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| Stephen Bradley  BRADLESC@airproducts.com | **Our ref:**EPR/VP3425SV/A001  Date: 21/08/2024 |

Dear Stephen

**We need more information about your application and further payment for the application charge**

**Application reference:** EPR/VP3425SV/A001

**Operator:** Air Products (BR) Limited

**Facility:** Immingham Green Energy Terminal

Thank you for your application received on 24/05/2024.

Unfortunately, the application payment you sent is incorrect.

You have paid **£16,480** in total. Depending on confirmation to this letter, the application suggests the fee calculates to the value of **£43,075**

We consider the following activity fees are required (based on the descriptions in your application) and section 2.12 of our charging guidance: -

*Notes:* [Environmental permits: when and how you are charged - GOV.UK (www.gov.uk)](https://www.gov.uk/government/publications/environmental-permitting-charges-guidance/environmental-permitting-charges-guidance) *Using the*[*tables of charges*](https://www.gov.uk/government/publications/environmental-permits-and-abstraction-licences-tables-of-charges)*, you need to calculate the sum of:*

* *100% of the relevant application charge in the*[*tables of charges*](https://www.gov.uk/government/publications/environmental-permits-and-abstraction-licences-tables-of-charges)*for the largest application fee*
* *50% of the relevant application charge for any secondary activities that can reasonably be considered to be part of the same operation – to reflect the time saved during the determination period, for example, by only needing one consultation or one set of operator competence checks*
* *10% of the relevant application charge for the same activity carried out multiple times on the same site*

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| **Charge Ref** | **Activity** | **Fee paid** | **Calculated Fee value** | **Comments** | **Detail** |
| 1.10.1 | **S1.1** | - | **£19,103** | **Combustion activities**  Aggregated to 60MW for the operation of onshore HPU’s (using natural gas).\* | Charge 1.10.1 is the largest charge / application fee, **= 100%** |
| 1.4.4 | **S4.2** | £13,209 | £13,209 | **Hydrogen Production**  The application is for 6 activities (6 HPUs). | Not the largest charge / application fee therefore: -   * **50%** for 1st activity [HPU1] = **£6,604.50** * **10%** for 5 x repeat activities [HPU2 - HPU6] = **£6,604.50**. |
| 1.16.2.1 | **S5.4** | - | ? £13,984 @ 50% = **£6,992** | Application refers to an onsite wastewater treatment package – treatment of blowdown water for re-use. | Where this is biological treatment the activity description includes reuse ∴ additional charge.  If the treatment is physio-chemical treatment, then not in scope ∴ no charge. |
| Habitats Fee |  | £779 |  |  |  |
| Odour assessment |  | £1,246 |  |  |  |
| Noise assessment |  | £1,246 |  |  |  |
| Site of High Public Interest |  | Not paid | **£500** | Advertising fee for additional consultation |  |
| Also need to consider any relevant MCP charges | Medium Combustion Plant TBC | Not paid | **£TBC** |  | See point 4 below |

Depending on clarification of activities (e.g. effluent treatment, and combustion) the calculated application charge is likely at **£43,075 (+ MCP charges).** This might change depending on the S5.4 activity, and any medium combustion plant. We therefore require the remaining balance for the calculated fee.

Application Form F will need amending to reflect the above.

Enhanced pre-application fee: We also note that an outstanding fee has not been paid (relating to pre-application advice). This also needs resolving prior to duly making. The invoice number is 361980, dated 15/03/2024, and outstanding fee of £1,700 + VAT.

\*Combustion activities: During our pre-application advice, it was referred to “combustion activities N/A – process furnaces”. This was in relation to the Large Combustion Plant Directive (LCPD), whereby Article 2(7) of the LCPD lists a number of exclusions from the definition of combustion plant, including ‘reactors used in the chemicals industry’.

Whilst the aggregated furnaces (6 x 10MWth) are not subject to the LCPD, they are still aggregated for purposes of combustion considerations in an application, and aggregated to >50MWth requiring application of i) S1.1 activity, ii) compliance to BAT, and iii) associated application charge. We apologise if the pre-application advice did not clarify this.

**Where information is missing**

I need to ask you for some missing information before I can do any more work on your application. Please provide us with more information for the following questions. We need to know the following for duly making requirements.

**Application Documentation**

The application has been amalgamated with documentation for planning. Whilst we can accept such documentation (in support of the application for an Environmental Permit) we require you to separate out these documents, so far as matters relating to the “Environment Permit” (i.e. the “operational phase” of the proposed facility) are clear, and not combined with planning aspects (such as construction, offsite traffic etc) that are not within the remit of the Environmental Permit.

