APPEAL REFERENCES APP/EPR/636, 651 AND 652

APPEALS PURSUANT TO REGULATION 31 OF THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 REGARDING SOIL TREATMENT FACILITIES AT DANESHILL LANDFILL SITE AND MAW GREEN LANDFILL SITE

ENVIRONMENTAL PERMIT REFERENCE EPR/NP3538MF/V009 AND V010 (DANESHILL)
ENVIRONMENTAL PERMIT REFERENCE EPR/BS7722ID/V010 (MAW GREEN)

REBUTTAL PROOF OF EVIDENCE OF LESLIE HEASMAN

Report reference: FCC/DH/LH/6278/01/POER

March 2024

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APPENDICES

1. Summary Rebuttal Proof of Evidence

1.1 I provided a Proof of Evidence (PoE) dated February 2024. This document comprises a Rebuttal Proof of Evidence (Rebuttal PoE) to specific aspects of the Proofs of Evidence of Paul Barker, Daniel Kirk and Graham Raynes of the Environment Agency (EA).

1.2 In Section 3 of this Rebuttal PoE I respond on specific matters in the PoE of Paul Barker (PB).

1.3 PB refers to the EA Internal Work in Progress (WIP) guidance [CD1/U] and confirms that it is internal guidance. This guidance is not available to those outside the EA and, as far as I am aware, has not been consulted on with anyone outside the EA. In accordance with the DEFRA Environmental Permitting Core Guidance and the Regulators' Code issued by Government, the development of guidance by the regulators should have mechanisms in place to consult those they regulate in relation to the guidance they produce and regulators should publish guidance. The WIP guidance clearly has not been produced in compliance with the DEFRA Core Guidance on permitting or the Regulators' Code and I therefore consider that this WIP guidance is not suitable as a basis for making regulatory decisions.

1.4 PB states that mobile plant deployments are limited to short term temporary operations (maximum of one year, and often shorter). This is not completely correct. It is correct that mobile plant deployments are generally intended to last for up to 12 months, however this period can be extended for up to 2 years.

1.5 While, as stated by PB, mobile treatment plant permits are commonly used for the remediation of contaminated sites, they are also used routinely for the treatment of waste to produce soil, soil substitutes and aggregates. It is not correct however, as suggested by PB, that different standards of environmental protection are applied to the regulation of mobile plant.

1.6 The permit variation applications submitted for Daneshill and Maw Green were unusual in that the operator had built up a substantial body of data on the actual recorded emissions of asbestos fibres from the activities being carried out at other sites. The Appellant is therefore able to use this data to confidently understand the nature of the risks of emissions of fibres from the proposed activities. The

comparison of the different controls imposed on generally similar types of activities shows that there are apparent inconsistencies, however, as far as I am aware, no other applicants for the facilities referred to have obtained, assessed or submitted representative monitoring data to determine the risks presented by their operations and to assess the controls necessary based on an informed assessment of risks.

1.7 In Section 4 of this Rebuttal PoE I respond on specific matters in the PoE of Daniel Kirk (DK).

1.8 DK states that insufficient evidence had been provided with respect to the Maw Green proposed activities to demonstrate that equivalent BAT would be put in place. The evidence relied upon by the Appellant comprises the monitoring data which provides the evidence and confidence that the emissions of asbestos fibres to air are controlled by the techniques applied during the operations which are considered to comprise BAT. Despite the provision of monitoring data to the EA in several ways prior to the presentation of the information with this Appeal, it seems that the EA have not given any meaningful consideration to the evidence available and provided to them.

1.9 DK refers to 'precautionary BAT' and the 'precautionary principle'. It is my understanding that the Precautionary Principle (the PP) has a defined meaning in the context of consideration of the appropriate regulation and controls to apply as part of the application of risk based regulation. While the principles in the DEFRA Environmental Principles Policy Statement relate to the development and making of policy rather than individual regulatory decisions, the PP does not in my experience (and as set out in the DEFRA Core Guidance on Environmental Permitting) preclude appropriate risk-based decision making in accordance with The Environmental Permitting (England and Wales) Regulations 2016 [CD1/B] which regulate activities in order to control risks of pollution or harm.

1.10 In Section 5 of this Rebuttal PoE I respond on specific matters in the PoE of Graham Raynes (GR).

1.11 GR states that it is his understanding that the location of the proposed asbestos treatment activity at Daneshill is the southern of the three treatment pads shown on the drawings. This is a misunderstanding of the proposed activities. Based on the clarifications provided during the post submission correspondence including updated

plans, the application and the consented permit for the operations at Daneshill (V010) is therefore for the flexible use of all three of the treatment pads as described.

1.12 GR states that the purpose of an 'impermeable surface' in the context of a waste operation is to be sufficient to prevent the transmission of liquids beyond the impermeable surface. In the context of the applications for Daneshill and Maw Green, this means the runoff from the treatment pads, which may have been in contact with the waste and therefore may be contaminated, must be contained in the drainage system for the treatment pads. The drawings for the impermeable surfacing show that the impermeable component of the western pad area for Maw Green and the three treatment pads for Daneshill comprise a geosynthetic clay liner (GCL) low permeability material, with a sand protection layer overlain by a separation geotextile and then a crushed concrete cover to provide a running surface. GCL has more flexibility to withstand uneven settlement of the underlying material while remaining effective, than a hard surface such as concrete. This is why GCL is used in preference to concrete as the low permeability component at Daneshill, where the treatment pads are located on made ground, and is used for the western pad at Maw Green, which is located on the landfill area. The submitted plans, and therefore the associated impermeable surfacing, has been accepted by the EA as it is referenced as an Operating Technique in the V010 EPs for both sites. The use of crushed concrete and GCL layers for impermeable surfacing has therefore been accepted by the EA.

1.13 The new issue raised by the EA as part of this appeal relates to the maintenance of a clean operating surface which is a different matter to that associated with the provision of an impermeable surface with an integrated, contained drainage system. Had the issue of a smooth operational surface been raised as a concern by the EA as part of the determination of the applications it could have been easily addressed.

2. Introduction, qualifications and experience

2.1 My name is Leslie Anne Heasman and I am the Managing Director and a Principal Environmental Consultant of M J Carter Associates Limited (MJCA). I am instructed by FCC Recycling (UK) Limited (FCC) to provide evidence with respect to the technical aspects of the Best Available Techniques relating to the proposed waste activity for the removal of bound asbestos from soils and the associated Appeals regarding the Environmental Permits for soil treatment facilities at Daneshill Landfill Site, Daneshill Road, Lound, Nottinghamshire DN22 8RB and Maw Green Landfill Site, Maw Green Road, Coppenhall, Crewe, Cheshire CW1 5NG.

2.2 I provided a Proof of Evidence (PoE) dated February 2024. This document comprises a Rebuttal Proof of Evidence (Rebuttal PoE) to specific aspects of the Proofs of Evidence of Paul Barker, Daniel Kirk and Graham Raynes of the Environment Agency (EA).

2.3 I set out my qualifications and experience in my PoE and do not repeat them here.

Declaration

2.4 The evidence which I have prepared and provide for this appeal, including in this Rebuttal PoE, is true and has been prepared and is given in accordance with the guidance of my professional institutions. I confirm that the opinions expressed are my true and professional opinions.

3. Comments on aspects of the Proof of Evidence of Paul Barker

3.1 In this section of this Rebuttal PoE I respond on specific matters in the PoE of Paul Barker (PB).

3.2 At paragraphs 19 and 42 (and also referenced in the PoE of Graham Raynes), PB refers to the EA Internal Work in Progress (WIP) guidance [CD1/U]. PB confirms that it is internal guidance. This guidance is not available to those outside the EA and, as far as I am aware, has not be consulted on with anyone outside the EA. PB states that the EA have shared the WIP guidance with the Appellant '…*during the appeal to help explain the expected standards to meet BAT and our appropriate measures*.' However, as stated in paragraph 6.19 of my PoE, the WIP guidance refers to the replaced EA guidance S5.06 and does not refer to the guidance acknowledged by the EA as the relevant current guidance comprising the Appropriate Measures guidance [CD1/S]. The DEFRA Environmental Permitting Core Guidance states in paragraphs 1.6 and 1.7 that:

> *'1.6 The Environment Agency and Natural Resources Wales should continue to develop and maintain their regulatory and technical guidance. In so doing they should continue to work closely with Defra, BEIS, the Welsh Government and others.*
>
> *1.7 The Environment Agency and Natural Resources Wales should make their guidance widely available, so that EPR is implemented openly and transparently. The Environment Agency and Natural Resources Wales publish their EPR guidance on their respective websites'.*

3.3 In addition to the DEFRA Core Guidance, the EA are obliged to comply with the Regulators' Code issued by the Government[1]. A copy of the Regulators' Code is provided as Appendix B to this Rebuttal PoE. Section 5 of the Regulators' Code refers to the development of guidance by the regulator and states:

[1] Department for Business Innovation & Skills. Better Regulation Delivery Office. Regulators' Code. April 2014

> ***'5. Regulators should ensure clear information, guidance and advice is available to help those they regulate meet their responsibilities to comply***
>
> *5.1 Regulators should provide advice and guidance that is focused on assisting those they regulate to understand and meet their responsibilities. When providing advice and guidance, legal requirements should be distinguished from suggested good practice and the impact of the advice or guidance should be considered so that it does not impose unnecessary burdens in itself.*
>
> *5.2 Regulators should publish guidance, and information in a clear, accessible, concise format, using media appropriate to the target audience and written in plain language for the audience.*
>
> *5.3 Regulators should have mechanisms in place to consult those they regulate in relation to the guidance they produce to ensure that it meets their needs'.*

3.4 The WIP guidance clearly has not been produced in compliance with the DEFRA Core Guidance on permitting or the Regulators' Code and I reiterate the comment in paragraph 6.22 of my PoE that this WIP guidance is not suitable as a basis for making regulatory decisions.

The regulation of mobile treatment plant

3.5 At paragraph 51 PB states that mobile plant deployments are '…*limited to short term temporary operations (maximum of one year, and often shorter)*'. This is not completely correct. It is correct that mobile plant deployments are generally intended to last for up to 12 months, however this period can be extended for up to 2 years. For example, the guidance relating to the use of mobile treatment plant for the remediation of contaminated sites[2] states that:

> *4. Section B3: duration of deployment*

[2] https://www.gov.uk/government/publications/deployment-form-for-land-and-groundwater-remediation/land-and-groundwater-remediation-deployment-form-guidance#section-b3-duration-of-deployment

The deployment timeframe starts from the moment you deploy the mobile plant at the site. This includes any set up, commissioning or pilot period before the start of treatment. The operations agreed under the deployment form:

last for up to 12 months (52 weeks) from the date work starts on site

must stop at the end of the approved period - you must remove the mobile plant from the site unless you've applied for an extension

If you think your deployment will last for more than 12 months then you must tell us about this in section B3.1. You must provide justification.

