

Permitting decisions

Variation

We have decided to grant the variation for **Selby Wheat Facility** operated by **Sedalcol UK Limited**.

The variation number is **EPR/KP3030TZ/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 into 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

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.

Key issues of the decision

Variation

This is a substantial variation for an expansion of the combustion boiler facilities, some changes to other local ventilation facilities and removal of citric acid chemical activity.

The combustion changes lead to the introduction of a new 1.1 A (1) (a) scheduled activity, as the aggregated total of the combustion facilities is 77.9 MW after the variation changes.

A further assessment has been carried out of the maximum aggregated thermal input capacity for each common stack (windshield). It is concluded that the installation combustion facilities do not fall with the requirements of Industrial Emissions Directive Chapter III compliance (Large Combustion Plant Directive).

There are no additions or capacity increases to the chemical production facilities, effluent treatment facilities and food and drink activity facilities linked to this variation application.

There is no increase in installation boundary linked to this variation.

1. Air emissions

The operator provided a final detailed modelling assessment with their duly making response dated 18/04/19 , plus additional clarifications on emission flow rates and standard reference conditions dated 18.04/19 and final controls for compliance with MCPD dated 22/05/19 The air emission parameters linked to variation changes are as follows:

- PM10
- Carbon Monoxide
- NO2
- Oxides of Nitrogen (ecological receptors assessment)

The environmental impact assessment linked to this variation is on the basis of the incremental increase linked to this variation application EPR/KP3030TZ/V007 changes in comparison with the existing installation prior to the variation application.

Below is a summary of the environmental assessment: **Atmospheric.**

There are no Local Air Quality Management Areas in the vicinity of this site set by the Selby District Council. The site is close to domestic housing to the west within 100 m from the installation (Dennison Road) and there is a single residence north of the installation immediately on the other side of the River Ouse (Cherry Tree Farm) within 150 metres of the installation boundary. Apart from this single residence across the river there are a very limited number of residential properties to the north and east of the site within 1 km and the main properties are to the west and south west of the installation boundary.

Operator approach to atmospheric environmental impact assessment and environmental modelling.

- 1) The operator has advanced to detailed modelling for all key parameters as listed above without screening any out via an initial H1 assessment.
- 2) The operator has utilised a combination of normal and abnormal operating scenarios as detailed within their dispersion modelling report dated 18/04/19. The overall assessment is highly conservative as the modelling is based on emissions being the aggregated total of both normal and maximum hours of all of the abnormal scenarios. This totals more than the possible 8760 hours per annum.
- 3) The operator has then utilised the resulting process contributions from detailed modelling to input into a more accurate H1 assessment to clarify which parameters have insignificant environmental impact.
- 4) Meteorological data has been utilised over 5 years 2013 to 2017.

Detailed Modelling

The assessment utilised ADMS 5.2 for the modelling.

Ambient NO_x concentrations have been predicted through dispersion modelling. NO₂ concentrations reported in the results section assume 70% conversion from NO_x to NO₂ for annual means and a 35% conversion for short term (hourly) concentrations.

All key installation parameters were assessed as follows:

Ground level pollutant concentrations were predicted in order to quantify the maximum impact of the installation at identified receptors (see table below). Predicted concentrations were compared with the relevant Environmental Quality Standard (EQS) as per our H1 guidance and provided on our gov.uk website as per link below:

<https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit#environmental-standards-for-air-emissions>

The results are provided in full in section 8 of the dispersion modelling report with process contributions and predicted environmental concentrations at each of ten local receptors selected by the operator.

Human Health Sensitive Receptors Risk Assessment

A summary of the operator conclusions are provided below:

Step 1

H1 insignificance test according to H1 annex (f) guidance is as follows:

The emissions which are insignificant are:

- PC (Long term) <1% of the LT Environmental benchmark.
- PC (Short term) <10% of the ST environmental benchmark.

