mercury mg/l	-	-
	Cadmium mg/l	-	-
	BTEX	-	-
	PAH	-	-

Note: where "-" is used no emission limit has been set.

Table 4.6 – Emissions to Water Environment Monitoring Requirements

Parameter	Emission (Number(s))	Test Method	Reporting Format	Sampling Measurement Facility	Instantaneous	Composite	
					Frequency	Frequency	Sample Basis
pH	W01 & W02	In-house analysis to standard: ASTM D 1293	pH Units	W01	-	Daily	Continuous
COD kg/day	W01	In-house analysis to standard: Hach to method 10067 USEPA	Kg/day	W01	-	Twice per Week	Continuous
	W02	In-house analysis to standard: Hach to method 10067 USEPA	mg/l	W02	Daily on Overflow	-	-
Total Petroleum Hydrocarbons (Oil in Water)	W01	In-house analysis to standard: Modified MHSO Blue Book method to IP426.97 and EPA 413.2	Kg/day	W01	Daily	Twice per week	Continuous
	W02	As agreed in writing with SEPA	As agreed in writing with SEPA	W02	Daily on Overflow	-	-
Flowrate	W01	Continuous flow meter with visual display	m^3/hour	W01	Continuous Flow Indication	Daily	Continuous
Temperature	W01	In-house analysis	^oC	W01	Continuous Flow	Daily	Continuous
Copper	W01	In-house analysis to standard: Hach to method 8506 USEPA	mg/l	W01	-	Weekly	Continuous
Mercury	W01	In-house analysis to standard:	mg/l	W01	-	Monthly	Continuous

Parameter	Emission (Number(s))	Test Method	Reporting Format	Sampling Measurement Facility	Instantaneous	Composite	
					Frequency	Frequency	Sample Basis
		ISO 5961:1994					
Cadmium	W01	In-house analysis to standard: ISO 5961:1994	mg/l	W01	-	Monthly	Continuous
BTEX	W01	In-house analysis to standard: AN15	mg/l	W01	-	Monthly	Continuous
PAH	W01	In-house analysis to standard: AN19A/1	mg/l	W01	-	Monthly	Continuous

Table 4.7 – Two Tier Consent Table

Series of samples taken in any period of 12 consecutive months	Maximum permitted number of samples which fail to conform	Series of samples taken in any period of 12 consecutive months	Maximum permitted number of samples which fail to conform
1–7	1	172–197	14
8–16	2	188–203	15
17–28	3	204–219	16
29–40	4	220–235	17
41–53	5	236–251	18
54–67	6	252–268	19
68–81	7	269–284	20
82–95	8	285–300	21
96–110	9	301–317	22
111–125	10	318–34	23
126–140	11	335–350	24
141–155	12	351–365	25
156–171	13		

Table 4.8 – Waste Handling and Storage

Description of Waste	Location of Storage	Method of storage	Maximum Permitted Quantity (m^3)	Storage Conditions
Scrap metal	Waste Yard/ Onsite		20	Skips or containers on an area of hardstanding with kerbing and fall to prevent run-off
Wood	Waste Yard/ Onsite	Skips	5	
Plastics	Waste Yard/ Onsite		5	
Cardboard	Waste Yard/ Onsite	Skips	5	
Air Filters	Waste Yard/ Onsite	Skips Drums	5	
Aerosol Cans	Waste Yard/ Onsite	IBC Drums	5	
Batteries	Waste Yard/ Onsite	Drums Pallets	2	
Paint Sludges/ Thinners/Rags/Paint tins with residues	Waste Yard/ Onsite	Drums Pallets	5	
Paint tins/cans	Waste Yard/ Onsite	Drums	5	
General waste	Waste Yard/ Onsite		15	
Oily waste	Waste Yard/ Onsite	Drums	10	
Chemical/hazardous waste	Waste Yard/ Onsite	Tank Drums	300	
Fluorescent Tubes	Waste Yard/ Onsite	Drums	2	
Insulation	Waste Yard/ Onsite		10	
Carbon Coke	Waste Yard/ Onsite		10	
Sulphinol	Waste Yard/ Onsite	Tanks Drums	100	
Ion Exchange Resins	Waste Yard/ Onsite	Euro Bag Tanker	10	
Tar	Waste Yard/ Onsite	Tank Tanker	100	
Soil/Sludge Contaminated	Waste Yard/ Onsite	Euro Bag Tank Tanker	50	

