CHRISTCHURCH TREATMENT CENTRE PERMIT APPLICATION EPR/GP3304MZ/A001

Response to Duly Making Information Request issued 29 February 2024

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Contents

Appendices

1 INTRODUCTION

1.1.1 This document provides the response to the Duly Making notice for more information required by the Environment Agency (EA) dated 29/03/2024 relating to Christchurch Treatment Centre (TC) Permit Application (EPR/GP3304MZ/A001).

1.1.2 Section 2 of this document sets out each of the points raised by the EA followed by our response.

1.1.3 Note that this permitted activity is a very simple process. The road tanker arriving with liquid waste will connect to pipework and discharge the load via an inlet at the head of the sewage treatment works (HoW). Once discharged, the tanker will disconnect. The discharged waste will immediately transfer to adjacent Waste Recovery Centre (WRC) for treatment (including mechanical screening and grit settlement, followed by aeration) which is a separately permitted facility. There is no treatment or storage of waste include as part of the permitted activity subject to this application.

2 RESPONSE TO SCHEDULE 5 QUESTIONS

Question 1: Compliance with Biological Treatment Appropriate Measures

Please confirm you can comply with the Biological waste treatment: appropriate measures for permitted facilities guidance. Please update form EPB Part B4 Table 3a Technical Standards. Confirmation of compliance with these measures is required, or alternative measures must be provided with justification of why you are not able to meet the appropriate measures guidance.

2.1.1 This guidance was published in September 2022 after this application was submitted in June 2022 and therefore it would not have been possible to address this in the submission.

2.1.2 As set out in paragraph 1.1.3 the proposed permitted activity is very simple and does not include storage or treatment of the liquid wastes to be accepted. The activity is limited to a road tanker connection point, short length of pipework and connection to the adjacent WRC. All treatment will take place at the adjacent WRC which is separately permitted.

2.1.3 The appropriate measures are largely designed for facilities undertaking biological treatment and therefore these measures are not relevant to the proposed activities. We have addressed those appropriate measures that could be relevant to a facility that only receives waste and immediately transfers it to a separate permitted facility for treatment and identified those which are not considered applicable. The assessment of compliance with the appropriate measures is set out in Appendix A.

Question 2: Company Directors

Please provide an up to date list of Company Directors including any Companies Listed as Directors. This will also need to include any Companies listed as Secretary's.

2.1.4 The list of directors provided 16/01/2024 remains up to date with the addition of Quayesco Limited as Company Secretary:

- Colin Skellett (Director) - [redacted]
- Mark Watts (Director) – [redacted]
- Ruth Jefferson (Secretary) – [redacted]
- Quayesco Limited (Secretary) – N/A

Question 3: Waste Activities

Is D9 required? Is there any mixing of waste in the tank prior to discharge to Head of Works? Discharge directly into Head of Works would be a D13 activity. You do not need D9 if there is no pre-treatment prior to discharge into the HoW. The correct code is D13 activity for the discharge to the head of works (Blending or mixing prior to submission to any of the operations numbered D1 to D12).

2.1.5 The proposed waste activities were based on the activities in the permit of an identical site. Wessex Water Enterprises Limited (WWEL) Site in Poole, Permit (EPR/HB3009CM), includes activities D9 and D15 in its permit and undertakes the same function as the Christchurch Treatment Centre.

2.1.6 However, we can confirm that there is no tank or mixing of waste and no treatment of the liquid wastes. The only activity is the discharge of waste into the HoW before passing for WRC and on this basis it will be a D13 activity.

Question 4: Waste Codes to be Accepted

To support any claims of existing codes, provide evidence for each EWC code that you are currently accepted at the site. The evidence could be in the form of transfer notes and any records you hold of tankered waste inputs for those codes at the site.