As we are required to consult on this permit application (with enhanced consultation likely due to classification as “a site of high public interest” by the local Environment Agency regulatory team) it is important that documentation solely relating to this application is supplied to allow for effective consultation. Currently this cannot be achieved whilst assessments including Air Impacts are combined with aspects outside of the remit of this decision.

Please re-supply with clear documentation for the sole purpose of this application scope.

1. **Scope of Installation**

A diagram of a process

Description automatically generated

The application, as provided, suggests that the installation boundary covers Hydrogen production, but not subsequent activities (as identified in the above diagram including refuelling and H2 consumer). **Further explanation is required to confirm that these activities are not part of the Installation.**

1. Provide ratio’s for the Hydrogen supply (considering full operation utilising 6 hydrogen generation units) for:
2. the refuelling activities, and
3. the H2 consumer
4. Provide further information on the H2 consumer, and justify why this is not part of the Installation, with consideration for guidance RGN2, including but not limited to:-

* Technical Connection with the activity.
* Principal User of the activity

***Notes: In the application it is stated that to the West of the proposed Installation will be a gas fired power generator proposed installation, and to the east and south-eastern boundary, another gas fired power generator proposed installation.***

* *A technical connection would include supply and use of Hydrogen within the power generation plants*
* *Primary user situation would arise whereby the generators are the main consumer of the Hydrogen produced (and using the Hydrogen as a primary fuel within their power generation process).*

*You should consider this alongside Q3a below.*

1. **Impacts from the proposed Installation**

The application, as provided, refers to cumulative effects assessment.

1. How have the cumulative effects of the “proposed” gas fired power generators (as referred to in Q2) been considered within the cumulative effects of Air Emissions and Noise for this proposal?

* *In the event that there is a technical connection with the proposed gas fired power generators, and fall within the scope of installation (e.g. same operator, or multi-operator installation) then these would be considered together as a single installation / combined impacts.*
* *In the event that there is not a technical connection (and not part of the Installation) these would be separately permitted sites. You should justify the cumulative effects (such as assessment of in-combination effects, including air emissions and noise) whereby these are proposed facilities (i.e. none operational) and their emissions will not form part of background data.*

1. The assessment appears to include emissions from the vessel combined with emissions from proposed operations on site.
   * Where the vessel is not part of the Installation this should be amended. So that we are just looking at the process contribution from the installation operations.
   * You should consider cumulative impacts from the vessel separately, such as contributions within the background data / predicted environmental concentration.
2. It is stated that the hydrogen production units will initially be fuelled by natural gas.

* If the applicant is wishing to consider use of Hydrogen fuel in the future (within this application scope) then the application needs to be amended to ensure that emissions cover this alternative fuel (so that worst case impacts are considered e.g. changes to NOx emissions by combustion of Hydrogen compared to natural gas).

*Alternatively, the application can be amended to remove this reference, and then any future changes would be subject to separate determination (i.e. future request by application for variation).*

1. **Back-up diesel generators**

*The use of diesel generators for emergency / back-up power on installations which fall under the Industrial Emissions Directive (IED) that are not expected to operate for more than 500 hours per annum in normal operation are classed as new medium combustion plant, operating up to 500 hours a year that are exempt from emission limit values (ELVs).*

1. Provide the specific information required for each MCP according to Application Form Part B3, Appendix 1 – 13. This should be provided using the Environment Agency’s MCP spreadsheet: <https://assets.publishing.service.gov.uk/media/64ff30891886eb000d9770d9/MCP-generator-list-v3.ods>
2. Provide a signed declaration for each MCP intended to be operated for less than 500 hours per year as a rolling average over a period of three years, as required by Application Form Part B-3 Appendix 1 – 13 ‘Where the option of exemption under Article 6(8) is used the operator (as identified on Form A) should sign a declaration here that the MCP will not be operated more than the number of hours referred to in this paragraph’. This is essential to determine which pieces of combustion equipment are exempted from MCPD emissions limits
3. Confirm the impacts from the generator (as back-up use) haven’t been included as part of the impact assessment of normal operations.
4. Where over 500 hours there is no exemption, *in which case you must demonstrate compliance to the Medium Combustion Plant Directive (and relevant requirements including ELVs)*.
5. **Waste-Water treatment package**

You have mentioned ‘water will be pumped into wastewater treatment package to remove dosed chemicals and become non-potable water, the residual wastewater from this blowdown will be sent to Anglian water for further treatment.

*This question also relates to the charges identified above (i.e. potential S5.4 activity).*

1. The application states: ‘water will be pumped into wastewater treatment package to remove dosed chemicals and become non-potable water, the residual wastewater from this blowdown will be sent to Anglian water for further treatment.

