

Appeal Decisions

Inquiry opened on 19 March 2024

by Paul Griffiths BSc(Hons) BArch IHBC

an Inspector appointed by the Secretary of State

Decision date: 7 April 2025

Appeal A: APP/EPR/636 Daneshill Soil Treatment Facility, Daneshill Landfill Site, Lound

- The appeal is made under Regulation 31 of the Environmental Permitting (England and Wales) Regulations 2016.
- The appeal is made by FCC Recycling (UK) Ltd against the decision of the Environment Agency to refuse an application to vary an Environmental Permit relating to the treatment of asbestos contaminated soils.
- The application was submitted on 22 January 2021 and relates to Environmental Permit No. EPR/NP3538MF (V008).

Appeal B: APP/EPR/651 Daneshill Soil Treatment Facility, Daneshill Landfill Site, Lound

- The appeal is made under Regulation 31 of the Environmental Permitting (England and Wales) Regulations 2016.
- The appeal is made by FCC Recycling (UK) Ltd against the decision of the Environment Agency to impose conditions on a Regulator Initiated Variation of an Environmental Permit.
- The Regulator Initiated Variation was issued by the Environment Agency on 9 December 2022 and relates to Environmental Permit No. EPR/NP3538MF (V008) which became (V009).

Appeal C: APP/EPR/652 Maw Green Soil Treatment Facility, Maw Green Landfill Site, Maw Green, Crewe

- The appeal is made under Regulation 31 of the Environmental Permitting (England and Wales) Regulations 2016.
- The appeal is made by 3C Waste Ltd against the decision of the Environment Agency to impose conditions on a Regulator Initiated Variation of an Environmental Permit.
- The Regulator Initiated Variation was issued by the Environment Agency on 5 October 2023 and relates to Environmental Permit No. EPR/BS7722ID/V010.

Decisions

Appeal A

 The appeal is allowed, and the Environment Agency is hereby directed, under Regulation 31(6) of the Environmental Permitting (England and Wales) Regulations 2016, to issue an amended Environmental Permit for the treatment of asbestos contaminated soils at Daneshill Soil Treatment Facility, Daneshill Landfill Site, Lound in accordance with the Notice of Variation and Consolidation with Introductory Note issued alongside these decisions as Annex 1 (EPR/NP3538MF/V011).

Appeal B

 The appeal is allowed, and the Environment Agency is hereby directed, under Regulation 31(6) of the Environmental Permitting (England and Wales) Regulations 2016, to issue an amended Environmental Permit for the treatment of asbestos contaminated soils at Daneshill Soil Treatment Facility, Daneshill Landfill Site, Lound in accordance with the Notice of Variation and Consolidation with Introductory Note issued alongside these decisions as Annex 1 (EPR/NP3538MF/V011).

Appeal C

3. The appeal is allowed, and the Environment Agency is hereby directed, under Regulation 31(6) of the Environmental Permitting (England and Wales) Regulations 2016, to issue an amended Environmental Permit for the treatment of asbestos contaminated soils at Maw Green Soil Treatment Facility, Maw Green Landfill Site, Maw Green, Crewe in accordance with the Notice of Variation and Consolidation with Introductory Note issued alongside these decisions as Annex 2 (EPR/BS7722ID/V011).

Preliminary Matters

- 4. The Inquiry opened on 19 March 2024 and closing statements were heard on 3 May 2024 - the eighth sitting day. In the light of matters to be dealt with afterwards, notably the applications for costs submitted by the appellants¹, the Inquiry was closed subsequently in writing. The event was held at Ye Olde Bell Hotel & Spa which is located in Barnby Moor, near Retford, and the Daneshill site. This meant that people living near to the Daneshill site were able to attend the Inquiry relatively easily. Conscious that attendance at the Inquiry would be very difficult for people living near the Maw Green site, facility was made for those with an interest to join the Inquiry online².
- 5. The Inquiry generated an abundance of documentation in the form of evidence and background material. Some additional documents were produced in the course of the Inquiry. Helpfully, the appellant catalogued these documents, and all remain available online on the gov.uk website courtesy of the Environment Agency. As such, no purpose would be served by my listing them all out separately as part of these decisions.
- 6. There was an initial difficulty with access to these documents for members of the public, but this was helpfully resolved by hard copies of the main parties' evidence being made available at the venue during the first week, alongside the appellant setting up an Inquiry website, followed in turn by the Environment Agency doing likewise. Further, the Environment Agency and/or the Planning Inspectorate (PINS) contacted all those who had previously made representations providing links to the websites.
- 7. I am content that all this, alongside the relatively long break between the first and second weeks of the Inquiry, gave members of the public sufficient time to properly consider the evidence and make representations upon it.

