

**APPEAL BY FCC RECYCLING (UK) LIMITED
ENVIRONMENTAL PERMITTING (ENGLAND AND
WALES) REGULATIONS 2016
REGARDING DANESHILL SOIL TREATMENT FACILITY
AT DANESHILL LANDFILL SITE AND MAW GREEN LANDFILL SITE
APPEAL REFS: APP/EPR/636, 651 & 652**

Statement of Common Ground

For FCC Recycling (UK) Limited and 3C Waste Limited

1. Introduction

- 1.1. This Statement of Common Ground has been prepared and agreed by the Appellant and the Environment Agency.
- 1.2. Prior to the SOCG being prepared the Appellant and the Environment Agency met to discuss areas of potential agreement on 29 February 2024.
- 1.3. This statement is structured as follows:-
 - 1) Introduction
 - 2) The Appeal Proposals
 - 3) Site Description
 - 4) Chronology
 - 5) Policy
 - 6) Agreed Matters
 - 7) Key issues in dispute

2. The Appeal Proposals

- 2.1. The Appellant is appealing:
 - 2.1.1. the Environment Agency's ("the EA") partial refusal of an application to vary Environmental Permit reference EPR/NP3538MF ("the DH EP1"), to allow for the treatment of asbestos contaminated soils at Daneshill Landfill Site ("the DH Site") ("Appeal One");
 - 2.1.2. conditions imposed by the Regulator Initiated Variation of the Environmental Permit for the DH Site, issued on 29 September 2023, under reference EPR/NP3538MF/V010 (referred to hereafter as "the DHEP2") ("Appeal Two"); and
 - 2.1.3. appealing conditions imposed by the Regulator Initiated Variation of the Environmental Permit for the Maw Green Landfill Site ("MG Site"), issued on 5 October 2023, under Reference EPR/BS7722ID/V010 (referred to hereafter as "the MGEP") ("Appeal Three").
- 2.2. The determination of all three appeals require the consideration of materially similar issues and relate to the decision of the EA to either: i) refuse to grant the part of an environmental permit for activities relating to the treatment of soils contaminated with bound asbestos materials; or ii) to grant permits for the treatment of soils contaminated with bound asbestos materials subject to what the appellant considers to be unreasonable permit conditions and restrictions.

3. Site Description

The DH Site

- 3.1. The DH Site is an existing non-hazardous waste landfill which is undergoing restoration.
- 3.2. The proposed Soil Treatment Facility ("STF") site is located within the footprint of Daneshill Landfill Site which is located approximately 2km east of Lound Village, 6km north-west of Retford and 11km north east from Worksop. The site is bordered to the north and east by agricultural land and mixed woodland and to the west. South-west

are nature reserved and the Daneshill Lakes. The landfill operates pursuant to a ROMP¹, which will expire in 2048. The Appellant's restoration scheme for the landfill anticipates that restoration of the landfill void will be complete within 10 years (subject to sufficient waste arisings, including hazardous waste to be pre-treated at the Site prior to use in the restoration of the landfill).

3.3. The DH Site location is shown in the Proof of Evidence of Simon Cole at Figures 8.1 and 8.2.

3.4. Details of the closest human receptors to the DH Site STF operational area are set out in the table below:

		distance (m)
1	Travellers Site 1	169
2	Travellers Site 2	167
3	Daneshill Cottages	430
4	Loundfield Farm 1	471
5	Loundfield Farm 2	567
6	Tudorstone Building Materials	288
7	Tomlinson Family Settlement	394
8	Industrial Estate to North West	875

3.5. Details of the closest footpaths to the DH Site STF operational area are set out in the table below:

		Distance (m)
1	Public footpaths in Daneshill Lake Nature Reserve	539
2	Public footpath on site access road	0

The MG Site

3.6. The MG Site is an existing non-hazardous waste landfill which is undergoing restoration. The MG Site and soil treatment facility is operated by Provectus on behalf of 3C Waste Limited, a wholly owned subsidiary of FCC. The landfill site is partially completed and areas are currently awaiting restoration. MG Site is located off Maw Green Road, Coppenhall, Crewe, Cheshire, CW1 5NG. The southern boundary of the MG Site is located approximately 2km north of the centre of Crewe (i.e. on the outskirts of Crewe). The MG Site is on the north-eastern outskirts of the town of Crewe. As is the case with the DH Site, residential properties are located within 500 metres of the proposed STF boundary at the MG Site.

3.7. The MG Site location is shown in the Proof of Evidence of Simon Cole at Figures 8.3 and 8.4.

3.8. Details of the closest human receptors to the MG Site are set out in the table below:

¹ Review of Old Minerals Permission

		OS GR Xm	OS GR Ym	distance (m)
D1	Brook House Farm	372139.1	357327.8	241
D2	Brook House Barns	372174.0	357310.6	280
D3	Meadow Croft Cottage	371910.4	357125.4	191
D4	New Development (Maw green Road)	371852.8	357074.0	214
D5	New Development (Maw green Road)	371883.7	357102.6	197
D6	New Development (Maw green Road)	371936.4	357156.0	184
D7	New Development (Maw green Road)	371956.0	357183.9	175
D8	South of Maw Green Road	371642.8	357074.7	238
D9	South of Maw Green Road	371583.3	357074.0	273
D10	Windy Nook	371459.1	357112.4	347
D11	Shandon Barn	371359.0	357373.6	413
D12	Cattle Arch Farm	371722.6	357066.2	218

4. Chronology

- 4.1. The Chronology for the application and post application process at the DH Site is as set out at Appendix B of Leslie Heasman's Proof of Evidence.
- 4.2. The Chronology for the application and post application process at the MG Site is as set out at Appendix C of Leslie Heasman's Proof of Evidence. The EA does not dispute this chronology but notes that it is factually incorrect where it states Dan Kirk is Habiba's line manager – this is not the case.

