

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Innospec Limited

Ellesmere Port Lead Alkyl
Oil Sites Road
Ellesmere Port
Cheshire
CH65 4EY

Variation application number

EPR/BM0508IG/V008

Permit number

EPR/BM0508IG

Ellesmere Port Lead Alkyl Permit number EPR/BM0508IG

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

The main features of the installation are as follows.

The main purpose for the activities at the installation is the production of lead alkyls for use as anti-knock fuel additives. The installation can be divided into four key areas. These are the lead alloying process, the lead alkyl process, the boiler house and the effluent treatment plants.

In the lead alloy process lead and sodium are melted and blended to give a lead sodium alloy. This alloy is then flaked to a specific thickness to enhance the reaction in the subsequent stage.

In the lead alkyl process, chloroethane reacts with the flaked alloy in autoclaves to produce tetraethyl lead (TEL). The resulting reaction mass undergoes steam distillation to recover crude TEL. Subsequently, the TEL is blended with lead scavengers, such as dibromoethane (DBE), to prevent lead accumulation in engines, resulting in the final product called Motor Fuel Anti Knock compounds.

Dyes are added for customer distinction, and the product is pumped into bulk storage vessels before being packaged into various containers based on customer specifications.

Other activities include the incineration of metal process plant contaminated with sodium, lead alkyl recovery from refinery sludges, providing 1,2 dibromoethane (DBE) storage and tanker filling services for a third party and the directly associated activity 'blending external fuel additive products not produced at the installation'.

The installation has a production capacity of 12500 tonnes/annum of tetra ethyl lead. The installation is located on Oil Sites Road in an industrial area of Ellesmere Port. The Mersey Estuary SPA/Ramsar site/SSSI is within 1km. The closest houses are approximately 800m to the Southwest. There is a discharge of treated effluent to the adjoining Manchester Ship Canal.

The operator, dealing with toxic and hazardous materials, requires compliance with environmental and safety regulations, including COMAH Regulations 2015. The operator is certified against ISO 14001:2015 on EMS.

This variation permits the installation of a new energy centre featuring a combined heat and power facility with two gas engines and two steam boilers, totalling a thermal input of 34.689MWth. The energy centre replaces existing steam boilers (emissions points A30 and A31) and provides low-grade heat for space heating by, replacing the current high-pressure hot water boiler (emissions point A33). The new gas engines and boilers, initially operating on natural gas, are designed to transition to up to 100% hydrogen by 2026 in alignment with the projected hydrogen availability from Hynet in the Stanlow Industrial Cluster. All these engines and boilers will be classified as 'new' Medium Combustion Plant (MCP) under the Environmental Permitting (England and Wales) Regulations 2016.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/BM0508IG/A001	Duly made 31/03/03	
Additional information received	20/11/03	Modifications to boiler house.
Additional Information Received	26/11/03	Air quality impacts.
Permit determined EPR/BM0508IG	28/11/03	Permit issued to Innospec Limited.
Application EPR/BM0508IG/V002	23/06/04 effective 28/06/04	Administrative correction to original permit.
Application EPR/BM0508IG/V003	14/11/07 Issued 15/01/08	Simple standard variation for bulk storage and ISO tank filling of DBE.
Application EPR/BM0508IG/V004	22/12/08 Issued 12/05/09	Sodium waste receipt, treatment, and disposal.
Application EPR/BM0508IG/V005	21/09/09 Issued 10/11/09	Addition of new DAA – blending of fuel additive products.
Application EPR/BM0508IG/V006	19/10/10	Relocation of blending process.
Variation EPR/BM0508IG/V006 issued	04/11/10	Variation for relocating of blending process issued.
Agency variation determined EPR/BM0508IG/V007	29/01/14	Agency variation to implement the changes issued by IED.
Application EPR/BM0508IG/V008	15/12/22	Variation for the installation of a new energy centre featuring a combined heat and power (CHP) facility
Variation EPR/BM0508IG/V008 issued	26/04/24	

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Innospec Limited	BU4112IK	06/07/04

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/BM0508IG

Issued to

Innospec Limited (“the operator”)

whose registered office is

Innospec Manufacturing Park

Oil Sites Road

Ellesmere Port

Cheshire

CH65 4EY

company registration number 00344359

to operate a regulated facility at

Ellesmere Port Lead Alkyl

Oil Sites Road

Ellesmere Port

Cheshire

CH65 4EY

to the extent set out in the schedules.

