

## Permitting Decisions - Bespoke Permit

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We have decided to grant the permit for North Dean Waste Recovery Facility operated by Calder Remediation Limited.

The permit number is EPR/NP3329SN.

The permit was granted on 13 May 2025.

The application is for the remediation of asbestos-containing soils and rubble arising from the redevelopment of brownfield sites across the UK and bioremediation of hydrocarbon-containing soils.

The regulated facility comprises:

- treatment of hazardous waste;
- temporary storage of hazardous waste;
- storage of raw materials;
- management of process effluent and uncontaminated surface (roof and clean yard) water

Treatment of waste includes:

- removal of asbestos-containing materials from contaminated soils by manual picking and screening; and
- bioremediation of hydrocarbon-impacted soils

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

## Impact of emissions from the treatment of soils containing asbestos (trommel)

During the determination, we asked the operator to describe each treatment stage and state how fugitive emissions of dust would be minimised in accordance with BAT conclusion 14.

The operator stated that following pre-screening of asbestos-contaminated soils in the asbestos building, a short conveyor moves the larger fraction from the exit of the trommel screen, out of the building and into a secondary picking station. Whilst currently open, this portion of the conveyor will be covered with a heavy-duty sheet material that will be secured in place whilst the process is underway. The operator confirms that this will be done prior to the commencement of site operations. It will provide mitigation of dust emissions but can be removed easily to facilitate conveyor maintenance and/or to remove any obstructions. When the conveyor cover is removed, a moveable plate will be placed over the exit hole in the process building.

Following a meeting with the operator on 16 September 2024, the operator confirmed that changes will be made to the facility in order to meet BATc 14 regarding control of emissions. In response to the Schedule 5 Notice dated 9 October 2024, the operator confirmed that the trommel will be enclosed within the process building and will have an abated air extraction system. The proposed abatement system is a negative pressure unit (NPU) 500 and would be installed on a framework that sits directly next to the orifice in the building between the trommel to the covered conveyor (emission point A4).

The abatement system is a small unit that draws air in through a series of filters. The NPU 500 provides an airflow of 500 m<sup>3</sup>/hr and uses a two-stage filter process: a pleated pre-filter which removes all large particulates, then a secondary (HEPA) filter for the smaller particulates. The unit is marketed as being ideally suitable for use during cutting, grinding, sanding and blasting operations. It is also compact so is a practical solution for where filtration is required in small or awkwardly shaped working areas, as is the case for this site. The filters can be removed and replaced easily, whilst in-situ. The operator will implement a programme of filter exchange once operational and once it has been determined how quickly the filters become saturated/spent. Once determined, this regime will be implemented via the EMS.

We have therefore set pre-operational condition 1 (POC1) to ensure that the trommel is fully enclosed as agreed and that all dust emissions are directed to an active abatement system with a HEPA filter or other suitable design. The operator shall also provide details of the proposed commissioning, operational and maintenance procedures associated with the trommel and active abatement system to be implemented on site.

# Decision considerations

## Confidential information

A claim for commercial or industrial confidentiality has not been made. We have not accepted the claim for confidentiality. 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. The decision was taken in accordance with our guidance on confidentiality.

## Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The comments and our responses are summarised in the [consultation responses](#) section.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- Calderdale Metropolitan Borough Council – Environmental Health
- Health & Safety Executive
- UK Health Security Agency (UKHSA)
- Director of Public Health

The comments and our responses are summarised in the [consultation responses](#) section.

## 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'.

## **The site**

The operator has provided a plan which we consider to be satisfactory. The plan is included in the permit.

## **Site condition report**

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.

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

We have not consulted Natural England. The decision was taken in accordance with our guidance.

## **Environmental risk**

We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment or similar methodology supplied by the operator and reviewed by ourselves, all emissions may be screened out as environmentally insignificant.

## **Operating techniques**

We have reviewed the techniques proposed by the operator and compared these with the relevant technical guidance 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.

