Permitting decisions

Bespoke permit

We have decided to grant the permit for **Astmoor Road** operated by **Kawneer UK Limited**

The permit number is **EPR/YP3103BN.**

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:

- highlights key issues in the determination
- 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. The introductory note summarises what the permit covers.

Key issues of the decision

General Description

Kawneer UK Limited operate an Installation for the surface treatment of metals and is a manufacturer of finished aluminium architectural systems such as curtain walling, doors and windows. The Runcorn facility manufactures “end-to-end” including extruding, inserting thermal breaks, and powder coating aluminium window framing systems.

Kawneer UK Limited have been operating under a Part A (2) Environmental Permit (EP), regulated by Halton Borough Council since 1993. However, as Kawneer operate an Effluent Treatment Plant a Part A (1) permit is required. This A1 installation permit is within the regulation of the Environment Agency.

The permit covers following listed activities:

1. **Surface metal treatment activity installation.**

The scheduled activity falls within EPR under “Section 2.3 Part A (2)(a)(iii) Surface treating metal and plastics materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30 m3 and where the activity is carried on at the same installation as one or more activities that fall within – (iii) Part A(2) or Part B of Section 6.4”.

This installation process vats have a maximum capacity under this scheduled activity of 54.1 m3.

2. Hazardous waste treatment activity.

Section 5.3 Part A (1) (a) (ii) scheduled activity; on-site effluent treatment of liquors from surface treatment activity. The installation treatment capacity is above the 10 tonnes per day threshold for this activity.

The current W1 effluent flow limit is set at 240 m3/day; however the actual operating level is in practice closer to 20 m3/day

3. Section 6.4 Part B (a) (i)

Any process for applying to a substrate, or drying or curing after such application, printing ink or paint or any other coating material as, or in the course of, a manufacturing activity, where the process may result in the release into the air of particulate matter or of any volatile organic compound and is likely to involve the use in any 12-month period of 20 or more tonnes of printing ink, paint or other coating material which is applied in solid form.

The key issues we had to consider before issuing the permit were emissions to the Manchester Ship Canal from the Effluent Treatment Plant and emissions to air from nineteen emission points at the site. We have included improvement conditions that are discussed below.

1. Air Emissions

Introduction

- The initial Air Quality assessment was based on 100% operation of the installation which is a worst case scenario as the facility does not always operate 24/7. Whilst operating long day shifts the installation does not consistently operate through the night. Therefore a more realistic scenario of 75 % operation throughout the year has been used in the assessment below, whilst still maintaining a conservative approach.
- The effective height for the H1 assessment is zero leading to further conservative outputs
- The jig oven release VOC's (A119); the monitored data used in the assessment below was a total VOC figure and not spectated. The applicant used the highly conservative assumption that all the VOC emissions was benzene as a worst case scenario.
- The H1 assessment was modified to align with our guidance that for short term assessment ; convert all measured oxides of nitrogen emissions (NOx) to NO2 and assume 50 % of this value
- Overall the NOx emissions data appear elevated and the IC 1 improvement program discussed below addresses this.
- The main sources of emissions on the Site are from combustion activities such as ovens and tank eaters. Most of the sources are operated on a continuous basis. The primary concerns are Oxides of nitrogen (NOx), nitrogen dioxide (NO2), Particulate Matter (as PM10 and PM2.5) and Volatile Organic Compounds (VOC - as benzene).
- There are nineteen emission points in total, 17 of these operate for 24 hours and seven days a week; two operate for a limited number of hours per day. A small number of sources have been excluded as they only emit water vapour or pollutants which have been screened out by the H1 tool. As a result 13 air emission point sources were included in the air dispersion model. All combustion sources consume natural gas so no particulate matter emissions have been considered for those sources.
- Additional background data for Benzene based on DEFRA screening maps information and worst case data for local Haltom council.

The operator provided a H1 assessment dated 30/08/2019. This screening conservative impact assessment is summarised below:

Screening criteria

Step 1

The emissions which warrant further investigations are as follows:

- PC long term > 1 % of the Long Term Environmental benchmark
- PC short term > 10 % of the Long Term Environmental benchmark

If further assessment is required the assessment continues to Stage 2. If the following criteria are met no further assessment is required. Predicted Environmental Concentration is abbreviated to PEC below.