5. Legislation, Policy and Guidance

The IED/BREF and BAT

- 5.1. The legislative framework for environmental permitting is provided by European Union Directive 2010/75/EU on industrial emissions (the Industrial Emissions Directive or IED) and the Environmental Permitting Regulations 2016 (EPR) (not EPR 2010 as the EA reference in the Decision Document (DD) for DH EP1).
- 5.2. Article 11 of the IED states that:
- 'Member States shall take the necessary measures to provide that installations are operated in accordance with the following principles:*
- (a) all the appropriate preventive measures are taken against pollution;*
 - (b) the best available techniques are applied;*
 - (c) no significant pollution is caused;*
 - (d) the generation of waste is prevented in accordance with Directive 2008/98/EC [the Waste Framework Directive];*
 - (e) where waste is generated, it is, in order of priority and in accordance with Directive 2008/98/EC, prepared for re-use, recycled, recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;*
 - (f) energy is used efficiently;*
 - (g) the necessary measures are taken to prevent accidents and limit their consequences;*

(h) the necessary measures are taken upon definitive cessation of activities to avoid any risk of pollution and return the site of operation to the satisfactory state defined in accordance with Article 22’.

5.3. BAT is defined under Article 3(10) of IED: “‘best available techniques’ means the most effective and advanced stage in the development of activities and their methods of operation” and “other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole”: “‘best’ means most effective in achieving a high general level of protection of the environment as a whole”.

5.4. Article 13(2) of the IED states:

‘2. The exchange of information shall, in particular, address the following:

- (a) the performance of installations and techniques in terms of emissions, expressed as short- and long-term averages, where appropriate, and the associated reference conditions, consumption and nature of raw materials, water consumption, use of energy and generation of waste;*
- (b) the techniques used, associated monitoring, cross-media effects, economic and technical viability and developments therein;*
- (c) best available techniques and emerging techniques identified after considering the issues mentioned in points (a) and (b)’.*

5.5. Annex III of the IED sets out criteria for use by Member States for determining BAT and specifically includes:

‘the furthering of recovering and recycling of substances generated and used in the process and of waste, where appropriate ...;

comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;

the nature, effects and volume of the emissions concerned...;

the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it.’

5.6. The current Waste Treatment BREF (WT BREF) and BATc (WT BATc) documents were published in 2018.

Operation of Installations

5.7. The main EA guidance document for the operation of Installations is set out in ‘*Chemical waste: appropriate measures*’ which comprises EA guidance for regulated facilities with an environmental permit to treat or transfer chemical waste and includes activities for the treatment of contaminated soil.²

Duty to separate hazardous waste

6. The Hazardous Waste (England and Wales) Regulations 2005 includes a duty for the separation of hazardous wastes. Regulation 20 states that:

² <https://www.gov.uk/guidance/chemical-waste-appropriate-measures-for-permitted-facilities>

'20. (1) This regulation applies to the holder where—

(a) the hazardous waste has been mixed other than under and in accordance with a waste permit or a registered exemption, whether by the holder or a previous holder; and

(b) separation is both—

(i) technically and economically feasible; and

(ii) necessary in order to comply with the Waste Directive conditions.

(2) The holder must make arrangements for separation of the waste to be carried out in accordance with a waste permit or registered exemption as soon as reasonably practicable.

(3) In this Regulation "separation" means separation of a waste from any other waste, substance or material with which it has been mixed.'

Waste hierarchy

- 6.1. The Waste (England and Wales) Regulations 2011 implement the Waste Framework Directive in England. Regulation 12 requires the implementation of the waste hierarchy and states that:

'12. (1) An establishment or undertaking which imports, produces, collects, transports, recovers or disposes of waste, or which as a dealer or broker has control of waste must, on the transfer of waste, take all such measures available to it as are reasonable in the circumstances to apply the following waste hierarchy as a priority order—

(a) prevention;

(b) preparing for re-use;

(c) recycling;

(d) other recovery (for example energy recovery);

(e) disposal.

(2) But an establishment or undertaking may depart from the priority order in paragraph (1) so as to achieve the best overall environmental outcome where this is justified by life-cycle thinking on the overall impacts of the generation and management of the waste.

(3) When considering the overall impacts mentioned in paragraph (2), the following considerations must be taken into account—

(a) the general environmental protection principles of precaution and sustainability;

(b) technical feasibility and economic viability;

(c) protection of resources;

(d) the overall environmental, human health, economic and social impacts.'

- 6.2. The prevention or minimisation of the emissions of asbestos fibres, and spread of asbestos also is a requirement of the Control of Asbestos Regulations 2012 (CAR 2012) (CD1/F).