* What does the wastewater treatment package consist of? Is this a biological treatment method – which will entail additional S5.4 listed activity as presented within charges section above.

1. Confirm that sewage from the welfare facilities aren’t included in the H1 assessment, or re-provide where this has been included.
2. What is the quantity of water being disposed off to Anglian Water?
3. Provide further information (including MSDS) of the anti-scalant and other chemicals that are dosed / added, and their quantities.
4. Provide further information to demonstrate that each of the parameters (present in the waste-water discharge to Anglian Water) will be subject to a method of treatment at Immingham WwTW prior to release.

***Note :*** *If no treatment is provided for specific parameters at the WwTW, then these parameters will be considered as direct discharges, and will require modelling and further assessment. For example, total phosphorous is above the BAT-AEL, so we need assurances that there is a treatment method taking place for phosphorous at the WwTW, otherwise its release would be considered a direct discharge, and further information plus modelling would be required.*

1. **Application form B6**

Submit application form B6 which is missing from your application.

This is required for:

1. water discharge activities,
2. point source discharges / groundwater activity, and
3. point source emission to water or sewer from an installation.
4. **Discharge to TrAC water via Sewer/WwTW.**

We need the following information to audit the H1 risk assessment:

1. Raw data to enable checks for the summary statistics used for screening. *We have to audit the max and mean flows and concentrations included in the H1 by checking the raw data.*
2. Confirm or provide Q95 data within the H1 report.
3. Re-supply the emission to sewer/water parameters on Access version (previous version of H1 tool), due to current issues with excel version.
4. For all parameters (discharged to sewer) please confirm whether dedicated treatment methods take place (per individual parameter) within the WwTW. *Where any parameters do not undergo a treatment method within the WwTW they should be considered as direct discharges, and further information may be required to demonstrate acceptable impacts, depending on the outcome from results supplied to c) above.*
5. Provide NGR for the point of discharge from the WwTW to the final surface water body.
6. **Supply process flow and P & ID drawings.**

We need process flow / P&ID drawings for the following aspects as a minimum: -

1. The production processes (including Ammonia and Hydrogen)
2. Water balance flow chart / diagram (including outputs to drainage and effluent)
3. It is stated (within the BAT for Process and Technology document) that the technology licensors require commercial confidentiality of their process cycle and catalysis. No claim for commercial confidentiality has been made, please confirm there is no confidential information in the application (or information supplied in response to this request) or alternatively make a request for confidentiality.
4. **Receptors status**

The application states “The residential use of certain properties on the west side of Queens Road would need to cease as residential use is not considered to be compatible with the operation of the hydrogen production facility on the West Site”

1. Provide a further update and clarification on these receptors ceasing as residential dwellings.
   * *Clear evidence and guarantees (with dates) need to be provided for when these will cease as residential receptors, in order to be discounted from impact assessment scope (as receptors).*
   * *If this cannot be guaranteed (with reassurances in advance of commencing operations) then these receptors must be considered / included within the scope of assessments as sensitive receptors.*
2. **Raw Materials**

Table 2 of Application Supporting Statement on page 29 presents raw materials in tabular form. Please update the inventory to include risk phrases, and also provide Material Safety Data Sheets (MSDS) for all the substances identified.

1. **Site Condition Report**
2. Please cross check table 4-2 (site condition report) against the list of raw materials (in Table 2: Application Supporting Statement on page 29) as Propylene Glycol appears to be missing.
3. Section 4.6 : 4.6.1 appears to include an incomplete reference. Please correct.

*It also states that the activities undertaken at the installation are considered to represent a negligible risk of pollution to the underlying soil and groundwater, hence no collection of baseline data is proposed****.*** *Elsewhere it is stated that site investigation was conducted from November 2022 to February 2023 to inform the design of the project, and information gathered has been used to assist the**establishment of baseline conditions at the site to inform the assessment of the installations impacts and effects. Please clarify.*

1. The application refers to remedial works prior to construction. What are the remedial works?
2. Confirm there are no active permits on land within the proposed installation boundary area (i.e. permits not surrendered).
   * *UK Power Reserve Limited hold a permit for licenced industrial activity (fuel combustion) within the Site Boundary.*
   * *There are no records for radioactive substance authorisations within the Site Boundary. FCC Recycling (UK) Limited have an approved permit for keeping and use of radioactive materials and disposal of radioactive waste.*
   * *Anglian Water Service Limited and Immingham Water Recycling Centre hold permits for licenced discharges to controlled waters for sewage discharges into the River Humber located within the Site Boundary.*
   * *List 1 Dangerous Substance, taken from the Groundsure report GS9009838, records include Riverside Electroplaters who operate a discharge of cadmium into the River Humber located within the Site Boundary.*

The above are detailed in the Site Condition Report. The ‘site area’ (where beyond the installation boundary) is not within the remit of the permit, we are solely concerned with the ‘Installation area’. It is not possible to apply for a permit with overlapping land boundaries to that of another active permitted site.