The notice shall take effect from 26/04/2024

Name	Date
Anne Lloyd	26/04/2024

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BM0508IG

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BM0508IG/V008 authorising,

Innospec Ltd (“the operator”),

whose registered office is

Innospec Manufacturing Park

Oil Sites Road

Ellesmere Port

Cheshire

CH65 4EY

company registration number 00344359

to operate an installation at

Ellesmere Port Lead Alkyl

Oil Sites Road

Ellesmere Port

Cheshire

CH65 4EY

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Anne Lloyd	26/04/2024

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme or other approval issued by the Environment Agency.

1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green and shaded blue on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 The Chloroethane Recovery plant shall be maintained at -35 °C. The operating range can be -20 °C to -40°C when receiving a vent.

2.3.4 For periods of downtime of the TEL oil absorber of greater than 48 hours, the Operator will consider if there are any feasible options to reduce the load that would normally be handled by the TEL absorber. Where it is considered that there are no feasible options the Operator must provide written justification to the Agency.

2.3.5 There shall be no feed to the lead alloy furnaces during periods when the associated scrubber is offline.

2.3.6 For processes and equipment that are not manned and operated 24 hours a day 7 days a week, the Operator shall implement measures to ensure that the output from the instruments and alarms critical to environmental protection are monitored during unmanned periods.

2.3.7 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table(s) S2.2; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.8 The Operator shall maintain a record, in accordance with Section 4.1 of the Permit, of all waste accepted under condition 2.3.8.

2.3.9 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.

2.3.10 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

Hazardous waste storage and treatment

2.3.11 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational Conditions

2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 and S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.

3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.1.5 For the activity AR3 referenced in schedule 1, the first monitoring measurements shall be carried out within four months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1 and S3.2;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.6 The Operator shall submit by 31 January each year a report of the downtime, for the preceding year, of the following abatement equipment:

- (a) The TEL oil absorber
- (b) The effluent plant air stripper

The report shall include an assessment of the primary causes of the downtime and consideration of measures to improve future performance.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

- (a) a decision by the Secretary of State not to re-certify the agreement;
- (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.3.8 With regard to the TEL oil absorber, the Operator shall notify the Agency as soon as practicable and in writing of any 24 hour period during which the total downtime exceeds 6 hours; excluding periods when the TEL manufacturing process is offline. The notification shall indicate the cause and expected duration of the downtime together with details of what remedial action is being taken.

4.3.9 For periods of downtime of the effluent plant air stripper of greater than 4 hours, the operator shall notify the Agency as soon as practical and in writing. The notification shall indicate, if known, the cause and expected duration of the downtime and detail what remedial action is being taken.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1	Section 4.1 A(1)(a)(vii): Producing organic chemicals such as – (viii) organometallic compounds, such as lead alkyls, Grignard reagents and lithium alkyls;	Production of tetraethyl lead.	
AR2	Section 2.2 A(1)(b): Melting, including making alloys, of non-ferrous metals, including recovered products (refining, foundry casting etc.) where— (i) the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals; and (ii) any furnace, bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 tonnes or more.	Lead recovery and alloying	
AR3	Section 1.1 B(a): Unless falling within paragraph (a) of Part A(1) of this Section- (a) Burning any fuel, other than a fuel mentioned in paragraph (b) of Part A(1) of this Section, in a boiler or furnace or a gas turbine or compression ignition engine with, in the case of any of these appliances, a rated thermal input of 20 megawatts or more but less than 50 megawatts.	Site boiler house	
AR4	Section 5.1 Part A(1)(a): The incineration of hazardous waste in a waste incineration plant or waste co-incineration plant with a capacity exceeding 10 tonnes per day.	Receipt, handling, storage, and treatment of waste including destruction of sodium by incineration.	From receipt of waste to delivery to the lead pits and decontamination or re-use of the waste packaging.
AR5	Section 5.4 Part A(1)(a)(ii): Disposal of non-hazardous waste in a facility with a capacity	Effluent treatment plant and water discharges to Manchester Ship Canal.	