4.1 Apply for an extension

You may be able to apply for an extension to address unforeseen circumstances such as:

unexpected contamination volumes

adverse weather conditions

plant failure

If you specified a shorter time than 12 months on your application form you can extend this to 12 months. You must:

discuss your requirements with us

get written confirmation

If you specified 12 months, and during the deployment you find you'll need to deploy for more than 12 months, you must contact us as soon as possible.

We can consider a further 12 month extension but you must:

submit a new deployment form with the fee before the end date on the current deployment form provide evidence about why you need an extension

The maximum length of time for any deployment is 24 months.

If activities need to carry on after 24 months, you'll need to contact us. You need to discuss if the on-going treatment operation needs to be controlled:

as an installation

under a waste site based permit.'

3.6 As an example of a treatment site where the use of mobile plant has been extended well beyond 12 months, I attach at Appendix C a copy of the Decision Document (DD) for the issue of an Environmental Permit (permit reference EPR/ZP3133RH) issued in November 2016 for a treatment area located within the boundary of Fawley Oil Refinery. It states on page 2 of the DD that:

'The remediation of contaminated soils and sludges produced by the Fawley Oil Refinery have to date been treated under a mobile plant permit. With the subsequent deposit for recovery activity taking place under and exemption. A phase of treatment and on-site recovery of 6,200m^3 of materials was completed in 2010, with a further phase of 4,200m^3 of materials treated and recovered in 2013. The mobile plant permit and exemption are no longer appropriate for the activities and a site based Environmental Permit is now required to encompass the waste treatment and recovery activities being undertaken at the site.'

3.7 PB states in paragraph 51 that mobile plant permits '…*are deployed directly at the contaminated land site where the soil is to be treated/remediated….The short duration of the deployment minimises the level of risk and therefore the level of*

control measures that are applied (for example it would not be feasible to erect a building to contain a process which may be over in a matter of a few weeks)'.

3.8 While mobile treatment plant permits are commonly used for the remediation of contaminated sites, they are also used routinely for the treatment of waste to produce soil, soil substitutes and aggregates. It is not correct however to suggest that different standards of environmental protection are applied to the regulation of mobile plant. It is correct that the operation of mobile plant are more amenable to low risk treatment activities, however, there is no associated relaxation of the regulation over the measures necessary for the controls on risks to the environment and human health.

3.9 EA guidance RGN2[3] provides detail to assist in understanding the definition and scope of mobile plant.

> *'**Mobile nature of the plant***
>
> *A4.6 The Regulations require that plant must be designed to move or be moved. Movement can be on roads or other land. Defra/Welsh Government Core Guidance also includes movement by water, for example, by canal.*
>
> *A 4.7 When deciding if the plant is mobile, we consider the effort required to move and set up the plant. The greater the effort needed, the less likely it is to be considered mobile. However, we recognize that some plant will be more complex to assemble and some may need to be connected to several other pieces of plant to perform the activity described in the deployment.*
>
> *A4.8 We understand that some activities may require impermeable surfaces, lagoons or other infrastructure. We will take account of this when deciding if the plant is mobile. However, if the operator needs to install a large amount of infrastructure in order to make the risk acceptable, then it is less likely we will consider the activity to be mobile plant'.*

[3] Regulatory Guidance Series, No RGN 2. Understanding the meaning of regulated facility. Appendix 4 – Understanding the scope of mobile plant. Environment Agency. Version 3.1 May 2015
https://www.gov.uk/government/publications/rgn-2-understanding-the-meaning-of-regulated-facility

3.10 The RGN2 guidance confirms that when the infrastructure needed to control risks to acceptable levels becomes extensive, the plant may be less likely to be considered mobile; it does not suggest that because the plant is mobile the level of control needed is less.

Other sites with permits for similar treatment activities

3.11 At paragraph 13 and paragraphs 53 to 62 and Appendix PB01, PB comments on the application of BAT by the EA in Environmental Permits for other facilities carrying out the segregation of ACMs from contaminated soil. Most of the sites reviewed by the EA are the same as those reviewed in Tables 5 and 6 of my PoE.

3.12 The information presented by PB at Appendix PB01 generally is consistent with the summary I have provided at Tables 5 and 6 of my PoE with the following exceptions.

3.13 At paragraph 60 PB refers to a Thermal Recycling facility in Staffordshire. As summarised at page 66 and 67 of PB01 this activity is consented to receive waste asbestos including asbestos sheets and pipes for thermal treatment. It is assumed that these large pieces of asbestos must be crushed and broken down before introduction to the treatment kilns. This activity therefore is not comparable to the proposed screening of soils containing ACMs at Daneshill and Maw Green whereby the soils are only accepted if they have non-hazardous levels of asbestos fibres present. The Staffordshire plant operates currently as a demonstration plant.

3.14 At paragraph 59 PB refers to the activities at NRS Meriden at Cornet's End, Solihull. Based on my review of the permit and Decision Document, this activity excludes soils with asbestos fibres <0.1% and does not have a lower exclusion for types of asbestos other than chrysotile of <0.01% by weight (as proposed for Daneshill and Maw Green), it includes external storage of soils with ACMs awaiting treatment (which is not permitted in the V010 permits for Daneshill and Maw Green) and the picking cabin is not required to be located in a building (as is specified in the V010 permits for Daneshill and Maw Green).

3.15 At paragraph 61 PB refers to the Biffa activities at Redhill Landfill Site. Based on my review of the permit and Decision Document, this activity includes external storage of soils with ACMs awaiting treatment (which is not permitted in the V010 permits for

Daneshill and Maw Green) and the picking cabin is not required to be located in a building (as is specified in the V010 permits for Daneshill and Maw Green).

3.16 PB does not comment on the Edwin Richards Quarry permit, which includes external storage of soils with ACMs awaiting treatment (which is not permitted in the V010 permits for Daneshill and Maw Green).

3.17 At paragraph 55 PB refers to two operations by Dunton Environmental at Horseley Fields and Smethwick. The permit for the operations at Smethwick has only recently been issued so I have not had the opportunity to review this. The activities at Horseley Fields are reported to all be carried out inside a building with abatement. Activity AR9 is not included in the extracts from the permit provided at PB01 and includes pre-screening of wastes:

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
AR9	Pre-screening of waste.	Screening of waste to remove any materials which are not suitable for bioremediation.	All treatment must take place on an impermeable surface with sealed drainage. Waste types as specified in Table S2.2

3.18 Table S2.2 in the permit [CD9/5/F] includes waste coded 17 05 03* (soil and stones containing hazardous substances). Jon Owens of Provectus is familiar with this site as it is located near to Edwin Richards Quarry. Information has been provided by Jon Owens (Appendix A to this Rebuttal PoE) regarding the nature of the enclosure provided at this facility and his understanding that mechanical screening of wastes which may contain ACMs is carried out externally to the knowledge of the EA.

3.19 As explained in paragraph 3.6 of my PoE, the permit variation applications submitted for Daneshill and Maw Green were unusual in that the operator (FCC and 3C Waste) and Provectus had built up a substantial body of data on the actual recorded emissions of asbestos fibres from the activities being carried out at other sites. FCC and 3C Waste are therefore able to use this data to confidently understand the nature of the risks of emissions of fibres from the proposed activities.

3.20 While the comparison of the different controls imposed on generally similar types of activities shows that there are apparent inconsistencies; as far as I am aware, no other applicants for the facilities referred to have obtained, assessed or submitted representative monitoring data to determine the risks presented by their operations and to assess the controls necessary based on an informed assessment of risks.

4. Comments on the Proof of Evidence of Daniel Kirk

4.1 In this section of this Rebuttal PoE I respond on specific matters in the PoE of Daniel Kirk (DK).

The provision of evidence regarding asbestos fibre emissions

4.2 In paragraphs 12.7, 13.3, 13.4 of his PoE, DK states that insufficient evidence had been provided with respect to the Maw Green and Edwin Richards Quarry (ERQ) proposed activities to demonstrate that equivalent BAT would be put in place. The evidence relied upon by the Appellant comprises the monitoring data available for the period when the same activities as those applied for were carried out at ERQ under a mobile plant permit. The monitoring data provides the evidence and confidence that the emissions of asbestos fibres to air are controlled by the techniques applied during the operations which are considered to comprise BAT.

4.3 Monitoring data for asbestos emissions during the ERQ soil screening and hand picking activities carried out under a mobile treatment plant permit (as explained in paragraph 3.40 of my PoE) were submitted to the EA as part of the post-application submission discussions with respect to the V009 permit variation application on 22 February 2022 [Appendix A to the Daneshill BAT 14 FCC criteria, CD2/2/G/54]. No comments were provided by the EA on the submitted data.

4.4 Monitoring data for asbestos emissions during the ERQ soil screening and hand picking activities carried out under a mobile treatment plant permit also was submitted to the EA with the email from FCC to the EA dated 9 July 2021 [CD9/1/C] as part of the attempts by the Appellant to satisfy the ERQ pre-operational measure 1 (see paragraphs 3.40 and 3.41 of my PoE). The submission also notes (page 2 of the attachment) that asbestos monitoring datasets from both soil screening and asbestos hand-picking projects were submitted to the EA prior to the 2018 ERQ permit variation and were from mobile treatment licence projects rather than site-specific to the Edwin Richards Quarry soil treatment facility site. The EA response to the submission dated 20 July 2021 did not consider or address any of the data provided or referred to. In addition, regular monitoring data for the activities at ERQ have been provided to and acknowledged by the EA and site inspection visits have been carried out by EA Officers who have observed the activities at the site.

4.5 Despite the provision of monitoring data to the EA in several ways prior to the presentation of the information with this Appeal, it seems that the EA have not given any meaningful consideration to the evidence available and provided to them.

Application of the Precautionary Principle

4.6 DK refers, for example at paragraphs 10.3 and 12.7 to 'precautionary BAT' and the 'precautionary principle'. It is my understanding that the Precautionary Principle has a defined meaning in the context of consideration of the appropriate regulation and controls to apply as part of the application of risk based regulation.

