

Natural Resources Wales Permitting Decisions

**Tradebe Healthcare National
Limited**

**Wrexham Clinical Waste Treatment
Facility (Incinerator)**

Decision Document

Application for a Normal Variation

The application number is: PAN-023647

The permit variation number is: EPR/WP3836ZF/V006

The operator is: Tradebe Healthcare National Limited

**The Installation is located at: Wrexham Clinical Waste Treatment Facility
(Incinerator) Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13
9RJ**

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise, we have accepted the operator's proposals.

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1. Executive summary

1.1. Application summary

This variation application is in response to Improvement Condition 12 in the current permit. The improvement condition requires the operator to reduce the concentrations of oxides of nitrogen (NO_x) emitted from the installation, via emission point A1, as per the Waste Incineration BREF Document (EU 2019). This variation therefore is to allow the installation and operation of a selective non catalytic reduction system (SNCR) and also to incorporate an emission limit and monitoring requirements into the permit for emissions of ammonia which may occur as a result of ammonia slip linked to the independent urea injection system and operation of the SNCR system.

1.2. Our decision

We have decided to issue the variation for Wrexham Clinical Waste Treatment Facility (Incinerator) operated by Tradebe Healthcare National Limited.

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.

2. Receipt of the application

The application was received on 26/10/2023. In order for us to be able to consider the application duly made, we needed more information. We requested the following:

- Updated Odour Management Plan
- Updated risk assessment for containment
- Updated air risk assessment
- Site plan

A letter requesting this information was sent to the operator on 18/07/2024. Upon receipt of this information, on 12/09/2024, we were able to consider the application duly made. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

3. Confidential information

The operator made a claim for no claim for commercial confidentiality, and we have not received information in relation to the application that appears to be confidential in relation to any party.

4. Legislation

The variation will be issued, under Regulation 20 of the Environmental Permitting Regulations (EPR). The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED;
- subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which also have to be addressed.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that the decision on this application is consistent with its general purpose of pursuing the sustainable management of natural resources (SMNR) in relation to Wales and applying the principles of SMNR. In particular, NRW acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in issuing the variation a high level of protection will be delivered for the environment and human health through the operation of the Installation in accordance with the permit conditions. NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources.

As the EPR regulator in Wales, NRW are required to determine any duly made permit application. This means that we must decide either to grant, or to refuse the variation based upon an objective assessment of the proposals against the detailed legal requirements of EPR. Our Public Participation Statement¹ gives more information on what can, and cannot, be taken into account when making our permitting decision.

¹ [Natural Resources Wales / Public participation: how you can take part in our permit and licence consultations](#)

The application, and this decision document, only considers the permitting of the facility under EPR as described throughout the document. We only assess the installation and its impacts and cannot take into consideration indirect impacts which are not as a direct result of activity within the installation boundary.

Any proposed development and wider associated activities will be required to be compliant with all relevant and applicable law, for example, environmental law, health and safety law, planning law. This other legislation acts largely independently of EPR (although they may be inter-related). Such other matters are beyond both the scope of this document, and of our regulatory remit and expertise and are not relevant to our EPR permitting decision. Ensuring compliance with all other regulation and obtaining any required consents (such as planning permission) is the responsibility of those undertaking the development and is regulated by the relevant appropriate authority for each.

5. Consultation

There was no requirement to carry out a consultation as part of this normal variation. This decision was made in accordance the Environment Permitting Regulations (EPR), our statutory Public Participation Statement¹ and our Regulatory Guidance.

6. Requests for information

Further information was requested during determination by way of a Schedule 5 Notice requiring the operator to provide further information relating to the drainage plan and containment provisions of the AdBlue mixture. The Schedule 5 Notice was sent on 06/11/2024 with a deadline for response of 20/11/2024.

The operator's response to the Schedule 5 Notice was provided on 20/11/2024. The additional information supplied satisfied the requirements of the Schedule 5 Notice.

A copy of the information notice and e-mails requesting further information were placed on our public register as were the responses when received.