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
	exceeding 50 tonnes per day by physic-chemical treatment.		
	Directly Associated Activity		
AR6	Blending tetraethyl lead	Blending tetraethyl lead with di-bromoethane or to produce motor fuel anti-knock compound	From receipt of waste to destruction of sodium and disposal or recovery of scrap metal and packaging.
AR7	Sludge handling, storage and treatment	Handling, storage and treatment of refinery sludge.	From receipt of waste to delivery to the lead pits and decontamination and disposal or re-use of the waste packaging
AR8	Storage and tanker filling facilities	Provision of Storage and tanker filling facilities for DBE for a 3 rd party.	5200 T/annum of 1,2 dibromoethane
AR9	Blending of fuel additive products	Blending of fuel additive products not produced at the installation.	From receipt of raw material onto site to dispatch of product.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to questions B2.1, B2.2 and B2.3 given in sections B2.1 and B2.3 of the application.	31/03/03
Response to Schedule 4 notice	The response to questions 6,7,8,9,10,12,13	24/10/03 and 19/11/03
Additional information	Additional information from operator on modifications to boiler house.	20/11/03
Additional information	Additional information from operator on air quality impacts and BAT.	26/11/03
Application Variation EPR/BM0508IG/V002	All	14/10/05
Application Variation EPR/BM0508IG/V003	All	14/11/08
Additional information	Email from Operator dated 08/01/09	08/01/09
Application Variation EPR/BM0508IG/V004	Part C Non-Technical Summary	22/12/08
Additional Information	Email from Operator dated 08/01/09	24/03/09
Application Variation BM0508IG/V005	Appendix C1	21/09/09
Application Variation EPR/BM0508IG/V006	Appendix C1	19/10/09
Application Variation EPR/BM0508IG/V008	Supplementary information Document Reference WIE19617-100-R-1-1-3-Oavar, Section 7 (Detailed in Appendix D.a)	15/12/22

Table S1.2 Operating techniques		
Description	Parts	Date Received
	(the gas engines and steam boilers will be fitted with acoustic measures)	
Application Variation EPR/BM0508IG/V008	Supplementary information for condition 2.3.3 Reference Email (temperature range of chloroethane recovery plant varies when receiving a vent)	02/02/24

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC 1	The operator shall develop a site closure plan for the installation having regard to section 2.11 of Sector Guidance Note S4.02	Complete
IC 2	The operator shall carry out a study to identify ways of reducing emissions of Lead, butane and chloroethane. The assessment methodologies used should be based on those given in guidance note H1 and should take into consideration the Best Available Techniques criteria specified in Sector Guidance Note S4.02. The findings of the study shall be submitted to the Agency as a written report. This should give proposals, including timescales, for implementing viable options and an estimation of the reduction in annual emissions that will result from the improvements.	Complete
IC 3	The operator shall develop a site closure plan for the boiler house and associated equipment having regard to section 2.11 of Sector Guidance Note S4.02. The operator shall implement the site closure plan for the boiler house following written approval of the plan from the Agency.	Complete
IC 4	The operator shall carryout a review of all external storage tanks and external storage areas for liquids, with respect to section 2.2.5 of Sector Guidance Note S4.02. The operator shall submit proposals resulting from the review to the Agency and carryout any work following written approval of the plan from the Agency.	Complete
IC 5	The operator shall review the provision of MCERTS accreditation for the monitoring equipment, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 and propose a timetable for achieving this standard for any elements that are not MCERTS certified.	Complete
IC 6	The operator shall submit a written report to the Agency on the Chemical Oxygen Demand from release point W1. The report shall include at least 20 weekly spot samples. The report shall also propose emission limit value(s) having regard to section 3.2.2 of Sector Guidance S4.02. Where the proposed emission limit value(s) is greater than the benchmark in section 3.2.2 of Sector Guidance S4.02, the report shall contain proposals to identify operational criteria which will further control and reduce overall releases as appropriate. The Agency shall inform the operator in writing of the limit set in table 2.2.5 and if a proposal to carry out further work is to be carried out.	Complete
IC 7	The Operator shall make such modifications to the main stack or to the streams that 31December 2004 (1) feed it to permit representative samples to be taken from emission point A1. On completion of these modifications a programme of sampling shall be carried out to determine the peak and average concentration (mg/m ³) and	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	mass release rate (kg/hr) of Lead Compounds (total non-particulate),1,2 dichloroethane,1,2 dibromoethane, total particulate and Class B VOCs. The Operator shall submit a written report to the Agency detailing the results of the monitoring programme	
IC 8	The operator shall carry out a study to identify ways of reducing periods of TEL oil absorber downtime during which the TEL process remains operational. The study should consider the suitability of the TEL absorber for its current duty, compared with alternative available technologies, possibilities for reducing the duration of maintenance operations and the possibility of turning down or ceasing TEL production during downtime periods. The findings of the study shall be submitted to the Agency as a written report. This should give proposals, including timescales, for implementing viable options and an estimation of the reduction in annual lead emissions that will result from the improvements.	Complete
IC 9	The Operator shall make proposals to reduce the COD load in effluent released from emission point W1 with the intention to achieve the benchmark value of 125mg/L. These proposals shall be made in writing and shall include a programme and timescales for their implementation	Complete
IC 10	The Operator shall carry out a review of the performance and reliability of the effluent treatment facilities and make proposals to improve reliability, particularly in relation to the control of emissions of lead. These proposals shall be made in writing to the Agency and shall include a programme and timescales for their implementation.	Complete
IC 11	The Operator shall implement those proposals made in response to improvement programme items 9 and 10, as agreed in writing by the Agency.	Complete
IC 12	The Operator shall implement a commissioning programme on start-up after Implementing the lead alkyls downsizing project. This programme shall include: 1. Performance checks on all equipment, who's failure may have negative impact on the environment, 2. An emissions monitoring programme to facilitate the generation of a mass balance for the following substances: all forms of lead, ethyl chloride, 1,2 DCE, 1,2 DBE, butane. As a minimum the samples shall be taken from those locations and analysed for those determinands identified in Table S6.1 in Schedule 6. The Operator shall on completion of the commissioning period submit post commission report to the Agency. Where commissioning has highlighted a problem, the report shall include proposals for improvements, details of their expected outcomes and a timescale for their implementation.	Complete
IC 13	The Operator shall identify all items, who's failure could result in environmental harm and review the frequency and requirements of the preventative maintenance programme for these Items. A summary report on the findings of this review shall be sent to the Agency.	Complete
IC 14	The Operator shall submit a report on progress in implementing the actions detailed in the report submitted by the Operator on 03 February 2005, in response to improvement programme item 3. The report should specify the actions taken and the reduction in emissions achieved as a result of these actions. If an action has not been progressed this should be justified.	Complete
IC 15	The operator shall carry out a study to identify techniques for reducing the solubility of those substances described as soluble organolead, with a	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>view to reducing the concentration of soluble organolead in the effluent stream discharged from release point W1. The target for reduction shall be 40% of the annual mass release of soluble organolead.</p> <p>The Operator shall submit a written report of the findings of the study, which shall include a programme for implementing any viable improvements.</p>	
IC 16	The Operator shall carry out a review of the Site Protection and Monitoring Programme taking account of the changes in operation and materials storage arising from this variation. The results of the review shall be reported to the Environment Agency.	Complete

