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Our Ref: 3016/L/001
9th November 2020

Environment Agency Permitting and Support Centre
Environmental Permitting Team
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

Dear John,

Wood Lane Biomass Plant – EPR/CP3698VW/V004

Please see below a response to the duly making questions received on 19th October 2020. The questions provided in the not duly made letter are reproduced below and our responses are given in blue.

1. Application Forms.

The application forms submitted were Part A, B2, B3 and F1. This was in accordance with the advice given to you by the Environment Agency in the basic pre-application response letter sent to you on 8th April 2020. This advice was given after internal discussion as the addition of a Part “B” process is rarely processed within the Environment Agency and normally subject to regulation by the relevant local authority. We now believe this advice was incorrect and we apologise for giving it to you.

The addition of the Part B process should be determined as an application for a variation to the existing bespoke waste permit and not as an application for a new bespoke permit.

Therefore, the correct forms to include with the application are Part A, C2, C3 and F1. There is no change to the baseline fee for this application as the addition of a new bespoke Part B activity is charged the same as a normal variation to a Part B activity at £1,650 (see Table 1.18. reference 1.18.2 of our charging scheme)
(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790217/EPR-charging-scheme-with-schedule-consolidated-2019.pdf).

Form Part A was correctly submitted but form Part F1 must be revised and resubmitted to address the correct application fees discussed earlier in this letter.

Please submit completed and correct application forms, C2, C3 and F1.

Response

Application forms C2, C3, C4 and F1 have been completed and are attached with this response.

2. Climate Change Risk Assessment.

The requirement for submitting a Climate Change Risk Assessment is detailed in Application form, Part B2, and applies only to applications for new bespoke permits. As an application for a variation to a bespoke permit is now required, the need for a climate change risk assessment is not referenced in either form Part C2 or C3. **Therefore a climate change risk assessment is not required for this application.**

No response required.

3. Fire Prevention Plan (FPP).

The biomass plant operations proposed to be carried out under revised permit, EPR/CP3698VW/V004, are the subject of a specific Fire Prevention and Mitigation Plan (FPMP) dated 10 September 2019. This FPMP notes that an existing agreed Fire Prevention Plan is in place for the operation of the Materials Recovery Facility within the existing waste permit for the site. The FPMP for the biomass plant contains a number of inaccuracies relating to the operation of the facility such as the manual separation of Grade A wood from mixed loads of waste wood that are accepted on site.

Review and consolidate the site Fire Prevention Plans into one composite Fire Prevention Plan that fully addresses all the requirements of the Environment Agency guidance and fully reflects all operations, and their associated fire risks, to be carried out under varied permit, EPR/CP3698VW/V004. Submit the consolidated FPP to the Environment Agency for assessment.

The Environment Agency FPP guidance can be downloaded from -

<https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits>

Response

Please see attached a consolidated and updated Fire Prevention Plan to address the Grade A waste wood storage associated with the Biomass Plant activity which is provided at Appendix 8 of the Environmental Management System.

4. Form C2, Q3b.

The questions on Technical Ability in Form Part C2, 3b largely replicate the questions on Technical Ability in the form Part B2, 3b that you originally submitted.

The Continuing Competence certificate for Kevin Bernard Gardiner expired on 11th June 2020. Although we currently have an exemption in place for persons whose continuing competence has expired during the on-going pandemic restrictions, we do require evidence that the person has been booked on the relevant Continuing Competence examination.

Submit either an updated and current Continuing Competence certificate for Kevin Bernard Gardiner (if he has been able to update his certificate) or evidence that he is booked onto the required examination.

Response

Please see attached the Certificate of Technical Competence for Russell Williams who will be Technical Competent Manager (TCM) for the Biomass Activity. Form Part C2, 3b has been updated for Russell Williams. Russell Williams will be acting TCM until such a time Kevin Gardiner can book and undertake the required examination.

5. Air Dispersion Modelling Files.

We require the model input files that were used for the air quality dispersion modelling report submitted in order to verify your conclusions.

Submit the air modelling input files (these can be submitted as a zipped (compressed) folder attached to your response email).

Response

Please see attached the air modelling input files as provided by SLR Consulting Ltd.

