

Permitting decisions

Variation

We have decided to grant the variation for Stoneness Road Chemicals Facility operated by Industrial Chemicals Limited.

The variation number is [EPR/BJ7298IF/V007](#).

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 summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account.

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

- summarises the decision making process in the [decision checklist](#) to show how all 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. The introductory note summarises what the variation covers.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
Consultation	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> • Local Authority – Environmental Health • Fisheries and Aquaculture Sciences • Onshore Fisheries and Conservation • Health and Safety Executive • Marine Management Organisation • Harbour and Port Authorities <p>The comments and our responses are summarised in the consultation section.</p>
The facility	
The regulated facility	<p>We considered the extent and nature of the facilities at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits.</p> <p>The extent of the facilities are defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.</p>
The site	
Extent of the site of the facility	The operator has provided plans which we consider are satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Biodiversity, heritage, landscape and nature conservation	<p>The application is within the relevant distance criteria of a site of nature conservation, protected species and habitat.</p> <p>We have assessed the application and its potential to affect all known sites of nature conservation, protected species and habitats identified in the nature conservation screening report as part of the permitting process.</p>

Aspect considered	Decision
	<p>The following operational controls and emission limits have been placed on the permit, with respect to processes 5 to 11, to protect the following European sites, SSSI, local wildlife sites and protected habitat.</p> <p><u>Emissions to air:</u></p> <ul style="list-style-type: none"> • Protected Habitats – Reedbeds • SPA & Ramsar – Thames Estuary & Marshes • SSSI <ul style="list-style-type: none"> ○ West Thurrock Lagoon & Marshes ○ Lion Pit • Local Wildlife Sites <ul style="list-style-type: none"> ○ West Thurrock Lagoon ○ West Thurrock Reedbed ○ Anchor Field ○ Grenville Road Grasslands ○ Mill Wood and Cliff ○ Lion Gorge ○ Warren Lane Grasslands ○ Warren Gorge <p>All processes will be subject to regular maintenance checks to prevent fugitive emissions to air.</p> <p>Process 3 (Line 2 Burner) has one additional point source emission to air (A23) of chlorine as a part of this variation. An ELV of 1 mg/m³ for daily spot samples has been set.</p> <p>Process 5 (dissolvers) has no point source emission to air. The use of up to 36% HCl will give off fugitive acid fumes at the top of the dissolver, however these will be removed by use of a forced draft, recirculating water scrubber. The strength of the Hydrochloric Acid in the scrubber water is to be tested daily, once the concentration reaches 26% (Hydrochloric acid solutions begin to fume at 28%) the water will be removed and used in the makeup of 10% and 18% solutions required.</p> <p>Process 5 (Hydrochloric acid storage scrubber) has one point source emission to air of hydrogen chloride via a water scrubber. The strength of the Hydrochloric Acid in the scrubber water is to be tested daily, once the concentration reaches 26% (Hydrochloric acid solutions begin to fume at 28%) the water will be removed and used in the makeup of 10% and 18% solutions required. The emissions from this point source screen out as insignificant using the Environment Agency's H1 tool.</p> <p>Process 6 has one point source emission to air (A25) of chlorine via a scrubber. An ELV of 1mg/m³ for daily spot samples has been set.</p> <p>Process 7 is a sealed system and has no point source emissions to air.</p> <p>Process 8 has one point source emission to air of hydrogen chloride via a water scrubber. The strength of the Hydrochloric Acid in the scrubber water is to be tested daily, once the concentration reaches 26% (Hydrochloric acid solutions begin to fume at 28%) the water will be removed and used in the makeup of 10% and 18% solutions required. The emissions from this point source screen out as insignificant using the Environment Agency's H1 tool.</p>