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
1	Prior to receipt of waste sodium, for incineration at the installation, the Operator shall identify clear waste acceptance criteria and produce and implement a written waste acceptance procedure.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
--	--

Table S2.2 Permitted waste types and quantities for hazardous treatment	
Waste code	Description
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 07	wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)
16 07 09*	Lead alkyl recovery of refinery sludges from transport and storage tank cleaning
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 04	metals (including their alloys)
17 04 09*	Process plant contaminated with sodium

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. (location on plan in Sch7)	Source	Parameter	Limit ^[1] (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Main stack – Stream 1 Oil absorber, Stream 8 wash building exhaust, Stream 9 EC fridge vent, Stream 10 TEL autoclave vent, Stream 11 TEL Still vent, Stream 40 Lead No 1/3 furnace, GC2 ETP air stripper vent, Simon Hartley vents, K630 Simon Hartley vents and Lead 2 Extract	Lead compounds (total non-particulate) as Pb	40 mg/m ³	--	Six monthly ^[2]	Sample into iodine monochloride and analysis by flame AAS
		Total class B VOC (expressed as carbon)	100 kg/hr ^[3]			Extractive sampling and analysis by flame ionisation detector. Minimum period of sampling 4 hours
		Oxides of Nitrogen as NO ₂	80 mg/m ³			Extractive sampling and electrochemical analysis to ISO 10849 or equivalent
		Lead compounds (particulate)	30 mg/m ³ ^[4]			Isokinetic sampling and gravimetry
		1,2 dichloroethane	5 mg/m ³			Sample into sorbent, solvent extraction and analysis by GC FID
		1,2 dibromoethane	5 mg/m ³			Sample into sorbent, solvent extraction and analysis by GC FID
A2	Vent - Stream 13 EC rectification column	Total Class B VOC (expressed as carbon)	60 kg/hr	--	Six monthly ^[2]	Extractive sampling and analysis by flame ionisation detector. Minimum period of sampling 4 hours