Stage 2

- PEC long term (PC + Background long term air emissions levels) long term < 70 % of the Long Term Environmental benchmark
- PEC short term criteria (PC set < (20 % of Short term Environmental benchmark – 2 x background long term)

Substance	Long Term EAL/EQS µg/m3	Short Term EAL/EQS µg/m3	PC LT µg/m3	PC % of LT EAL/EQS	PC LT >1% of EQS/EAL	PC ST µg/m3	PC ST % of EAL/EQS	PC ST >10% of EQS/EAL
Particulates PM10 (24hr Mean	-	50	-	-	-	59.9	120	**Yes**
Particulates PM10 (Annual Mean	40	-	1.71	4.26	**Yes**	-	-	**-**
Nitrogen Oxides	40	200	7.13	17.9	**Yes**	125	62.5	**Yes**
Benzene	5	-	2.60	53	**Yes**	-	-	-
Carbon monoxide	-	10000	-	-	-	38.5	0.385	**No**
Sodium Hydroxide		200	-	-	-	0.257	0.129	**No**

H1 Step 1 Screening Conclusion

Emissions of carbon monoxide (CO) and sodium hydroxide (NaOH) emissions were screened out by the Environment Agency risk assessment tool H1, based on assumptions summarised above.

Long term assessment stage 2:

Substance	Air Back ground concentration	PC LT µg/m3	PEC LT µg/m3	% PEC of EAL %	% PEC of EAL > 70 %
Particulates PM10 (Annual Mean	11.4	1.71	13.11	32.8	**No**
Nitrogen Oxides long term	16.7	7.13	23.83	59.6	**No**
Benzene	0.82	2.60	3.42	68.4	**No**

The long term impacts for PM10, Nitrogen Oxides and Benzene for this installation screen out at stage 2 and therefore conclusion is no significant adverse impacts
No further assessment is required.

Short term assessment stage 2

Substance	Air Back ground concentration	PC ST µg/m3	% PC of headroom (EAL – background)	% PC of headroom > 20 %
Particulates PM10 24 hour mean	22.8	59.9	220.2	**Yes**
Nitrogen Oxides short term	33.4	125	75.0	**Yes**

The short assessment for PM10 and Nitrogen Oxides does not automatically screen out the installation impacts. However as the site has been manufacturing for many years in reality the process contributions estimated above are already included in the background data and in reality there is no additional impacts from this installation over and above the current backgrounds.

PM10 short term further assessment
In addition the Applicant more detailed impact assessment via usage of dispersion modelling (report dated 27/9/19 and reference 0516105) concludes in Table 6.4 that the maximum process contribution for PM10 short term beyond the installation is 14 % of the PM10 short term environmental standard and that there are no exceedances of the environmental standard. The impacts at specific local receptors are predicted to be less than the 10 % criteria of the PM10 short term environmental standard concluding that impacts from the installation are concluded to be insignificant.

Oxides of Nitrogen short term further assessment
Table 6.7 of the report concludes that for specific local human receptors the impacts are predicted to be a maximum of 13-14 % of NOx short term standard and there are no exceedances of the environmental standard

In order to ensure that the site NOx short term emissions are considered BAT and to minimize environmental impacts we have set an improvement condition IC1, for the applicant to review and action plans to further minimise environmental impacts; and specifically address impacts on local habitat sites which is discussed in further detail below. This will in turn have a benefit to minimise impacts on local human receptors

2. Conservation Sites

The predicted impacts arising from emissions from the Site were compared to the applicable critical loads for protected conservation areas for NOx and, where appropriate, nutrient nitrogen deposition and acid deposition. This is based on modelling report dated 27/9/19 submitted with the application.

The following were identified:

The critical load for annual mean standard for ambient air NOx and 24-hour mean NOx is exceeded at the Manchester Ship Canal Bank Local Wildlife Site (LWS) on a substantial area of the site;

The critical load for 24-hour mean NOx is exceeded at the Wigg Island Local Wildlife Site (on about 5% of the total area) and Local Nature Reserve (LNR) on a small area (less than 2% of the total area). The maximum PCs at Wigg Island LWS and LNR are both below the 200 µg/m3 critical level recommended by the Institute of Air Quality Management (IAQM) 10 for the 24-hour average NOx

concentrations in the UK. If using this IAQM critical level, then the impact on the Wigg Island LNR and LWS are insignificant.

No significant impacts were identified at any Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs) or Special Protection Areas (SPAs), for NOx acid deposition or nutrient nitrogen deposition.

Consultation

Wigg Island (LWS & LNR)

We contacted Halton Borough Council (HBC) HBC who directed us to "Open Spaces" who manage the LNR at Wigg Island. They had no concerns over the facility. They had not noticed any degradation. Both sites have been surveyed whilst the applicant have been operating for many years and there is no mention in the citations that the sites have degraded ,we decided not to ask them to carry out an ecological assessment.

The operator is not requesting to increase production and therefore will not increase the NOx that has previously been emitted from the site.

