

Permitting Decisions- Variation

We have decided to grant the variation for Ellesmere Port Lead Alkyl operated by Innospec Limited.

The variation number is EPR/BM0508IG/V008.

The variation is for the installation of a new energy centre featuring a combined heat and power (CHP) facility with two gas engines and two steam boilers, totalling a thermal input of 34.689MWth. The energy centre replaces the 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 (emission point A33). It involves combustion activities under Section 1.1, Part B (a) of the Environmental Permitting Regulations 2016.

Gas engines and boilers, initially operating on natural gas, are set to transition to 100% hydrogen by 2026. All these engines and boilers will be classified as 'new' Medium Combustion Plant (MCP) under the Environmental Permitting (England and Wales) Regulations 2016.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account
- shows how we have considered the [consultation responses](#)

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Key issues of the decision

The applicant submitted an assessment of the impact of emissions of oxides of nitrogen from the proposed new boilers and engines and the existing lead furnace. We agree that oxides of nitrogen are the only pollutants requiring assessment.

We carried out a detailed audit of the submitted assessment including our own modelling. We assumed a higher NO_x emission rate (0.23 g/s) for the lead furnace than the applicant (0.12 g/s).

The applicant's predicted long-term (LT) and short-term (ST) NO₂ Process Contributions (PCs) and Predicted Environmental Concentrations (PECs) at maximum discrete human health receptor locations were presented in Tables 7.3 and 7.4 of the Air Quality Assessment report.

At the maximum impact location, the LT NO₂ PC is insignificant (0.8%) of the Environmental Standard (ES) and at the ST NO₂ PC is insignificant (2%) of the ES. Although we do not necessarily agree with the numerical predictions we do agree with the conclusion of insignificant impact at human health receptor locations.

The consultant's predicted ground level PCs at the ecological site locations are presented in Tables 8.1 to 9.5 of the AQA report. The applicant only considered impacts at Mersey Estuary SPA/Ramsar/SSSI, Whitby Park Local Nature Reserve and Jack's Wood Local Wildlife Site. We identified further Local Wildlife Sites within our 2km screening distance, however due to their location and distance from the application site we would not anticipate any exceedances.

We agree with the applicant's conclusion that the maximum predicted annual and daily NO_x PCs are insignificant against the relevant critical levels at all habitat sites.

We agree with the applicant's conclusion that the maximum predicted nutrient nitrogen and acid deposition PCs are insignificant against the relevant critical loads at the local nature sites.

We note that the applicant predicted a not insignificant acid deposition PC of 2% of an acid critical load of 0.0114 keq/ha/yr applicable to bogs for the Mersey Estuary habitat site but we did not find any acid critical load defined for the interest features present at this designation. So we do not agree with this assessment.

The applicant predicted a nutrient nitrogen deposition PC of 1.1% of a critical load of 15 kgN/ha/yr for a rich fens feature for the Mersey Estuary habitat site but we assessed this against a 10 kgN/ha/yr limit for Atlantic upper-mid and mid-low salt marshes from our information for this designation.

Like the applicant we predict a potential exceedance of the nutrient nitrogen critical load at Mersey Estuary SPA, Ramsar and SSSI. However, our maximum PC is similar to the consultant's predictions, and only marginally above the 1% screening threshold. Given the conservatism of the assessment we do not anticipate that any exceedances of nutrient nitrogen deposition will result from the proposed permit variation.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

We consulted the following organisations:

Health and Safety Executive
UK Health Security Agency
Local Director of Public Health and
Cheshire West and Chester Local Authority Environmental Health Department

No responses were received from Health and Safety Executive, Local Director of Public Health or Cheshire West and Chester Local Authority.

The comments from UK Health Security Agency and our responses are summarised in the [consultation responses](#) section.

The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2

'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

The operator has provided the grid reference for the emission points from the medium combustion plants/specified generator.

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The combined net rated thermal input of the plant is greater than 20 MW. In accordance with the Environmental Permitting (EP) Regulations (England and Wales) 2016 the activity could be considered to be an aggregated Part B activity under section 1.1 of schedule 1. However, we are permitting the activity as a Directly Associated Activity.