Aspect considered	Decision
	<p>Process 9 is a sealed system with the only point source emission being steam from the pressure relief valve. This steam has no contact with the product being manufactured.</p> <p>Process 10 has no point source emissions and fugitive emissions to air consist only of steam.</p> <p>Process 11 has one point source emission to air of sulphuric acid (A30). The emissions screen out as insignificant using the Environment Agency's H1 tool.</p> <p><u>Emissions to water/land:</u></p> <ul style="list-style-type: none"> • Protected Habitats <ul style="list-style-type: none"> ○ Reedbeds • Protected Species <ul style="list-style-type: none"> ○ Smelt Osmerus Eperlanus migratory route ○ Twaite Shad Alosa Fallax migratory route ○ Allis Shad Alosa Alosa migratory route • Local Wildlife Site – West Thurrock Lagoon <p>None of the processes have a point source emission to land, all plants will be bunded and there will be secondary bunding around the dissolver units of processes 5, 6 and 8 to prevent fugitive emissions to water and land.</p> <p>Process 5 has no point source emissions to water. The only water used in the process is product dilution water which is added in steps to ensure that the correct strength of product is produced.</p> <p>Process 6 has no point source emissions to water, there is no waste water produced.</p> <p>Process 7 has no point source emissions to water. The only waste water from this process is the condensate, this will be collected in IBCs and either sent off site for disposal at a suitable facility or returned to the sulphuric acid provider.</p> <p>Process 8 has no point source emission to water. There is no waste water from the washing of the unreacted aluminium hydrate, as this is pumped back into the reactor to make the next batch. The only waste water from this process will be wash water from cleaning the plant. This wash water will be tankered off site to be disposed of at a suitable facility.</p> <p>Process 9 has no point source emission to water and there is no waste water produced.</p> <p>Process 10 has no point source emission to water and there is no waste water produced.</p> <p>Process 11 has no point source emission to water and there is no waste water produced. The only water used in the process is a pre-determined amount in order to quench the reaction and produce the correct strength product and to back wash the undissolved aluminium hydrate into the reactor from the filter.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p>

Aspect considered	Decision
Environmental risk assessment	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant.</p> <p>There are six new point source emission (PSE) points to air associated with this variation from:</p> <p>Process 3 (Line 2 Burner) has one additional point source emission to air (A23) of chlorine as a part of this variation. An ELV of 1 mg/m³ for daily spot samples has been set.</p> <p>Process 5, dissolvers scrubber (A24), the emissions of Hydrogen Chloride from this PSE screen out as insignificant (Short Term Process Contribution of 0.554% of the EAL, which is less than the significance threshold (<10% of the EAL)) using the H1 screening tool.</p> <p>Process 5, Hydrochloric acid storage scrubber (A31) the emissions of Hydrogen Chloride from this PSE screen out as insignificant (Short Term Process Contribution of 0.899% of the EAL, which is less than the significance threshold (<10% of the EAL)) using the H1 screening tool.</p> <p>Process 6 (A25), the emissions of Chlorine from this PSE screen out as insignificant (Short Term Process Contribution of 1.25% of the EAL, which is less than the significance threshold (<10% of the EAL)) using the H1 screening tool. An ELV of 1 mg/m³ for daily spot samples has been set to ensure the efficacy of the scrubber.</p> <p>Process 8 (A27), the emissions of Hydrogen Chloride from this PSE screen out as insignificant (Short Term Process Contribution of 5.00% of the EAL, which is less than the significance threshold (<10% of the EAL)) using the H1 screening tool.</p> <p>Process 11 (A30), the emissions of Sulphuric Acid from this PSE screen out as insignificant. The Short Term Process Contribution is 5.77% of the EAL, which is less than the significance threshold (<10% of the EAL) and the Long Term Process Contribution is 57.4% of the EAL, which is greater than the significance threshold (<1% of the EAL), however the PEC of 67.4% of the EAL is less than the significance threshold (<70% of the EAL) assuming that the background levels of aerosol sulphuric acid are 10% of the EAL. The background concentration assumptions have been made based on there being no other local emitters of aerosol sulphuric acid.</p>
Operating techniques	
General operating techniques	<p>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.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>