¹ These are the subject of separate decisions

² This proved impossible in week 1 of the Inquiry when the evidence of the Environment Agency was heard because of WiFi issues but was in place for the second week when third parties, the appellant's evidence, and closings were heard. Those joining the Inquiry online were able to make representations had they wanted to

- 8. There were some concerns raised about notification of the appeals and consultation too. These concerns must be seen in the context of the requirements of the Environmental Permitting (England and Wales) Regulations 2016. Schedule 6 sets out in 4(1) that the Regulator (the Environment Agency) must, within 10 working days after receipt of a copy of a notice of appeal, give notice to it to any person whom the regulator considers is affected by, is likely to be affected by, or has an interest in, the subject matter of the appeal. Schedule 6 explains what such notice should include in 4(2) namely (a) a description of the subject matter of the appeal; and (b) a statement that representations in writing may be made to the appropriate authority within a period of 15 working days after the date of the notice. That is the extent of consultation required to be undertaken.
- 9. The requisite notice was given for each appeal and on top of that, the appellant and the Environment Agency took further steps to advertise the fact that a Public Inquiry was to be held to consider the three appeals, notably through site notices placed in various locations around both sites. Members of the public made written responses to the appeals, attended the Inquiry in person and with the ability to do so virtually, and a number addressed the Inquiry. In that context, I am content that the process of notification and consultation was more than adequate to meet the requirements of the regulations.
- 10. Linked to that in some ways, a procedural objection was raised by members of the public relating to Appeals A and B and specifically, the manner in which the Environment Agency issued its Regulator Initiated Variation (the subject of Appeal B and covered in some detail below). In essence, the point made is that this Regulator Initiated Variation was issued without any public consultation, despite the previous application to vary the Environmental Permit relating to the treatment of asbestos contaminated soils (now the subject of Appeal A) having been designated as an application of High Public Interest by the Environment Agency, before the refusal to vary the permit in the manner sought was issued.
- 11. The question I have to ask myself is whether the lack of consultation has caused prejudice to the extent that the Regulator Initiated Variation is rendered unlawful. I do not consider that threshold has been reached. There are two reasons underpinning that finding. First, it is clear that the Regulator Initiated Variation brought the nature of operations possible at the Daneshill site into line with the consultation responses received by the Environment Agency when it previously refused to vary the Permit (the act now subject to Appeal A). Even if that is disputed, secondly, the Public Inquiry process has given interested parties ample opportunity to make their feelings about the appeals clear. My powers under the Regulation 31(5) of the EP Regulations are the same powers as those enjoyed by the Regulator (the Environment Agency) when it made its decisions, and allow me to grant a Permit to an operator for the operation of a regulated facility (Regulation 13); vary a Permit on the application of the operator or on its own initiative (Regulation 20); or revoke an environmental permit in whole or in part (Regulation 22). Moreover Regulation 31(6) says that on determination of an appeal in respect of a decision, unless the appropriate authority affirms the decision, the authority must direct the regulator to give effect to its determination when sending a copy of it to the regulator under paragraph 6(2)(a) of Schedule 6.