The site

The operator has provided a plan which we consider to be satisfactory. The site boundary has been corrected to include all the wharf and the W1 emission point area. The operator provided sufficient information to show that a full assessment of the condition of the included land was not required.

These show the extent of the site of the facility.

The plan is included in the permit.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances, we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations:

Mersey Estuary Special Protected Area, Ramsar site and Site of Special Scientific Interest,
Whitby Park Local Nature Reserve,
River Gowy, Stanlow Point, Shrophire Union Canal towpath (little Stanley to Waverton), Shellway Road Point South and Jack's Wood Local Wildlife Sites.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

See Key Issues above.

We have sent our assessment to Natural England for information.

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Operating techniques for emissions that screen out as insignificant

At Jack's Wood and Whitby Park, Emissions of NO_x Process Contributions (PCs) have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

At Mersey Estuary SPA/Ramsar/SSSI, neither annual nor daily average PCs are screened out, but the Predicted Environmental Contributions (PECs) are below the critical levels at the next stage and so do screen out from needing further assessment. We therefore agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

We agree with the operator's conclusions regarding human health and daily and annual NO_x and nutrient nitrogen deposition at ecological sites.

We do not anticipate that any exceedances of nutrient nitrogen deposition or acid critical loads at ecological sites will result from the proposed permit variation.

See Key Issues above.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Noise and vibration management

The following Supplementary information has been submitted in Document Reference WIE19617-100-R-1-1-3-Oavar, Section 7 (Detailed in Appendix D.a):

The gas engines and steam boilers will be fitted with acoustic measures.

We consider that the noise and vibration management plan is satisfactory and we approve this plan.

We have approved the noise and vibration management plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance 'Control and monitor emissions for your environmental permit'.

The plan has been incorporated into the operating techniques S1.2.

Updating permit conditions during consolidation

We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permits.

Condition 2.3.6 from the previous variations has been removed based on the information received from the operator. The site does not have a dedicated sodium burner any longer.

An updated emissions point plan has been added to the site plan. Table S3.1 has been updated for emission point A1 Source description and to remove emission points A4, A12-A14, A19 and A24-A28 which are no longer operational. The existing boilerhouse emission points are redundant but still present so they have been retained until demolition.

Use of conditions other than those from the template

Based on the information in the application, we consider that we need to include conditions other than those in our permit template. Condition 2.3.3 has been included to ensure the Chloroethane Recovery plant shall be maintained at -35 °C . However, the operating range can be -20 °C to -40 °C when receiving a vent.

Waste types

There are no new waste types.

Lead alkyl recovery of refinery sludges from transport and storage tank cleaning (EWC 16 07 09*) and sodium (EWC 17 04 09*) are included from the previous permit in the consolidation.

Improvement programme

Improvement conditions have been marked as completed.

Emission limits

Emission Limit Values (ELVs) based on Best Available Techniques (BAT) have been added for NO_x from the gas engines (A34/35) and Energy Centre (A36/37).

These limits are based on those from the Medium Combustion Plant Directive.

Emission points A30-A33 for the former boilers have been deleted.

Monitoring

We have decided that monitoring should be added for NO_x from the gas engines (A34/35) and Energy Centre A36/37), using the methods detailed and to the frequencies specified:

These monitoring requirements have been included in order to demonstrate that the gas engines and steam boilers are meeting the NO_x emissions limit values.

We made these decisions in accordance with Environment Agency's 'Monitoring stack emissions: techniques and standards for periodic monitoring'⁴ guidance, emissions limit value set by Annex II, Part 2 of the Medium Combustion Plant Directive (EU) 2015/2193.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have added reporting in the permit for the following parameters:

Oxides of nitrogen as NO₂ in mg/m³ with a reporting period of every 3 years, for emission points A34, A35, A36 and A37.

We made these decisions in accordance with Environment Agency's 'Monitoring stack emissions: techniques and standards for periodic monitoring'4 guidance.

We have also updated the reporting table to meet the current monitoring requirements.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Previous performance

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions.

Financial competence

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation Responses

The following summarises the responses to consultation with other organisations, and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from UK Health Security Agency.

No issues or concerns were raised.