The process contribution increases linked to the variation, in tables below, are the worst case modelling data at any of the ten sensitive receptors

Substance	Long Term EAL/EQS $\mu\text{g}/\text{m}^3$	Short Term EAL/EQ S $\mu\text{g}/\text{m}^3$	PC LT $\mu\text{g}/\text{m}^3$	PC % of LT EAL/EQS	PC LT >1% of EQS/EAL	PC ST $\mu\text{g}/\text{m}^3$	PC ST % of EAL/EQS	PC ST >10% of EQS/EAL
Nitrogen dioxide	40	200	0.31	0.78	No	5.21	2.60	No
Carbon Monoxide	-	10,000	-	-	-	9.35	0.09	No
PM 10	40	50	0.04	0.10	No	0.115	0.21	No

Conclusion

Utilising over-conservative maximum data the following parameters screen out as insignificant:

- Nitrogen dioxide and carbon monoxide against short term EQS's
- PM10 against long and short term EQS.
- Nitrogen dioxide against long term EQS's

In addition for all parameters and all relevant EQS's the modelling outputs confirms there are no exceedances of any EQS's taken into account relevant background concentrations.

Conclusion

We have completed a review of the Operator's detailed modelling. Although we cannot replicate the exact process contributions we are confident in overall conclusion that all the additional impacts are insignificant.

We are further confident that the variation leads to no exceedances of any EQS's.

Overall therefore the variation environmental impact increases are assessed as insignificant and not requiring further assessment.

Habitat Assessment

There are multiple sites for which impacts were modelled as follows:

European Sites

- Skipwith Common Special Area of Conservation (SAC)
- Lower Derwent Valley : SAC/ Special Protection Area (SPA)/Ramsar Site
- River Derwent (SAC).

Other Conservation Sites

- Seven Local Wildlife Sites and Two Ancient Woodlands as detailed in modelling report section 5.2.2

Atmospheric emissions

Basis of review

Modelling assessment carried out at the following receptors:

- Statutory sites: All statutory sites as stated above
- Other conservation sites: All sites as listed above.

The operator has completed detailed modelling with results found in variation application supporting information section 8.2 of modelling report dated 18/04/19.

EQS's utilised in line with our H1 annex f) guidance are as below:

Parameter	EQS Annual Average long term	EQS 24 hours short term.
NO _x	30 µg/m ³	75 µg/m ³

Step 1

H1 insignificance test according to H1 annex (f) guidance is as follows

The emissions which are insignificant are:

- PC (Long term) <1% of the LT Environmental benchmark.
- PC (Short term) <10% of the ST environmental benchmark.

Further guidance for Other Conservation Sites

<https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit#screen-out-insignificant-pcs>

This guidance states for such sites if emissions meet both of the following criteria they're insignificant and no further assessment required

- the short-term PC is less than 100% of the short-term environmental standard
- the long-term PC is less than 100% of the long-term environmental standard

NO_x (Oxides of Nitrogen) Process Contributions:

The maximum modelled process contributions increases at any of the above receptors are as follows:

Substance	Long Term EAL/EQS S µg/m ³	Short Term EAL/EQS µg/m ³	PC LT µg/m ³	PC % of LT EAL/EQS	PC LT >1% of EQS/EAL	PC ST µg/m ³	PC ST % of EAL/EQS	PC ST >10% of EQS/EAL
Nitrogen dioxide	30	75	0.40	1.33	Yes	8.84	11.80	Yes

Conclusion

A more detailed review confirmed the following:

- All the European Sites process contributions were insignificant based on 1 and 10 % thresholds listed above
- All the Other Conservation Sites process contributions were insignificant based on 100 % thresholds as defined above.

Therefore we can conclude variation impacts linked to oxides of nitrogen impacts on local habitat sites are likely to be insignificant and no further assessment is required.

2. Containment

There are no new liquid storage tanks introduced with this variation.

3. Surface emissions

The overall operational procedure for effluent management linked to this variation is that blow down water from new boiler 10 is sent to existing onsite effluent treatment plant (ETP) without the introduction of any new facilities or requirements for effluent treatment.

Additional blow down linked to new boiler is estimated at no higher than 0.5m³/hour from the new Boiler 10. This will be able to be handled within existing ETP capacity. The blow down water is mixed with ETP outfall water prior to emission discharge point W1, monitored and analysed before discharge. As such current permitted flow and emission limit values will be complied with, and no further measures will need to be utilised to ensure such compliance.