7. The Installation

7.1. The permitted activities

The regulated facility is currently an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations:

- S5.1 A1(a) The incineration of hazardous waste in a waste incineration plant with a capacity exceeding 10 tonnes per day.

7.2. Changes to the installation

This variation allows the installation and operation of a SNCR system which also incorporates an additional emission limit and monitoring requirements into the permit for emissions of ammonia via Emission Point A1. This emission point is labelled X in on site plan in Schedule 7 of the permit. The SNCR system will involve the installation of a 6000 litre storage tank containing AdBlue which is an aqueous solution of 32.5 weight % urea content and confirmed by the operator to be non-toxic. It also includes the installation of a 10,000 litre plastic storage tank for water and installation of a 800 litre capacity mixing skid which will contain water and AdBlue mixture.

8. Operation of the installation

8.1. Operator competence

The operator is the sole operator of the Installation. We are satisfied that the operator is the person who will have control over the operation of the Installation after the variation is issued; and that they will be able to operate the Installation so as to comply with the conditions included in the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator².

Relevant Convictions

² [RGN 1 Understanding the meaning of 'operator' \(naturalresources.wales\)](#)

The operator has declared they have no relevant convictions. NRW's COLINS Database has been checked to confirm there are no relevant conviction. No relevant convictions were found.

Financial Provision

The operator has declared they have no current or past bankruptcy or insolvency proceeding against them.

There is no known reason to consider that the operator will not be financially able to comply with the permit. The decision was taken in accordance with RGN 5 on Operator Competence.

Technical competence

Technical competency is required for the proposed activities. The operator has confirmed it is using the approved scheme - Chartered Institute of Wastes Management/Waste Management Industry Training and Advisory Board (CIWM/WAMITAB). The operator satisfies the criteria in RGN 5 on Operator Competence³.

8.2. Environmental Management System

The operator has stated in the application that they will implement an Environmental Management System (EMS) that will meet the requirements for an EMS in our “How to comply with your environmental permit” guidance⁴. The management system is confirmed as ISO 14001.

The operator has confirmed that no changes are to be made to the management system.

We have reviewed the application and are satisfied that appropriate management systems and management structures will be in place for this Installation, and that sufficient resources are available to the Operator to ensure compliance with all the Permit conditions.

8.3. Operating techniques

³ [regulatory-guidance-note-5-operator-competence.pdf \(naturalresources.wales\)](#)

⁴ [Natural Resources Wales / Guidance to help you comply with your environmental permit](#)

Installation activities and assessment of Best Available Techniques

The operator has described the proposed equipment and operating techniques and compared these against the relevant guidance notes and Best Available Techniques conclusions (BATc) which for an installation of this type is the Waste Incineration BREF.

We have specified that the operator must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process. These descriptions are specified in the Operating Techniques (Table S1.2) table in the permit and will include the following reports specified in the application:

- Environmental Risk Assessment
- HAZOP
- Site delivery offloading procedures
- Periodic inspection and maintenance
- Odour Management Plan

We have reviewed the techniques proposed and consider them in line with them to represent BAT at this installation.

Efficient use of raw materials, water and energy

Having considered the information submitted in the application, we are satisfied that the operator will ensure that raw materials, water and energy is used as efficiently as possible.

The operator will be required to report energy usage under condition 4.2 and Schedule 4 of the permit. The following parameters are required to be reported - water and energy use. This will enable us to monitor energy recovery efficiency at the Installation.

9. The site

9.1. Site Condition Report

The proposal does not include the addition of any land and so a Site Condition Report was not required to support this application.

9.2. Site protection: potentially polluting substances and prevention measures

The operator has a duty to ensure that soil and groundwater are protected in order to meet the requirements of Articles 14 (1)(b), 14(1)(e) and 16(2) of the IED.

The 6000 litre container for AdBlue is located externally on the concrete hard standing and is intrinsically bunded. The bund is at least 110 per cent of the capacity of the container. In case of an internal wall failure there is an internal bund switch. This float switch will trigger back to the control panel and alarm. The SNCR 'mixing' skid is located within the main building. It will be installed with 2 level probes which provide independent alarms in the event of significant volumes of materials being lost into the bund. The overflow pipe from the mixing tank will be directed into this bund.