- 6.3. The prevention and minimisation of emissions of asbestos fibres are regulated both by the EA through the EPR and by the Health and Safety Executive (HSE) through CAR 2012. The Environment Agency is required to take on a wider role than the HSE. The role of HSE is that it protects employees in the workplace. The Environment Agency's role is greater and requires the protection of the environment and human health.

Protection of Soils

- 6.4. The Environmental Improvement Plan 2023 (EIP 2023)³ is the current review of the progress towards the achievement of the Government 25 Year Environment Plan and it includes a number of strategies and targets for the achievement of the goals.
- 6.5. The prevention of valuable soil resources from being sent to landfill is identified as an objective within Goal 6 of the EIP 2023 '*Using resources from nature sustainably*' in Section 4 which is '*Improving and protecting soil health*' and it is stated (page 181) in the EIP 2023 that:
- 'In 2016, soil made up 58% of material sent to landfill in the UK. In construction projects, the careful re-use of soil can avoid soil being designated a waste material and to bring it back to beneficial use, helping create more green spaces and increasing biodiversity. We are working to:*
- In 2023, publish a revised Code of Practice for the sustainable use of soil on construction sites, which will help to reduce the amount of soil sent to landfill.*
 - Begin development of a Soil Re-Use and Storage Depot scheme to help prevent soil that would otherwise be classified as waste going to landfill, and encourage remediation and re-use of soil. We will start piloting this by 2026.'*
- 6.6. The importance of soils to the environment is emphasised in the DEFRA 2009 document 'Safeguarding our Soils. A Strategy for England' (the Soil Strategy)⁴ and reiterated in the Environment Agency's 2023 update 'State of the Environment Soil Report'⁵ Chapter 7 of the Soil Strategy relates to 'Dealing with our legacy of contaminated land'.

Air Quality

- 6.7. Environment Agency Guidance Document '*M17 monitoring of particulate matter in ambient air around waste facilities*' (Version 2, July 2013) represents the most relevant and current guidance issued by the Environment Agency for air quality monitoring at the Site.
- 6.8. There are no statutory limits for deposited dust (typically measured as mg/m²/day where required). However, there are standards for PM₁₀ and PM_{2.5}. In addition, Defra's core guidance on Environmental Permitting (Part A1.23 Page 91) requires that the EA use permitting and enforcement tools to ensure that no EA regulated site significantly contributes to failures of air quality standards.
- 6.9. Neither the Daneshill STF or the Maw Green Landfill STF is located within an Air Quality Management Area.

7. Agreed Issues

³ <https://www.gov.uk/government/publications/environmental-improvement-plan>

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69261/pb13297-soil-strategy-090910.pdf

⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805926/State_of_the_environment_soil_report.pdf

The IED/BREF and BAT

7.1. It is agreed that:

- 7.1.1. Article 11 of the IED requires that all appropriate preventive measures are taken against pollution, best available techniques are applied and that no significant pollution is caused.
- 7.1.2. If the installation complies with the IED then Article 5 requires the competent authority to grant a permit.
- 7.1.3. The EPR defines pollution as any emission resulting from human activity which may be harmful to human health or the quality of the environment, cause offence to a human sense, result in damage to material property, or impair or interfere with amenities or other legitimate uses of the environment.
- 7.1.4. The EPR require the regulator to exercise its functions to achieve a high level of protection of the environment taken as a whole by, in particular, preventing, or where that is not practicable, reducing emissions into the air, water and land.
- 7.1.5. The regulator must exercise its functions so as to encourage the application of emerging best available techniques (BAT) as defined in Article 3 of the IED.
- 7.1.6. The BAT Conclusions (BATc) that are derived through this process then must be implemented in all IED industrial facilities throughout Europe covered by each relevant BREF within a specified timescale. The implementation deadline for the waste treatment BATc for new facilities was November 2020.
- 7.1.7. The current WT BREF and BATc documents, as well as the IED, comprise European legislation and guidance which remain relevant in England currently.
- 7.1.8. A new UK BAT regime is beginning to be implemented with four industry sectors identified as the first to undergo this review process. These sectors do not include the waste management sector.
- 7.1.9. Neither the WT BREF nor the WT BATc refer specifically to the treatment of soils or other wastes contaminated with asbestos.
- 7.1.10. Asbestos in the form of 'suspended particles, fibres' is identified as a 'polluting substance' in the list at Annex II of the IED.
- 7.1.11. Techniques for the treatment of excavated contaminated soil are discussed in Section 5.6 of the WT BREF under physio-chemical treatment of waste. The treatment techniques discussed depend, on the nature of the contaminants present in the soil and include thermal desorption, soil washing (which includes reference to the use of screening to remove debris), vapour extraction, solvent extraction and biodegradation. There is no discussion of the removal of asbestos from soil by the use of screening and/or hand picking.
- 7.1.12. The treatment of waste asbestos is discussed in section 5.8.4 of the WT BREF but this is in reference to the shredding and mixing of material prior to thermal treatment. No specific emission control measures are referenced for these shredding and mixing processes.

- 7.1.13. There are no techniques described in the WT BATc for the removal of asbestos from soil by the use of screening and/or hand picking. Screening is physical treatment so would fall under physio-chemical treatment of waste.
- 7.1.14. In the absence of specific guidance the general BAT measures for the prevention or minimisation of emissions of polluting substances are therefore applicable for the proposed activity.
- 7.1.15. Post Brexit amendments to relevant directives are not UK law.