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. (location on plan in Sch7)	Source	Parameter	Limit ^[1] (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A3	Vent - Stream 14 Tanker wash bay extract	No parameters set	No limit set	--	--	--
A5	Vent - Stream 26 Vac pump K857/2 exhaust	No parameters set	No limits set	--	--	--
A6	Vent - Stream 27 Vac pump K857/1 exhaust	No parameters set	No limits set	--	--	--
A7	Vent - Stream 32 Nitrogen blanket vent	No parameters set	No limit set	--	--	--
A17	Vent – Stream 30 East weighbridge loading	No parameters set	No limit set	--	--	--
A18	Vent – Stream 31 West weighbridge loading	No parameters set	No limit set	--	--	--
A20	Vent – Stream 44 Alloy building LEV	Lead compound (total non-particulate) as Pb	No limit set	--	Annual ^[2]	In house method-absorption into iodine monochloride soln, analysis by atomic absorption spectroscopy
		Lead compounds (particulate)	No limit set			Isokinetic sampling and gravimetry
A21	Vent – Stream 45 Alloy hopper filling LEV	Lead compound (total non-particulate) as Pb	No limit set	--	Annual ^[2]	In house method-absorption into iodine monochloride soln, analysis by atomic absorption spectroscopy
A22	Vent – Stream 46	Lead compound (total non-	No limit set	--	Annual ^[2]	In house method-absorption into

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. (location on plan in Sch7)	Source	Parameter	Limit ^[1] (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
	Lead building LEV	particulate) as Pb				iodine monochloride soln, analysis by atomic absorption spectroscopy
A23	Vent – Stream 47 Lead north pumphouse LEV	No parameters set	No limit set	--	--	--
A29	G17 – offloading vent	No parameters set	No limit set	--	--	--
A30 ^[6]	Boilerhouse 30m steel stack (Boiler No5)	No parameters set	No limit set	--	--	--
A31 ^[6]	Boilerhouse 30m steel stack (Boiler No6)	No parameters set	No limit set	--	--	--
A33 ^[6]	Boilerhouse HPHW heater stack	No parameters set	No limit set	--	--	--
A34	Gas engine 1	NOx	95 mg/m ³		Three-yearly ^[5]	BS EN 14792:2017
A35	Gas engine 2	NOx	95 mg/m ³		Three-yearly ^[5]	BS EN 14792:2017
A36	Energy centre	NOx	100 mg/m ³		Three-yearly ^[5]	BS EN 14792:2017
A37	Energy centre	NOx	100 mg/m ³		Three-yearly ^[5]	BS EN 14792:2017
<p>Note 1: See Section 6 for reference conditions.</p> <p>Note 2: Minimum interval between monitoring shall be 4 months.</p> <p>Note 3: The limit will be complied with if the average over the period of monitoring does not exceed the limit specified and the maximum value is no greater than 3 times that limit.</p> <p>Note 4: For the purposes of measuring particulate lead emissions from A1 the limit shall be applied to 'stream 40', the main component stream of A1. 'Stream 40' is as specified in the Application.</p> <p>Note 5: The first emissions measurements for the energy centre will be undertaken within four months of the grant of the varied permit or on the date operations start, whichever is latest.</p> <p>Note 6: Emission point redundant awaiting demolition</p>						

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. (location on plan in Sch7)	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1	Combined discharge from lead and non-lead effluent treatment plants	Suspended Solids	60 mg/l ^[1]		Daily	BS6068-2.54: 1996, BS EN 872: 1996
		Chemical Oxygen Demand	300 mg/l ^[1]		Daily	BS6068-2.8: 2002, BS ISO 15705:2002
		Total Lead	20 mg/l ^[1]		Daily	BS6068-2.29: 1987, ISO 8288:1986
		Soluble organolead	6 mg/l ^[1]		Daily	In house method – reaction with HCl/lcl(aq) and analysis by colorimetry
		Chloroethane (Ethyl Chloride)	5 mg/l ^{[1],[2]}		Daily	BS6068-2.58: 1997, BS EN ISO 10301:1997
		1,2, dichloroethane	4 mg/l ^{[1],[2]}		Daily	BS6068-2.58: 1997, BS EN ISO 10301:1997
		1,2, dibromoethane	12 mg/l ^{[1],[2]}		Daily	BS6068-2.58: 1997, BS EN ISO 10301:1997
		pH	Max 10 Min 5		Continuous	BS6068:2.50:1995, ISO 10523:1994
<p>Note 1: The limit shall be complied with if the flow weighted average of all spot samples taken during a week meets the limit and no individual spot sample exceeds the limit value by more than 50%. Weighting shall be based on an effluent discharge rate of 100m³/hr.</p> <p>Note 2: During periods of non-operation of the air stripper, the limit shall be complied with if no individual spot sample exceeds the limit by more than 200% for 1,2 dichloroethane and 1,2, dibromoethane and 500% for chloroethane.</p>						