4.7 The DEFRA Environmental Principles Policy Statement is set out in the gov.uk web site[4]. The 5 principles in the policy statement, are set out in section 17(5) of the Environment Act and include the Precautionary Principle (the PP). The PP is set out in the 1992 Rio Declaration to which the UK government is a signatory. The definition of the PP states that '*where there are threats of serious or irreversible environmental damage, a lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*'. While the DEFRA principles relate to the development and making of policy rather than individual regulatory decisions, the PP does not in my experience preclude appropriate risk-based decision making in accordance with The Environmental Permitting (England and Wales) Regulations 2016 [CD1/B] which regulate activities in order to control risks of pollution or harm. For example, the DEFRA Core Guidance on Environmental Permitting[5] states at paragraph 2.6 to 2.8 that:

> *'2.6 Subject to legal requirements, the Secretary of State and the Welsh Ministers expect regulators to apply the EPR in proportion to the environmental risk presented by the operation of the regulated facility'.*
>
> *2.7 The nature and extent of the regulatory effort should be appropriate and proportionate to the risk posed by the operation of the regulated facilities, the impact of that operation and the*

4 https://www.gov.uk/government/publications/environmental-principles-policy-statement/environmental-principles-policy-statement#:~:text=Its%20definition%20of%20the%20precautionary,measures%20to%20prevent%20environmental%20degradation'.

5 Environmental permitting: Core guidance For the Environmental Permitting (England and Wales) Regulations 2016 (SI 2016 No 1154) Last revised: March 2020

operator's performance in mitigating the risks and impacts. The regulator's effort should be concentrated on achieving the desired environmental outcomes. This approach should make the most effective use of the regulator's resources.

2.8 Regulators should exercise their functions in an open and transparent manner.'

5. Comments on the Proof of Evidence of Graham Raynes

5.1 In this section of this Rebuttal PoE I respond on specific matters in the PoE of Graham Raynes (GR).

Proposed use of the treatment pads at Daneshill

5.2 In Paragraph 10, GR states his understanding that the location of the proposed asbestos treatment activity at Daneshill is the southern of the three treatment pads shown on drawing reference 3982-CAU-XX-XX-DR-1803. This is a misunderstanding of the proposed activities. The drawing key shows that all pads are for screening/processing and that the northern two pads are also labelled as for biotreatment. The 'Area of proposed activity' is outlined in purple on the plan and includes all three pads. Paragraph 4.1.2 of the Environmental Setting and Installation Design Site Report Addendum submitted with the application documents in January 2021 [3982-CAU-XX-XX-RP-V-0304-A0.C1, CD2/1/E] states that '*The treatment areas consist of 2 treatment pads measuring at 3450m2 and 3500m2 for biotreatment/physical treatment and another 1 x 48800m2 treatment pad solely for screening/processing*'.

5.3 An updated Site Layout Plan was provided to the EA on 4 October 2021, drawing reference 3982-CAU-XX-XX-DR-1807 Revision P03 [CD2/2/G/21] showing clearly that mechanical screening and asbestos picking would be carried out on any of the three treatment pads.

5.4 Further clarification on the proposed use of the treatment pads was requested by the EA in their email dated 13 October 2021 [CD2/2/G/32] as follows:

> *'Q22. Please clarify the new treatment pad layout plan 3982 which shows an asbestos control zone, screener and picking booth across all 3 pads. I understood pad 3 coloured purple was to be used solely for asbestos treatment with 1 and 2 for bioremediation. I note the response to Q22 confirms there will be no screening of hydrocarbon contaminated soils. Please clarify if asbestos works are to be carried out across all three pads'.*

5.5 The response to the EA dated 5 November 2021 [CD2/2/G/35] included an updated revision of the Site Layout Plan 3982-CAU-XX-XX-DR-1807 Revision P04

[CD2/2/G/36], which is the version provided as Figure 1 of my PoE, and the following response to Question 22 in the email of 13 October 2021:

> *'Flexibility will be required across the process to accommodate local market demands which may include the use of different pads for asbestos treatment, albeit the most likely scenario is that the treatment facility is built in phases.*
>
> *The rationale behind the design is that areas that are linked to the biopile treatment equipment (Pads 1 and 2) would be used for biotreatment and where there is spare unused space could also be used for asbestos picking (within the picking unit) and screening using the existing segregation approach for supervised soil reception to prevent any mixing of waste soils. Pad 3 will be used for asbestos picking and screening, however, this pad is unlikely to be developed immediately following permit issue and will be subject to market demands. The ratio of soils with hydrocarbon contamination and asbestos contamination is very variable and so it is impossible to state exactly what treatment will be applied on Pads 1 and 2 at any one time in the future other than through general principles highlighted in the drawings. The proposed soil reception approach has been used on other sites, with robust, proven waste acceptance procedures implemented to ensure there is no mixing of different soil types. All drivers are given strict instructions, and clear signage coupled with supervision of the unloading of all loads by a trained operative. Once reception/soil verification testing has confirmed the suitability of the soils to be accepted at site, the soils are placed into separate soil treatment batches for biotreatment or asbestos treatment.'*

5.6 The application, and the consented permit for the operations at Daneshill (V010) is therefore the flexible use of the treatment pads as described. The updated version of the Emissions Management Plan for the site dated December 2023 [CD2/2/C] which was submitted as part of the Appeal includes revision P04 of the Site Layout Plan.

Site surfacing

5.7 In Paragraph 28 of his PoE, GR sets out the EA's definition of an 'impermeable surface'. As he states, and I agree, the purpose of an 'impermeable surface' in the context of a waste operation is to be sufficient to prevent the transmission of liquids beyond the impermeable surface. In the context of the applications for Daneshill and Maw Green, this means the runoff from the treatment pads, which may have been in contact with the waste and therefore may be contaminated, must be contained in the drainage system for the treatment pads.

5.8 The impermeable surface for the Daneshill treatment pads is shown in the cross sections on drawing 3982-CAU-XX-XX-DR-C-1806 Revision P1 which is included in the Emissions Management Plan [CD2/2/C]. The drawing has not changed from that included in the January 2021 application documents. The cross section shows the presence of a geosynthetic clay layer (GCL) which is a low permeability material used in many engineered structures, including as low permeability lining and capping for landfill sites[6]. As shown on the drawing, the low permeability GCL layer is covered by a protective layer of sand, a separation geotextile and a running surface of crushed concrete. The details of the contained drainage system are set out on drawing reference 3982-CAU-XX-XX-DR-V-1813_S2-P04 provided to the EA on 22 February 2022 [CD2/2/G52]. The plan shows that the drainage from the treatment pads is contained by the impermeable surfacing. This plan, and therefore the associated impermeable surfacing, has been accepted by the EA as it is referenced as an Operating Technique in Table S1.2 of the Daneshill V010 EP [CD3/2A].

5.9 The impermeable surfaces for the Maw Green treatment pads are shown on drawing 5193-CAU-XX-XX-DR-V-1805 Revision P02 which is included in the Treatment Process Description and BAT Review submitted with the variation application [CD2/3/F]. This drawing is provided as Figure 2 of my PoE. The drawing shows that the impermeable component of the eastern pad area comprises concrete and that for the western pad area comprises a GCL low permeability material, with a crushed concrete cover to provide a running surface. GCL has more flexibility to withstand uneven settlement of the underlying material while remaining effective, than a hard surface such as concrete. This is why GCL is used in preference to concrete as the

[6] Using geosynthetic clay liners in landfill engineering: LFE3. Environment Agency June 2014. https://www.gov.uk/government/publications/using-geosynthetic-clay-liners-in-landfill-engineering-lfe3

low permeability component at Daneshill, where the treatment pads are located on made ground, and is used for the western pad at Maw Green, which is located on the landfill area. The Treatment Process Description and BAT Review, including drawing 5193-CAU-XX-XX-DR-V-1805 Revision P02 which shows the western pad at Maw Green being formed from crushed concrete and GCL, is listed as an Operating Technique in Table S1.2 of the Maw Green Environmental Permit (V009 [CD2/4/J] and V010 [CD2/4/M]). The use of crushed concrete and GCL layers for impermeable surfacing has therefore been accepted by the EA.

5.10 As reflected in the draft Statement of Common Ground, the new issue raised by the EA as part of this appeal relates to the maintenance of a clean operating surface which is a different matter to that associated with the provision of an impermeable surface with an integrated, contained drainage system. The issue of a smooth operational surface had not been raised as a concern by the EA previously as part of the determination of the applications. Had it been raised during the processing of the applications it could have been easily addressed as the Appellant would have been willing to amend the plans so that the proposed new pad for the Maw Green activity would comprise a smooth surface such as concrete or tarmac surface, and the Daneshill treatment pad would comprise a tarmac surface rather than crushed concrete.

APPENDIX A

INFORMATION PROVIDED BY PROVECTUS REGARDING HORSELEY FIELDS

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Baddesley Colliery Offices
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CV9 2LE

4 March 2024

Dear Leslie

Permit reference EPR/BP3331DD: Horseley Fields,

Further to your call requesting confirmation on some of the operational aspects of the Horseley Fields soil treatment facility that is located close to our Edwin Richards Quarry site.

The Environment Agency approved the Horseley Fields permit on 18/10/2017.

Asbestos Picking
The permit allows for up to <0.1% of asbestos fibres in soils, unlike the ERQ permit where only bound asbestos is permitted, there is no limitation on the type of asbestos in Table S2.3.

Table 1. Table for permitted waste for asbestos picking

Table S2.3 Permitted waste types and quantities for asbestos picking	
Maximum quantity	Annual throughput shall be less than 200,000 tonnes for all activities in table S1.1 Waste hazardous properties H3, HP4, HP5, and HP7. HP14
Waste code	**Description**
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 06	**Insulation materials and asbestos-containing construction materials**
17 06 05*	construction materials containing asbestos
17 05 03*	soil and stones containing hazardous substances

There was a building on site which had a HEPA filter as shown in Figure 1. Open sections of the building have been enclosed using tarpaulins near the roof. One side of the building appears to be open for access. The extent of enclosure around this access point could not be accurately determined, it did however appear to be formed from further tarpaulins. The Dunton asbestos building footprint is approximately 500m^2 in size and has an average height of 5m based upon the Google Earth data.

Figure 1. Asbestos Building and HEPA filter, Horseley Fields

The permit application states that the HEPA filter on the building will be a NPU 5000+ as manufactured by SMH products. The datasheet for the NPU 5000+ states an airflow of 5,500m^3/hr.

Based upon the building void being 2,500m^2, this would equate to an hourly exchange rate of 2.2.

We understand that there is no screening of soils inside the building and that the HEPA filter abatement is to contain emissions from the picking of asbestos from soils.

Mechanical Screening of Soils

There is a directly associated activity in this permit in AR9 which allows for the screening of waste to remove any materials not suitable for bioremediation. Whilst this activity refers to the waste codes for bioremediation in Table S2.2, unlike other permits it does not specifically exclude pre-screening wastes with asbestos.