Operation of Installations

7.2. It is agreed that:

- 7.2.1. The main EA guidance document for the operation of hazardous waste and non hazardous chemical waste Installations is set out in '*Chemical waste: appropriate measures*' which comprises EA guidance for regulated facilities with an environmental permit to treat or transfer chemical waste and includes activities for the treatment of contaminated soil ("the Appropriate Measures Guidance").⁶
- 7.2.2. This guidance reflects the WT BATc requirements and therefore sets out similar control measures to those described in the WT BATc.
- 7.2.3. As for the WT BREF and the WT BATc, there is no specific guidance for treatment processes comprising the segregation of ACMs from contaminated soil. The appropriate measures for emissions control including dust and particulates are set out in Section 6 of the guidance and reflect directly the WT BATc techniques.
- 7.2.4. It is agreed that the Appropriate Measures Guidance is that which is applicable to the proposed development rather than Sector Guidance Note S5.06.
- 7.2.5. In the EA DD for DHEP there are no adverse comments or concerns raised with regard to the generic BAT techniques which are applied also to the other soil treatment activities which have been consented in the variation issued in December 2022 (the management systems and procedures, staff competence and training, management plans for accidents, odour and noise, and a number of other overarching systems and procedures including surface water management and monitoring of discharges to water). These generic aspects of BAT are appropriate and acceptable.
- 7.2.6. The BATcs which relate to the controls on the potential for the emissions of asbestos fibres are BAT 1 and BAT 2 (Overall environmental performance), BAT 3 (inventory of waste water and waste gas streams), BAT 4 (risk associated with the storage of waste), BAT 5 (waste handling and transfer procedures), BAT 8 (monitoring channelled emissions to air), BAT 14 (reduce diffuse emissions to air), - BAT 40 (monitor the waste input), BAT41 (physico-chemical treatment of solid and/or pasty waste). Only BAT 8,14 and 41 are under dispute.
- 7.2.7. The "Hazardous Waste Soil Treatment" Document, is an internal Work in Progress Environment Agency document produced for the benefit of the National Permitting Service. It has not been the subject of any consultation and it is not publicly available.

⁶ <https://www.gov.uk/guidance/chemical-waste-appropriate-measures-for-permitted-facilities>

Duty to separate hazardous waste

7.3. It is agreed that:

- 7.3.1. The proposed treatment process would result in the separation of hazardous waste comprising ACMs from non-hazardous waste (soil) in a way that is demonstrably technically and economically feasible.

Waste hierarchy

7.4. It is agreed that:

- 7.4.1. The proposed activity, if effective, complies with the waste hierarchy in that the treatment process would achieve the recovery and reuse of soils contaminated with asbestos which otherwise would remain a hazardous waste for which the only management option is disposal to landfill.
- 7.4.2. Disposal is the least preferred management method in the Waste (England and Wales) Regulations 2011.
- 7.4.3. If the ACMs present in the soil are not removed, the soil will remain classified as a hazardous waste and the only disposal route is in a hazardous waste landfill site.
- 7.4.4. In order to minimise the quantities of soil contaminated with ACMs being disposed of to landfill and to preserve the hazardous waste landfill void for wastes which cannot be recovered.
- 7.4.5. Additional process capacity such as that proposed is required.

Protection of soil resources

7.5. It is agreed that:

- 7.5.1. The protection of soil resources is a fundamental aspect of a number of the Government environmental policies and strategies.
- 7.5.2. The protection and improvement of soil resources is a key component of the EIP 2023 and the proposals include a reduction of the quantity of soils which are disposed of to landfill.
- 7.5.3. The need to use all opportunities to treat soil for its beneficial use rather than to dispose of it to landfill is therefore a key part of the Environmental Improvement Plan and the proposed facilities provides a direct contribution to that objective.
- 7.5.4. The importance of soils to the environment is emphasised in the DEFRA 2009 document 'Safeguarding our Soils. A Strategy for England' (the Soil Strategy)⁷ and reiterated in the Environment Agency's 2023 update 'State of the Environment Soil Report'⁸ Chapter 7 of the Soil Strategy relates to 'Dealing with our legacy of contaminated land' and includes

7

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69261/pb13297-soil-strategy-090910.pdf

8

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805926/State_of_the_environment_soil_report.pdf

objectives for less reliance on 'dig and dump' techniques that involve disposing of large amounts of contaminated soils in landfill sites.