Table S3.3 Annual limits		
Substance	Medium	Limit (including unit)
Chloroethane	Air	250000 kg
Lead (particulate and non-particulate)	Air	5000 kg
Butane	Air	200000 kg
Soluble organic lead	Water	1000 kg

Table S3.3 Annual limits		
Substance	Medium	Limit (including unit)
Total Lead	Water	7000 kg
1,2 dichloroethane	Water	50 kg

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Lead compounds (total non-particulate) as Pb in mg/m ³	A1	Every 6 months	1 January 2006
	A20, A21, A22	Annually	1 January 2006
Total Class B VOC	A1 and A2	Every 6 months	1 January 2006
Oxides of nitrogen as NO ₂ in mg/m ³	A1	Every 6 months	1 January 2004
	A34, A35, A36, A37	Every 3 years	1 January 2024
Lead compounds (particulate) in mg/m ³	A1	Every 6 months	1 January 2004
	A20	Annually	1 January 2006
1,2, dichloroethane in mg/m ³	A1	Every 6 months	1 January 2004
1,2, dibromoethane as mg/m ³	A1	Every 6 months	1 January 2004
Suspended solids in mg/l	W1	Every 6 months ^[1]	15 January 2009
Chemical Oxygen Demand in mg/l	W1	Every 6 months ^[1]	15 January 2009
Total Lead in mg/l	W1	Every 6 months ^[1]	15 January 2009
Soluble organolead in µg/l	W1	Every 6 months ^[1]	15 January 2009
Chloroethane (Ethyl Chloride) in mg/l	W1	Every 6 months ^[1]	15 January 2009
1,2, dichloroethane in mg/l	W1	Every 6 months ^[1]	15 January 2009
1,2, dibromoethane as mg/l	W1	Every 6 months ^[1]	15 January 2009
pH as a maximum and minimum recorded	W1	Every 6 months	15 January 2009
Energy	--	Annual	1 January 2004
Water usage	--		1 January 2004
Waste disposal and/or recovery	--		1 January 2004
Note 1: Reported as weekly average of spot samples.			

Table S4.2: Annual production/treatment	
Parameter	Units
Production of Motor Fuel Antiknock Compound	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Total lead released to the environment (per tonne of Motor Fuel Antiknock Compound).	Annually	kg / t

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Total chloroethane release to the environment (per tonne of Motor Fuel Antiknock Compound).	Annually	kg / t
Total lead releases to water (per tonne of Motor fuel Antiknock Compound)	Annually	kg / t
Total chloroethane release to water (per tonne of Motor fuel Antiknock Compound)	Annually	kg / t
1,2 dichloroethane release to water (per tonne of Motor Fuel Antiknock Compound)	Annually	kg / t

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	01/01/24
Water (excluding sewer)	Form water 1 or other form as agreed in writing by the Environment Agency	01/01/24
Energy	Form energy 1 or other form as agreed in writing by the Environment Agency	01/01/24
Waste Return	Form waste return 1 or other form as agreed in writing by the Environment Agency	01/01/24
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	01/01/24
Performance Indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	01/01/24

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

(d) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	

Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“disposal” means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