Based upon the information in the application we are satisfied appropriate measures will be in place to protect the site and its surroundings from polluting substances.

10. Environmental Risk Assessment

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, water, sewer and discharges to ground or groundwater, global warming potential and generation of waste. All these factors have been considered during the determination and the relevant risks from this proposal are discussed in this and other sections of this document.

The next sections of this document explain how we have approached the critical issue of assessing the likely impact of emissions from the Installation on human health and the environment and what measures we are requiring ensuring a high level of protection.

In line with our guidance, the operator has provided an environmental risk assessment with the application which identifies and the sources of key risks from the variation, possible pathways and receptors. This risk assessment and further assessments provided by the operator and/or completed by NRW will be discussed in further detail below.

10.1. Assessment of impact on air quality

This section of the decision document deals primarily with the dispersion modelling of emissions to air from the stack and its impact on local air quality.

The operator has assessed the Installation's potential emissions to air against the relevant air quality standards, and the potential impact upon human health in line with relevant guidance⁵. These assessments predict the potential effects on local air quality from the Installation's stack emission.

The air impact assessments, and the dispersion modelling has been based on the Installation operating continuously at the relevant long-term or short-term emission limit values, i.e., the maximum permitted emission rate.

We are in agreement with this approach. The assumptions underpinning the model have been checked and are reasonably precautionary. The way in which the operator used dispersion models, its selection of input data, use of background data and the assumptions it made have been reviewed by Natural Resources Wales modelling specialists to establish the robustness of the operator's air impact assessment. The output from the model has then been used to inform further assessment of health impacts.

The operator has calculated process contributions (PC) and predicted environmental concentrations (PEC) at locations within the immediate vicinity and all identified sensitive receptor locations. The modelling results for each pollutant will be discussed separately below.

⁵ [Air emissions risk assessment for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit)

Emissions of ammonia was assessed against a long-term critical level of $180\mu\text{g}/\text{m}^3$ (annual) and short term critical level of $2500\mu\text{g}/\text{m}^3$ (hourly). At sensitive receptor locations the maximum predicted long-term PC was $<1\%$ of the long-term critical level. Therefore, in accordance with the relevant guidance the long-term impacts from ammonia can be considered as insignificant. At sensitive receptor locations the maximum predicted short-term PC was $<10\%$ of the short-term critical level. Therefore, in accordance with the relevant guidance the short-term impacts from ammonia can be considered insignificant.

Emission limits

We have decided that emission limits should be set for the parameters listed in the permit. The following substances have been identified as being emitted in significant quantities and Emission Limit Values (ELVs) based on BAT have been set for those substances – ammonia.

It is considered that the ELVs or technical measures described above will ensure that significant pollution of the environment is prevented and a high level of protection for the environment secured.

10.2. Emissions to sewer

The proposal confirms that there will be a minor additional emissions to sewer of water softener/brine via emission point S1. Effluent from the site is discharged to foul sewer under a trade effluent discharge consent from Welsh Water. The effluent undergoes further treatment at the Five Fords STW prior to discharge to the river Dee.

10.3. Assessment of odour impact

The operator has submitted an Odour Management Plan (OMP) which details various measures to minimize and mitigate odour issues. The OMP will be incorporated into the operating techniques section of the permit.

The operator has also confirmed that there are no sensitive receptors within the vicinity of the installation. Based upon the information in the application we are satisfied that

the appropriate measures will be in place to prevent or where not practicable to minimise the effects of odour.

Condition 3.3.1 in the permit will also require that emissions from the activities are free from odour at levels likely to cause pollution outside the site. We are satisfied that this will be sufficiently protective in conjunction with the measures described by the operator for minimising odour at the installation.

10.4. Noise and vibration assessment

The operator has also confirmed that there are no sensitive receptors within the vicinity of the installation. We are satisfied that vibration is unlikely to be an issue at the installation. Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where not practicable to minimise the effects of noise and vibration.