- 12. In that way, the scope of my powers allows for the outcomes promoted by third parties; outcomes that I deal with further below. As a result, the Public Inquiry process has made good any earlier procedural misstep that might have taken place in relation to the Regulator Initiated Variations relating to the Daneshill site, and indeed, the Maw Green site.
- 13. As suggested by the parties, I carried out an accompanied site visit to the Soil Treatment Facility (STF) at Edwin Richards Quarry (ERQ) in the West Midlands, before the Inquiry opened, for the purpose of familiarisation.
- 14. After the Inquiry closed, I carried out an accompanied site visit to the Maw Green Landfill Site on 30 May 2024. Before and after the accompanied part of the visit, I took in the local area and in particular, residential areas nearby. I carried out an accompanied site visit to the Daneshill Landfill Site on 5 June 2024. Afterwards, I visited Lound and some specific dwellings thereabouts, on an accompanied basis.
- 15. Towards the end of the Inquiry, and after it closed, suggestions were made to the Secretary of State at Defra by the Friends of the Earth, and others, that the appeals should be 'called in' for determination by the Secretary of State. Responses to those suggestions were delayed by the lead up to the General Election, and the aftermath, given the new administration. I had to place my decisions on hold pending a formal response to the requests from Defra. At the end of January 2025, it was confirmed that the Secretary of State at Defra did not wish to intervene. I was able then to proceed to my decisions on the three appeals before me.

Background

- 16. The appeals involve two separate sites. The first is known as the Daneshill Landfill Site; it is an existing, non-hazardous waste landfill operated by FCC Recycling (UK) Ltd, which is undergoing restoration. The proposed STF would lie within the confines of the landfill site, around 2km to the east of the village of Lound, and 6km to the north-west of Retford. The landfill site is bordered to the north and east by agricultural land and there is mixed woodland to the west. To the south-west are nature reserves and the Daneshill Lakes.
- 17. The Daneshill Landfill Site operates under the auspices of a ROMP³ which will expire in 2048. It is important to note that no operational STF has been in place at the Daneshill site. An application for planning permission for such a facility was submitted but it was refused by the local minerals and waste planning authority⁴ in December 2022 on the basis that insufficient information had been submitted. The purpose of the STF at Daneshill would be to provide suitable, recovered soils for restoration of the landfill. It is anticipated that this restoration would be complete within 10 years, assuming the STF proposed is in operation and can accept soil contaminated with bound asbestos for treatment. Once the restoration of the landfill is complete, the STF would become redundant.
- 18. The second site is at Maw Green. This is an existing non-hazardous waste landfill that is in the process of restoration. The landfill and the STF therein are operated by Provectus on behalf of 3C Waste Ltd, a wholly owned subsidiary of FCC. The landfill site is partially completed, and areas are currently awaiting

³ Review of Old Minerals Permission

⁴ Nottinghamshire County Council

restoration. It is located off Maw Green Road, Coppenhall, about 2km north of the centre of Crewe.

- 19. The STF at Maw Green has been in operation between August 2022 and October 2023. Planning permission for the STF was granted by Cheshire East Council⁵ for the development and operation of a temporary soil treatment facility. This permission was granted subject to a condition that requires the STF to be removed and the site restored following permanent cessation of all soil treatment operations, or by 31 December 2028, whichever is sooner.
- 20. Operation of the STF at Maw Green took place first under the auspices of a mobile permit and thereafter under the permit granted by the Environment Agency (EPR/BS7722ID/V009 dated 20 July 2023) which was then varied by the Regulator Initiated Variation (V010) that is the subject of Appeal C.
- 21. It is noteworthy that the Regulator Initiated Variation which resulted in V010 of the Maw Green permit continued to allow the STF to deal with hydrocarbons by way of remediation, outside. The same is the case with the initial and the varied versions of the Daneshill permit. The key difference between V009 and V010 of the Maw Green permit is the requirement to treat any soils containing 'asbestos containing materials' (ACMs) in a building; with 'full enclosure' of the proposed screener; and with all dust emissions from the proposed screener to be directed to a HEPA filter (or similar) and point source emission from the building. Much the same is required by the Regulator Initiated Variation to the permit at Daneshill. Since the Environment Agency issued the Regulator Initiated Variation to the permit at Maw Green, the STF has ceased operation.
- 22. Against that background, it is worth outlining the nature of the appeals. Appeal A was submitted on 1 June 2023 and relates to the refusal of the Environment Agency to issue any permit for the treatment of soils contaminated with bound asbestos at the Daneshill site. Appeals B and C relate to the imposition of conditions on the Regulator Initiated Variations to the Permits for the Daneshill and Maw Green sites respectively. These Regulator Initiated Variations to the Permits allow for the treatment of soils contaminated with ACMs subject to certain conditions, as set out above.
- 23. It is important to note that prior to the Regulator Initiated Permit for Maw Green, the Environment Agency had issued a Permit on the terms sought by the appellant for the treatment of ACMs (bound asbestos only) at the Maw Green site⁶. The appellant drew attention to this in the Statement of Case for Appeal A. The Environment Agency then revoked the Permit previously issued for Maw Green through the Regulator Initiated Variation. This Regulator Initiated Variation is the subject of Appeal C.