## **National Air Pollution Control Programme**

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

## **Dust management**

We have reviewed the dust and emission management plan in accordance with our guidance on emissions management plans for dust. We consider that the dust and emission management plan is satisfactory and we approve this plan.

We have approved the dust and emission management plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance 'Control and monitor emissions for your environmental permit.

The plan has been incorporated into the operating techniques S1.2.

## **Waste types**

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

We are satisfied that the operator can accept these wastes for the following reasons:

- they are suitable for the proposed activities
- the proposed infrastructure is appropriate; and
- the environmental risk assessment is acceptable.

We have excluded EWC 06 05 02\*, 10 02 07\*, 10 02 12\*, 10 13 13\*, 17 06 05\* and 19 12 11\* for treatment via AR2 as these wastes are not considered appropriate for bioremediation.

We made these decisions with respect to waste types in accordance with the Waste Treatment BAT Conclusions.

## **Pre-operational conditions**

Based on the information in the application, we consider that we need to include pre-operational conditions. See [key issues](#) section.

## **Improvement programme**

Based on the information on the application, we consider that we need to include an improvement programme.

### Improvement condition 1 and 2 – methodology for monitoring ambient VOCs and particulate matter & monitoring results

BAT conclusion 14 requires operators to contain, collect and treat diffuse emissions from site process and it states as follows:

*In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given below:*

*Containment, collection and treatment of diffuse emissions. This includes techniques such as:*

- storing, treating and handling waste and material that may generate diffuse emissions in enclosed buildings and/or enclosed equipment (e.g. conveyor belts);*
- maintaining the enclosed equipment or buildings under an adequate pressure;*
- collecting and directing the emissions to an appropriate abatement system (see Section 6.1) via an air extraction system and/or air suction systems close to the emission sources.*

We consider the key fugitive emissions from the asbestos and bio-remediation treatment process to be VOCs, dust and contaminated surface water runoff. The operator provided additional information on their current operating techniques which includes details of how they minimise fugitive emissions. The operator did not provide any data from ambient air monitoring that has historically been carried out for dust and VOCs as the operations have not yet commenced.

We have reviewed their additional information, and we agree that dust and contaminated run-off can be adequately controlled by existing operating techniques. However, with regard to fugitive emissions of ambient VOCs and dust we require further evidence of control. Consequently, we have included an improvement condition (IC1) in the permit which requires the operator to submit a

methodology for monitoring VOCs and dust to the Environment Agency for approval. Following approval, the operator is required to carry out further ambient air monitoring for VOCs and dust (IC2). In the event that the monitoring exercise reveals that emissions of VOCs and dust are above the action limits agreed in IC1, the operator is required to propose measures to control fugitive emissions to an acceptable level.

#### Improvement condition 3 – efficiency of the bioremediation process

We asked the operator to provide details of the process monitoring that will be undertaken during the bioremediation process, the parameters to be monitored and the proposed testing of the soils following treatment, to validate that the final parameters have been achieved.

The operator confirmed that weekly sampling will be carried out on the soil biopiles, for moisture and temperature; this is in addition to the ongoing sampling that will be carried out to determine that the process is working and when the treatment is 'complete'.

We have included improvement condition 3 (IC3) which requires the operator to submit a report to the Environment Agency for written approval reviewing the process efficiency of the bioremediation process 6 months following permit issue. The operator is required to propose measures to optimise the treatment efficiency of the bioremediation process and timescales for implementation.

#### Improvement condition 4 – review of abatement plant

The installation includes industrial processes which produce waste gas and odour emissions that are discharged to air via vents or stacks. BAT conclusion 14 of the Waste Treatment BREF states that emissions from diffuse sources should use techniques like, *collecting and directing the emissions to an appropriate abatement system via an air extraction system and/or air suction systems close to the emission sources*. BAT conclusion 34 describes the use of appropriate techniques to reduce channelled emissions to air of dust, organic compounds and odorous compounds, including H<sub>2</sub>S and NH<sub>3</sub>. These are adsorption, biofilter, fabric filter, thermal oxidation and wet scrubbing.