- **It is unclear within your application which waste codes you are currently accepting, and which codes are proposed to be accepted as part of this application for the tankered waste activity. If the quantitative risk assessment provided to support your application does not assess all the waste proposed, we cannot accept additional codes that you are not currently accepting to be added to the permit as part of this application. For all waste codes requested for acceptance at the head of works, specify for each code if they are currently being accepted. Updated Section 2.10 of Supporting Information. 19 07 03 Leachate is the EWC code that will initially be accepted at site. Other EWC codes have been included in this permit application as it is possible that they will be accepted at a future time. Note that these additional wastes are currently accepted at other WWEL sites that operate similar intake facilities followed by similar treatment within water treatment facility. They are saying 19 07 03 Leachate is the EWC code that will initially be accepted at the site. Provide evidence to show that 19 07 03 leachate has previously been accepted at the Head of Works.**

2.1.7 No waste codes are currently being accepted at the facility. A trial was set up in February 2021 under the Environment Agency's permission as an exemption to accept 19 07 03 Leachate on site. The leachate analysis from this trial is included for information in Appendix B. No other wastes have been accepted on site since.

Question 5: H1 Assessment Concentrations

You have used the annual average and not the maximum concentration i.e. worst-case scenario for all the pollutants. Having examined the data in greater detail it appears that the annual averages used within the H1 tool are sometimes significantly less than the max value identified in the data sheets. For example, the max value of ammonia is stated as 5,930µg/l in the data sheets. However, the annual average used within the H1 tool is only 3,100µg/l. We would expect that the worst case, maximum concentration would be used to enable the variability of the EWC codes to be assessed. As such you need to re-submit the H1 with the worst case used.

2.1.8 The response to this question will follow pending further clarification and discussion with the Environment Agency.

Question 6: H1 Assessment Flowrate

The mean and max effluent flow rates in the H1 tool do not look representative of a flow rate that could be achieved. They are currently both 0.0007m3/s. You must justify how this is appropriate. Guidance on this can be located at https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit

2.1.9 The response to this question will follow pending further clarification and discussion with the Environment Agency.

Question 7: Parameters Tested

The H1 does not include all of the parameters tested in the H1 form. Only 15 of the parameters tested in the data sheets have been included in the H1 form. The additional parameters will need to be added or justified why they have not been included. It is also unclear why two H1 assessments have been provided, the H1 should be representative of the discharge and include all potential EWC codes being accepted.

2.1.10 The response to this question will follow pending further clarification and discussion with the Environment Agency.

Question 8: Phosphorus

2.1.11 **We cannot locate phosphorus in the data or H1. The waste types being accepted would be expected to contain phosphorus, however, it has not been sampled for. How will you ensure that you have fully characterised the streams being accepted or are you only testing for limited parameters. Please justify.**

2.1.12 The response to this question will follow pending further clarification and discussion with the Environment Agency.

Question 9: Limited Samples

Some of the EWC codes only include limited samples. While we understand this, we would expect the permit to include ICs to verify the H1 assessment provided. Guidance can be located at https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit

2.1.13 The data used to inform the H1 assessment used available data. If further sampling and analysis is required as suggested this can be addressed as an Improvement Condition.

Question 10: Site Plan

Please provide a site plan with an easily identifiable boundary, in line with our guidance. Form guidance EPB: Application for an environmental permit – Part B2 general – New bespoke permit (publishing.service.gov.uk)

2.1.14 The plan included with the permit application includes an easily identifiable boundary and the information required for the site plan as per EA guidance. The EA confirmed this is acceptable in email dated 07/03/24.

Question 11: Climate Change

Please consider climate change as part of the EMS, please provide an updated version.

2.1.15 The original submission of the permit application included a climate charge risk assessment as part of Application Form B2. As the score was above the screening value of 5 a climate change risk was completed and included as Appendix H of the submission. The level of information provided was in accordance with EA requirements at the time of submitting the application. Further detail on climate change risk was provided in section 5.3 of the updated supporting information document previously submitted to the EA.

2.1.16 Section 2 of the submitted supporting information document provides a summary of the management system which will be in place to manage the permitted operations. Section 2.1 of the permit application states the EMS will ensure the site is suitably designed to consider the potential impacts of climate change. This will draw upon the information provided within the submitted Climate Change Risk Assessments.