In AR2 there is mention that the asbestos picking can take place prior to subsequent bioremediation.

Table 2. Pre-Screening of Waste

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
AR9	Pre-screening of waste.	Screening of waste to remove any materials which are not suitable for bioremediation.	All treatment must take place on an impermeable surface with sealed drainage. Waste types as specified in Table S2.2

We visited the site and observed the operations externally in 2019. A two way screener with conveyor was present on site externally and screening soils. This was being abated by dust suppression as shown in Figure 2.

Figure 2. Two Way Screener at Horseley Fields

CAR Form 18/03/18

There is a CAR form that we received via a national request in 2019 that is of note (appended).

1. You indicate that oversize waste screened out prior to the picking station is subjected to asbestos testing before crushing for aggregate recovery. What is the sampling protocol and test method for the oversize?

Monitoring at Horseley Fields

Asbestos monitoring is undertaken once a month downwind from the asbestos treatment area as specified in Table S3.3 and a <0.01f/ml threshold is used.

Total particulates are monitored monthly with a threshold of 200mg/m^2/day.

The EA have provided details of AR10 and AR11 in the proof of evidence for the site, although these do not appear on the permit located on the government website for the permit reference they have provided.

Pre-Operational Condition at ERQ

We had a meeting at Edwin Richards Quarry on 23 January 2023 with the Environment Agency. Mat Nicholson of FCC and myself along with Claire Finney of Byrne Looby met with Ian Storer and Russell Price from the Environment Agency.

We requested clarity on the EA's expectations for an enclosure and soil screening and were told that nothing had changed from the discussions in 2021. We then asked about the two way screen and conveyor that we had observed for the Horsley Fields site given the significant amount of soil with asbestos that was being processed there. Ian Storer confirmed that the two way screen was used to remove oversize prior to hand picking of asbestos inside the building. He did not consider that the two way screen used in this process was the same as our proposal to use a three way screen. He said that this was due to the increased agitation from a three way screen compared to the two way screen used externally at Horseley Fields. He was unable to provide further clarity on how he had come to this conclusion.

Ian said that they would look at further submissions to discharge the pre-commencement condition, or for FCC to seek a local enforcement position. Both suggestions were implemented, and both were rejected by the Environment Agency.

If there is any further confirmation required on the points above, please do not hesitate in contacting me.

Regards

Jon Owens
Director

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Appendix A – CAR Form 18/03/18

Environment Agency	**EPR Compliance Assessment Report**	Report ID: BP3331DD/0303540

This form will report compliance with your permit as determined by an Environment Agency officer

Site	Horseley Field Waste Treatment Facility EPR/BP3331DD			Permit Ref	BP3331DD	
Operator/ Permit holder	Dunton Environmental Limited					
Date	08/03/2018			Time in		Out
What parts of the permit were assessed	Review of commissioning report for IC1					
Assessment	Report/data review	EPR Activity:	Installation X	Waste Op		Water Discharge
Recipient's name/position	David Ruddle - Env Compliance Manager					
Officer's name	Iain Storer			Date issued	08/03/2018	

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

Permit Conditions and Compliance Summary				Condition(s) breached
a) Permitted activities	**1**. Specified by permit	N		
b) Infrastructure	**1.** Engineering for prevention & control of pollution	N		
	2. Closure & decommissioning	N		
	3. Site drainage engineering (clean & foul)	N		
	4. Containment of stored materials	N		
	5. Plant and equipment	N		
c) General management	**1**. Staff competency/ training	N		
	2. Management system & operating procedures	A		
	3. Materials acceptance	N		
	4. Storage handling, labelling, segregation	N		
d) Incident management	**1**. Site security	N		
	2. Accident, emergency & incident planning	N		
e) Emissions	**1.** Air	N		
	2. Land & Groundwater	NA		
	3. Surface water	N		
	4. Sewer	N		
	5. Waste	N		
f) Amenity	**1**. Odour	N		
	2. Noise	N		
	3. Dust/fibres/particulates & litter	N		
	4. Pests, birds & scavengers	N		
	5. Deposits on road	N		
g) Monitoring and records, maintenance and reporting	**1**. Monitoring of emissions & environment	N		
	2. Records of activity, site diary, journal & events	N		
	3. Maintenance records	N		
	4. Reporting & notification	A		
h) Resource efficiency	**1**. Efficient use of raw materials	N		
	2. Energy	N		

KEY: **C1, C2, C3, C4** = CCS breach category **(* suspended scores are marked with an asterisk),**
A = Assessed (no evidence of non-compliance), **N** = Not assessed, **NA** = Not Applicable, **O** = Ongoing non-compliance – not scored

Number of breaches recorded	0	**Total compliance score** (see section 5 for scoring scheme)	0

If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

I have reviewed your commissioning report submitted to satisfy improvement condition IC1 and comment as follows:

1. You indicate that oversize waste screened out prior to the picking station is subjected to asbestos testing before crushing for aggregate recovery. What is the sampling protocol and test method for the oversize?

2. How does pushing the AAUs up against the tarpaulin door ensure an adequate seal? Can you supply photographs to demonstrate?

3. Road sweepings from outside the ACM storage and treatment area - what is the sampling protocol and test method for the sweepings and how are batches to be kept separate?

4. I don't really understand how changing monitoring point references from single letters to single numbers brings any benefit, particularly where different types of monitoring point have the same reference. I could see a benefit in a combination of letter/number referencing such as NMP1 (noise monitoring point 1), DMP1 (dust monitoring point 1) etc.

Environment Agency	**EPR Compliance Assessment Report**	Report ID**:** BP3331DD/0303540	
This form will report compliance with your permit as determined by an Environment Agency officer			
Site	Horseley Field Waste Treatment Facility EPR/BP3331DD	Permit	BP3331DD
Operator/ Permit	Dunton Environmental Limited	Date	08/03/2018

Section 3- Enforcement Response **Only one of the boxes below should be ticked**

You must take immediate action to rectify any non-compliance and prevent repetition.
Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.	
In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.	
We will now consider what enforcement action is appropriate and notify you, referencing this form.	

Section 4- Action(s)

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			

Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.
- A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

See our Enforcement and Civil Sanctions guidance for further information

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance which could have a **major** environmental effect	60
C2	A non-compliance which could have a **significant** environmental effect	31
C3	A non-compliance which could have a **minor** environmental effect	4
C4	A non-compliance which has **no** potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

Section 6 – General Information

Data protection notice

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

You must notify your local officer within 28 days of receipt if, you wish to challenge any part of this compliance assessment report. If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the Parliamentary and Health Service Ombudsman phone their helpline on 0345 015 4033.

APPENDIX B

THE REGULATORS' CODE

Department for Business Innovation & Skills

Better Regulation Delivery Office

Regulators' Code

April 2014

Foreword

In the Autumn Statement 2012 Government announced that it would introduce a package of measures to improve the way regulation is delivered at the frontline such as the Focus on Enforcement review of appeals, the proposed Growth Duty for non-economic regulators and the Accountability for Regulator Impact measure.

This Government is committed to reducing regulatory burdens and supporting compliant business growth through the development of an open and constructive relationship between regulators and those they regulate. The Regulators' Code provides a flexible, principles based framework for regulatory delivery that supports and enables regulators to design their service and enforcement policies in a manner that best suits the needs of businesses and other regulated entities.

Our expectation is that by clarifying the provisions contained in the previous Regulators' Compliance Code, in a shorter and accessible format, regulators and those they regulate will have a clear understanding of the services that can be expected and will feel able to challenge if these are not being fulfilled.

Regulators within scope of the Regulators' Code are diverse but they share a common primary purpose – to regulate for the protection of the vulnerable, the environment, social or other objective. This Code does not detract from these core purposes but seeks to promote proportionate, consistent and targeted regulatory activity through the development of transparent and effective dialogue and understanding between regulators and those they regulate.

I believe the Regulators' Code will support a positive shift in how regulation is delivered by setting clear expectations and promising open dialogue. Ultimately this will give businesses greater confidence to invest and grow.

Michael Fallon
Minister of State for Business and Enterprise
Department for Business, Innovation and Skills

Regulators' Code

This Code was laid before Parliament in accordance with section 23 of the Legislative and Regulatory Reform Act 2006 ("the Act"). Regulators whose functions are specified by order under section 24(2) of the Act **must** have regard to the Code when developing policies and operational procedures that guide their regulatory activities. Regulators must equally have regard to the Code when setting standards or giving guidance which will guide the regulatory activities of other regulators. If a regulator concludes, on the basis of material evidence, that a specific provision of the Code is either not applicable or is outweighed by another relevant consideration, the regulator is not bound to follow that provision, but should record that decision and the reasons for it.

1. Regulators should carry out their activities in a way that supports those they regulate to comply and grow

1.1 Regulators should avoid imposing unnecessary regulatory burdens through their regulatory activities[1] and should assess whether similar social, environmental and economic outcomes could be achieved by less burdensome means. Regulators should choose proportionate approaches to those they regulate, based on relevant factors including, for example, business size and capacity.

1.2 When designing and reviewing policies, operational procedures and practices, regulators should consider how they might support or enable economic growth for compliant businesses and other regulated entities[2], for example, by considering how they can best:

- understand and minimise negative economic impacts of their regulatory activities;
- minimising the costs of compliance for those they regulate;
- improve confidence in compliance for those they regulate, by providing greater certainty; and
- encourage and promote compliance.

1.3 Regulators should ensure that their officers have the necessary knowledge and skills to support those they regulate, including having an understanding of those they regulate that enables them to choose proportionate and effective approaches.

1.4 Regulators should ensure that their officers understand the statutory principles of good regulation[3] and of this Code, and how the regulator delivers its activities in accordance with them.

2. Regulators should provide simple and straightforward ways to engage with those they regulate and hear their views

2.1 Regulators should have mechanisms in place to engage those they regulate, citizens and others to offer views and contribute to the development of their policies and service standards. Before changing policies, practices or service standards, regulators should consider the impact on business and engage with business representatives.

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1 The term 'regulatory activities' refers to the whole range of regulatory options and interventions available to regulators.

2 The terms 'business or businesses' is used throughout this document to refer to businesses and other regulated entities.

3 The statutory principles of good regulation can be viewed in Part 2 (21) on page 12: http://www.legislation.gov.uk/ukpga/2006/51/pdfs/ukpga_20060051_en.pdf.