Main Issue

24. There are a number of points that need to be clarified before one can define the main issue. First of all, there are no site-specific differences between what might be permitted at the Daneshill STF and the Maw Green STF. The main parties agree that the same approach should be taken to both, and I consider that to be correct. I have proceeded on that basis.

⁵ Ref.19/1376N dated 30 October 2019

⁶ EPR/BS7722ID/V009

- 25. The second point is that the main parties agree, having regard to the 'waste hierarchy', that removing asbestos from ACMs, so that the asbestos can be safely disposed of, and the material reused, as part of the restoration of the associated landfill sites, or for other purposes, is beneficial in that it deals with the asbestos at the correct place in the waste hierarchy, and moves the residue up the hierarchy. There is no dispute between the main parties either, that this process can take place at Daneshill and at Maw Green so the question the main parties have addressed is not *whether* this process takes place in these two locations, but *how* it takes place.
- 26. While I appreciate the points made by, and on behalf of, local residents, I consider that to be the correct approach. There seems to me to be no good reason why this process should not take place at Daneshill, or Maw Green, provided that it is properly controlled. The essential question before me is the form that control should take through the permitting regime.
- 27. Moving on from that position, the main parties approached the matters in dispute at the outset of the Inquiry in a helpfully co-operative way and continued discussions in the background of proceedings. This resulted in some significant changes to the initial position adopted by both sides.
- 28. First of all, the Environment Agency agreed to increased on-site storage, and that stockpiling of the ACM can take place outside, provided that the stockpile is managed properly. Moreover, the appellant has accepted that existing crushed concrete surfaces, above the impermeable geosynthetic clay liner, could be replaced with tarmac. This would reduce the extent of entrainment by providing a smoother surface for the treatment of ACMs.
- 29. Finally, the Environment Agency initially adopted the position that the treatment of ACM should take place within a fully sealed, enclosed screener, placed inside a suitably sealed and filtered building. In response to evidence from the appellant that fully screened and enclosed screeners are simply not available, and questions I asked about the necessity of double-enclosure, the Environment Agency accepted that treatment of ACMs could take place using a typical (non-enclosed) mechanical screener, provided the screener was placed inside a suitably screened and filtered building.
- 30. Those concessions, by both sides, are, in my view, reasonable and practical. In the light they cast, coupled with the point I make above about the central question being not *whether* this process takes place in the two locations, but *how* it takes place, all three appeals fall to be allowed, and amended Environmental Permits for the treatment of ACMs at both sites, issued.
- 31. On that basis, I asked both the appellants, and the Environment Agency to provide me with their preferred form of Environmental Permit for each site, having regard to the various concessions made at the Inquiry.
- 32. Taking account of the parties' final positions, in assessing whether the appellants' or the Environment Agency's versions of the Environmental Permit for each site is to be preferred, or some amended versions composed on the basis of my findings, the central question for me, and the main issue in these appeals is whether the treatment of ACM outside, using a typical (non-enclosed) mechanical screener, on the two sites, would be acceptable. That question needs to be considered in the light of potential risks to human health and/or the environment.