Description of Waste	Location of Storage	Method of storage	Maximum Permitted Quantity (m^3)	Storage Conditions
Soil/Sludge Uncontaminated	Waste Yard/ Onsite	Euro Bag Tank Waste Area	200	
Grit/Shot blast waste	Waste Yard/ Onsite	Euro Bag	5	
Asbestos	Waste Yard/ Onsite		1 Skip	

Table 4.9 – Storage of Raw Materials

Description of Raw Material	Location of Storage	Method of storage	Maximum Permitted Quantity	Storage Conditions
Diesel	Various	Tanks	30,000 litres	Totally enclosed and bunded
Sulphuric Acid	Store/ Warehouse Onsite	G-TK-53 G-TK-72 G-TK-60 A & B 205 Litre Drums IBC	70 m^3	Totally enclosed and bunded
Caustic Soda	Store/ Warehouse Onsite	G-TK-73 205 Litre Drums G-TK-61 A & B IBC	300 m^3	Totally enclosed and bunded
Water additives and scavengers (by type)	Store/ Warehouse Onsite	205 Litre Drums IBC	4000 Litres	Totally enclosed and bunded
Sulphur feed additives (by type)	Store/ Warehouse Onsite	ISO Tanks 205 Litre Drums IBC K-D-OI	100 m^3	Totally enclosed and bunded
Corrosion Inhibitors & antifoulants (by type)	Store/ Warehouse Onsite	205 Litre Drums IBC	3000 Litres	Totally enclosed and bunded
Biocides (by type)	Store/ Warehouse Onsite	205 Litre Drums IBC	3000 Litres	Totally enclosed and bunded
Sulphinol	Store/ Warehouse Onsite	205 Litre Drums IBC	400 m^3	Totally enclosed and bunded
Flushing medium (compressors & exchangers)	Store/ Warehouse	205 Litre Drums IBC	5000 Litres	Totally enclosed and bunded

Description of Raw Material	Location of Storage	Method of storage	Maximum Permitted Quantity	Storage Conditions
Methanol	Store/ Warehouse Onsite	205 Litre Drums IBC C-TK-51	2050 Litres	Totally enclosed and bunded
Nitrogen (Liquid)	G-D-IO A & B	2 Tanks	40 m^3	Totally enclosed, double walled and bunded
DAC	G-D-80 G-TK-80 A & B	2 Tanks	400 m^3	Totally enclosed, double walled and bunded
Lube oil and grease	Store/ Warehouse Onsite	20 Litre Drums 25 Litre Drums 205 Litre Drums IBC	5000 Litres	Totally enclosed, double walled and bunded
Fire fighting foam	Store/ Warehouse Onsite	Various	100 m^3	Totally enclosed, double walled and bunded
Ethane	S-TK-O1	Tank	10,000 m^3	Totally enclosed, bunded, double contained and insulated

5 CONDITIONS APPLYING TO LARGE COMBUSTION PLANT (Activities Subject to Chapter III of Directive 2010/75/EU)

5.1 Air Emission Conditions

5.1.1 The emissions to air specified in Table 5.1, shall only be permitted from the emission locations specified in that Table and shall not exceed the limits specified in those Tables and / or in Condition 5.1.2.

5.1.2 Periodic Monitoring Averages, determined in accordance with Condition 5.1.3, shall comply with the criteria specified below:

5.1.2.1 No Periodic Monitoring Average shall exceed 100% of the value specified in Table 5.1 for NOx, SO2 or dust.

5.1.3 The Operator shall undertake the monitoring of emissions to air as specified in Table 5.2 in accordance with the requirements specified in Table 5.2 and Condition 5.2.

5.1.4 All Periodic Monitoring Averages shall be expressed at the reference conditions specified in Table 5.3.

5.1.5 The Operator shall record the information specified in Condition 5.2.3 and 5.2.4 and report to SEPA the information specified jn Condition 5.2.5.1 at the frequency specified in Condition 5.2.5.2.

