

## Permitting Decisions- Bespoke Permit

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We have decided to grant the permit for **Moxon Way PET Production Facility** operated by **Esterpet Limited**

The permit number is **EPR/VP3201SS**.

The application is for a new chemical plant installation. The main scheduled activity is

- 4.2 A(1) (a) (viii) “*Producing organic chemicals such as*
  - *plastic materials (for example polymers, synthetic fibres and cellulose-based fibres);*

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 considerations section to show how the main relevant factors have been taken into account
- highlights key issues in the determination
- 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.

## **Key issues of the decision**

### **Air Emissions**

There are twelve emissions points to air from this installation

The Applicant has confirmed there are basically two types of emissions to air from the installation:

- Particulates
- Volatile Organic Compounds (VOC)

The Applicant has progressed straight to air dispersion modelling without a screening assessment to quantify the emissions from the installation. The details of the assessment are within application supporting document Appendix B dated 22/10/20.

The Applicant has carried detailed modelling for the following parameters

- PM10
- Benzene ( worst case scenario solvent VOC)
- Acetaldehyde

### **Basis of Assessment:**

- 100 % capacity i.e. 39055 tonnes per annum
- Operation 24 hours per day and 365 days per annum
- Input VOC and Particulate emissions based on national PET Production Facility standard emission data (as per schedule 5 notice response dated 12/03/21). The data is considered conservative as this operator is the first to use a two sorter approach and as such the expectation is that after the driers there be less potential contamination than standard data single sorter systems.

Whilst this is worst case maximum plant capacity, due to planned maintenance and shutdowns it is unlikely that this will occur in practice.

The modelling included ten local receptors which are listed as R1 to R10 in Table 4 of the modelling report

### **Stage 1 - Insignificance Criteria**

The emissions which warrant further investigations are as follows (Process Contribution is abbreviated to PC below):

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

### **Stage 2**

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.

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

### **Modelling details:**

#### **Stage 1**

The process contributions for the installation listed below are the maximum values at any of the ten local receptors modelled.

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	-	-	-	0.14	0.28	No
Particulates PM10 (Annual Mean)	40	-	0.03	0.075	No	-	-	-
Acetaldehy de	370	9200	0.06	0.016	No	2.06	0.022	No
Benzene	5	195	0.02	0.4	No	0.61	0.31	No

### **Step 1 Conclusion**

All the parameters screen out as insignificant impacts; therefore no further assessment is required.

### **Effluent Emissions**

The process effluent is very low volume being estimated at a maximum discharge flow of 2.1 m<sup>3</sup> over a period of between 10 and 14 days. Over a year the maximum total flow is no more than 76m<sup>3</sup>. This is from process condensate.

The likely parameters in the discharge are particulates and VOC's.

The schedule 5 notice response dated 12/03/21 confirmed that the effluent is discharged via Sherburn-in-Elmet Yorkshire Water sewage treatment works and final surface water discharge is to Green Dike.

In their 12/03/21 response the Applicant has confirmed that the Yorkshire Water consent to discharge and monitoring results allowing an installation environmental impact assessment are pending but not immediately available.

### **Conclusion**

Overall, given low flow of 76 m<sup>3</sup> a year i.e. approximately 0.2 m<sup>3</sup>/day, we conclude that this is likely to have an insignificant impact on the receiving water course. This is further justified based on effluent discharging via Yorkshire Water sewage treatment works with associated treatment.

We have therefore granted this permit on the basis of a pre-operational condition preventing effluent discharge to S1 until we receive, and approve, an environmental impact assessment. This condition has to be approved in writing by ourselves allowing control to ensure our satisfaction, that environmental impact is indeed insignificant.

## **Fire Water Management**

We were unclear from the initial application supplementary information whether controls were in place to manage and contain fire water from the installation.

The operator provided a summary of their operating procedures in their schedule 5 notice response dated 12/03/21

In brief they provided a summary of an operating procedure for fire water management including details of fire water controls such as drain covers, usage of kerbed areas and support from local fire and rescue services

The exact volume of worst case fire water volume has yet to be confirmed

The Applicant has mentioned isolation of surface water discharge in event of a fire.

The Applicant has further committed to following a fire water management procedure within 3 months of permit issue covering:

- Full details of proposed storage facilities and volume available to ensure adequate storage of fire water.
- Testing/assessment of fire water quality and criteria for deciding disposal route.
- Fire water disposal procedures.