Manchester Ship Canal (LWS Astmoor Road)

We contacted Halton Borough Council (HBC) re Astmoor Road LWS and Wigg Island LWS and LNR. They advised that the LWS on Astmoor Road was not managed by them and were not sure who owned or managed the land. We contacted the Mersey Gateway Trust (MGT) who had recently taken over the management of certain sections of the canal bank following a bridge construction. They could not confirm if this section of the canal bank was included. They have no evidence of any degradation at either of the sites.

Conclusion

In order to ensure that NOx emissions are reduced we have included an Improvement condition in the permit (IC1) to identify the most cost-effective solution for reducing the Site's impact on ambient NOx standards at the nearby local wildlife and nature reserve sites. Following the result of the cost-benefit analysis, work with the Environment Agency on the measures to be taken on Site, if any, and set a schedule to undertake the changes.

3. Surface water emissions to Manchester ship canal

The assessment is based on the Applicant H1 dated 30/08/19
There was considerable discussion around accurate effluent flow rates to W1 discharge from the installation effluent. The actual operating levels are considerably lower than theoretical maximum flow rates. The assessment has been carried out on the following basis

- Average flowrate = 0.002 m3/s. This is equivalent to 172.8 m3/day. This is a typical average flow over the year. The maximum daily flow is limited in the permit to 240 m3/day and is part of improvement condition IC 2 review to finalise exact maximum flow.
- Maximum flowrate – 0.004 m3/s

<u>The results of the assessment (Test 2) are summarised below:</u>

The screening criteria for Test 2 is based on process contributions being less than 4 % of relevant long or short term Environmental Quality Standard (EQS)

Parameter	EQS Annual Average µg/l	PC LT µg/l	PC/EQS %	>4% EQS	EQS MAC	PC ST µg/l	PC/EQS%	>4% EQS MAC
Aluminium	15	.0063	0.04	Pass	-	-	-	-

Fluoride	1000	.1506	.02	Pass	3000	.2608	.00870	Pass
Iron	1000	.0079	<0.0001	Pass	-	.0137	-	-
Nickel & compounds	4	<.0001	<0.0001	Pass	34	0.00	.000117	Pass
Sulphate	40000	194.8433	.05	Pass	-	-	-	-
Zinc	10.9	.0001	<0.0001	Pass		0.0002	-	Pass

The site has a discharge route to the Manchester Ship Canal for treated process water from the onsite effluent treatment plant. The potential for significant effects was screened out by the H1 screening tool. In the H1 assessment for W1 the only substances which failed Test 1 and progressed to Test 2 were: Aluminium, fluoride, iron, nickel, sulphate and zinc.
These subsequently passed Test 2 and therefore were not carried forward for further assessment

Following a review of these results we have included an Improvement Condition (IC 2) in the permit. This will require the operator to carry out a review of the effluent volume discharged via W1 from the effluent treatment plant including the BOD level. The report will include monitoring results.
As an outcome of this report, the Environment Agency may need to reassess the emissions from W1 and specifically add a final emission limit value in Table S3.2 for BOD accordingly. We have included monitoring in the permit (Schedule 2, Table S3.2)

Overall it should be noted that there is considerable headroom for compliance with < 4 % screening criteria even if the actual W1 discharge flowrate is slightly higher than figure used in H1 of 0.002 m3/s. It should be further noted that there is no allowance for downtime in the H1 assessment ie effluent assumed to discharge 24/7 throughout the year which is a highly conservative approach.

4. Site Condition Report

No baseline soil and groundwater reference data was submitted with the application. As the site has been operating for over forty years. An improvement condition (IC 3) is proposed to commit Kawneer to providing baseline data within 12 months of permit issue. The IC will require them to provide the following information

- Stage 1 – Identify hazardous substances used / stored on site etc.
- Stage 2 – Identify if hazardous substances are capable of causing pollution. If they are capable of causing pollution they are then termed Relevant Hazardous Substances (RHS).
- Stage 3 – Identify if pollution prevention measures are fit for purpose in areas where hazardous substances are used / stored. This includes drainage systems.

5. Firewater Management

It is not fully clear the exact procedures and infrastructure to contain and manage fire water within the installation boundary in a manner to minimize risk of pollution to nearby watercourses.

We have therefore added a relevant improvement condition IC 4 to cover for this.

The Operator shall submit a final proposal for the storage, assessment and discharge in a controlled manner of contaminated fire water in the event of an incident.

The proposal shall ensure sufficient contained storage volume is available for temporary storage of fire water run-off. The proposal shall include but not be limited to:

- Emergency contained storage facilities for fire water with final storage volumes inside and external to main process building.
- Final emergency procedures including sampling, assessment criteria and disposal procedures for handling such fire water

The Environment Agency shall confirm in writing the approval of this improvement condition

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	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement. The application was publicised on the GOV.UK website. We consulted the following organisations: • Public Health England • Director of Public Health • Health and Safety Executive • Local Authority Environmental Protection • Local Planning Authority The comments and our responses are summarised in the consultation section.
Operator	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
The facility	
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 RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits. 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 site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility including the discharge points The plan is included in the permit.