The abatement techniques employed at this installation for the bioremediation soil biopiles is carbon filtration. The treated air stream is then discharged to atmosphere via stack (A3).

We did not assess the operator's abatement plant and its suitability in providing effective abatement during the determination. Consequently, we have set an improvement condition (IC4). The improvement condition requires the operator to demonstrate via determining the composition of waste gas emissions, monitoring and additional risk assessment that the existing abatement system effectively treats the emissions to air. Where further improvements are identified, the operator is required to implement these measures. It should be noted that a review of the existing system could determine that the existing systems are not suitable for the waste gas emissions. Where this is the case, further improvements on site may be



required which may include the installation of new abatement plant. The installation of a new abatement plant will require a variation to the existing permit.

## **Emission Limits**

We have decided that emission limits are required in the permit. Emission Limit Values (ELVs) and technical measures based on Best Available Techniques (BAT) have been added for the following substances:

### Emission points to air

- Asbestos fibres
- Particulate matter (dust)
- Total volatile organic compounds
- Ammonia
- Hydrogen sulphide

Please refer to Table S3.1 of the permit for further details.

### Emission points to surface water

We have imposed descriptive limits on visual appearance and visible oil and grease. Please refer to Table S3.2 of the permit for further details.

## **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.

These monitoring requirements have been included in order to comply with the Waste Treatment BAT Conclusions.

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. Please refer to Tables S3.1 and S3.2 of the permit for further details.

We made these decisions in accordance with Waste Treatment BAT Conclusions.

## **Reporting**

We have specified reporting in the permit. We made these decisions in accordance with Waste Treatment BAT Conclusions. Please refer to Table S4.1 of the permit for further details.

We made these decisions in accordance with the Waste Treatment BAT Conclusions.

## **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. We only review a summary of the management system during determination. The applicant submitted their full management system. We have therefore only reviewed the summary points. A full review of the management system is undertaken during compliance checks.

## **Technical Competence**

Technical competence is required for activities permitted. The operator is a member of the CIWM/WAMITAB scheme. The operator has an approval issued by the Environment Agency. We are satisfied that the operator is technically competent.

## **Previous performance**

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions. We have assessed operator competence.

We have checked our systems to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

## **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 **UK Health Security Agency (UKHSA)**.

Brief summary of issues raised:

UKHSA acknowledges the dust management plan included in the application and recommends reducing public exposure to dust. They encourage consideration of approaches which minimise or mitigate public exposure during site design, operational management and regulation. Based on the information contained in the application supplied to us, UKHSA has no significant concerns regarding the risk to the health of the local population from the installation.

Summary of actions taken:

The applicant provided a dust management plan which we have assessed as adequate. Measures proposed by the applicant are in accordance with the relevant sector guidance and industry best practice, as well as asbestos legislation.

## Representations from individual members of the public

Brief summary of issues raised:

### 1) Query regarding the sites Development Consent Order (DCO)

Summary of actions taken:

No further action. A DCO is under the remit of the local planning authority. We consulted the local authority during the determination. No concerns were raised.

### 2) Query regarding the annual site throughput and storage capacity

Summary of actions taken:

In response to a Request for Further Information issued by the Environment Agency on 10/04/2025, the operator provided an explanation of how the annual site throughput was calculated. We have set limits of waste that can be treated and/or stored at any one time in the permit.

### **3) Query regarding the release of fugitive emissions via use of hydrogen peroxide**

Summary of actions taken:

In response to a Request for Further Information issued by the Environment Agency on 10/04/2025, the operator provided an explanation with respect to the use of hydrogen peroxide. Waste soils received at the site for treatment will contain various fractions of hydrocarbons. The less volatile of those are oils i.e. fuels. For these, Oil Spill Eater will be used (mixed with brackish water). The more volatile end of the spectrum (e.g. benzopyrene) will need to be treated with hydrogen peroxide. The decision as to which additive is required will be made by the TCM at the site. The waste streams requiring Oil Spill Eater will be kept separate from those requiring hydrogen peroxide and will be processed in separate bays. The two additives will never be mixed or used on any single given waste stream at the same time. We are satisfied with the operator's response.