5.2 Monitoring of Emissions to Air

5.2.1 The technique employed for the periodic monitoring of any substance listed in Table 5.2 shall be:

(a) the current CEN standard; or

(b) where no CEN standard is available (and only in that circumstance): the default method for that substance as appropriate; or

(c) alternative methods may be used provided the Operator can demonstrate equivalence to the relevant CEN standard by using CEN/TS 14793.

5.2.2 Monitoring personnel, equipment and organisations shall have a quality system. accredited to BS EN ISO/IEC 17025 and CEN/TS 15675 as appropriate and laboratory analysis shall be carried out by an organisation accredited to ISO/IEC 17025, unless otherwise agreed in writing with SEPA.

5.2.3 Data Handling and Reporting Periodic Monitoring (Emissions to Air)

5.2.3.1 Whenever periodic monitoring of those substances or parameters specified in Condition 5.1.3 is being undertaken the following information shall be calculated and/or recorded:

(a) the date, time, duration and results of all monitoring;

(b) the name of the person(s) carrying out periodic monitoring; and

(c) the results of all tests and data used to correct monitoring results to the reference conditions specified in Condition 5.1.4; and

(d) any deviations from the monitoring methods specified in this Schedule and the associated confidence interval; and

(e) the type(s) of fuel or fuels being used during the periodic monitoring period, the average feed rate of any fuel or fuels being fed and the operating rate of the LCP expressed in MW net thermal input and as a percentage of the maximum continuous rating (% MCR); and

(f) any abnormal or unusual operating conditions or breakdowns that occurred during the periodic monitoring period; and

(g) details of any relevant continuous monitoring for the period which coincides with the sampling period; and

(h) the mass of the substance collected during the said sampling period; and

(i) the volume of gas extracted during the sampling period; and

(j) the emission concentration values, standardised where appropriate to the reference condition specified in Condition 5.1 A, for each substance specified in Condition 5.1.3, shall be calculated from the information detailed in Condition 5.2.3.1 h) and i); and expressed as an average value over the periodic monitoring period specified by Condition 5.2.1, with no subtraction of any sampling uncertainty levels from the reported result and this shall be referred to as the 'Periodic Monitoring Average" for that substance.

5.2.3.2 The Operator shall report to SEPA in writing the results of all periodic monitoring, in accordance with the requirements of BS EN ISO/IEC 17025 and CEN/TS 15675. Said report shall include the information specified in Condition 5.24.1.

5.2.4 Recording (Emissions to Air)

5.2.4.1 The following information shall be recorded:

(a) the results of all tests and data used to correct monitoring results to the reference conditions specified in Condition 5.1.4; and

(b) the results of all periodic monitoring required to be monitored by Condition 5.1.3 and presented in accordance with the requirements of Condition 5.2.3.2; and

(c) the mass emissions of those pollutants required to be monitored as specified in Condition 5.1.3 and all relevant information used to calculate or estimate each mass emission; and

(d) the number of Operating Hours in each year for each LCP; and

(e) without prejudice to Condition 2.5.2, the total energy input from each fuel into each LCP for which an emission point is specified in the Condition 5.1.1, based on the net calorific value (in TJ) of each fuel for each year including description of the type of all solid, liquid and gaseous fuels.

5.2.5 Reporting (Emissions to Air)

5.2.5.1 A report shall be submitted to SEPA containing the information recorded in accordance with Condition 5.2.4.1 (excluding Condition 5.2.4.1 a)) relevant to each specified reporting period.

5.2.5.2 The reports required by Condition 5.2.5.1 shall be submitted at the following frequencies:

(a) the results of periodic monitoring required by Condition 5.2.4.1 b) shall be submitted within six weeks of completion of the monitoring or within six weeks of the end of the six monthly reporting period, whichever is sooner; and

(b) those mass emission reports required by Condition 5.2.4.1 c) shall be submitted annually within one month of the end of each calendar year; and

(c) the operating hours and total energy input in fuel reports required by Condition 52.4.1 d) and e) respectively shall be submitted annually within one month of the end of the calendar year.