The Effluent Treatment Plant theoretical maximum capacity is 2400 m³/day, currently loaded at 1440 m³/day.

In conclusion all the flow and parameter concentration limits within permit table S3.2 for W1 discharge will be complied with and there will be no additional environmental impact beyond existing environmental assessment.

Conclusion

Overall we conclude there is negligible environmental impact from the effluent linked to the variation changes

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"> • Environmental Health (Local authority Selby Council) • Health and Safety Executive • Public Health England/Director of Public Health. <p>The comments and our responses are summarised in the consultation section.</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 including air and sewer discharge points. The site plan is included in the permit. There is no change to the installation boundary introduced with this variation.
Biodiversity, heritage, landscape and nature conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. 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.</p> <p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p>

Aspect considered	Decision
	<p>The production capacity for this installation has no increased with this variation.</p> <p>There are no new emissions linked to ecological standards introduced with this variation. The human health H1 risk assessment has concluded insignificant impacts with impacts multiple orders of magnitude below the insignificant criteria (see air emissions assessment I key issues section of this document).</p> <p>The nearest European Site, Skipwith Common SAC, is approximately 5.2 km to the north east of the installation boundary.</p> <p>We have sent a Stage 1 Habitats Regulations Assessment (previously Appendix 11) to Natural England for information only dated 29/04/19.</p> <p>The decision was taken in accordance with our guidance.</p>
Environmental risk assessment	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility. 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>The key issues section of this document includes a summary of the H1 assessment for atmospheric emissions and a summary of reasoning of insignificant surface water environmental impacts.</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. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <p>The operating techniques are detailed in the variation application supporting documentation, duly making responses including a BAT assessment of Operator measures to show compliance with our Large Volume Organics TGN EPR 4.01 plus Medium Combustion Plant Directive (MCPD) compliance.</p> <p>The operator has provide the following specific operating techniques documents :</p> <ul style="list-style-type: none"> • BAT assessment document dated 22/01/19 • Duly making responses dated 24/04/19 including noise , fugitive emissions controls and operating techniques linked to new combustion facilities • Schedule 5 responses dated 13/05/19 and 20/05/19 including details on MCPD emission limit value compliance emission monitoring and citric acid plant decommissioning.
Permit conditions	
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 permit.
Pre-operational conditions	The existing pre-operational condition has been removed as the operator has removed their plans to use biogas as an optional substitute for natural gas as fuel for gas fired boilers.
Improvement programme	Based on the information on the application, we consider that we need to impose two new improvement programmes (improvement program 11 and 12). The IP 11 is for a

Aspect considered	Decision
	<p>commissioning report to provide monitoring to ensure new emissions A40-A45 are in line with impact assessment within variation application EPR/KP3030TZ/V007.</p> <p>The IP12 is for noise assessment monitoring linked to variation changes</p> <p>All the existing improvement conditions 1 to 10 have been completed.</p>
Emission limits	<p>We have decided to add emission limit values for A41 and A43 to A45 as detailed in permit table S3.1</p> <ul style="list-style-type: none"> • A41 Oxides of Nitrogen limits are for MCPD compliance • A43 to A45 Particulate limits are to ensure BAT measures are applied for environmental impact minimisation.
Monitoring	<p>We have decided that monitoring should be added for following parameters using the methods detailed in permit table S3.1 and to the frequencies specified:</p> <ul style="list-style-type: none"> • Particulates • Carbon Monoxide • Oxides of Nitrogen <p>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.</p>
Reporting	<p>Reporting has been changed as a result of this variation. The reporting schedules have been updated.</p>
Operator competence	
Management system	<p>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.</p>
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	<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 vary 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. 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

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
Public Health England response dated 23/05/19
Brief summary of issues raised
Specific concerns linked to PM10 and combustion gas emissions from new CHP facility (Gas Turbine GT3 and Boiler 10).
Summary of actions taken or show how this has been covered
<ul style="list-style-type: none">• Risks covered by robust review of Applicant Dispersion Modelling by our air quality specialists.• Our conclusions confirmed that changes linked to this variation are assessed as having insignificant environmental impacts.

No other responses were received. The consultation period closed on 30/05/19.