Aspect considered	Decision
Site condition report	The Applicant has provided a description of the condition of the site. , which we consider was not satisfactory. The decision was taken in accordance with our guidance on site condition reports We have advised the operator what measures they need to take to improve the site condition reports and baseline reporting under the Industrial Emissions Directive. An Improvement Condition (IC 3) has been included in the permit – see key issues section
Biodiversity, heritage, landscape and nature conservation	The site is within the relevant distance criteria of multiple habitat sites including European Sites, SSSIs and Local Wildlife Sites We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified. The nearest European Sites are approximately 3 km from the installation boundary. We have sent a Stage 1 Habitats Regulations Assessment (previously Appendix 11) dated 06/07/2020 to Natural England for information only. We have not consulted Natural England [and Natural Resources Wales] delete as appropriate on the application. The decision was taken in accordance with our guidance.
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.
Operating techniques	
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 except for issues addressed via four Improvement Conditions listed below The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.
Operating techniques for emissions that do not screen out as insignificant	Emissions of Oxides of Nitrogen impacts on local wildlife sites cannot be screened out as insignificant. We have assessed whether the proposed techniques are BAT. We have concluded that as this is an existing site becoming a new installation , there has been an allowance for the installation to present improvements to further minimise installation NOx environmental impacts (via IC1 improvement condition) discussed in more detail in key issues section of this document) The PM10 short term impacts although not able to screen out via H1 tool are considered acceptable after more detailed modelling assessment; this is discussed in more detail in key issues section of this document.
Operating techniques for emissions that screen out as	Emissions of water discharge (H1 screening tool) to Manchester Ship Canal have been screened out as insignificant. We agree that the applicant's proposed techniques are BAT for the installation, conditional on accuracy of application emissions information.

Aspect considered	Decision
insignificant	The IC 2 for W1 is to confirm whether water flow and BOD limits detailed in permit Table S3.2 accurately reflect actual operating techniques All air emissions parameters except PM10 short term and NOx have screen out as not significant so we consider impacts BAT We consider that the emission limits included in the installation permit reflect the BAT for the sector.
Permit conditions	
Improvement programme	Based on the information on the application, we consider that we need to impose four improvement programmes. • IC 1 – Air emissions --Review of Oxides of Nitrogen to minimise impacts on Local Wildlife Sites • IC 2 – Water emissions – Review of W1 Volume flow and BOD impacts to minimise • IC3- Finalise Site Condition Report in compliance with our guidance to min • IC4 Fire Water Management – to minimize risk of fugitive emissions to water.
Emission limits	We have decided that emission limits are required in the permit. ELVs have been set for the following substances. • Air emissions – Oxides of Nitrogen (ELV's finalized after IC1 response) , VOCs and Particulates • Effluent emissions- Volume flow, BOD, Suspended solids, pH. and Temperature (final emission limits to be finalized after IC2 response).
Monitoring	We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified. These monitoring requirements have been imposed in order to ensure on-going operation of the installation in compliance with permit application and improvement condition report improved operating techniques <u>The monitoring requirements are as follows:</u> Air emissions • Total Particulate Matter , VOCs and Oxides of Nitrogen monitoring – as listed in permit Table S3.1 Water emissions • Flow volume, BOD, Suspended Solids , pH and Temperature plus visible oil and grease check – as listed in permit Table S3.2 We made these decisions in accordance with the surface treatment guidance EPR 2.07 Based on the information in the application we are fully satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate. The one exception is a review of Mcerts certification for effluent flow meter which will be addressed via compliance visit checks.
Reporting	We have specified reporting in the permit. We made these decisions in accordance with reporting of monitoring data discussed above plus the standard reporting requirements for

Aspect considered	Decision
	this surface treatment sector
Operator competence	
Management system	There is no known 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.
Relevant convictions	The Case Management System and National Enforcement Database have been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.
Growth Duty	
Section 108 Deregulation Act 2015 – 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. 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

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. There were no responses from advertising this application on our GOV.UK website

Responses from organisations listed in the consultation section

Response received from
Public Health England. – 12/11/2019
Brief summary of issues raised
No major issues were raised. Basic question from PHE was to ensure the Environment Agency were satisfied with the results of the H1 Risk assessment.
Summary of actions taken or show how this has been covered
The Environment Agency has confirmed that the installation emissions are assessed as having acceptable impacts on human health. The IC 1 for NOX emissions is primarily linked to habitat protection but will have a knock on benefit to further minimise NOx emissions from installation with regard to local human receptors.

- No other responses received as of 10/08/2020