5.3 Operation of Process

5.3.1 Start-Up and Shut-Down (SUSD)

5.3.1.1 A "Start-Up" period means any period of operation below the Minimum Start-Up Load (MSUL) for stable generation specified in Table 5.5. A "Shut-Down" period means any period of operation below the Minimum Shut-Down Load (MSUDL) for generation and at the initiation of termination of fuel supply specified in Table 5.5.

5.3.1.2 The Operator must ensure that Start-Up and Shut-Down periods are minimised as far as practicable.

5.3.2 Operating Hours

5.3.2.1 Within this Schedule of the Permit, "Operating Hours" means the hours of operation of any LCP excluding any operational time subject to Condition 5.3.1.1 (start up and shutdown periods).

5.3.2.2 Without prejudice to Condition 5.3.2.1, for the purposes of the calculation of the average emission values, the following values shall be disregarded:-

(a) Those values measured during the periods referred to in Article 30(5) and Article 30(6) of IED;

(b) Those values measured during start-up and shut-down; and

(c) Those values relating to any periods which SEPA agrees in writing can be disregarded due to operational factors."

5.3.3 Multi-Fuel Firing Conditions

5.3.3.1 Where different fuels, or fuel mixtures are used, the relevant emission limit value for the period of operation on each fuel type or fuel mixture, shall be a fuel-weighted average which shall be calculated by multiplying the emission limit value for the fuel type specified in Table 5.6 by the thermal input delivered by that fuel type divided by

the sum of the thermal inputs delivered by all fuels and then by aggregating each of the fuel-weighted limit values.

5.3.4 Notifications

5.3.4.1 Notwithstanding the requirements of Regulation 45 or Regulation 46 of The Regulations and in relation to the Operation of any LCP, the Operator shall submit a written notification to SEPA in the following circumstances within the time period specified:

(a) In the exceptional cases where Article 30(5) may apply, without delay;

(b) In the exceptional cases where Article 30(6) may apply, without delay;

(c) In cases where Article 4(2) of Commission Implementing Decision 2012/249/EU concerning the determination of start-up and shut-down (SUSD) periods applies, 14 days prior to any changes.

Table 5.1 – Emissions to Air ELVs

Source of Emission	**Emission point number**	A08		A09		A10	
	Emission source	Boiler A (Z-SG-01 A)		Boiler B (Z-SG-01 B)		Boiler C (Z-SG-01 C)	
	Large Combustion Plant	Yes (67 MWth input)		Yes (67 MWth input)		Yes (67 MWth input)	
	Stack height/ Diameter (m)	25/1.6		25/1.6		25/1.6	
	Location on Site Plan	A08		A09		A10	
	NGR	NT 18567 90050		NT 18563 90062		NT 18562 90072	
Monitoring Details	**Type of Monitoring[1]**	SS		SS		SS	
	Sampling Location	Boiler Exhaust		Boiler Exhaust		Boiler Exhaust	
Fuel Type		Fuel Gas	Fuel Gas/ Fuel Oil	Fuel Gas	Fuel Gas/ Fuel Oil	Fuel Gas	Fuel Gas/ Fuel Oil
Limits for Parameters from Emission Source	**Oxides of Nitrogen**	300 mg/m^3	See Condition 5.3.4 & Table 5.6	300 mg/m^3	See Condition 5.3.4 & Table 5.6	300 mg/m^3	See Condition 5.3.4 & Table 5.6
	Oxides of Sulphur	35 mg/m^3	See Condition 5.3.4 & Table 5.6	35 mg/m^3	See Condition 5.3.4 & Table 5.6	35 mg/m^3	See Condition 5.3.4 & Table 5.6
	Dust	5 mg/m^3	See Condition 5.3.4 & Table 5.6	5 mg/m^3	See Condition 5.3.4 & Table 5.6	5 mg/m^3	See Condition 5.3.4 & Table 5.6
	Carbon Monoxide	200 mg/m^3		200 mg/m^3		200 mg/m^3	
	Smoke	Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1		Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1		Ringelmann Shade 2 > 30 mins at Start Up then Ringelmann Shade 1	

Note 1: ELVs apply to LCP Combustion emissions only. If Feed Treatment Unit offgas is routing through A08, A09 or A10 during monitoring, appropriate sampling methodology must be agreed in advance with SEPA.