## **Conclusion**

We are satisfied that key measures will be designed into the installation facility. However to ensure the completion of a final fire water management plan and relevant operation procedures we have included following conditions

- Pre-Operational Condition to ensure surface water isolation measures are in place before start up
- Improvement Condition to ensure fire water management procedure and containment facilities are in place as per details above

## **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.

### **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 authorities:

- Local council Environmental Health Department
- HSE
- Public Health England/Director of Public Health England

The application was publicised on the GOV.UK website.

The comments and our responses are summarised in the [consultation responses](#) section for single response from Public Health England.

## **Operator**

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 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' and Appendix 1 of RGN 2 'Interpretation of Schedule 1.

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**

The operator has provided plans which we consider to be satisfactory.

These show the extent of the site of the facility and there are separate emission plans including the discharge points.

The installation boundary and emission point plans are included in the permit.

## **Site condition report**

The operator has provided a description of the condition of the site as per Appendix D document dated September 2020, within their Application supporting documents, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting.

The risk of ground water and land contamination from the installation is low with no bulk storage of hazardous chemicals. All waste effluent IBCs are to be stored within relevant sized bunded facilities; bund volume > 25 % of total IBC volume and > 110 % of individual IBC volume

In view of the low risk of ground water and land contamination, the operator has decided not to progress baseline ground water and land monitoring. We have alerted them to the risks of this decision at any potential future surrender of the installation permit. The operator has accepted this risk.

## **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.

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.

There are no European/Ramsar Sites within 10 km of the installation; therefore we have not created a relevant HRA 1 assessment.

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

### **Environmental risk**

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

The details of the operator's assessment for their main issues is discussed in detail in the key issues section of this document.

The operator's risk assessment is satisfactory.

### **Climate change adaptation**

We have assessed the climate change adaptation risk assessment.

Based on the impact assessment (appendix F) within the application documents condition 1.5.1 has been included in the permit.

### **General operating techniques**

The operator provided a specific BAT review (application document appendix C) in comparison with our TGN EPR 4.02 Organic Chemicals

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.

### **Improvement programme**

Based on the information on the application, we consider that we need to include two improvement programmes –

- IC1- Air Emissions Monitoring report to confirm emissions are as per application estimates
- IC2 –Fire Water Management report to ensure effective long term measures in place to contain fire water.

### **Pre-operational conditions**

Based on the information on the application, we consider that we need to include two pre-operational conditions improvement programme.

We have included pre-operational conditions to ensure that

- An Effluent discharge impact assessment is completed and for us to confirm insignificant impact before S1 discharge

- Initial measures in place for fire water management prior to longer term improvements linked to improvement programme listed above.

## **Emission Limits**

We have decided that emission limits are not required in the permit.

## **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.

We have required air and effluent monitoring linked to pre-operational and improvement conditions listed above

Based on our initial assessment these impacts are likely to be insignificant, we have not required on-going monitoring beyond these pre-operational and improvement conditions

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 specified reporting in the permit.

We made these decisions in accordance with standard installation reporting 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.

## **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.

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, 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 (17/03/21)**

Brief summary of issues raised: No specific issues raised.

As a general comment the Applicant has now committed to monitoring of air emissions to ensure accurate estimates within the Application

#### **Response received from Selby District Council Environmental Health (10/03/21)**

Brief summary of issues raised: Noise and Air Quality

Summary of actions taken:

**Noise** – on our review of noise risk assessment (within main application document) and BAT measures application document (Appendix C) we consider the installation to have no significant sources for noise pollution and that measures are in place to minimise noise levels beyond installation.

#### **Air Quality** - Issue raised of impacts on new housing development off Moorland Road

Our response is that whilst the specific location off Moorland Road has not been modelled as a receptor by the Applicant, there is sufficient information in their Air Quality Modelling Report (Appendix B) to conclude that the impacts on these receptors will be insignificant for all relevant parameters

The reason for this is as follows:

- R10 Moorland Road ( just to north of new estate) has been modelled and impacts concluded as having insignificant impact
- New estate is to WNW of the site and not in the prevailing wind direction
- R1 receptor to NW of site which has been modelled and is closer to the installation than any of receptors within new estate is also concluded to have insignificant impacts

Overall, with substantial headroom of impacts under insignificant short and long term thresholds we conclude that impacts at receptors within the new estate off Moorland Road will also be insignificant and no further assessment is required.