Appendix A
RESPONSE TO BIOLOGICAL WASTE TREATMENT APPROPRIATE MEASURES

This Appendix sets out how the proposed facility will comply with relevant appropriate measures for the treatment of biological wastes as set out in EA guidance[1]. It should be noted that the proposed facility does not include storage or treatment of the biological wastes; it simply receives the wastes and transfers it directly to the adjacent Water Recycling Centre (WRC).

1: When appropriate measures apply

This section of the appropriate measures establishes those facilities that the appropriate measures apply to, this includes permitted facilities that handles biowastes including those that receive waste destined for biological treatment. It acknowledges that some measures may not be suitable for or relevant to your operation and also that appropriate measures will depend on the:

- complexity of the activities being carried out;
- size and nature of the activities; and
- location of the site.

2: Definition of biodegradeable and sewage sludge

This section is informative only providing definitions for the above terms.

3: Bespoke Waste Suitable for Biological Treatment

There is a requirement that any environmental permit must include the relevant list of waste (LoW) code and description. The permit application Section 2.11 identifies the waste codes that the facility is seeking to accept along with its description and expects these to be included within the permit when issued.

3.1 Animal by-products

These appropriate measures are not applicable to this facility.

3.2 Energy crops and by products (residues)

These appropriate measures are not applicable to this facility.

3.3 Wash down waters, liquor and leachate

The appropriate measures require the site to comply with the duty of care code practice[2]. The duty of care legislation sets out provisions for the safe management of waste to protect human health and the environment. As set out in Section 2.12 of the permit application waste pre-acceptance and waste acceptance procedures will be in place. These procedures will ensure that sufficient information on the waste type, source and quantity is obtained from the waste producer or separately obtain by WWEL's own monitoring and that records are kept. WWEL will require that vehicles delivering waste to the facility are operated by a licenced waste carrier.

4: Site Location, Design and Capacity

4.1 Site location:

The site location to a large extent has been determined by the location of the WRC that will treat the wastes.

The nearest sensitive receptor is Purewell Meadows (LNR and SSSI) located approximately 0.3 km south of the site. The risk of fugitive emissions to air from the facility is very low and is assessed in the Environmental

[1] Biological waste treatment: appropriate measures for permitted facilities

[2] Waste duty of care: code of practice (accessible version) - GOV.UK (www.gov.uk)

Risk Assessment in Appendix C. Detail on site location and receptors are outlined in Section 2 of the Environmental Risk Assessment.

Climate change risk is considered in Section 5.3 of the Supporting Information Document as previously submitted.

4.2 Site Design

As stated above the location of the facility has been largely dictated by the location of the WRC. There is no storage and handling of the waste is fully enclosed.

The permitted activity is a simple process of a tanker connecting to pipework and discharging waste via an inlet. Given there is not intermediate storing or mixing of wastes within the proposed facility the requirement to minimise handing of waste is met by the proposed design.

The pipeline and connections have been designed by qualified engineers and constructed to appropriate industry standards.

Measures specific storage of biological waste (4.2 (5) and 4.2(6) are not relevant. Measures for reducing or preventing contamination through design are also not relevant (4.2 (7) and 4.2 (8)).

4.2 (9 to 15) is not relevant as there is no containment on site. The site is built on impermeable surfaces and designed on a gentle slope such that any spill falls into drains.

4.3 Site capacity:

There is no storage or treatment of waste on site. The pipework is designed to industry standard to be adequate to connect to tankers to accept and discharge up to 60 m^3 waste daily and to handle the maximum discharge rates and pressures. This permitted activity only covers the tanker connecting to pipework and discharging via an inlet.

5: General Management and Appropriate Measures

Section 2 of the Permit application refers to the management of activities on Site and includes details on the following:

- 5.1 Management system
- 5.2 Inspection, maintenance, monitoring
- 5.3 Staff competence
- 5.4 Accident management
- 5.5 Preventing accidental emissions
- 5.6 Security measures
- 5.9 Record keeping
- 5.10 Contingency plans and procedures

5.5 Preventing accidental emissions is covered in Table 3-4 of the Environmental Risk Assessment.

5.7 Fire explosion and prevention is outlined in Table 3-5 of the Environmental Risk Assessment and is considered to be low risk.