Reasons

- 33. There is a context for that assessment of risk. Asbestos is incredibly dangerous and there is no level at which it can be said to be 'safe'. A single fibre can be sufficient to cause a lethal mesothelioma⁷. That is important because forming a judgment on risks to human health and/or the environment must take account not only of the potential for, and/or levels of, emissions from the sites, but also their potential effects.
- 34. I accept of course that there is a background level of asbestos in the air that we all breathe, including those who live near the sites. However, the appellant's risk assessments show that the process of importing ACM to the sites, and removing the asbestos from it, to allow re-use of the residue, in the open, using a typical (non-enclosed) screener, would cause fibres to be released that would cross the site boundaries.
- 35. This would raise the ambient level of asbestos above the existing background levels in the affected areas. The appellants' analyses show that this increase would be very small. However, I would observe that any emissions of asbestos fibres from operations on the sites will increase risks.
- 36. On top of that, I have some misgivings about the approach taken to the risk assessments. No account is taken of fibres that would be released as part of the screening process that would not reach the site boundaries, in the first instance. That fails to account for released fibres that might come to rest within the site, only to be re-activated, minutes, hours, days, weeks, or years later, by the wind, or vehicular activity, or whatever, only then to cross the site boundaries.
- 37. I appreciate that modelling this re-activation might be very challenging, but it seems to me that in failing to account for the potential for re-activation, the appellants' risk assessments must underestimate the degree to which the ambient level of airborne asbestos, in the affected areas, would be raised. I have no way of telling what that level might be; the evidence does not supply a means by which I can even make an estimate. That, to my mind, is a significant failing that leaves me in a difficult position. However, it seems to me that I can predict, on the basis of the evidence, that the process of importing ACM to the sites, and removing the asbestos from it, to allow re-use of the residue, using a typical screener, in the open, would raise the ambient level of airborne asbestos, in the affected areas, above that which is represented in the appellants' analyses.
- 38. I appreciate that this increase might be very small, and the overall level of emissions from the sites caused by the process the appellants propose, might release very little in the way of fibres beyond the site boundaries. However, given the incredibly dangerous nature of asbestos, it cannot be treated as negligible, in my view. It would increase the risk to human health in particular, and as I have set out above, my assessment of that increased risk must take account not only of the levels of potential emissions from the sites, but also their potential (deadly) effects.
- 39. I noted during my site visits that people live relatively close to both sites. At Daneshill, there are people living less than 200 metres away, and the same is

⁷ This was accepted by the High Court in *Briggs v Drylined Homes Ltd* [2023] EWHC 382.

true of the Maw Green site. There are public footpaths near to, and within, the Daneshill site. With people so close to the sites, I am of the view that the risk to their health posed by carrying out the screening process in the open is far too great. The consequences of raising ambient levels of asbestos, with people living so close, could be deadly. That leads me to the conclusion that, in the light of potential risks to human health, the screening process really does need to take place inside a suitably screened and filtered building rather than in the open. Put simply, I agree with the stance taken by the Environment Agency; the screening process should not allow asbestos fibres to escape from the sites.

- 40. I draw some support for that stance from BAT. This is defined under Article 3(1) of the Industrial Emissions Directive (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'. BAT 14 sets out a series of techniques that can prevent, or where that is not practicable, reduce diffuse emissions to air, in particular of dust, organic compounds and odour. It goes on to say that depending on the risk posed by the waste in terms of diffuse emissions to air, something of direct relevance in these cases, BAT 14d is especially relevant.
- 41. BAT 14d deals with the containment, collection and treatment of diffuse emissions. We are told that this includes techniques such as: storing, treating and handling waste and material that may generate diffuse emissions in enclosed buildings and/or enclosed equipment (for example, conveyer belts); maintaining the enclosed equipment or buildings under an adequate pressure; and collecting and directing the emissions to an appropriate abatement system via an air extraction system and/or air suction system close to the emission sources. In terms of applicability, we are told that the use of enclosed equipment or buildings may be restricted by safety considerations such as the risk of explosion or oxygen depletion or constrained by the volume of waste. However, none of those factors are at issue here. It seems to me that carrying out the screening process inside a suitably screened and filtered building is in direct accordance with the approach set out in BAT 14d.
- 42. I appreciate that a requirement to erect suitably screened and filtered buildings on the sites, in order for the process of importing ACM to the sites, and removing the asbestos from it, to allow re-use of the residue, to take place would involve the operator(s) in some additional expense. This might bring into question the viability of carrying out the process on either, or both sites. However, that is not a matter that can bear to any significant degree on the nature of an Environmental Permit, particularly where the process concerned carries such a high risk. Whether planning permission would be granted for a building on the site(s) is a matter for the planning system.
- 43. I recognise that there might be implications in my conclusions for other sites where similar operations take place, or are proposed. However, my decisions in the particular circumstances of these cases rest on the local context. The approaches to be taken on other sites are matters for the Environment Agency to consider based on the nature of those sites.
- 44. As I have set out above, the permits for Daneshill and Maw Green, as they stand, allow the STFs to deal with soil contaminated with hydrocarbons, by way of remediation, outside. The appellant made the point that like asbestos,