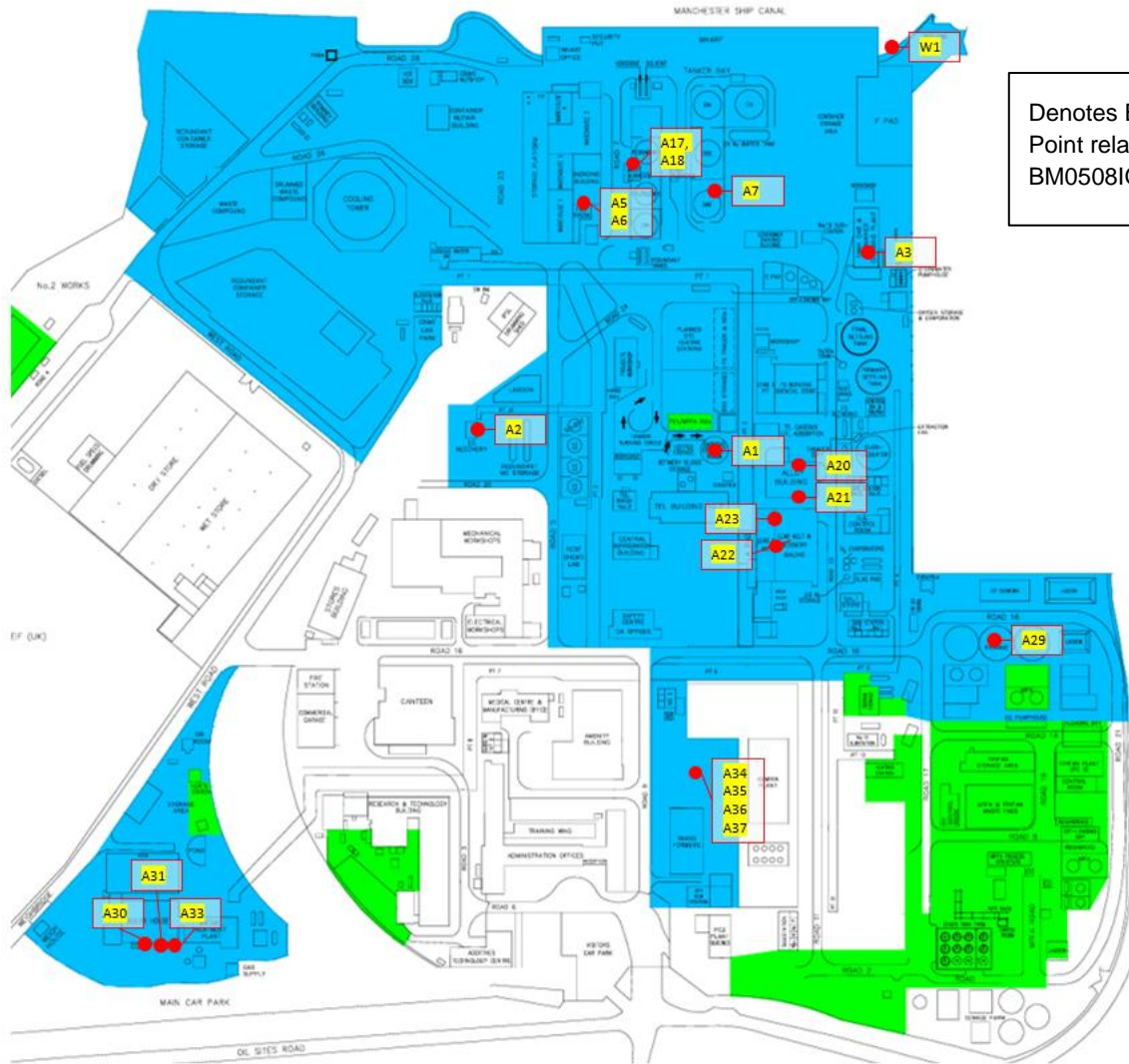
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

Schedule 7 – Site plan

PERMIT BOUNDARIES:

- █ Active Chemicals - Environmental Permit BU4112IK
- █ Octane Additives - Environmental Permit BM0508IG



END OF PERMIT

Emissions to Air Reporting Form

Permit number: EPR/BM0508IG

Operator: Innospec Limited

Facility name: Ellesmere Port Lead Alkyl

Form: Air 1 01/01/2024

Reporting of emissions to air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
<i>[e.g. A1]</i>	<i>[e.g. Oxides of nitrogen (NO and NO₂ expressed as NO₂)]</i>	<i>[e.g. 200 mg/m³]</i>	<i>[e.g. daily average]</i>	<i>[e.g. BS EN 14181]</i>	<i>[State result]</i>	<i>[State relevant dates and time periods]</i>	<i>[State uncertainty if not 95% confidence interval]</i>

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Water Usage Reporting Form

Permit number: EPR/BM0508IG

Operator: Innospec Limited

Facility name: Ellesmere Port Lead Alkyl

Form: Water Usage 1 01/01/24

Reporting of water usage for the year [YYYY]