Conditions 3.5.1 of the permit requires noise from the activities to be below that which could cause pollution outside the site. We are satisfied that this will be sufficiently protective in conjunction with the measures described by the operator for minimising noise at the installation.

11. Impact on National Site Network Sites, SSSIs and non-statutory sites

The facility is within the relevant screening criteria for protected conservation sites. A full assessment of the variation application and its potential to affect the identified sites has been carried out as part of the permit determination process. National Site Network sites, Sites of Special Scientific Interest (SSSI) and non-statutory conservation sites will be discussed separately below.

11.1 The National Site Network

The following National Site Network sites are located within 10km of the installation:

Special Areas of Conservation (SAC)

- Johnstown Newt Sites UK0030173 (SAC) approximately 8km from the regulated facility
- River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (Wales) UK0030252 10000 (SAC) Located approximately 3km from the regulated facility
- River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (England) UK0030252 10000 (SAC) Located approximately 3km from the regulated facility

Ramsar Sites

- Midland Meres & Mosses Phase 2 (Wales) UK11080 Located approximately 5km from the regulated facility

A Habitat Regulations Assessment (HRA) was completed to assess the potential to affect any of the sites identified. In light of the conclusions of an appropriate assessment and taking account of the advice received from NRW's protected sites advisors, it has been established that the project will not adversely affect the integrity of any National Site Network site, taking into account any conditions or restrictions as applicable, either alone or in-combination with other plans and projects (as documented in section 4 and 5 of OGN 200 Form 1). The full assessment is available to view on the public register.

11.2 Sites of Special Scientific Interest (SSSI)

No SSSIs are located within 2 km of the installation. Therefore, no further assessment was required as there is no impact pathway to any SSSI due to the location of the installation.

11.3 Non-statutory conservation sites

The following relevant non-statutory sites are located within 10km of the installation:

- Cefn Park
- Peter's Dingle
- Wrexham Industrial Estate
- Ancient Semi Natural Woodland
- Restored Ancient Woodland Site

As per Section 11.1 above, which confirms that in light of the conclusions of an appropriate assessment and taking account of the advice received from NRW's protected sites advisors, it has been established that the project will not adversely affect the integrity of any National Site Network site, we can also confirm therefore that the project will not adversely affect the integrity of any non-statutory conservation sites.

Based upon the information in the application we are satisfied that there will be no adverse impact to the non-statutory conservation sites identified.

12.The Permit Conditions

12.1.Incorporating the variation

We have specified that the operator must operate the permit in accordance with descriptions in the application. These descriptions have been specified in the Operating Techniques table in the permit.

12.2. Emission Limits

Article 14(3) of IED states that BAT conclusions shall be the reference for permit conditions. Article 15(3) further requires that under normal operating conditions, emissions do not exceed the emission levels associated with the best available techniques as laid down in the decisions on BAT conclusions.

BAT conclusions set out specific limits that the operator must comply with. Modelling has been used to demonstrate that the operator will be able to comply with the emission limits described as BAT.

12.3. Monitoring

We have decided that monitoring should be carried out for the parameters listed in Schedule 3 of the permit using the methods and to the frequencies specified in those tables. These monitoring requirements have been imposed in order to demonstrate compliance with the emissions limits in the permit.

For emissions to air of ammonia, the methods for continuous and periodic monitoring are in accordance with BAT requirements set out in Waste Incineration BREF Document (EU 2019). Monitoring frequencies have also been considered in line with BAT requirements.

Based on the information in the application and the requirements set in the conditions of the permit we are satisfied that the monitoring techniques, personnel and equipment employed by the Operator will have either MCERTS certification or MCERTS accreditation as appropriate.

12.4. Reporting

We have specified the reporting requirements in Schedule 4 of the Permit to ensure data is reported to enable timely review by Natural Resources Wales to ensure compliance with permit conditions and to monitor the efficiency of material use and waste recovery at the installation.

13. OPRA

The OPRA score has changed as a result of this variation. The new agreed score is now 144. This will form the basis for ongoing subsistence fees.