2.2 In responding to non-compliance that they identify, regulators should clearly explain what the non-compliant item or activity is, the advice being given, actions required or decisions taken, and the reasons for these. Regulators should provide an opportunity for dialogue in relation to the advice, requirements or decisions, with a view to ensuring that they are acting in a way that is proportionate and consistent.

This paragraph does not apply where the regulator can demonstrate that immediate enforcement action is required to prevent or respond to a serious breach or where providing such an opportunity would be likely to defeat the purpose of the proposed enforcement action.

2.3 Regulators should provide an impartial and clearly explained route to appeal against a regulatory decision or a failure to act in accordance with this Code. Individual officers of the regulator who took the decision or action against which the appeal is being made should not be involved in considering the appeal. This route to appeal should be publicised to those who are regulated.

2.4 Regulators should provide a timely explanation in writing of any right to representation or right to appeal. This explanation should be in plain language and include practical information on the process involved.

2.5 Regulators should make available to those they regulate, clearly explained complaints procedures, allowing them to easily make a complaint about the conduct of the regulator.

2.6 Regulators should have a range of mechanisms to enable and regularly invite, receive and take on board customer feedback, including, for example, through customer satisfaction surveys of those they regulate[4].

3. Regulators should base their regulatory activities on risk

3.1 Regulators should take an evidence based approach to determining the priority risks in their area of responsibility, and should allocate resources where they would be most effective in addressing those priority risks.

3.2 Regulators should consider risk at every stage of their decision-making processes, including choosing the most appropriate type of intervention or way of working with those regulated; targeting checks on compliance; and when taking enforcement action.

3.3 Regulators designing a risk assessment framework[5], for their own use or for use by others, should have mechanisms in place to consult on the design with those affected, and to review it regularly.

3.4 Regulators, in making their assessment of risk, should recognise the compliance record of those they regulate, including using earned recognition approaches and should consider all available and relevant data on compliance, including evidence of relevant external verification.

3.5 Regulators should review the effectiveness of their chosen regulatory activities in delivering the desired outcomes and make any necessary adjustments accordingly.

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[4] The Government will discuss with national regulators a common approach to surveys to support benchmarking of their performance.

[5] The term 'risk assessment framework' encompasses any model, scheme, methodology or risk rating approach that is used to inform risk-based targeting of regulatory activities in relation to individual businesses or other regulated entities.

4. Regulators should share information about compliance and risk

4.1 Regulators should collectively follow the principle of "collect once, use many times" when requesting information from those they regulate.

4.2 When the law allows, regulators should agree secure mechanisms to share information with each other about businesses and other bodies they regulate, to help target resources and activities and minimise duplication.

5. Regulators should ensure clear information, guidance and advice is available to help those they regulate meet their responsibilities to comply

5.1 Regulators should provide advice and guidance that is focused on assisting those they regulate to understand and meet their responsibilities. When providing advice and guidance, legal requirements should be distinguished from suggested good practice and the impact of the advice or guidance should be considered so that it does not impose unnecessary burdens in itself.

5.2 Regulators should publish guidance, and information in a clear, accessible, concise format, using media appropriate to the target audience and written in plain language for the audience.

5.3 Regulators should have mechanisms in place to consult those they regulate in relation to the guidance they produce to ensure that it meets their needs.

5.4 Regulators should seek to create an environment in which those they regulate have confidence in the advice they receive and feel able to seek advice without fear of triggering enforcement action.

5.5 In responding to requests for advice, a regulator's primary concerns should be to provide the advice necessary to support compliance, and to ensure that the advice can be relied on.

5.6 Regulators should have mechanisms to work collaboratively to assist those regulated by more than one regulator. Regulators should consider advice provided by other regulators and, where there is disagreement about the advice provided, this should be discussed with the other regulator to reach agreement.

6. Regulators should ensure that their approach to their regulatory activities is transparent

6.1 Regulators should publish a set of clear service standards, setting out what those they regulate should expect from them.

6.2 Regulators' published service standards should include clear information on:

a) how they communicate with those they regulate and how they can be contacted;

b) their approach to providing information, guidance and advice;

c) their approach to checks on compliance[6], including details of the risk assessment framework used to target those checks as well as protocols for their conduct, clearly setting out what those they regulate should expect;

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[6] Including inspections, audit, monitoring and sampling visits, and test purchases.

d) their enforcement policy, explaining how they respond to non-compliance;

e) their fees and charges, if any. This information should clearly explain the basis on which these are calculated, and should include an explanation of whether compliance will affect fees and charges; and

f) how to comment or complain about the service provided and routes to appeal.

6.3 Information published to meet the provisions of this Code should be easily accessible, including being available at a single point[7] on the regulator's website that is clearly signposted, and it should be kept up to date.

6.4 Regulators should have mechanisms in place to ensure that their officers act in accordance with their published service standards, including their enforcement policy.

6.5 Regulators should publish, on a regular basis, details of their performance against their service standards, including feedback received from those they regulate, such as customer satisfaction surveys, and data relating to complaints about them and appeals against their decisions.

This requirement may be satisfied by providing a single web page that includes links to information published elsewhere.

Monitoring the effectiveness of the Regulators' Code

The Government is committed to making sure the Regulators' Code is effective. To make sure that the Code is being used effectively, we want businesses, regulated bodies and citizens to challenge regulators who they believe are not acting in accordance with their published policies and standards. It is in the wider public interest that regulators are transparent and proportionate in their approaches to regulation.

The Government will monitor published policies and standards of regulators subject to the Regulators' Code, and will challenge regulators where there is evidence that policies and standards are not in line with the Code or are not followed.

This publication is also available on our website at:
https://www.gov.uk/government/publications/regulators-code

Any enquiries regarding this publication should be sent to:

Better Regulation Delivery Office
Department for Business, Innovation and Skills
Lower Ground Floor
Victoria Square House
Victoria Square
Birmingham B2 4AJ

Tel: 0121 345 1200

If you require this publication in an alternative format, email brdo.enquiries@bis.gsi.gov.uk or call 0121 345 1200.

URN: BRDO/14/705

APPENDIX C

DECISION DOCUMENT FOR THE ISSUE OF AN ENVIRONMENTAL PERMIT (REFERENCE EPR/ZP3133RH)

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Fawley Remediation Treatment and Recovery Facility operated by Biogenie Site Remediation Limited.

The permit number is EPR/ZP3133RH

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:

- 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 applicant's proposals.

Structure of this document

- Description of main features of the installation/the changes introduced by the variation
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Description of the main features of the Installation

The site is made up of a number of areas (a waste storage area, a treatment area and two restoration areas) located within the boundary of the Fawley Oil Refinery. The Fawley Oil Refinery is located approximately 6.5 Kilometres to the south of Southampton on the coast of Southampton Water. The National Grid Reference for the centre of the refinery is SU 44871 03909.

The remediation of contaminated soils and sludges produced by the Fawley Oil Refinery have to date been treated under a mobile plant permit. With the subsequent deposit for recovery activity taking place under an exemption. A phase of treatment and on-site recovery of 6,200m^3 of materials was completed in 2010, with a further phase of 4,200m^3 of materials treated and recovered in 2013. The mobile plant permit and exemption are no longer appropriate for the activities and a site based Environmental Permit is now required to encompass the waste treatment and recovery activities being undertaken at the site.

Only suitable waste produced at the Fawley Oil Refinery will be accepted at the site. The waste will be will used to restore two decommissioned areas (Block 106 and Area 1) of the Fawley Oil Refinery through the permanent deposit of waste. We have assessed the waste recovery plan submitted by the Applicant and agreed that the activity is deposit of waste for recovery. See the key issues section for more information. If the waste material requires remediation before it is suitable for use in restoration, the Applicant will undertake bioremediation treatment and, if required, stabilisation/ solidification on the materials:

Bioremediation:
Bioremediation is a process that acts to accelerate the natural degradation of organic compounds within contaminated materials through the encouragement of natural soil microflora processes. The process exploits the ability of natural soil microbial populations (for example bacteria and fungi) to biodegrade or biotransform toxic environmental organic and inorganic pollutants into less toxic or innocuous products (for example carbon dioxide and water vapour).

The site will operate a bioremediation process to treat contaminated waste from the Fawley Oil Refinery. The bioremediation process will have a capacity to treat up to 15,750 tonnes per annum of hazardous waste and 4,500 tonnes per annum of non-hazardous waste. These waste materials comprise soils or sludges with high organic contaminant loading which, depending on the level of contamination, may be considered as hazardous waste.

Once accepted for treatment, waste materials will be transferred to the remediation area where the waste will be arranged into biopiles (a biopile describes the process of the biological treatment of a stockpile of soil with an active aeration system). The biopiles will have a maximum height of 3 metres and edges sloped to a 45^o angle to ensure minimal infiltration of rainfall. Waste streams will be treated in separate cells upon the treatment pad with a record of batches maintained throughout the process.

Once a biopile is formed the waste will be left to allow the microfauna to establish and degrade the organic compounds within the material. Soils will typically be treated for a

period of 26 weeks depending on the degree of contamination and the bioremediation treatment process will operate on a continuous basis. The biopiles will be covered after construction in order to minimise rainwater infiltration, moisture loss and the release of odours. They will need to be periodically uncovered to allow mixing and sampling operations. The majority of the process is automated and controlled with the exception of occasional mechanical turning using an excavator. The biopile will be mechanically turned approximately once every 6 weeks to ensure the correct moisture levels and allow aeration of the material and to facilitate additional inputs (amendments). Soil is sampled during this turnover and analysed to allow monitoring of contaminant concentrations and other physico-chemical parameters to ensure optimal conditions exist and are maintained.

Testing of materials in advance of the biopile formation will allow optimisation of the treatment process. The process is specifically optimised for each treatment batch including the maintenance of oxygen and moisture conditions along with the addition of substances to tailor nutrient concentration and structure of the materials to encourage the growth of natural soil microflora. The required additional substances for each batch is based upon a combination of its chemical and physical condition. The substances which will be routinely added include organic additions typically up to 20% by volume (for example spent mushroom compost or wood chip) and nitrogen based fertilisers (<1% by volume).

The bioremediation process includes controls on gaseous and aqueous emissions (see key issues section of more information).

Outputs from the process will comprise of waste materials with significantly lower levels of contaminants. Upon completion of the bioremediation treatment period, validation testing will be undertaken to analyse the materials against remedial targets which correspond with site specific waste acceptance criteria (WAC) for the permanent deposit of waste for recovery. Following bio-remediation, any waste which is not suitable for deposit for recovery will either be, a) subjected to stabilisation/ solidification treatment using Ordinary Portland Cement or b) transferred off site for disposal at a suitably permitted facility.