Benzene, in particular, is very dangerous to human health, so the Environment Agency was being inconsistent in requiring ACMs to be treated in a suitably screened and filtered building. It is fair to say that the Environment Agency has treated the two processes in different ways, but the approach they have taken to hydrocarbons is not at issue in these appeals. Given my conclusions above, that the Environment Agency has allowed soil contaminated with hydrocarbons to be treated outside, does not justify taking the same approach to ACMs.

45. I must also point out that the appeals are made under the Environmental Permitting (England and Wales) Regulations 2016. In my view, some of the points made by local residents, particularly around the effect of the process, and the traffic generated, on their living conditions, bear more properly on the planning merits of what is proposed at the two sites. My understanding is that the processes proposed on both sites require(d) planning permission. That is the correct forum for those points to be considered. I have dealt with what is before me in a permitting context only. Planning matters are for the relevant Waste Authority, in the first instance at least

Conclusion

46. With all that in mind, I consider that the appeals should be allowed, and the Environment Agency directed to issue Environmental Permits, on the basis of the Notices of Variation and Consolidation with Introductory Note prepared by the Environment Agency, submitted to the Inquiry, and attached as Annex 1 (Daneshill) and Annex 2 (Maw Green).

Paul Griffiths

INSPECTOR

APPEARANCES	
FOR THE APPELLANTS	
Alison Ogley, Advocate	
She called:	
Matt Stoaling	Director, Isopleth Ltd
Dr Simon Cole	Technical Director, Hydrock
Leslie Heasman	Managing Director and a Principal Environmental Consultant, M J Carter Associates Ltd
FOR THE ENVIRONMENT AGENCY	
Jack Smyth, Counsel	
He called:	
Graham Raynes	Senior Permitting Officer, Environment Agency
Chris Lowe	Senior Air Quality Advisor and Team Leader, Environment Agency
Daniel Kirk	Principal Permitting Officer, Environment Agency
Paul Barker	Senior Advisor – Hazardous Waste Treatment, Environment Agency
INTERESTED PERSONS	
Chris Chambers	Local Resident
Lynn Tytherleigh	Local Resident
Vivienne French	Local Resident



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

FCC Recycling (UK) Limited

Daneshill Landfill Daneshill Road Lound Nottinghamshire DN22 8RB

Variation application number

EPR/NP3538MF/V011

Permit number

EPR/NP3538MF

Daneshill Landfill Permit number EPR/NP3538MF

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The variation has been issued as a result of Appeals against (a) refusal of parts of the application activities in V009 of the permit and (b) the regulator initiated variation V010 of the permit and includes and amends conditions regarding the asbestos screening and picking activity for soils impacted with bound asbestos to the Soil Treatment Facility (STF) located within the existing permitted landfill boundary.