Table 5.2 – Emissions to Air Monitoring Requirements

Emission Point	Parameter	Monitoring frequency	Monitoring standard or method	Operational Mode	Averaging Period for ELV Compliance and/or Reporting	Handling requirements
A08, A09, A10	Oxides of Nitrogen (as NO_2)	Periodic 6 monthly measurement	BS EN 14792	Operational	Average over sample period	As specified in Condition 5.2.3
	SO_2	Periodic 6 monthly measurement	BS EN	Operational	Average over sample period	As specified in Condition 5.2.3
	Carbon monoxide	Periodic 6 monthly measurement	BS EN 15058	Operational	Average over sample period	As specified in Condition 5.2.3
	Particulate	periodic 6 monthly measurement	BS EN 1 3284-1	Operational	Average over sample period	As specified in Condition 5.2.3
	Smoke	As indicated by DCS monitoring	BS 2742:1969	Start-up and Shut-down and normal operation		
	Oxygen	Continuous online measurement	As agreed in writing with SEPA	Whenever operational		
		Periodic 6 monthly measurement	BS EN 14789 or alternative method as agreed in writing with SEPA	Not specified	Average over sample period	As specified in Condition 5.2.3
	Water vapour (if not measured on a dry basis)	Periodic 6 monthly measurement	BS EN 14790 alternative method as agreed in writing with	Not specified	Average over sample period	As specified in Condition 5.23
	Temperature	Continuous online measurement	As agreed in writing with SEPA	Whenever operational		
		Periodic 6 monthly measurement	BS EN 1691 1-1	Not specified		As specified in Condition 5.2.3
	Pressure	Periodic 6 monthly measurement	BS EN 1691 1-1 or as agreed in writing with SEPA	Not specified		As specified in Condition 5.2.3
	Velocity and volumetric flow rate	Periodic 6 monthly measurement	BS EN 16911-2	Not specified Whenever operational		As specified in Condition 5.2.3

Emission Point	Parameter	Monitoring frequency	Monitoring standard or method	Operational Mode	Averaging Period for ELV Compliance and/or Reporting	Handling requirements
	Operating rate	Continuous online measurement	As agreed in writing with SEPA			

Table 5.3 – Reference Conditions

Emission Point Number	Reference Condition
A08, A09 & A10	Temperature of 273K, pressure of 101.3 kPa, dry at an oxygen content of 3% v/v gaseous or liquid fuels

Table 5.4 – Mass Emissions to Air

Parameter	Combined Emissions (Number)	Method (Summary)	Mass Emissions Result to be recorded as
NO_x	A08, A09 & A10	As agreed in writing with SEPA	Tonnes per month
SO2	A08, A09 & A10	As agreed in writing with SEPA	Tonnes per month
Dust	A08, A09 & A10	As agreed in writing with SEPA	Tonnes per annum
Carbon Monoxide	A08, A09 & A10	As agreed in writing with SEPA	Tonnes per annum
Carbon Dioxide	A08, A09 & A10	As agreed in writing with SEPA	Tonnes per annum

Table 5.5 – Start up and Shut down Thresholds

Plant Reference	Minimum start up load (MSUL)	Minimum shut-down load (MSDL)
Schedule 1 paragraph 1.1.4.3 (Emission Point A08 (steam raising boiler (Z-SG-01 A)	20 Tonnes (Te)/ Hour steam production and 1.2 te/Hour fuel gas (25% MCR)	20 Tonnes (Te)/ Hour steam production and 1.2 te/Hour fuel gas (25% MCR)
Schedule 1 paragraph 1.1.4.3 (Emission Point A09 (steam raising boiler (Z-SG-01 B)	20 Tonnes (Te)/ Hour steam production and 1.2 te/Hour fuel gas (25% MCR)	20 Tonnes (Te)/ Hour steam production and 1.2 te/Hour fuel gas (25% MCR)
Schedule 1 paragraph 1.1.4.3 (Emission Point A10 (steam raising boiler (Z-SG-01 C)	20 Tonnes (Te)/ Hour steam production and 1.2 te/Hour fuel gas (25% MCR)	20 Tonnes (Te)/ Hour steam production and 1.2 te/Hour fuel gas (25% MCR)