Stabilisation/ solidification:
Previous phases of the works have identified leachable concentrations of metals within the waste materials. These concentrations are above those suitable for waste recovery at the site and where they occur further treatment by stabilisation/ solidification will be undertaken.

The process is specifically designed to target the mobility of nickel and zinc. The aim of the stabilisation/ solidification process is to restrict the mobility of contaminants through immobilising mechanisms, reducing the risk of the target contaminant leaching from the waste. This will be achieved by mixing the material with cement.

Stabilisation/ solidification of materials will take place in a separate area of the remediation treatment area to the bioremediation. The treatment bays will be constructed of a separately bunded area located upon the impermeable remediation treatment pad. The treatment area will comprise of up to two treatment bays designated for combining the materials with Ordinary Portland Cement which acts as

the binder. Cement will be directly applied to the materials in the treatment bay at a rate of 3% by weight and combined using an excavator-mounted mixing plant.

On completion of each batch, the stabilised materials will be transferred from the treatment bay to a temporary storage area for curing and ensuring it is suitable prior to use in restoration. Following stabilisation/ solidification, any waste which is not suitable for deposit for recovery will be rejected and transferred off site for disposal at a suitably permitted facility.

Key issues of the decision

Site condition report
The Applicant provided a site condition report which contains information on the previous land use, a report on the baseline conditions and details of the hydro-geological setting of the site. We are satisfied that the site description is representative of the site.

The existing oil refinery is operated by Esso Petroleum Company Limited and together with the remediation treatment and recovery facility forms a multi operator installation.

Due to their close proximity the pre-treatment storage area, treatment area and one of the restoration areas (Area 1) share a similar geology. The underlying bed rock for this part of the site consists of Barton Clay Formation which is classified as unproductive strata; meaning it has low permeability with negligible significance for water supply or river base flow. These areas are covered by made ground, thought to be associated with the development of the refinery, consisting of sand and gravel at variable depths (typically 1-2 metres).
The remaining restoration area (Block 106) is also situated on an area of made ground, with sand and gravel at variable depths across the area (typically 0.5-2 metres). The bed rock underlying Block 106 consists of Barton Clay Formation and Chama Sand Formation. The Chama Sand Formation is classified as a Secondary A Aquifer under the requirements of the Water Framework Directive. Groundwater vulnerability maps show that the Chama Sand Formation is classified as a minor aquifer. The installation does not lie within a groundwater source protection zone.

Flood risk maps indicated that parts of the site may be susceptible to flooding. The remediation area, pre-treatment storage area and Area 1 all lie within areas designated as a flood zone 3 (these are defined as areas that could be affected by flooding, either from rivers or the sea, if there were no flood defences). Block 106 lies within an area designated as a flood zone 1 (areas which are ‘very unlikely’ to flood from either rivers or the sea). The nearest surface watercourse is the surface water management system for Fawley Oil Refinery. This is located close to each of the four areas which make up the site. At its closest point the surface water management system lies approximately 10 metres to the south west of the pre-treatment storage area. To the north and east of the site lies Southampton Water. Southampton Water is a tidal estuary meaning that during periods of low tide tidal mud flats are present to the north and east of the site. At its closest point, the site lies approximately 320 metres to the south west of the high tide level of the Southampton Water.

The areas of land covered by the permit form part of the larger Fawley Oil Refinery complex. Prior to the refinery development (in the 1950s) historical maps show the land as being undeveloped. During the life of the refinery, all of the areas covered by this permit have had a history of crude oil and/or fuel product storage:

- Pre-treatment storage area: this comprises a former bulk storage tank whose metal superstructure has been demolished leaving the concrete pad. The

refinery tank zone information suggests the tank formerly stored diesel and/or fuel oil for a number of decades before demolition.
- Treatment area: an area of the refinery adjacent to two storage tanks thought to be used for 'Slops' storage (oil/oil contaminated water).
- Area 1: this comprises a former bulk storage tank thought likely to have been used for crude oil storage.
- Block 106: an area of open ground formerly occupied by bulk storage tanks adjacent to a number of diesel and/or fuel oil storage tanks and hence it is thought likely this was the fuel product stored in these former tanks.

In order to provide a baseline, the Applicant has used data from site investigations undertaken in 2008. We are satisfied that data from 2008 is appropriate as it predates any treatment operations (under a mobile plant permit) or previous phases of material being deposited for recovery in Block 106 (under an exception). The site investigations show variable concentrations of Total Petroleum Hydrocarbon (TPH) contamination across the site. Groundwater monitoring results from November-December 2014, identified no evidence of petroleum hydrocarbon contamination in the Block 106 deposit area, but slightly elevated concentrations in the pre-treatment and bioremediation areas.

The baseline report is an important reference document in the assessment of contamination that might arise during the operational lifetime of the installation and at cessation of activities at the installation. The standard condition requiring monitoring of soil and/or groundwater is included within the permit. This condition requires the periodic monitoring of groundwater at least once every five years and soil at least once every ten years. At the definitive cessation of activities, the Operator has to satisfy us that the necessary measures have been taken so that the site ceases to pose a risk to soil or groundwater, taking into account both the baseline conditions and the site's current or approved future use. To do this, the Operator will apply to us for surrender of the permit, which we will not grant unless and until we are satisfied that these requirements have been met.

Waste pre-acceptance and acceptance

Pre-acceptance and acceptance procedures will be in place to characterise the waste and limit the potential for adverse impacts.

At the pre-acceptance stage, the applicant will create a record within their material tracking system. This record will be populated with the information compiled at the pre-acceptance stage including:

- date for delivery
- the waste's source and the specific process which produced the waste
- the quantity of the waste
- chemical analysis of the waste
- the form the waste takes
- hazards associated with the waste
- relevant sample storage requirements

The waste types are limited to those produced from a known process and will only come from the Fawley Oil Refinery. The Applicant has undertaken a detailed technical appraisal of the proposed waste types. This has given them an understanding of the characteristics of the waste types and their suitability for the site processes. The waste characterisation exercise has identified the type and degree of contamination of the waste materials to be accepted at the site. The results of this analysis have been summarised by the Applicant in their application. We are satisfied that the proposed waste types are suitable for use in restoration and/or the remediation treatment processes at the site.

Before any waste is accepted at the site, checks will be made on the site's available storage capacity and a visual inspection of the waste materials will take place. After the initial visual screening the delivery vehicle will be directed to discharge their load at the pre-treatment storage area, where the waste is kept pending sampling and verification and compliance testing. The Applicant has confirmed that waste acceptance verification will be undertaken by a suitably qualified and experienced remediation engineer.

Compliance testing will be undertaken on solid and leachate samples at a rate of one sample per 500m^3 of material to confirm the identity of the waste and its description, compliance with the environment permit, consistency against the pre-acceptance characterisation and its suitability for treatment by bioremediation and/or stabilisation/ solidification. Samples will be collected as the waste is deposited in the holding area and following placement of materials on the treatment pad. This sampling programme is undertaken to confirm baseline concentrations, and also to confirm the absence of any contaminants, such as metals or asbestos, for which the treatment has not been designed.

The Applicant will have a rejection procedure in place to prevent non-conforming wastes being accepted at the site for use in restoration or remediation treatment. If the non-compliance is identified before they are offloaded at the pre-treatment storage area, the materials will be rejected and the load returned on the delivery vehicle. If during verification and compliance testing waste materials are identified as non-conforming, they will be rejected and stored in the site's designated quarantine area pending removal off-site to a suitably licensed facility within five working days. Records of the non-conformance will be made and the operator of the refinery will be notified of the non-conformance.

We have compared the waste pre-acceptance and acceptance procedures with our sector guidance S5.06 Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste. We are satisfied that the procedures will minimise the potential for nonconforming waste to be received at the site and that if non-conforming wastes are identified procedures are in place to minimise the potential for them to have a detrimental impact upon the environment.

Control of emissions from the bioremediation process

Emissions to air (from the air extraction system) and leachate will be produced by the bioremediation process. The biopiles consist of a number of operational controls which allow the control of gaseous and aqueous emissions.

There will be one point source emission to air from the site. Air extracted through the biopile during bioremediation will be released to atmosphere via a stack exhaust to aid dispersion. An assessment of the potential impacts (including odour) from the stack emissions was included within the application and is discussed further in the odour and air emissions sections below.

Forced air extraction ensures a constant stream of air is fed through the materials helping to maintain aerobic conditions. The air extraction system comprises a series of perforated pipes laid above an impermeable pad upon which the waste materials are placed. The pipes are connected to a blower which applies a vacuum, drawing air through the waste. Air from the air extraction system is passed through the air-water separator to remove moisture from the effluent stream. Once moisture is removed, the effluent air is emitted through a stack to aid dispersion.

The process does not need a significant input of water except, water will only be required in order to maintain moisture levels essential for efficient bioremediation. Throughout the treatment process the biopiles will produce a small volume of leachate (approximately 0.52m^3 per day) the leachate from the bioremediation treatment process will be directed to the Fawley Oil Refinery effluent treatment plant. The Applicant has confirmed that the effluent treatment plant has sufficient capacity available to treat the effluent from the biopiles.

Air emissions

The discharge of process emissions to atmosphere has the potential to impact upon air quality. An Air Quality Assessment report was included within the application; this report assesses the potential impacts on local air quality as a result of emissions from the biopile stack exhaust. The report also considers the potential impact of odour from the stack emissions, this is discussed further in the odour section below.

The Applicant carried out sampling of the stack exhaust and background concentrations using waste characterisation to identify pollutants and define the analysis suite. The Air Quality Assessment report contains an assessment of the key pollutants and considers the potential impacts associated with the emissions to air from the stack (Total Petroleum Hydrocarbons (TPH), Volatile Organic Compounds (VOCs) and Polyaromatic Hydrocarbons (PAHs)).

The Applicant has assessed the monitoring results using the Environment Agency's H1 screening tool. Based on the H1 screening we are satisfied that all of the modelled pollutants, with the exception of PH C8-C10 aromatic fraction and benzo-a-pyrene, screen out as insignificant and do not require further assessment.

Having taken into account the background concentration, the Predicted Environmental Contribution (PEC) for PH C8-C10 aromatic fraction is less than 70% of the long-term environmental standard. We are therefore satisfied that the emissions will not cause an exceedance of the Environmental Assessment Level (EAL).