Screening of soils impacted with bound asbestos will be enclosed in a building with localised air extraction and abatement via a HEPA filter to prevent and minimise emissions from the process. The STF will accept and treat up to 29,999 tonnes per annum of hazardous waste (including the soils impacted with bound asbestos) and 20,001 tonnes of non-hazardous waste. Once treated the wastes will be tested for suitability for use in the wider landfill restoration. Soils that don't meet the reuse criteria will be disposed of to landfill.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit				
Description	Date	Comments		
Application received EPR/NP3538MF/A001 (Ref NP3538MF)	Duly made 15/05/2007	Application for non-hazardous landfill.		
Permit determined EPR/NP3538MF	13/11/2009	Original permit issued to Waste Recycling Limited.		
Application EPR/NP3538MF/V002 (Ref. AP3130CC)	Duly made 22/12/2011	Application to add leachate treatment.		
Variation determined EPR/NP3538MF	20/03/2012	Varied permit issued.		
Notified of change of company name	23/08/2012	Name changed to FCC Recycling (UK) Limited and update of the wording of the financial provision condition.		
Variation issued EPR/NP3538MF/V003	12/09/2012	Varied permit issued to FCC Recycling (UK) Limited.		
Agency variation determined EPR/NP3538MF/V004	14/05/2013	Agency variation to implement the changes introduced by IED.		
Administrative variation determined EPR/NP3538MF/V005	08/10/2013			
Environment Agency Landfill Sector Review	10/01/2017	Varied and consolidated permit issued in modern condition format.		

Status log of the permit			
Description	Date	Comments	
Permit reviewed			
Variation determined EPR/NP3538MF/V006			
Permit EPR/NP3538MF			
Application	Duly made	Application to vary the permit by changing the	
EPR/NP3538MF/V007	03/04/2017	operational conditions and monitoring	
(variation and consolidation)		requirements relating to the operation of the Short Rotation Coppice.	
Additional information received	13/07/2018	Response to Schedule 5 Notice.	
Additional information received	18/09/2019	Assessment of interaction between surface water discharge and groundwater.	
Variation determined EPR/NP3538MF	31/10/2019	Varied and consolidated permit issued.	
Application	Duly made	Application to vary the permit to reduce the	
EPR/NP3538MF/V010 (variation and consolidation)	19/02/2020	number of leachate monitoring locations and amend groundwater compliance monitoring	
		requirements.	
Additional information received	18/09/2020	Response to Schedule 5 Notice.	
Additional information received	27/11/2020	Further justifications and revised chromium compliance limit received.	
Additional information received	16/12/2020	Updated leachate Management Plan received.	
Variation determined	10/02/2021	Varied and consolidated permit issued in modern	
EPR/NP3538MF		condition format	
(Billing ref: SP3908BH)			
Application EPR/NP3538MF/V010 (variation	Duly made 16/07/2021	Application to vary to add a soil treatment facility and update the permit to modern conditions.	
and consolidation)			
Additional information received	01/10/2021	Response to Schedule 5 Notice.	
Additional information received	04/10/2021	Further response to Schedule 5 Notice.	
Additional information received	05/11/2021	Further clarification on information contained within the Schedule 5.	
Additional information received	17/11/2021	Further clarification on the information contained within the Schedule 5.	
Additional information received	23/11/2021	Details of other sites using CLO as a filter medium.	
Additional information received	07/01/2022	Confirmation bio-remediation treatment is for recovery only.	
Additional information received	20/01/2022	Waste code clarification	
Additional information received	22/02/2022	Asbestos soil screening and storage information	
Variation determined and consolidation issued EPR/NP3538MF	02/12/2022	Varied and consolidated permit issued in modern format	
(Billing ref: BP3604SD)			
Variation determined and	29/09/2023	Environment Agency initiated variation.	
consolidation issued		Varied and consolidated permit issued in modern	
EPR/NP3538MF		format	

Status log of the permit			
Description	Date	Comments	
The Environment Agency has been directed by the Secretary of State for the Environment to issue this variation.	#####	Variation determined and issued as a result of an Appeal against Versions V009 and V010 of the permit, Appeal references APP/EPR/636 and APP/EPR/651.	

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/NP3538MF

Issued to

FCC Recycling (UK) Limited ("the operator")

whose registered office is

3 Sidings Court White Rose Way Doncaster England DN4 5NU

company registration number 02674166

to operate a regulated facility at

Daneshill Landfill Daneshill Road Lound Nottinghamshire DN22 8RB

to the extent set out in the schedules.

The notice shall take effect from #####.