Table 5.6 – Emissions to Air ELVs – ELVs for individual fuels for calculation of Multi-Fuel Firing ELVs

Source of Emission	**Emission point number**		A08		A09		A10	
	Emission source		Boiler A (Z-SG-01 A)		Boiler B (Z-SG-01 B)		Boiler C (Z-SG-01 C)	
	Stack height/Diameter (m)		25/1.6		25/1.6		25/1.6	
	Location on Site Plan		A08		A09		A10	
	NGR		NT 18567 90050		NT 18563 90062		NT 18562 90072	
Monitoring Details	**Type of Monitoring**		SS		SS		SS	
	Sampling Location		Boiler Exhaust		Boiler Exhaust		Boiler Exhaust	
Fuel Type			Until 31/12/2015	From 01/01/2016	Until 31/12/2015	From 01/01/2016	Until 31/12/2015	From 01/01/2016
Limits for Parameters from Emission Source	**Oxides of Nitrogen mg/m³**	**Liquid Fuel**	450	450	450	450	450	450
		Gaseous Fuel	300	300	300	300	300	300
	Oxides of Sulphur mg/m³	**Liquid Fuel**	1700	350	1700	350	1700	350
		Gaseous Fuel	35	35	35	35	35	35
	Dust mg/m³	**Liquid Fuel**	50	30	50	30	50	30
		Gaseous Fuel	5	5	5	5	5	5

Notes

1. Multi-fuel ELVs calculated pro-rata based on ration of fuel from fuel gas: fuel oil: and the ELVs in Part 1 of Annex V of IED

a. for NO_x (fuel gas) ELV is 300 mg/m³ because these boilers were permitted before 2002, for fuel oil it is 450 mg/m³
b. for SO2 (fuel gas) ELV is 35 mg/m³, for fuel oil it is 350 mg/m³ for a plant between 50-100 MW
c. for dust (fuel gas) ELV is 5 mg/m³, for (fuel oil) ELV is 30 mg/m³ for a plant between 50-100 MW
d. No ELV required for CO

6 ENVIRONMENTAL MONITORING PROGRAMME

6.1.1 By 23 August 2019 the Operator must prepare and submit to SEPA an Environmental Monitoring Programme (EMP). The purpose of the EMP shall be to:

(i) undertake measurements of noise and vibration emissions and monitoring of ambient air quality during routine operation and flaring events; and

(ii) assess the impact of emissions from the Permitted Installation on the local community and environment.

6.1.2 The EMP must include, but should not be limited to;

(i) the methodology to be used to assess the impact of emissions from the Permitted Installation on the local community and environment;

(ii) the measurements and monitoring that will be undertaken to provide data to be used in the assessment; and

(iii) the timing and frequency of monitoring and provision of assessment reports to SEPA.

6.1.3 By 01 April 2022 the Operator shall submit to SEPA an updated Environmental Monitoring Programme, as required by Condition 6.1.1, which shall include:

(a) a programme for the communication of existing air quality monitoring data; and

(b) a methodology for carrying out sound level noise monitoring and noise impact assessments during Major Elevated Flaring Events, which shall include proposals for:

(i) the measurement of sound at identified monitoring locations, and the assessment of noise impact, if any, at identified locations of monitoring representative of residential receptors using the methodology described by BS 4142;

(ii) the measurement of low frequency sound at identified monitoring locations, and the assessment of low frequency noise impact, if any, at identified locations of monitoring using (to the extent practicable) a modified approach to the methodology described by NANR45; and

(iii) clearly identifying the locations of monitoring (by map and location photo).

6.1.4 From 01 April 2022 whenever a Major Elevated Flaring Event occurs, the operator shall implement the methodology specified in the Environmental Monitoring Programme required by Condition 6.1.3(b).