6. Air Dispersion Modelling – Emission Data.

Section 5.2.1 of Application Document – Wood Lane Biomass Air Quality Assessment, notes that assessment has been carried out at emission concentrations of 152mg/Nm³ for NO_x and 34mg/Nm³ for particulate matter (PM). Section 3.2.8 of application document, 3016/R/002/04, states that an emission limit value (ELV) of 300mg/Nm³ is expected for NO_x emissions from the boilers. Although this is incorrectly taken from the Medium Combustion Plant Directive which does not apply to these boilers, the relevant NO_x ELV will be derived from Table 5.5 of Environmental Permitting Technical Guidance, 5/1(18), potentially either 600mg/Nm³ for existing plant or 300mg/Nm³ for new plant.

A similar situation exists for PM which is modelled at 34mg/Nm³ yet ELVs could be set up to 90mg/Nm³ for existing plant.

It must be demonstrated in the application that the expected emissions of pollutants will not cause a significant environmental impact.

For those ELVs expected to be set in the environmental permit for NO_x and PM, demonstrate there would not be a significant environmental impact on human health and ecological receptors at those release concentrations.

Response

The modelled emission limits were taken from emission concentrations during commissioning. The ELVs used in the modelling were defined in reference to the specification for the plant. We request that the modelled emissions are set as the permit limits for particulate matter and nitrogen oxide resulting in emission concentrations of 152mg/Nm³ for NO_x and 34mg/Nm³ for particulate matter.

7. Form C3, Table 1a.

Table 1a in Form C3 (as is the case for Table 1a in Form B3 which was supplied in the application) includes a requirement to list the types of wastes to be accepted for each activity. The response in Form B3 of the application references document, 3016/R/002/04 which does include references to virgin wood and Grade “A” waste wood but does not reference the specific European Waste Catalogue (EWC) Codes to be accepted.

Outline the specific EWC waste codes to be accepted for the Part B biomass boiler operations.

Response

The EWC waste codes to be accepted for the Part B Biomass Boiler are listed in Section 2.2.2 of the Application Report 3016/R/002 Issue 5. The list of waste types to be accepted are in accordance with Table 4.1 of Process Guidance Note 5/1 (20).

8. Form C3, Question 1 Table 1a and Form C3, Question 3c Table 5.

Table 1a requires the expected annual throughput of wastes to be stated and Table 5 requires the type and amounts of raw materials to be stated.

These Tables replicate those in Application Form Part B3 that was originally submitted with the application. It is stated in section 1.3.4 of application documentation, 3016/R/002/04, that pre-application advice indicated information on the types and amounts of raw materials was not required in the application. There is no evidence in the pre-application response letter that this is the case and that information must be submitted in the application.

It is important that this information is consistent as there is potential inconsistency within the application as sections 1.5.1 and 1.5.7 of document, 3016/R/002/04, state the annual throughput of wood in the biomass boiler is 2,500 tonnes while section 2.5 of the Fire Prevention and Mitigation Plan states "It is anticipated that the biomass plant will require 9500 tonnes per annum wood chip."

Complete and submit Question 1, Table 1a and Question 3c, in application form part B3.

Define the total throughput per annual in the biomass plant of:

- Total wood;**
- Virgin wood;**
- Grade A wood.**

Response

The Application Report has been updated to reference that the total input of 2,500 tonnes per annum comprising 1,250 tonnes of virgin wood and 1,250 tonnes of Grade A wood. Question 1, Table 1a and Question 3c in application form C3 have been completed to provide the total throughput per annum in the biomass plant.

9. Best Available Techniques (BAT).

Table 2 of the application documentation outlines "Point Source Emissions Mitigation Best Available Techniques". This BAT assessment does not address all the requirements associated with the Part B biomass boiler operation.

Demonstrate that the operation of the biomass boilers represents BAT against the Summary of Best Available Techniques referenced in Section 4 of Environmental Permitting Technical Guidance 5/1 (18).

Demonstrate that the use of seven smaller (<1 MW) boilers represents BAT when compared with the use of a smaller number of larger thermal input boilers including consideration of energy usage and boiler efficiency in the demonstration.

Response

Larger thermal input boilers were not considered due to the variability in Grade A feedstock. The installation of seven smaller (<1MW) boilers allows the boilers to be operational based on the amount of feedstock. BAT requires that the heat requirement is matched with the waste load and limiting the potential for the dissipation of unwanted heat. The heat requirement is determined by the volume of Grade A waste wood (or other products) requiring drying in the drying floors. By installing smaller boilers this ensures that the boilers that are operational are continuously fed in accordance with section 4.2.2 of PGN 5/1(20). Continuous feed produces better combustion than stop-start burning. By utilising a larger number of smaller boilers this allows numerous products to be dried and the drying floors to be closed off to allow product to cool. The design of the Biomass Plant was to enable the best utilisation of the drying floors for drying product which the biomass boilers produce heat for.