Aspects of the proposed activities

7.6. It is agreed that:

- 7.6.1. It is proposed in the application documents that incoming wastes which comply with the pre-acceptance and acceptance criteria will be wetted, discharged from the delivery vehicles and stored externally in covered (sheeted) stockpiles awaiting receipt of the results of confirmatory analytical checks.
- 7.6.2. The reception and storage areas and all waste treatment areas will be located on an impermeable surface with an integrated drainage collection and retention system. The impermeable surface, for the purposes of the retention of drainage, could comprise low permeability concrete, clay, tarmac or a geosynthetic clay liner (GCL). The issue of concern to the EA is the effectiveness of maintaining the cleanliness of the surface (entrainment). The design for the retention of surface water drainage is not of concern to the EA.
- 7.6.3. See Schedule Two which includes a revised drawing to replace 'crushed concrete' where it is proposed above the impermeable GCL layer with tarmac (as shown). It is agreed that this is an acceptable alternative impermeable surface for the treatment of asbestos.
- 7.6.4. These acceptance and reception stages of the proposed activity are appropriate.
- 7.6.5. The storage of soil which has been treated, tested and confirmed to have an asbestos fibre content below the hazardous waste threshold (<0.1% by weight) outdoors is acceptable.
- 7.6.6. The treatment process is a physical process. It is not a chemical process. In summary, the proposed activities comprise acceptance, storage and sampling, mechanical screening, hand picking to remove the bonded ACMs, the recovery of treated soils for use (provided they meet the agreed use criteria) and the disposal of the removed bonded ACMs at off-site suitably permitted landfill facilities.
- 7.6.7. The mobile plant permit for the i) Edwin Richards Quarry Site at Rowley Regis (ref EPR/EB3636AK) and ii) Maw Green (EPR/BS7722ID/V009) operated under the same process that is being proposed for DH Site and the MG Site. The difference is that the current appeals are regarding an installation permit which is not time restricted by the EA, but would be restricted by a planning permission, as opposed to a relatively shorter term mobile plant permit deployment.
- 7.6.8. Transport impacts fall outside of the permitting regime. The permitting regime controls the impacts and processes within the permit boundary of the relevant site. Controls on mud on vehicles leaving the site would be relevant. There are existing controls in place to deal with this issue.
- 7.6.9. Mechanical screeners are not novel technology. They are widely used for pre-treatment screening at many waste treatment facilities, including at installations. Mechanical screeners are commonly used (usually with mobile plant permits) for remediation of contaminated land including for the screening of soils prior to hand picking to remove asbestos containing materials.
- 7.6.10. The proposed soil treatment activities are described in Table 1 of Leslie Heasman's Proof of Evidence.

- 7.6.11. If a building is required to be built on the DH Site and MG Site, the construction of the size of building needed at each STF including the necessary foundations, will result in the use of energy and embedded carbon in the materials used to construct each building. These resources would not be used for the proposed activities if no building was constructed.
- 7.6.12. The use of the mechanical screening stage improves the speed and effectiveness of the separation process by allowing the handpicking stage to be focussed on the fraction of the waste which contains the ACMs and significantly reduces the treatment time and energy use for the overall treatment method.
- 7.6.13. The picking cabins as proposed in the applications for the activities at each of the sites comprise an enclosed picking line, they do not comprise enclosure for the waste reception, loading or storage and mechanical screening of the contaminated material. These picking cabins as proposed do not need to be located in a building.

Accepted approaches to the risks from exposure to contaminants.

7.7. It is agreed that:

- 7.7.1. The principles of the assessment of risks from exposure to contaminants are predicated upon science based, common assessment approaches used by the EA, the HSE, the Food Standards Agency and other UK organisations as well as international organisations.
- 7.7.2. The HSE and UKHSA were consulted on both of the Appellant's applications for the STF's at the DH Site and MG Site and did not object to the grant of the permits as applied for. It is the Environment Agency's responsibility for installation activities under IED to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it.
- 7.7.3. Acceptable levels of contaminants in the environment, in water, in air, in foodstuffs, in clothing and in many other media and materials are determined by Governmental institutions where available based on determinations made by appropriate experts nationally and internationally using the available scientific data.
- 7.7.4. Whilst the dose-responses of many of the adverse effects encountered in toxicology would be expected to exhibit a dose threshold which can be used to set a tolerable or minimal risk threshold, in some cases the toxicological mechanism responsible for producing the adverse effect is such that there is no basis to assume a threshold exists (i.e. non-threshold). This is most notably the case for many mutagens and genotoxic carcinogens.
- 7.7.5. That it is generally assumed by regulators that any exposure to non-threshold chemicals, no matter how small, will carry some level of risk.
- 7.7.6. Non-threshold toxicity therefore necessitates a different approach to the derivation of health criteria values. Models have been derived and are used by the Governmental institutions (including the Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment. COC) to determine health criteria values for non-threshold carcinogens comprising quantitative dose-response modelling and non-quantitative extrapolation.

- 7.7.7. Quantitative dose-response modelling is used to derive numerical estimates of risk (e.g. 1 in 100,000 or 1 in 1,000,000) for exposure to non-threshold carcinogens.
- 7.7.8. Non-quantitative extrapolation is used to identify an appropriate dose without discernible carcinogenic effect, or the lowest dose tested if effects are apparent at all doses, and the use of expert judgement to derive a suitable margin⁹.
- 7.7.9. Health criteria values derived using this approach have previously been called minimal risk levels by the COC. COC (2004) (see footnote 11) defined a minimal risk level as “an estimate of daily human exposure to a chemical identified by expert judgement that is likely to be associated with a negligible risk of carcinogenic effect over a specified duration of exposure (usually a lifetime)”.
- 7.7.10. These approaches underpin the setting of health criteria values used in England, including those applied to asbestos fibres in air.
- 7.7.11. Asbestos is a non-threshold substance with respect to its carcinogenicity. It is a proven human carcinogen and has the potential to cause serious illness if inhaled in sufficient quantity.
- 7.7.12. There is no consistent evidence that the ingestion of asbestos fibres is hazardous to health.
- 7.7.13. The health risks posed by asbestos differs depending upon its type and form. Asbestos fibres are susceptible to dampening down, using water and surfactant, to prevent release to the atmosphere.
- 7.7.14. There are published, peer reviewed risk models that can be used to estimate the cancer risk from exposure to asbestos.
- 7.7.15. The SoBRA asbestos in soil human health risk assessment toolbox provides a basis for calculating the health risk associated with environmental exposure to estimated airborne asbestos fibre concentrations.