6.1.5 Unless otherwise agreed in writing with SEPA, following a Major Elevated flaring event:

(a) the following shall be included as part of the incident report required by Condition 2.4.6; the total flaring rate of hydrocarbon in tonnes per hour, the elevated flaring rate of hydrocarbon in tonnes per hour, associated steam rate in tonnes per hour, and the ground flare loading rate of hydrocarbon in tonnes per hour during the entire event period; and

(b) within six weeks of cessation of the Major Elevated flaring event, a report covering the methodology implemented, as required by Condition 6.1.4, and any assessments undertaken, shall be submitted to SEPA. The report shall include as a minimum:

(i) information required to be reported by the relevant standard; and

(ii) a justification for the location(s) at which monitoring, and the assessment was undertaken.

6.1.6 At least every two years, or following a change in operation, the operator shall carry out a review of the Environmental Monitoring Programme as required by Conditions 6.1.1, 6.1.2 and 6.1.3, and update as necessary. The reviewed plan must be reported to SEPA.

EXPLANATORY NOTES

(These Explanatory Notes do not form part of the Permit)

1 . BAT

It should be noted that Regulation 22 of the Regulations specifies that it is a condition of a permit that the operator must use the best available techniques (BAT) for preventing or, where that is not practicable, reducing emissions from the installation. This is referred to as the 'general' BAT condition.

This does not apply to the extent that any other condition of the permit, or a standard rule which has effect as a standard rules condition, has the same effect. Examples of aspects of the operation that have not been regulated by specific conditions are management and supervision systems, training and qualification and maintenance in general.

BAT is defined in Regulation 4 of the Regulations as follows:

"Best available techniques" means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole.

"available techniques" means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the UK, as long as they are reasonably accessible to the operator.

"best" means in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole.

"techniques" includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

"BAT conclusions" means a document containing the parts of a BAT reference document laying down the conclusions on best available techniques, their description, information to assess their applicability, the emission levels associated with the best available techniques, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures.

"emerging technique" means a novel technique for an industrial activity that, if commercially developed, could, when compared to existing best available techniques provide a higher level of protection of the environment, or at least the same level of protection of the environment and higher cost savings.

"emission levels associated with best available techniques" means the range of emission levels obtained under normal operating conditions using a best available technique, or combination of best available techniques, as described in BAT conclusions, expressed as an average over a given period of time, under specified reference conditions.

Schedule 3 of the Regulations specifies the matters to be taken into account in determining BAT. In considering BAT, SEPA would expect the operator to have regard to all relevant PPC sector or other technical guidance, including BAT Reference Documents published by the European Commission and UK technical guidance published by the Environment Agency.

2. GENERAL STATUTORY REQUIREMENTS

The permit does not detract from any other statutory requirements applicable to you in respect of the Permitted Installation, such as any need to obtain planning permission or building regulations approval or any responsibilities under legislation for health, safety and welfare in the workplace.

3. APPEALS

If you are aggrieved by any of the conditions of the permit, you should initially contact the local SEPA office at the address or telephone number below. Further information on your right of appeal and the appeals procedure is contained regulation 58 and Schedule 8 of the Regulations.

4. SUBSISTENCE CHARGES

An annual subsistence charge will be payable in respect of the permit in terms of the Pollution Prevention and Control (Scotland) Charging Scheme or any relevant charging scheme made under Section 41 of the Environment Act 1995, copies of which are available from SEPA.

5. ADDRESS AND TELEPHONE NUMBERS

The contact address and telephone number for all information to be reported in terms of the permit, is as follows:

<table>
<tr><th>Type of communication</th><th>Address</th><th>Telephone/Fax</th><th>Email</th></tr>
<tr><td>Initial notification of Pollution incident</td><td>N/A</td><td>0800 80 70 60
24 hour pollution hotline</td><td>N/A</td></tr>
<tr><td>Application for New permit/Variation/ Transfer or Surrender</td><td>SEPA ASB
Angus Smith Building
6 Parklands Avenue
Eurocentral
Holytown
North Lanarkshire
ML 1 4WQ</td><td>Tel: 01698 839000
Fax: 01698 738155</td><td>registry@sepa.org.uk</td></tr>
<tr><td rowspan="2">For all other communications including change notifications; data returns, incident reports and general enquiries</td><td colspan="3">Scottish Environment Protection Agency local East region office as confirmed by Site Officer, either:</td></tr>
<tr><td>SEPA Edinburgh Office
Silvan House
231 Corstorphine Road
Edinburgh
EH12 7AT</td><td>Tel: 0131 449 7296
Fax: 0131-449-7277</td><td>As agreed in writing with SEPA</td></tr>
</table>

	SEPA Strathearn House Broxden Business Park Lamberkine Drive Perth PH1 1RX	Or Perth Tel: 01738 627989 Fax: 01736 630997	As agreed in writing with SEPA

6. REVIEW OF CONDITIONS

The conditions of the permit will be periodically reviewed by SEPA.