5.11 Prior to operation, the facility will have Plant commissioning, validation and decommissioning, and decommissioning and mothballing measures in place.

6: Waste Pre-Acceptance, Acceptance and Tracking

6.1 to 6.6 Waste pre-acceptance, acceptance and characterisation is outlined in Section 2.12 of the Permit Application.

6.7 and 6.8 are not relevant to the permitted activity**.**

6.9 Waste Tracking is not applicable. All accepted waste arriving on site tanker is connected to pipework and immediately discharged to separately permitted WRC.

7: Waste Storage, Segregation, Transfer and Handling

Appropriate measures in section 7.1, 7.2, 7.3, 7.4 and 7.7 relate to storage of waste and requirements are therefore not applicable as there is no storage or treatment of waste on site. Pipework will be subject to routine maintenance in accordance with the planned maintenance schedule.

The road tanker arriving with liquid waste will connect to pipework and discharge the load via an inlet at the head of the sewage treatment works. Once discharged, the tanker will disconnect. The discharged waste will immediately transfer to the WRC for treatment which is a separately permitted facility.

7.5 Transfer of waste Waste pre-acceptance and acceptance procedures is outlined in Section 2.12 of the Permit Application which outlines waste transfer procedures.

7.6 Drainage: Procedures are in place for regular inspection and maintenance of drainage systems and impermeable surfaces.

8: Waste Treatment

The measures specified in section 8 are not applicable as there is no treatment of waste on site.

9: Outputs

These measures apply to the outputs from the waste treatment process and are therefore not applicable as there is no treatment of waste on site.

10: The Control of Major Accident Hazard Regulations 2015 (COMAH)

This is not applicable to the facility as there are no COMAH substances held above the relevant threshold.

11: Emission Control

11.1 Emissions Inventory

There are no direct point source emissions to air and water from the permitted activities. Technically there is also no direct emissions to sewer. However, all liquid wastes discharged directly into and subsequently treated at the adjacent WWEL WRC and the treated water subsequently released into the River Avon.

WWEL have a sample requirements procedure in place for all their sites. For the Christchurch facility WWEL are required to submit a sample for chemical analysis on a monthly basis to characterise the waste, including average and maximum concentrations of relevant substances. A copy of this waste analysis is included with the H1 Assessment. This data is based on analysis from the waste streams accepted at identical sites that WWEL operate that already carry out the same activity with the same list of EWC codes. It is these same wastes that may be accepted at some point in the future at the Christchurch site.

11.2 Emissions monitoring

There are no direct emissions to air, water or sewer. The wastes accepted are discharged to and subsequently treated at the adjacent WRC. Aqueous releases as a consequence of treating the wastes are subsequently discharged. Monitoring outlined in Section 11.1 will be carried out in accordance with the requirements of the environmental permit, when issued.

Road Tanker Sampling Techniques is included in Appendix F of permit application.

11.3 Meteorological conditions

Bournemouth Airport (Hurn) meteorological station is the closest representative station for Christchurch Treatment Centre at a height of 11.6 m above sea level. The meteorological station is located approximately 6.5 km NW of the Site which has a height of 10 m above sea level. The meteorological data for Bournemouth Airport is adopted for the site for any odour risk assessments and can forecast wind speed, air temperature and wind direction.

11.4 Bioaerosols

The environmental risk from bioaerosols is assessed in Table 3-4 of the Environmental Risk Assessment and the risk is considered to be very low. This assessment identifies the management measures in pace to minimise emissions of bioaerosols and these will be implemented at the facility.

11.5 Emissions of odour

Odour risks have been assessed in Table 3-2 of the Environmental Risk Assessment and the risk is considered to be very low. An odour management plan is in place at the site and has been submitted with the application.

11.6 is not applicable as there are no direct point source emissions to air and water from the permitted activities.

11.7 is not applicable as there are no masking or chemical neutralising agents used in the permitted activities.