Asbestos processing

7.8. It is agreed that:

- 7.8.1. The physical processing, in particular the ‘rigorous’ and/or ‘high intensity’ mechanical processing, of asbestos containing materials could deteriorate that material and could result in the release of asbestos fibres into the bulk material being processed.
- 7.8.2. The physical processing of such material could result in the fugitive release of asbestos fibres into the environment.
- 7.8.3. The historic use of asbestos in the UK has resulted in its presence in the built environment and therefore it is potentially present in materials including soils from the remediation and/or development of previously used land. Due to the risks to health following inhalation exposure to asbestos the importation of blue and brown asbestos has been banned in the UK since 1985. This ban was extended to include white asbestos in 1999. Those involved in demolition work, asbestos abatement, building repair and

⁹ <https://www.gov.uk/government/publications/a-strategy-for-the-risk-assessment-of-chemical-carcinogens>, Committee on Carcinogenicity of chemicals in food, consumer products and the environment (COC) (2004) Guidance on a strategy for the risk assessment of chemical carcinogens. <http://www.advisorybodies.doh.gov.uk/coc/guideline04.pdf>

maintenance may be exposed to higher levels of asbestos as disturbing such materials during these works releases fibres into the air.

- 7.8.4. The references listed at Schedule 1 are relevant to the consideration of fugitive releases of asbestos fibres from soil and the consequent potential impact on human health.

Air Quality

7.9. It is agreed that:

- 7.9.1. Environment Agency Guidance Document 'M17 monitoring of particulate matter in ambient air around waste facilities' (Version 2, July 2013) represents the most relevant and current guidance issued by the Environment Agency for air quality monitoring at the appeal sites. This guidance states at 7.4.3 on page 38 that; "*Asbestos is a proven human carcinogen (IARC Group 1). No safe level can be proposed for asbestos because a threshold is not known to exist. Exposure should therefore be kept as low as possible and asbestos should not be found above background levels at site boundaries.*" The EA's TGN M8 is also relevant and includes guidance on developing monitoring strategies for assessing levels of pollutants in the ambient atmosphere: [M8 monitoring ambient air - GOV.UK \(www.gov.uk\)](http://www.gov.uk). The EA has determined a BAT-AEL and a boundary ambient level as set out in the V010 EPS.
- 7.9.2. The Environment Agency Decision Documents which are relevant to the appeals do not reference any concern regarding 'amenity dust' and/or levels of PM2.5/PM10 which would arise from the treatment of soils containing ACMs. The Decision Documents explain in their standard wording the insertion of pre-operation conditions in the permit. These pre-operation conditions reference dust.
- 7.9.3. The Environment Agency Permits the operation of facilities in the UK which handle asbestos, where ambient monitoring of asbestos is required as a condition of the Permit and other site-specific conditions as required.
- 7.9.4. The AERMOD dispersion model can be used to predict the dispersion of airborne asbestos fibres and particulate matter (PM10).
- 7.9.5. Asbestos fibres generally fall into the size category of PM10.
- 7.9.6. It is agreed that the appeal schemes will not give rise to air quality concerns in relation to ecological receptors / designated sites.

8. Key Issues in Dispute

8.1. The following key issues are not agreed:

- 8.1.1. The Appellant has assessed the likely fugitive emissions from the proposed STFs, based on comprehensive air monitoring data, and concluded the Proposed Activities will not result in any significant pollution. The EA disagrees.
- 8.1.2. The EA considers that a precautionary approach based on the principles of BAT, and applying our M17 guidance requires that asbestos fibres should be prevented or

minimised from the STF because it considers there is 'no safe level' of asbestos. The Appellant disagrees with the EA's interpretation of the Precautionary Principle and consider it is necessary to adopt a 'risk-based' approach to assessing the acceptability of the Proposed Activity based on available scientific knowledge.