7. PROPOSED CHANGE IN OPERATION OF INSTALLATION

It is a requirement of Regulation 45 of the Regulations that if you propose to make a change in the operation of the installation, you must notify SEPA at least 14 days before making the change. The requirement under Regulation 45 does not apply if you have already made an application to SEPA for the variation of the conditions of the permit containing a description of the proposed change.

N.B. the requirements of Regulation 45 are in addition to any obligations you may have under the permit itself to only operate the permitted installation in the manner set out in the permit and to notify SEPA of proposed changes to the permitted installation.

Regulation 46 and Schedule 7 of the Regulations provide details on applications for variation of the permit in respect of proposed changes and substantial changes in operation.

"Change in operation" and "substantial change in operation" are defined in Regulation 2 of the Regulations.

8. ENFORCEMENT & OFFENCES

If SEPA is of the opinion that you have contravened, or are contravening or are likely to contravene a condition of the permit, or an incident or accident significantly affecting the environment has occurred as a result of the operation of the installation it may serve an enforcement notice. Further details on enforcement notices are provided in Regulation 55 of the Regulations.

If SEPA is of the opinion that the operation of an installation poses an immediate danger to human health, threatens to create an immediate significant adverse effect upon the environment or involves a risk of serious pollution it must, in certain circumstances, serve a suspension notice on you. Further details on suspension notices are provided in Regulation 56 of the Regulations.

It is an offence to operate an installation covered by the Regulations without a Permit or in breach of the conditions of the permit. It is an offence to fail to comply with the requirements of an enforcement or suspension notice. It is an offence to intentionally make a false entry in any record required to be kept under a condition of a permit. Further details on offences and on penalties liable to be imposed upon conviction of an offence are provided in Regulation 67 of the Regulations.

Directors, managers and other individuals within a company may be held personally liable for offences under the Regulations.

All personnel who are responsible for fulfilling any condition of the permit should be made aware of these facts.

9. BREACH OF A PERMIT CONDITION

Regulation 52 of the Regulations specifies that the operator of an installation must immediately give notice to SEPA of any breach of a condition of the permit. It is an offence to fail, without reasonable excuse to comply with Regulation 52.

Any statement made by an operator to SEPA for the purposes of complying with regulation 52 may only be used in a prosecution for an offence where in giving evidence the operator makes a statement inconsistent with the initial notification.

All personnel who are responsible for fulfilling any condition of the permit should be made aware of these facts.

10. RECORDED SYSTEMS, PROCEDURES OR INFORMATION RECORDING/ RETURN REQUIREMENTS

Where a condition requires any system, procedure or information record/return, the operator may demonstrate compliance by making use of any relevant existing written system used for any other purpose and which meets the requirements of the relevant condition.

11 SYSTEMATIC ASSESSMENT (AND REVIEW)

Where a condition of the permit requires a "systematic assessment (and review)" the assessment should be undertaken in a methodical and arranged manner. If you require guidance on the scope or extent of any assessment (and review) required to be undertaken, you should contact your local SEPA office at the address or telephone number given above.

12. SEPA DOCUMENT IED-T-OI(TT) - Extended Two-Tier Consent Table

This document can be downloaded from the SEPA website www.sepa.org.uk. Should you have any difficulty accessing a copy please contact SEPA for assistance.

13. COMMERCIAL CONFIDENTIALITY

Regulation 64 of the Regulations requires that SEPA maintain a register ("a Public Register"), whilst Schedule 9 of the Regulations sets out what the Public Register shall contain. Regulation 66(2) provides you with an opportunity to apply for exclusion from the Public Register for certain confidential information. Where you with information whether via a condition in this permit, falls under Schedule 9, if you wish it to be register as confidential information, then such a submission must include an application made under Regulation 66(2).