Where measured emissions were below the limit of detection, the detection limit was applied as a precautionary approach. The limit of detection was used for benzo-a-

pyrene and therefore the actual emissions are likely to be lower than the values used in the screening. Given the chemical properties of this pollutant it is considered unlikely that there would be significant emissions from the site. Benzo-a-pyrene is released to atmosphere predominantly when combustion is incomplete (usually because there is insufficient oxygen). In soil it would be expected to adsorb very strongly and would not be expected to leach to water given its low solubility. Also, evaporation from soils and surfaces is not expected to be significant given its vapour pressure. Based on this, volatilisation of benzo-a-pyrene as a result of the bioremediation process (which operates at 30 - 50 degrees Celsius) is anticipated to be low. We are satisfied that it is unlikely that the treatment process would give rise to significant emissions of benzo-a-pyrene and therefore we have not requested the Applicant to carry out detailed modelling.

Amenity issues
The Operator has confirmed that the site will be designed, operated and maintained in a way which minimises the potential environmental risks and impacts of the facility.

The Applicant will carry out a programme of Planned Preventative Maintenance; all items of plant and equipment, including bunds, drains and tanks will be regularly inspected and maintained in accordance with the site's inspection and maintenance schedule. Procedures will ensure that appropriate corrective action is taken in response to problems identified at the site and any complaints received. They will also ensure that non-conformances are reported, investigated and rectified, and that failures and weaknesses are prevented. These procedures will form part of the sites Environmental Management System.

Security measures will be in place to prevent unauthorised access to the site. The site is located wholly within the Fawley Oil Refinery which benefits from substantial existing security measures, including high security fencing bordering the entirety of the site, 24 hour attendance by security guards and CCTV.

Odour
As part of their application the Applicant has submitted an air quality assessment and environmental risk assessment which consider odour.

The risk assessment identifies potential sources of odour and sensitive receptors and considers pathways for impact.

The Applicant has identified the following parts of the operation as potential sources of odour at the site:

- Waste acceptance
- Storage of contaminated materials
- Bioremediation process
- Stabilisation/ solidification process
- Failure of equipment (for example the biopile blower)
- The development of anaerobic conditions
- The use of waste in restoration

The Applicant has committed to good housekeeping and has detailed measures which are aimed at reducing the potential for odour from the site. These control measures consist of methods aimed at preventing the generation of odour and include:

- Strict waste pre-acceptance and acceptance procedures will be in place to prevent the receipt of strongly malodours waste types
- The waste types are limited to those produced from a known process and will only come from a singular known source (the Fawley Oil Refinery)
- Non-conforming materials received at the site will be segregated and stored in the site's designated quarantine area prior to removal off site.

The absence of oxygen in the waste material could lead to decomposition of the organic content under anaerobic conditions, this has the potential to cause odours. Optimum conditions need to be maintained to allow efficient drying and avoid anaerobic decomposition. Air extraction and the periodic turning of the waste will limit the possibility of anaerobic conditions forming. The biopiles will be covered with a tarpaulin which will be combined with the air extraction system and release via the stack to limit fugitive emissions of odour during bioremediation treatment. Failure of the blower could cause a slowdown in the treatment process and the development of anaerobic conditions with resulting fugitive emissions of odour from the biopile. The Applicant has confirmed that a combination of regular inspections, a preventative maintenance programme and rapid technical response will be in place to prevent and/or reduce the possible detrimental impact of equipment failures at the site.

Prior to treatment by stabilisation/ solidification, the waste materials will have undergone treatment by bioremediation. The bioremediation treatment will have degraded contaminants within the materials such that the odour potential of the materials will be greatly reduced at this stage in the process.

The Applicants environmental risk assessment concludes that, due to distance, no effective pathways exist and that the potential for impact from odour at sensitive receptors is low.

The air quality assessment report submitted as part of the application includes a qualitative assessment of odour from the bioremediation process. The biopile incorporates an air extraction system to promote aerobic treatment of waste products within the biopile. The air extracted through the biopile is discharged to atmosphere via a stack exhaust. The discharge of process emissions to atmosphere has the potential to impact upon air quality (including the release of odour). The report considers the potential sources of odour, possible pathways and receptor sensitivity in order to conclude the risk of exposure to odorous emissions from the stack:

- *Potential sources of odour:*

  The potential for odour will vary depending on the level of contamination in the wastes, the types of contamination and the stage of treatment in the biopile (as treatment progresses the levels of Volatile organic compounds (VOCs) present will reduce). Given the petrochemical nature of the hydrocarbon contamination

the Applicant has stated that the odours have the potential to be moderately unpleasant.

- *Pathway Effectiveness:*
  The report states that the pathway between source and receptor can be considered ineffective on account of a) the distance between source and closest sensitive receptors, and b) the direction of the prevailing wind.

  There are no commercial or industrial premises (other than those associated with the wider oil refinery) or residential properties within 500 metres of the site.
- *Receptor sensitivity:*

  The site is wholly located within the boundary of the Fawley Oil Refinery, as such the Applicant has concluded that the land uses immediately surrounding the site are considered of low sensitivity given they are associated with the refinery. The Solent is located to the north east and receptors using the waterway would be transient and are therefore considered of low sensitivity. The report considers that the closest highly sensitive receptors are the villages of Fawley (1km south west) and Hamble-le-Rice (2.2km north east).

The report concludes that the risk of odour exposure from the stack emission point is considered to be negligible and the likely magnitude of effects is also considered to be negligible.

The treatment and subsequent deposit for recovery of the waste has been previously carried out at the site without any complaints being received regarding odour. Based on the compliance history and the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise odour. The standard odour condition has been included within the permit. This condition requires the operator to take appropriate measures to prevent or minimise odour. It also means that if odour does become an issue and complaints are received, then the operator will be required to submit an Odour Management Plan for the site to the Environment Agency.

Noise and vibration

The Applicant has identified the following parts of the operation as potential sources of noise and vibration at the site:

- vehicle movements
- bioremediation treatment process
- stabilisation/ solidification treatment process
- deposit for recovery activities

The Applicant has detailed measures which are aimed at reducing the potential for noise and vibration from the site, these include:

- Vehicle movements will be restricted to the operational hours specified in the planning permission
- Traffic calming measures will be implemented to enforce speed limits
- Drop heights will be minimised
- Consideration will be given to noise when selecting plant equipment
- Site plant and machinery will be operated and maintained in accordance with manufacturer's specifications
- Machines will be shut down when not in use
- Equipment required to run on a continuous basis for the bioremediation process will be housed within an acoustic enclosure
- Auditory inspections will also be carried out daily and in response to complaints. With a record of the inspection findings being made in the site diary.

The application includes a risk assessment, which considers noise and vibration. The assessment identifies potential sources of noise and sensitive receptors and considers pathways for impact. Their risk assessment concludes that with the implementation of the management measures described above there will be no significant impact on surrounding sensitive receptors.

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise noise and vibration and to prevent pollution from noise and vibration outside the site. The standard noise and vibration condition has been included within the permit. This condition requires the operator to take appropriate measures to prevent or minimise noise and vibration. It also means that if noise and vibration does become an issue and complaints are received, then the operator will be required to submit a management plan for the site to the Environment Agency.

Dust

Given the nature of the material and operations to be undertaken on site, there is potential for the site to produce dust. The Applicant has submitted an air quality assessment, which considers dust, as part of their application. The assessment identifies potential sources of dust and sensitive receptors and considers pathways for impact.

The Applicant has identified the parts of the operation with the greatest potential to produce particulate emissions, these include:

- Vehicle movements
- Waste handling
- Waste storage
- Biopiles (during turning operations)

The operator has committed to operating techniques including good housekeeping and cleaning procedures to ensure that the potential for the generation and emissions of dust is kept to a minimum. The following measures are proposed by the operator to reduce the potential of dust from the site:

- Waste soils will be brought onto site in enclosed or sheeted vehicles to prevent the escape of dust during transit
- Roadways will be kept clean; a road brush will be utilised when necessary to sweep internal roads
- The site is wholly located within the confines of the Fawley Oil Refinery. As such, there will be no off-site vehicle movements which could lead to the deposit of mud or dusty material on public roads
- Drop heights will be minimised to prevent emissions of dust
- Dust suppression sprays will be used when required
- Potential sources of particulates will be maintained in moist conditions or covered to minimise the potential for wind whipping or dust release
- As much as possible, the operation of machinery and dust causing activities will be undertaken during periods of calm weather
- Daily, visual inspections of all areas of the site and site boundary will be carried out by site personnel with a record made in the site diary of the inspection findings and any remedial action taken

The Applicant has stated that dust is unlikely to be emitted during the turning of the biopiles as dust is an indication that the moisture content of the soil is too low. Moisture conditions within the biopiles will be closely controlled in order to maintain optimum conditions during the treatment process.

Based upon the information in the application we are satisfied that appropriate measures will be in place to prevent and/or minimise dust emissions.

The standard 'emissions of substances not controlled by emission limits' condition has been included within the permit. This means that, if dust does become an issue and complaints are received, the operator will be required to submit Dust Management Plan for the site to the Environment Agency.

Accidents

The Applicant has confirmed that the site's accident management plan will be implemented and maintained to ensure the site and its staff are fully prepared for any incidents. The accident management plan will be reviewed annually or as soon as practicable after an incident, with changes made accordingly to minimise the risk of occurrence. The accident management plan will be included within the site's Environmental Management System and cover eventualities including:

- receipt of unauthorised waste
- containment failure of bunds, drainage systems or tanks
- leakage of fuel and oils
- fire
- flooding
- security and vandalism

The Applicant has detailed mitigation measures which are aimed at minimising the likely occurrence and reducing the potential impact of accidents:

- only waste authorised by the permit will be accepted at the site. Robust pre-acceptance and acceptance assessments will minimise the potential for non-conforming being received at the site
- all wastes will be subject to inspection and checking against the declaration on the waste transfer note / consignment note and in the event that unauthorised waste is delivered to the site, the waste will be segregated and stored in a designated quarantine area prior to export from site.
- bunds, drains and tanks will be subject to inspection and a preventative maintenance programme
- Tanks will be surrounded by a leakage containment bund capable of containing at least 110% of the volume of the largest tank within the bund or 25% of the total contents, whichever is largest
- operational areas of the site will have impermeable surfacing and engineered drainage systems
- spill kits will be available on site
- the plant inspection schedule will include checks of electrical equipment within the site to ensure that any faults are identified and repaired
- site staff will be trained in fire prevention

Having considered the information submitted in the Application, we are satisfied that appropriate measures will be in place to ensure that accidents that may cause pollution are prevented but that, if they should occur, their consequences are minimised.

Containment and drainage
The permit allows the temporary storage of hazardous and non-hazardous waste as well as the permanent deposit of waste for recovery. The Applicant has confirmed that the storage arrangements at the site have been designed to ensure appropriate containment and the reduction and minimisation of emissions.