### **4) Query regarding H1 assessment from the use of biosurfactants and hydrogen peroxide**

The use of surfactants and hydrogen peroxide in the soil remediation process may give rise to VOCs as fugitive emissions. We have inserted improvement condition 1 which requires the operator to provide a methodology for monitoring ambient volatile organic compounds and dust. Following submission of the methodology, the operator is required to undertake monitoring and to provide the results to the Environment Agency (improvement condition 2). We have set emission limits for the asbestos-contaminated soil treatment and soil biopiles in accordance with the BAT-AELs.

### **5) Query regarding waste acceptance of soils at the facility**

In response to a Request for Further Information issued by the Environment Agency on 10/04/2025, the operator provided details of the soil testing protocol that will be part of the waste acceptance procedures for the proposed activities AR1, AR3 and AR4 to verify the information given by the waste producer.

The operator recognises that works with friable asbestos materials are notifiable to the HSE and require a license to carry out. The operator is not proposing to work with friable asbestos but the standards to be adopted on site will be over and above those required to do so in order to provide assurance that sufficient and suitable environmental controls are in place.

The site pre-acceptance and waste acceptance procedures will ensure that all materials received at the site will be subject to appropriate analysis beforehand, to the extent that they have been assessed and deemed suitable for treatment, by the TCM. The process of waste acceptance, at the point the waste reaches the site, includes a visual inspection of every load to check that the waste is as expected and matches both the information collected during pre-acceptance, and

the accompanying paperwork on arrival at site. A second visual check is then carried out within the building when the waste is unloaded into the dedicated storage area, which is the covered 30m<sup>3</sup> skip. We have examined the procedures, and we are satisfied they are BAT for this installation.

There is a limit in Table S2.2 of the permit to prevent fibrous asbestos being accepted under AR1:

*Wastes having any of the following characteristics shall not be accepted:*

- *Asbestos in unbound fibrous form (free chrysotile fibrous asbestos in the soil must be <0.1% w/w. other forms or mixed forms of asbestos in the soil must be <0.01% w/w)*

Table S1.1 also places a limit on activity AR1 to treatment of soils impacted with identifiable pieces of bonded asbestos only and that handpicking will not increase the fibre load in the waste.

## **6) Query regarding pre-operational condition for the pre-screener**

We have included a pre-operational condition which requires the operator to ensure that the trommel is fully enclosed with associated abatement. Emissions from the pre-screener will be covered by the abatement as both plants are located within the same building.

## **7) Query regarding inclusion of waste codes**

We have reviewed the waste codes submitted in this application and we have sought for clarification from the operator. In response to a Request for Further Information issued by the Environment Agency on 10/04/2025, the operator provided justification as follows:

- EWC 05 01 06\*, 13 05 01\*, 13 05 02\*, 13 05 03\*, 13 05 08\*, 16 07 08\*, 16 07 09 contain hydrocarbons. The control measures that will be in place is that physical properties will be inspected prior to acceptance to the site to ensure it is in solid form. The operator confirms that no sludges will be accepted at the site for treatment.
- The operator reports that prior to remediation of soils (AR2), EWC 17 09 03" (which is a mixed waste) will be processed through the screening/trommel/picking station to remove any oversize and non-biodegradable waste (for example general waste).
- The operator confirms that EWC 19 02 04\*, 19 02 05\*, 19 03 04\* and 19 03 07 can be from construction sites/other treatment facilities containing hydrocarbons but where they have been pretreated on site but don't meet site reuse criteria or were unsuccessful on treatment and have to be removed from the site via any of these EWCs.