1. **Emission Points**

It is stated that there are 6 reformer stacks, but only 5 identified. Confirm the emission points for the reformer stack and amend in section 5 / figures 4a and 4b.

1. **Ammonia Flare**
2. What is the assist gas used in the flare?
3. Assessment of the flare has been performed by H1. Confirm that this assessment covers the following, or revise assessment: -
4. *That the data in the H1 considers all flare emissions scenarios during ‘other than normal operating conditions (OTNOC), which includes start-up, shut-down and emergencies’*
5. *How the flare has been assessed, namely in terms of NOx emissions:-*

* *If pilot operations have been assessed on the assist gas only e.g. natural gas, then NOx values will relate to combustion of the assist gas, and not ammonia combustion*
* *If flaring (including the OTNOC) has considered ammonia combustion (resulting in higher NOx outputs), confirm how this has been undertaken.*

The assessment should consider the higher levels of NOx from combustion of ammonia.

*Notes: the EAL for NO and US EPA Acute Exposure Guidelines Levels for NO2 could be used for this assessment)*

1. **Monitoring and reporting of flare use and leaks**

The application contains information on monitoring of pipelines (e.g. leak detection) and the use of the flare.

* Leaks experienced in the pipeline between the jetty head and the storage tank will be detected by mass balance.
* Continuous monitoring via the BPCS for parameters such as temperature, pressure and flow.

It is not clear in the application how the above monitoring will be recorded, collated and reported for permit compliance. Please provide further detail and clarification.

1. **Surface waters**

Section 6.6.2 within Environmental Permit Application Supporting Statement relates to emissions to water. It is stated here that ‘run-off from possible NH3 contaminated areas will be collected in a separate ammonia treatment sump and when NH3 is detected, valves will close, and the run-off will be chemically treated”**.**

Provide further information on the chemical treatment taking place, and confirmation of whether this treatment will be performed onsite, or removed offsite as ‘disposal’ i.e. for offsite treatment.

1. **Noise impacts**
2. The application states that residential properties on Queens Road (known as NSR 1 and NSR 2 in the DCO ES Chapter 7 Noise and Vibration) have not been included in this noise impact assessment of the operation of the proposed development.

**Consider this with question 9 above (receptor status):**

* + *Clear evidence and guarantees (with dates) need to be provided for when these will cease as residential receptors, in order to be discounted from impact assessment scope (as receptors).*
  + *If this cannot be guaranteed (with reassurances in advance of commencing operations) then these receptors must be considered / included within the scope of assessments as sensitive receptors.*

1. **Considering question 2 above**, provide clarification on “operational noise” – phases 1 -6 and the scope of installation i.e. if other activities are technically connected they should be considered within this assessment.
2. The application states: The following items of plant, although containing noise source information, were deemed as being “emergency items” only and were not modelled as part of the operational noise model.
   * + - * Flare

Please justify why flare emissions have not been included (including short term, intermittent sound sources).

Please send the information, quoting the above application reference, to:

Email address: [psc@environment-agency.gov.uk](mailto:psc@environment-agency.gov.uk).

Postal address:

Permitting and Support Centre

Quadrant 2

99 Parkway Avenue

Sheffield

S9 4WF

Please send the information and payment within 10 working days of this letter. Details of how to pay are given in Part F of the application form. If we don’t hear from you, we must return your application.

When we receive the requested information and payment, we’ll continue to check your application. We’ll check to see if there’s enough information for the application to be ‘duly made’. Duly made means that we have all the information we need to begin determination. Determination is where we assess your application and decide if we can allow what you’ve asked for.

We’ll let you know by letter whether your application can be duly made. If it can’t be duly made, we’ll return your application to you.

If we do have to return your application we’ll send you a partial refund of your application payment. This maximum amount we’ll retain is capped at £1,500. Further information on charging can be found at: [https://www.gov.uk/government/publications/environmental-permitting-ep-charges-scheme](https://www.gov.uk/government/publications/environmental-permitting-ep-charges-scheme-april-2014-to-march-2015)

We’ll assess your claim for confidentiality once your application is duly made.

If you have any questions please email mark.taylor@environment-agency.gov.uk.

Yours sincerely

**Mark Taylor**

**Principal Permitting Officer**