The Applicant has committed to employing a material management system enabling the tracking of materials as they progress through the storage and treatment process. The material management system will ensure that hazardous and non-hazardous waste types will not be mixed with one another and separate waste streams will not be mixed or combined.

Prior to transfer to the treatment area, waste materials will be stored on a constructed concrete base with a concrete bund. Separate waste streams will not be mixed or combined. In the case of non-hazardous contaminated soils, these may be stored directly in the treatment area prior to treatment. Once analysis has confirmed the proposed recovery route for each batch of materials received, each batch will be transferred to the appropriate area of the site for treatment. The remediation treatment processes have been designed to ensure capacity to treat the volume of materials as required by the Operator of the oil refinery meaning the period of time over which materials will be stored prior to treatment will be kept to a minimum.

Potentially polluting substances, such as diesel, will be stored in suitably sized and designed storage vessels (bunded or double skinned tanks). Tanks will be constructed so that any leaks/spillages will be contained. Tanks will be surrounded by a leakage containment bund capable of containing at least 110% of the volume of the largest tank within the bund or 25% of the total contents, whichever is largest. Tanks

will be visually inspected on a regular basis by the site staff to ensure the continued integrity and identify the requirement for any remedial action. Spill kits will be kept on site (materials suitable for absorbing and containing minor spillages will be maintained on site).

There will be no point source emissions to surface water. All operational areas of the site will have impermeable surfacing and engineered drainage systems linked to the Fawley Oil Refinery site drainage system. The treatment area comprises a single impermeable surfaced treatment pad which is profiled to enable drainage of leachate towards a drainage channel. The drainage channel is lined and wedge welded to the treatment pad liner and filled with 20mm-40mm of shingle to act as a french drain. At its lowest point the drainage channel is connected to an air-water separator from which water is pumped to the Fawley Oil Refinery site drainage system for treatment in the effluent treatment plant prior to discharge.

The pre-treatment storage area will have an impermeable concrete base, a concrete bund and a sealed drainage system. The Applicant has stated that they will inspect and maintain storage areas and associated infrastructure, including site surfacing, drainage systems and containment on a regular basis and that drains will be regularly inspected and cleared of blockages as required.

The areas of the site where the treated material is to be reused are permeable and surface water will be allowed to naturally drain. The Applicant has undertaken a Hydrogeological Risk Assessment (HRA) in order to establish site specific WAC for the waste recovery operations. This is aimed at protecting groundwater and surface waters from contamination by ensuring that waste deposits will not adversely affect down gradient hydrogeological receptors. Wastes will only be deposited for recovery in Block 106 and Area 1 for restoration should the waste materials meet the areas' site specific WAC for solid and leachable contaminants.

We agree that the Applicants' containment and drainage proposals are suitable for the site.

Deposit for Recovery

The Operator has applied to deposit approximately 9915m^3 of treated wastes to restore areas of an Fawley Oil Refinery site that have undergone decommissioning (referred to as 'Block 106' and 'Area 1'). The restoration scheme aims to achieve ecological and safety benefits through the improvement of land quality and contouring. The areas of site will be restored to wildflower meadow with no alternative future use envisaged as the refinery site as a whole is to remain operational long term. The areas of restoration are shown outlined in red on figure 1 below.

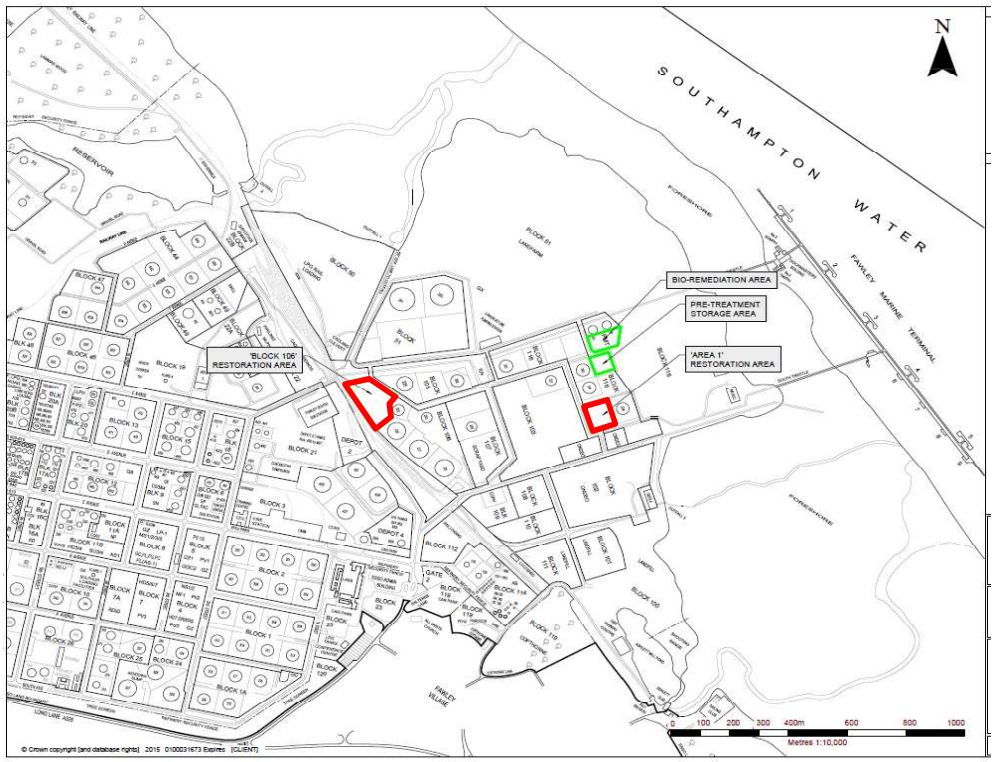

Figure 1 – Areas of restoration (enclosed by red boundary)

The Operator submitted a Waste Recovery Plan (WRP) with their application. The WRP was produced with reference to our EPR13 guidance "Defining Waste Recovery: Permanent Deposit of Waste on Land". The objective of the WRP was to demonstrate the proposed restoration of the land constituted 'recovery' of waste rather than 'disposal' of waste.

Whether an activity constitutes disposal or recovery depends on a legal test derived from the Waste Framework Directive and European case law. Waste recovery is about using waste to replace other non-waste materials to achieve a beneficial outcome in an environmentally sound manner. Or in other words, putting materials that would otherwise be disposed of to a beneficial use, saving the use of non-waste materials and conserving natural resources.

We have considered several questions in assessing the Operator's WRP including:

- Is there a clear benefit to the activity?
- Is the recovered waste material(s) suitable?
- Is only the minimum amount of waste being used?
- Is the recovered waste a substitute for non-waste?, and
- Will the work be completed to an appropriate standard?

Based on the information that has been provided, we have concluded that the proposed activity is a waste 'recovery' activity. We have approved the WRP and referenced it within Table S1.2 of the permit as it forms part of the Operating Techniques for the installation.

Annex 1: decision checklist
This document should be read in conjunction with the application, supporting information and permit/notice.

Aspect considered	Justification / Detail	Criteria met Yes
Receipt of submission		
Confidential information	A claim for commercial or industrial confidentiality has not been made.	✓
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 commercial confidentiality.	✓
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements. For this application we consulted the following bodies: • Public Health England and the Director of Public Health • Health and Safety Executive • The local authority	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
Operator		
Control of the facility	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 what a legal operator is.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
The site		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility including the location of the part of the installation to which this permit applies on that site. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary. The activities covered by this permit form part of a multi operator installation, the plan in the permit reflects this. The land edged in green represents the extent of the installation covered by this permit and the land edged in red represents the extent of the land covered by the other operator/s of the installation.	✓
Site condition report	The operator has provided a description of the condition of the site. We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED– guidance and templates (H5). See key issues section for more information.	✓
Deposit for recovery	We have agreed that the activity is deposit of waste for recovery. See key issues section for more information.	✓
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat . • There are 2 Special Areas of Conservation (SAC) within 10 kilometres of the installation (The New Forest and Solent Maritime) • There are 2 Special Protection Areas (SPA) within 10 kilometres of the installation (New Forest and Solent & Southampton Water)	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	• There are 2 Ramsars within 10 kilometres of the installation (Solent & Southampton Water and New Forest) • There are 2 Sites of Special Scientific Interest (SSSI) within 2 kilometres of the installation (Hythe to Calshot Marshes and Lee-on-the Solent to Itchen Estuary) • There are 10 local wildlife sites within 2 kilometres of the installation A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites. We have not formally consulted on the application. The decision was taken in accordance with our guidance. An Appendix 11 form was completed, concluding no likely significant impact, and submitted to Natural England for information only. Appendix 4 forms were completed, concluding that the permission is not likely to damage the site. The form was saved to our Electronic Document and Records Management System in accordance with our guidance.	
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.	✓
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes: - Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste. The key measures proposed by the Operator are discussed in the key issues section of this document, they include the following: • Pre-acceptance and acceptance procedures will be in place to characterise the waste and limit the potential for adverse impacts • A designated quarantine area will be used to store any non-conforming wastes	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	• Vehicle movements will be restricted to the operational hours specified in the planning permission • Tanks will be surrounded by a leakage containment bund capable of containing at least 110% of the volume of the largest tank within the bund or 25% of the total contents, whichever is largest • Operational areas of the site will have impermeable surfacing and engineered drainage systems • Spill kits will be available on site • The Applicant will carry out a programme of Planned Preventative Maintenance on all items of plant and equipment • Security measures will be in place to prevent unauthorised access to the site The proposed techniques/ emission levels for priorities for control are in line with the benchmark levels contained in the Technical Guidance Note and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs.	
The permit conditions		
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. The remediation and recovery operations are only permitted to accept waste from the Fawley Oil Refinery. This is specified in Table S1.1 of the permit. The permitted waste codes are listed in Tables S2.2, S2.3 and S2.4 of the permit.	✓
Incorporating the application	We have specified that the applicant 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 in the permit.	✓
Emission limits	We have decided that emission limits should be not set in the permit.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
Monitoring	We have decided that monitoring should be carried out for the process parameters listed in the permit, using the methods detailed and to the frequencies specified.	✓
Reporting	We have specified reporting in the permit.	✓
Operator Competence		
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.	✓
Technical competence	Technical competency is required for activities permitted. The operator is a member of an agreed scheme.	✓
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found.	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with our guidance on what a competent operator is.	✓

Annex 2: Consultation and web publicising responses

The application was advertised on the Environment Agency's website from 26/01/2016 to 23/02/2016, no comments were received in response to the publication.

We also consulted the Health and Safety Executive, Public Health England and the Director of Public Health, and the Local Authority, however no response has been received.