- 8.1.3. The Appellant considers there is robust evidence available which demonstrates there is a distinction in risk between working with asbestos indoors and working with asbestos contamination soils. The EA disagrees it insists none of the work with asbestos is without risk.
- 8.1.4. The EA submits that the external air monitoring is not sufficient in this case to adequately measure fugitive air emissions. The Appellant disagrees with this assertion in its entirety given the evidence prepared by its experts.
- 8.1.5. The EA considers that the dust, soil and asbestos air monitoring data from the STFs at Edwin Richards Quarry, Rowley Regis, Birmingham, and Maw Green, Crewe are not representative of fugitive emissions from the proposed activities at the DH Site and MG Site. The Appellant disagrees.
- 8.1.6. It is not agreed that the acceptable levels of risk to the environment and human health are different for mobile plant permits and installation permits.
- 8.1.7. The Appellant considers that the EA was fully entitled to prepare its own detailed dispersion modelling assessment in order to quantify dispersion factors from the appeal sites, but chose not to do so. The EA disagrees.
- 8.1.8. The Appellant submits that the EA has provided no quantitative or risk based evidence that the operation of the Site would result in impacts of asbestos or particulate matter at sensitive receptor locations above acceptable levels. The EA disagrees and submits that there is no requirement to do so in the appeal process.
- 8.1.9. The Appellant considers that the EA did not raise any specific concerns relation to dust deposition at any stage of the appeal until 29 February 2024. The EA disagrees.
- 8.1.10. It is the view of the appellant that that there will be no disamenity (i.e nuisance) t particulates concerns relating to the described processes at locations where particulate pollution reports could occur. It is the view of the EA that that there will be particulate pollution reports relating to the described processes at locations where particulate pollution reports could occur.
- 8.1.11. In relation to meteorological data used for dispersion modelling the Appellant considers and the EA disagrees that:
 - 8.1.11.1. The nearest meteorological data site operated by the Met Office and suitable for dispersion modelling is the site located at Doncaster Sheffield Airport.
 - 8.1.11.2. There is no meteorological data site operate by the Met Office and suitable for dispersion modelling which is directly relevant to the MG Site.
 - 8.1.11.3. Under such circumstances the EA requires that numerical weather prediction (NWP) data is used for dispersion modelling

- 8.1.12. It is not agreed by the Appellant that exceedance of a Limit of Detection for a standard testing methodology is the concentration should be used to describe “significant” emissions of asbestos fibres in air.
- 8.1.13. The Appellant considers that in the event that a permitted site does not exceed the BAT-AELs or Emission Limit Values determined by the EA for boundary monitoring, that this would comprise “insignificant” levels of emissions. The EA disagrees.
- 8.1.14. It is not agreed by the EA that the concerns raised in this appeal concerns relate to asbestos only. The EA contends that the operation of the appeal site may result in impacts of particulates at levels which would be above acceptable limits.
- 8.1.15. The Appellant considers that changes to EU Directives following Brexit do not comprise part of the law of England and Wales. EA considers that it should ‘pay cognisance’ to updated EU Directives following Brexit.
- 8.1.16. The EA contends that the EU (Withdrawal) Act created a new category of law in the UK called ‘retained EU law’, and this includes legislation such as the Environmental Permitting Regulations 2016 which implemented/ transposed the Industrial Emissions Directive (IED). The EA states that where it has a discretion as to what standards it imposes, then in exercising that discretion it will have regard to any information it considers is relevant wherever it originates. The weight it attaches to it will be a matter for its judgement. The Appellant disagrees.
- 8.1.17. The Appellant contends that reliance on the Hazardous Waste Soil Treatment work in progress document in regulatory decisions is a breach of the Regulator’s Code. The EA disagrees.
- 8.1.18. The EA contends that treating asbestos with a screener as a long term operation as an installation activity subject to BAT is ‘novel’. The Appellant disagrees.
- 8.1.19. The EA contends that a building will reduce the level of particulate pollution and asbestos fibres escaping from the site. This reduces the environmental risk of the activities and also offers substantial other benefits such as reducing noise, odour but also offering better working conditions for staff as well. The societal costs of enclosure is also very clear. The Appellant disagrees with this assessment.
- 8.1.20. The EA contends that the decision of Planning Inspector Mrs J A Vyse in 2015 in appeal reference APP/EPR/14/285 is relevant. It states that it was suggested that despite the costs to the business, she was not persuaded that if was sufficient reason not to enclose waste recycling operations given the implications for in terms of particulate emission on public health. Given that the appeal focussed on the risk of particulates from non-hazardous waste, it can only be concluded that enclosure of operations handling hazardous asbestos waste, provide an even more convincing argument for enclosure. However, the Appellant disagrees on the basis that the current appeal is distinguishable as the DH and MG Sites are not within AQMA’s (unlike that in APP/EPR/14/285).
- 8.1.21. The Appellant submits that the proposed monitoring of emissions released from STFs as set out in the application documents (the Emissions Management Plan for DH CD2/2/C; the Dust and Emissions Management Plan for MG CD2/3/G) are acceptable. The EA disagrees.

- 8.1.22. The Appellant submits that the Thermal Recycling installation in Staffordshire has no relevance to this Appeal. The EA disagrees.
- 8.1.23. The Appellant considers that contamination concentrations and exposure pathways are considered taking into account health criteria values that represent a tolerable or minimal risk to health for chronic exposure. The EA disagrees.
- 8.1.24. The Appellant contends that exposure to asbestos should be kept to as low as is reasonably practicable. The EA disagrees.
- 8.1.25. The EA contends that because the issued permits required enclosure and abatement of releases from the asbestos treatment process, amenity dust issues were not considered relevant as the measures taken would prevent and minimise releases. The EA maintains that if the asbestos treatment process is undertaken in the open then dust issues would need to be reviewed although this issue was not raised by the EA until the SOCG meeting between experts. The Appellant disagrees.
- 8.1.26. The Appellant submits that:
- 8.1.26.1. Guidance¹⁰ makes reference to the EA's 2012 consultation on the derivation of EALs¹¹. If an EAL has not been published for a substance of interest that consultation provides guidance for setting EALs for threshold and non-threshold substances. For the latter (which includes asbestos) it states (section 7.2 pages 15-16) that with reference to EU REACH guidance, *"a cancer risk level of 1 in 1,000,000 (10⁻⁶) could be seen as an indicative tolerable risk level when setting DMELs for the general population. These suggestions are based on a review of cancer risk levels used in different countries and contexts. Where suitable human data are available and a Quantitative Risk Assessment has been undertaken, we would use a linear extrapolation, unless there was evidence that an alternative approach would be more appropriate. The dose (µg/m³) calculated as posing a lifetime excess cancer risk of 1 in 1,000,000 (10⁻⁶) would be selected as the TCA. This seems an appropriate basis for a screening value to be used in an environmental permitting regime whose aim is to prevent pollution."*
- 8.1.26.2. In the EA's consultation response document to the 2012 consultation, published in September 2021, the lifetime excess cancer risk level was increased from 1 in 1,000,000 to 1 in 100,000. The published response to Question 1 is *"To determine the new and amended EALs we have used an ELCR of 1 in 100,000. It is noted that in the first version of the methodology published in 2012 we used a default ELCR of 1 in 1,000,000 for substances with sufficient data from human studies. However, following a further review of this methodology, we have opted to apply a default ELCR of 1 in 100,000 in this consultation and all future derivations. For compounds which are genotoxic and carcinogenic and for which there are no mechanistic data to suggest a threshold for carcinogenicity, or for*