- EWC 19 12 11\* refers to granular materials/soils from EMR Limited and other industry sources from the mechanical treatment of scrap materials and other processes. They are the soils from the processes that have been gathered up with the scrap as it is moved around the country. This is then screened to remove any metals by the origin site and sent off for treatment. The materials are soils based and there is a ready market for their treatment.

We have excluded EWC 06 05 02\*, 10 02 07\*, 10 02 12\*, 10 13 13\*, 17 06 05\* and 19 12 11\* for treatment via AR2 as they are not considered appropriate for this type of treatment.

### **8) Query regarding classifying treated output as non-waste by the operator**

Summary of actions taken:

No further action. Our understanding is that material that has not met all the criteria on a Quality Protocol and /or has not determined by a waste panel and still remains a waste.

### **9) Query regarding negative pressure on the biopiles with associated flow/pressure and air exchange rates**

Summary of actions taken:

In response to a Request for Further Information issued by the Environment Agency on 10/04/2025, the operator provided justification as follows:

Each of the four bio-remediation bays has its own fan air mover which extracts/vents via rigid duct work to the central carbon filter box. This central filter then has an extract pipe length exhaust the same as for the trommel line set up (for activity AR1) that allows for the probe-based isokinetic airflow stack monitoring at Point A3. The fan units for each bio pile bay and the central filter box are to be located at the rear of the bay system structure with access for monitoring and maintenance (as shown on the enclosed site layout plan).

The chosen system has been selected to provide a negative pressure and to provide airflow based on a minimum of 8 air changes per hour. The following calculations have been used to select a system that is rated at 42 m<sup>3</sup>/minute, 2,500 m<sup>3</sup>/hour per bay:

- The volume of each bay is 630 m<sup>3</sup>.
- At a minimum of 8 air changes per hour this equates to 5,030 m<sup>3</sup>/hour (630 x 8).
- A nominal reduction is applied to allow for the volume occupied by the waste pile, 60%.
- The results in a volume of air to be moved of 2,016 m<sup>3</sup>/hour per bay.

The proposed system for each bio pile bay is sufficient for this, at 2,500 m<sup>3</sup>/hour per bay.

**10) Query regarding inserting BAT-AELs at point source emissions to air**

Summary of actions taken:

We have inserted the appropriate BAT-AELs in the permit.

**11) Query regarding the site location in a flood risk area**

Summary of actions taken:

We consulted internally with our flood risk team and there were no concerns raised. The flood risk management plan is part of the site environmental management system which the operator is required to implement under permit condition 1.1.

**12) Query regarding process monitoring for the bioremediation process**

Summary of actions taken:

No further action. We have set process monitoring requirements in the permit (see Table S3.3).

**13) Query regarding lack of experience of proposed operator which may result in elevated risk of odours. Additional query regarding the expiry of technical competence certificates.**

Summary of actions taken:

The operator provided evidence of the TCM on site (with appropriate certificates) who will have operational control of the treatment activities on site. The bioremediation activity has a dedicated odour abatement plant to treat any emissions from the process. We have inserted an improvement condition (IC4) in the permit which requires the operator to undertake a review of the abatement plant and implement any improvements.

**14) Query regarding insufficient water for dust suppression**

Summary of action taken:

No further action. The operator's revised dust management plan (CRL\_2022.01/001-8, Appendix I, v3 dated January 2025) has been reviewed and the measures to prevent fugitive dust emissions are considered to be suitable.



## **15) Query regarding asbestos monitoring**

Summary of actions taken:

Table S3.4 of the permit requires the operator to undertake ambient air monitoring at the specified locations when loads known to contain bonded pieces of asbestos are being received, handled and moved on the site. The asbestos monitoring will serve the purpose of monitoring ambient air for asbestos in general.

The permitted monitoring frequency is 8 litres per minute for 1 hour, or 2 litres per minute over a four-hour period. The permitted limit is 0.01 fibres/ml. Where total fibre concentration exceeds 0.01 fibres/ml in any sample, that sample must be submitted for electron microscopy to confirm the concentration of asbestos fibres present.