10a Permitted EWC Waste Codes.

Note that Environmental Permitting Technical Guidance 5/1 (18) outlines seven waste codes for wood that can be accepted for burning in a biomass boiler. Of these, only two are currently included within the permitted wastes accepted into the Materials Recovery Facility at Tudor Griffiths site (15 01 03 and 19 12 07).

Confirm if all seven permitted wood waste EWC codes are to be accepted within the Part B biomass boiler operation.

Response

The EWC waste codes to be accepted for the Part B Biomass Boiler are listed in Section 2.2.2 of the Application Report 3016/R/002 Issue 5. The list of waste types to be accepted are in accordance with Table 4.1 of Process Guidance Note 5/1 (20). In addition, as part of the variation the Operator proposes to add EWC code 20 03 03: street cleaning residues which is from the cleaning out the

yard interceptor in front of the MRF to Table S2.2 of the Environmental Permit as requested by the local Environmental Agency officer for the Site.

10b Permitted EWC Waste Codes.

If additional waste codes are to be added to those permitted to be accepted at the Materials Recycling Facility, Table S2.1 would require updating and this would necessitate a variation to the existing waste operations permit.

Confirm if additional EWC waste codes are to be included in the table of permitted wastes to be accepted at the Materials Recovery Facility and, if so, submit a variation application to the waste permit by completing and submitting Form C4

(<https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-c4-varying-a-bespoke-waste-operation-permit>).

If the waste permit requires variation, submit an additional fee in accordance with that required for the specific waste operation and detailed in Table 1.16 of the Environment Agency charging guidance

(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790217/EPR-charging-scheme-with-schedule-consolidated-2019.pdf).

Confirm if any other changes are required to the existing waste permit as a result of implementing the Part B biomass boiler activity.

Response

Changes to the list of waste types permitted is required for input into the Biomass Boiler. It was considered that the application add to the Part B biomass boiler activity would automatically result in the inclusion of the required list of waste types. The waste types to be included for acceptance into the Part B biomass boilers are provided in Section 2.2.2 of the Application Report 3016/R/002 Issue 5 as stated in the response to question 10a. Application Form C4 has been completed and submitted with this response.

10c Directly Associated Activities.

Table 1a in Form C3 (as is the case for Table 1a in Form B3 which was supplied in the application) requires the listing of all activities and directly associated activities. The storage and handling of wood prior to input to the biomass boilers and the storage and handling of ash from the burning of the wood are examples of operations which may be directly associated activities if they are not included within the existing waste permit.

Update Table 1a in Form C3 to outline any directly associated activities relating to operation of the Part B biomass boilers.

Response

Wood ash is automatically removed to a storage compartment via the automatic ash extraction system. This is a stainless steel, laterally-mounted ash auger which is fitted in the base of the boiler and transports the ash out to the inclined auger which is then moved to an ash container. The storage and handling of wood prior to input to the biomass boiler is considered to be covered under the existing waste permit with regards to the permitted MRF activities. The immediate storage of ash has been included in Table 1a in Form C3 as a directly associated activity.

10d Acceptance of Wood.

The application non-technical summary states “The Biomass Plant generates heat in order to dry imported chipped virgin or shredded recycled Grade A wood through the burning of virgin wood chip and Grade A shredded wood at the site” (1.1.1) and “The ‘clean’ waste wood included within the fuel feedstock is sourced separately from other grades of wood and directly from customers” (1.1.5).

The Biomass Processing Flowchart submitted as Appendix 1 to the Fire Prevention Plan would appear to indicate that after visual inspection, wood is hand sorted into Grade A, B/C and Grade A wood is then returned to the process flow of virgin and Grade A wood accepted on site. The hand sorting of Grade A wood from mixed wood waste deliveries for future input to the biomass plant is not an operation that is approved under Environmental Permitting Technical Guidance 5/1 (18).

Response

Only source segregated Grade A waste wood will be accepted into the biomass plant. Any reference to sources from mixed wastes has been removed from the consolidated and updated Fire Prevention Plan.

We trust the above information is sufficient to respond to the questions listed in the duly making notice and that the application can be duly made.

Kind regards,



Claire Finney
Senior Consultant