¹⁰ [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit) and the section on air emissions in particular in [Air emissions risk assessment for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit).

¹¹ [EAL Consultation Document 2012 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/424243/eal-consultation-document-2012.pdf)

substances where no mode of action or threshold for effect has been identified, it is currently considered prudent to assume that no threshold for adverse effect exists. The current UK approach is to reduce exposure to these chemicals to 'as low as reasonably practicable' and to apply the management of risk individually to each substance and source. An ELCR of 1 in 100,000, derived from relevant human studies, is considered representative of a minimal risk to human health. This view was subsequently reiterated by the Department for Environment, Food and Rural Affairs in 2014 and is representative of government thinking as to what constitutes minimal risk. This is broadly consistent with the derivation of limit and target values under the Ambient Air Directive.". This revised approach to deriving EALs has now been formalised and the EA has been updating EALs using this new approach since 2021.

8.1.27. The EA disagrees with paragraphs 7.1.26.1 and 7.1.2.6.2 above.

Schedule 1

Relevant references in considering fugitive releases of asbestos fibres from soil and the consequent potential impact on human health

CL:AIRE, 2016. CAR-SOIL™ Control of Asbestos Regulations 2012 Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials Industry Guidance, CL:AIRE, in association with Joint Industry Working Group Asbestos in Soil and Construction and Demolition Materials, July 2016

CL:AIRE, 2017a. Decision Support Tool for the Categorisation of Work Activities Involving Asbestos in Soil and Construction & Demolition Materials in accordance with the Control of Asbestos Regulations 2012: v2.1 March 2017. Access to Excel™ spreadsheet at <https://www.claire.co.uk/projects-and-initiatives/asbestos-in-soil?start=4>

CL:AIRE, 2017b. Decision Support Tool for the Qualitative Risk Ranking of Work Activities and Receptors Involved in or Exposed to Asbestos in Soil and Construction & Demolition Materials : v2.1 March 2017. Access to Excel™ spreadsheet at <https://www.claire.co.uk/projects-and-initiatives/asbestos-in-soil?start=4>

Darnton, 2023. Quantitative assessment of mesothelioma and lung cancer risk based on Phase Contrast Microscopy (PCM) estimates of fibre exposure: an update of 2000 asbestos cohort data, Lucy. Darnton, Environmental Research, 230, 2023

HSE, 2021. Asbestos: The Analysts' Guide, HSG248, Second Edition, Health and Safety Executive, July 2021

IOM, 1988. The release of dispersed asbestos fibres from soils, Addison J, Davies LST, Robertson A, Willey RJ, Historical Research Report TM/88/14, Institute of Occupational Medicine, Edinburgh, 1988

RIVM, 2003. Assessment of the risks of soil contamination with asbestos, F.A Swartjes, P.C Tromp, J.M Wezenbeek, RIVM report 711701034/2003

SoBRA, 2021a. SoBRA Asbestos in Soil Human Health Risk Assessment (AiSHHRA) Toolbox, SoBRA Asbestos Sub-Group, Society of Brownfield Risk Assessment, December 2021.

SoBRA, 2021b. Discussion Paper on Guidelines for Airborne Concentrations of Asbestos Fibres in Ambient Air: Implications for Quantitative Risk Assessment. The Society of Brownfield Risk Assessment, January 2021.

Swartjes & Tromp, 2008. A Tiered Approach for the Assessment of the Human Health Risks of Asbestos in Soils, Frank A. Swartjes & Peter C. Tromp, Soil and Sediment Contamination: An International Journal, 17:2, 137-149

US EPA, 2021. Framework for investigating asbestos-contaminated Comprehensive Environmental Response, Compensation and Liability Act sites. Asbestos committee of the technical review workgroup of the office of land and emergency Management. United States Environmental Protection Agency, OLEM Directive #9200.0-90, US Environmental Protection Agency, 2021 [CD1/2]

WA, 2021. Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia, Government of Western Australia, Department of Health, 2021

WHO, 2000. Air Quality Guidelines for Europe, second edition. World Health Organisation Regional Office for Europe, Copenhagen, 2000

**Schedule Two
Replacement Plans**