Reference Number: PPC/A/1013494 VN03

SCOTTISH ENVIRONMENT PROTECTION AGENCY

POLLUTION PREVENTION AND CONTROL ACT 1999

POLLUTION PREVENTION AND CONTROL (SCOTLAND) REGULATIONS 2012 ("THE REGULATIONS")

NOTICE OF VARIATION TO PERMIT

Permit No:	**PPC/A/1013494 (As Varied)**
To:	**ExxonMobil Chemicals Limited**
Address:	**ExxonMobil House** **Ermyn Way** **Leatherhead** **Surrey** **KT22 8UX**

The Scottish Environment Protection Agency ("SEPA"), in exercise of its powers under Regulation 46 of the Regulations, hereby gives you notice that it has decided, to vary permit PPC/A/1013494 (As Varied) granted under the Regulations The variations are specified in the Schedule to this notice and take effect on 08 SEPTEMBER 2016.

[redacted].....

Authorised to sign on behalf of the
Scottish Environment Protection Agency

Date: 08 September 2016

Right of Appeal

Under Regulation 58 of the Regulations you are entitled to appeal to the Scottish Ministers against the conditions attached to this Notice, except where SEPA has served this Notice to implement a direction to SEPA of the Scottish Ministers. The bringing of an appeal will not have the effect of suspending the operation of the conditions attached to this Notice. The procedures and timescales for the making of an appeal are set out in Schedule 8 of the Regulations.

Scottish Environment Protection Agency

SCOTTISH ENVIRONMENT PROTECTION AGENCY

POLLUTION PREVENTION AND CONTROL ACT 1999

POLLUTION PREVENTION AND CONTROL (SCOTLAND) REGULATIONS 2012 ("THE REGULATIONS")

SCHEDULE TO NOTICE OF VARIATION UNDER REGULATION 46(8)

Operator: **ExxonMobil Chemical Limited**
Permit Number: **PPC/A/1013494 (As Varied)**
Date of Permit: **29 October 2007**
Variation No: **VN03**

Permit number PPC/A/1013494 (As Varied) has been varied as follows

1. Reference to "Permitted" has been removed from Paragraph 1.1.

2. In Schedule 1, Paragraph 1.1.3.3 is deleted and a new Paragraph 1.1.3.3 is inserted as follows:

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.

3. In Schedule 1 Paragraph 1.1.4 is deleted and a new Paragraphs 1.1.4 with associated sub-paragraphs is added as follows:

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-1 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-01 A, Z-SG-01 B and Z-SG-01 C respectively, all fired by fuel gas and liquid fuel each with a net thermal input of 67 MW;

(d) an elevated flare;

(e) a connection to the ground flares at Fife NGL Plant;

(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

4. In Schedule 1 Paragraph 1.1.5 is deleted and new Paragraph 1.1.5 and associated sub-paragraphs is added as follows:

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 17,000 m^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.

5. Paragraphs 1.2.1.1 and 1.2.2 have been deleted and replaced as follows:

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.

1.2.2 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.

6. In Schedule 2, a new Condition 2.6.3 is inserted as follows:

2.6.3 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 specified in paragraph 1.1.6.4. 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
e) Location and method of on-site handling and storage of the waste

7. In Schedule 4, Conditions 4.3.8 and 4.3.9 the word "elevated" is inserted before the word flare as follows:

8. A New Condition 4.7.9 has been added as follows:

4.7.9 Within 6 months of the introduction of the ethane import feed, the Operator will submit to SEPA a report detailing the monitoring undertaken to confirm:

(i) Mercury concentrations in the ethane import feed received at the installation;
(ii) Mercury concentrations in the ethylene feed after the mercury removals beds
(iii) Mercury concentrations in the regeneration gas during purging of the mercury beds with fuel gas;
(iv) Estimated mercury mass emissions to air for the first 3 months of accepting ethane import feed taking into account the amount of ethane import feed received, mercury concentrations within the feed, the concentration of mercury in the regeneration gas and the frequency of regeneration of the mercury removal bed;
(v) Proposals for future monitoring of mercury in the ethane import feed; and
(vi) That the levels are consistent with the BAT assessment supplied with the variation application.

9. In Schedule 4, Table 4.5 is deleted and a new Table 4.5 inserted as follows:

Table 4.5 – Emissions to Water Environment ELVs

Source of Emission	**Emission number point**	W01	W02
	Source of emission	Effluent Treatment Pit Discharge	Overflow
	Destination	Firth of Forth	Dronachy Burn
	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 m3/hour	A470	-
	Temperature °C	A40	-
	BOD mg/l	-	-
	Copper mg/l	-	-
	Mercury mg/l	-	-
	Cadmium mg/l	-	-
	BTEX	-	-
	PAH	-	-

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

10.In Schedule 4, Table 4.6 is deleted and a new Table 4.6 inserted as follows:

Table 4.6 – Emissions to Water 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	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	°C	W01	Continuous flow indication	Daily	Continuous
Copper	W01	In-house analysis to standard: Hach to method 8506 USEPA	mg/l	W01	-	Weekly	Continuous

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

11. In Schedule 4, Tables 4.9 and 4.10 are deleted.