11.8 Fugitive (diffuse) emission to Air

There are no direct point source emissions to air and water from the permitted activities. Appropriate measures to prevent emissions of odour, ammonia, dust, bioaerosols and particulates, and litter are covered in the Environmental Risk Assessment. Operation and maintenance are discussed in Section 2.2 of the permit application. Pre-acceptance and acceptance procedures will be put in place as discussed in Section 2.12 of the permit application. The Operator will undertake frequent inspections of the installation.

11.9 Leak detection or repair is not applicable as there is no anaerobic digestion, mechanical-biological treatment (MBT) or thermophilic anaerobic digestion (TAD) in the in the permitted activities. All liquid wastes discharged directly into and subsequently treated at the adjacent WWEL WRC. Maintenance procedures are discussed in Section 2.2 of the permit application A spill kit is stored at a prominent location on site. Staff are aware of spill kit locations and are trained in spillage response.

11.10 Pests

The environmental risks from pests has been assessed in Table 3-4 of the Environmental Risk Assessment and the risk is considered to be very low. These measures will be implemented during operations and will be incorporated within the EMS.

11.11 Emissions of Noise and Vibration

The potential risk from noise and vibration has been assessed in Table 3-3 of the Environmental Risk Assessment and the risk is considered to be low. There are limited vehicle movements (2 per day) associated with the facility and offloading of each vehicle which will take only 2 hours will be during day time hours. These measures will be implemented during operations and will be incorporated within the EMS.

11.12 Point source emissions to land and water:

There will be no point source emissions to water from the activities. There is no direct emission to sewer that requires a Trade Effluent Consent. The only emission to water be the direct input at the inlet to the works located at grid reference SZ 16679 93698. The area the tankers park to couple up to discharge to the Head of Works is located at grid reference SZ 16563 93648.

The site is built on impermeable surfaces and designed on a gentle slope such that any spill falls into drains. Spill kits are readily available on site in the event of a spill.

There is no treatment to reduce the emission or treatment of the waste that is carried out as part of the permitted activity and therefore 11.12(2) and 11.12 (5) are not applicable.

The releases of waste to the Christchurch WRC, and ultimately into the Lower Avon, have been assessed using the EA's H1 software tool. This is included as Appendix B to this document. Once issued, the activity will comply with the requirements of the issued permit.

11.13 Fugitive emissions to land and water:

Potential fugitive emissions from the facility include:

- Leaks or spills as a result of accidents or incidents; and
- Run-off from diesel tanks.

Fugitive emissions are assessed in the Environmental Risk Assessment in Appendix C of the permit application. This details the potential emissions and management controls in place. The risk from fugitive emissions is considered to be very low.

The site is built on impermeable surfaces and designed on a gentle slope such that any spill falls into drains via a contained drainage system. Spill procedures will be in place as per the EMS with spill kits readily available on site in the event of a spill.

Pipework will be subject to routine maintenance in accordance with the planned maintenance schedule.

12: Process Efficiency

12.1 Energy Efficiency:

No energy usage is required for this operation. The permitted activity itself consists of one discharge point that discharges directly into the inlet. The discharges are pumped off via the tanker. The energy used in this operation comes from the tanker.

12.2 Raw Materials & 12.3 water use:

No raw materials will be used at the facility as there is no treatment carried out prior to discharge into the works inlet.

12.4 Waste minimisation, recovery and disposal:

There are no specific wastes produced from the process, but the operator will manage waste where possible.

12: Bespoke Waste Treatment

This is not applicable as there is no biological waste treatment on site. A trial was set up in February 2021 under the Environment Agency's permission as an exemption to accept 19 07 03 Leachate on site. No other wastes have been accepted on site since. The proposed waste activities are permitted for acceptance at other similar WWEL Facilities.

Appendix B
LEACHATE ANALYSIS TRIAL

Appendix C
UPDATE H1 ASESSMENT (TO FOLLOW)

CHRISTCHURCH TREATMENTCENTRE PERMIT APPLICATION

Response to Schedule 5 Notice

2024-03-04

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