Aspect considered	Decision
Operating techniques for emissions that screen out as insignificant	<p>Emissions of Chlorine, aerosol Hydrogen Chloride and aerosol Sulphuric Acid have been screened out as insignificant, and so we agree that the applicant's proposed techniques are BAT for the installation.</p> <p>We consider that the emission limits included in the installation permit reflect the BAT for the sector.</p>
Permit conditions	
Changes to the permit conditions due to an Environment Agency initiated variation	<p>We have varied the permit as stated in the variation notice.</p> <p>Process 4 has been included into table S1.1 of the permit as this is a separate production line to process 1 and such is a scheduled activity in its own right. This has been done to correct an error in the permit.</p>
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> • they are suitable for the proposed activities • the proposed infrastructure is appropriate; and • the environmental risk assessment is acceptable. <p>We made these decisions with respect to waste types in accordance with Technical Guidance Note S5.06 Guidance for the Recovery and Disposal of Hazardous and Non Hazardous Waste</p>
Emission limits	<p>ELVs and technical measures have been incorporated into Table S3.1 for the following substances.</p> <ul style="list-style-type: none"> • Chlorine – 1mg/m³ - ELV • Hydrogen Chloride – 26% - strength of Hydrochloric Acid in scrubber liquor
Monitoring	<p>We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified in the permit:</p> <ul style="list-style-type: none"> • Chlorine – 1mg/m³ - ELV • Hydrogen Chloride – 26% - strength of HCl in scrubber liquor • Sulphuric acid – annual monitoring <p>These monitoring requirements have been imposed in order to ensure the efficacy of the scrubbers and to protect the nearby European sites, SSSI, local wildlife sites and protected habitat.</p> <p>We made these decisions in accordance with EPR 4.03: The Inorganic Chemicals Sector and BAT Conclusions Document: Production of Chlor-Alkali.</p> <p>Based on the information in the application we are not fully satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.</p>

Aspect considered	Decision
	<p>Process 5 – the Hydrogen Chloride concentration of the scrubber liquor is calculated via titration using the company’s volumetric method. This is not MCert certified but is a recognised scientific method of concentration determination.</p> <p>Process 6 - Chlorine detectors that are currently available are not Mcert certified, but are TUV (German equivalent) certified. This is acceptable.</p> <p>Process 8 – the Hydrogen Chloride concentration of the scrubber liquor is calculated via titration using the company’s volumetric method. This is not MCert certified but is a recognised scientific method of concentration determination.</p> <p>Process 11 – proposes to use US EPA Method 8 which is BAT for Sulphuric Acid mist monitoring.</p>
Growth Duty	
<p>Section 108 Deregulation Act 2015 – Growth duty</p>	<p>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.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“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.”</p> <p>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.</p> <p>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.</p>

Consultation

- Local Authority – Environmental Health
- Fisheries and Aquaculture Sciences
- Onshore Fisheries and Conservation
- Health and Safety Executive
- Marine Management Organisation
- Harbour and Port Authorities

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from
Health and Safety Executive
Brief summary of issues raised
I have discussed the permit application with the site's COMAH Inspector and HSE has no comment to make in relation to the matters which can be taken into account by the EA. The Inspector will separately be contacting the company to ensure they have considered any implications for the site's COMAH Safety Report and for Hazardous Substances Consent that may result from the processes described.
Summary of actions taken or show how this has been covered
No response required.

Response received from
Local Authority – Environmental Health
Brief summary of issues raised
No response received.
Summary of actions taken or show how this has been covered
--

Response received from
Fisheries and Aquaculture Sciences
Brief summary of issues raised
No response received.
Summary of actions taken or show how this has been covered
--

Response received from
Onshore Fisheries and Conservation
Brief summary of issues raised

No response received.
Summary of actions taken or show how this has been covered
--

Response received from
Marine Management Organisation
Brief summary of issues raised
No response received.
Summary of actions taken or show how this has been covered
--

Response received from
Harbour and Port Authorities
Brief summary of issues raised
No response received.
Summary of actions taken or show how this has been covered
--