Water source	Water usage (m ³)	Specific water usage (m ³ /unit) ²
Mains water	<i>[insert annual usage in m³ where mains water is used]</i>	<i>[insert annual usage in m³/unit where mains water is used]</i>
Site borehole	<i>[insert annual usage in m³ where water is used from a site borehole]</i>	<i>[insert annual usage in m³/unit where water is used from a site borehole]</i>
River abstraction	<i>[insert annual usage in m³ where abstracted river water is used]</i>	<i>[insert annual usage in m³/unit where abstracted river water is used]</i>
Other – <i>[specify other water source where applicable. Add extra rows where needed]</i>	<i>[insert annual usage in m³ where applicable]</i>	<i>[insert annual usage in m³/unit where applicable]</i>
Total water usage	<i>[insert total annual water usage in m³]</i>	<i>[insert total annual water usage in m³/unit]</i>

Operator's comments

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual water usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

Energy Usage Reporting Form

Permit number: EPR/BM0508IG

Operator: Innospec Limited

Facility name: Ellesmere Port Lead Alkyl

Form: Energy 1, 01/01/24

Reporting of energy usage for the year [YYYY]

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/unit) ²
Electricity imported as delivered - source [specify source, e.g. supplied from the national grid]	<i>[insert annual consumption in MWh where electricity is imported]</i>	<i>[insert annual consumption in MWh/unit where electricity is imported]</i>
Electricity imported as primary energy 1 – conversion factor of [specify conversion factor used to convert electricity delivered to primary energy]	<i>[insert annual consumption in MWh where electricity is imported]</i>	<i>[insert annual consumption in MWh/unit where electricity is imported]</i>
Natural gas	<i>[insert annual consumption in MWh where natural gas is used]</i>	<i>[insert annual consumption in MWh/unit where natural gas is used]</i>
Gas oil – conversion factor of [specify conversion factor used to convert tonnes to MWh]	<i>[insert annual consumption in MWh where gas oil is used]</i>	<i>[insert annual consumption in MWh/unit where gas oil is used]</i>
Imported heat	<i>[insert annual consumption in MWh where heat is imported]</i>	<i>[insert annual consumption in MWh/unit where heat is imported]</i>
Other – <i>[specify other energy source and conversion factors where applicable, e.g. renewable fuel. Add extra rows where needed]</i>	<i>[insert annual consumption in MWh where applicable]</i>	<i>[insert annual consumption in MWh/unit where applicable]</i>
Electricity exported	<i>[insert annual production in MWh where electricity is exported]</i>	Not applicable
Heat exported	<i>[insert annual production in MWh where heat is exported]</i>	Not applicable

Operator's comments

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual energy usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

¹ Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.

² Divide energy consumption by an appropriate unit of raw material processed or product output.

Other Performance Parameters Reporting Form

Permit number: EPR/BM0508IG

Operator: Innospec Limited

Facility name: Ellesmere Port Lead Alkyl

Form: Performance 1 01/01/24

Reporting of other performance parameters for the period from [DD/MM/YY] to [DD/MM/YY]

Parameter	Units
<i>[e.g. Total raw material usage]</i>	<i>[e.g. tonnes per production unit]</i>

Operator's comments

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report the performance parameters (other than water and energy) required by your permit. Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 4 of your permit. Add additional rows as necessary.

Other Performance Parameters Reporting Form

Permit number: EPR/BM0508IG

Operator: Innospec Limited

Facility name: Ellesmere Port Lead Alkyl

Form: Waste Return 1 01/01/24

Reporting of waste return/recovery for the year [YYYY]

Waste	EWC Code	Disposal		Recovery		Trends in Waste Disposal and Recovery			
		Route	Te	Route	Te	Year	Parameter		
							Named	Total	Waste per
1) Hazardous Wastes							Waste	Waste	unit output
Named hazardous Wastes						2010	592.50	592.50	0.1198
						2011	399.92	399.92	0.0785
						2012	725.00	725.00	0.1579
						2013	484.10	484.10	0.1196
						2014	611.81	611.81	0.1278
						2015	364.71	364.71	0.0797
						2016	455.28	455.28	0.0869
						2017	331.14	331.14	0.1002
						2018	404.47	404.47	0.1471
						2019	474.83	474.83	0.2295
Other Hazardous Wastes	Various					2020	212.51	212.51	0.1157
						2021	323.75	323.75	0.3300
Total Hazardous Waste						2022	269.90	269.90	0.2297

		Disposal		Recovery						
		Route	Te	Route	Te					
Hazardous Wastes										
Named hazardous Wastes										
Other Hazardous Wastes	Various									
Total Hazardous Waste										
Total Waste										

Operator's comments

Signed: [Name]

Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)