Name	Date
Principal Permitting Team Leader	######

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions are amended as a result of the variation:

Table S1.1, Table S1.2, Table S1.4, Table S3.11A.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/NP3538MF

This is the consolidated permit referred to in the variation and consolidation notice EPR/NP3538MF/V011 authorising,

FCC Recycling (UK) Limited ("the operator"),

whose registered office is

3 Sidings Court White Rose Way Doncaster England DN4 5NU

company registration number 02674166

to operate an installation at

Daneshill Landfill Daneshill Road Lound Nottinghamshire DN22 8RB

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Principal Permitting Team Leader	#######

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
 - (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit shall be as set out in the Deed of Performance dated 17 October 2007 between the Waste Recycling Group Limited (now known as FCC Environment (UK) Limited) and the Environment Agency as varied by a Deed of Variation dated 15 October 2010 (as varied by further Deeds of Variation from time to time). The operator shall accordingly ensure that the Permit is and remains throughout its subsistence a Permit to which the Deed relates and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.1 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
 - (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.2.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.

1.3 Energy efficiency

- 1.3.1 The operator shall:
 - (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.4 Efficient use of raw materials

- 1.4.1 The operator shall:
 - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;

- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

1.5 Avoidance, recovery and disposal of wastes produced by the activities

- 1.5.1 The operator shall:
 - (a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;
 - (b) review and record at least every four years whether changes to those measures should be made; and
 - (c) take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in blue on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.6 Landfill Engineering

- 2.6.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.6.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
 - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.6.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
 - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.7 The operator shall submit a CQA Validation Report within four weeks of the completion of the construction of the relevant landfill infrastructure, or other time period agreed in writing with the Environment Agency.
- 2.6.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.5 and 2.6.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.6.9 For the purposes of conditions 2.6.1, 2.6.2, 2.6.4 and 2.6.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
 - (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.
- 2.6.10 Where the Environment Agency has required further information under condition 2.6.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
 - (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.

2.7 Waste acceptance

- 2.7.1 For the following activities referenced in schedule 1, table S1.1 (AR1 and AR2) wastes shall only be accepted for disposal if:
 - (a) they are listed in schedule 2, tables S2.1 and S2.2
 - (b) they are non-hazardous waste and
 - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm); and
 - (d) they are not shredded used tyres; and
 - (e) they are not liquid waste (including waste waters but excluding sludge and excluding liquid waste accepted at a permitted leachate treatment activity); and
 - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown; and
 - (g) all the relevant waste acceptance procedures have been completed; and
 - (h) they fulfil the relevant waste acceptance criteria; and
 - (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria; and
 - (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, or liquid waste accepted for treatment at a permitted leachate treatment activity; and
 - (k) they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.
- 2.7.2 Waste shall only be accepted for treatment if:
 - (a) it is of a type and quantity listed in schedule 2, table S2.2, S2.4, S2.5, S2.6, S2.7 and S2.8.
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.7.3 Wastes shall only be accepted for restoration where:
 - (a) they are listed in schedule 2, table S2.3; and
 - (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.
- 2.7.4 For the following activities referenced in schedule 1, table S1.1 (AR1) the operator shall:
 - (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
 - (b) be satisfied that the waste conforms to the requirements of condition 2.7.1.
- 2.7.5 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.7.6 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.7.7 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing 348P043.
- 2.7.8 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1, table S1.5.

- 2.7.9 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.
- 2.7.10 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.
- 2.7.11 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
 - (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.7.12 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.8 Leachate levels

2.8.1 limits for the level of leachate listed in schedule 3, table S3.1 shall not be exceeded.

2.9 Closure and aftercare

2.9.1 For the following activities referenced in schedule 1, table S1.1 (AR1) the operator shall maintain a closure and aftercare management plan.

2.10 Landfill gas management

- 2.10.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:
 - (a) collect landfill gas; and
 - (b) control the migration of landfill gas.
- 2.10.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.
- 2.10.3 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;
 - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 The limits in schedule 3 shall not be exceeded.

- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, tables S3.2 and S3.3.
- 3.1.3 The limits given in schedule 3, table S3.2 shall not be exceeded, save that for activity AR8 compliance with an emission limit in that table shall include incorporation of the uncertainty allowance stated in Environment Agency guidance LFTGN 05 and LFTGN 08.
- 3.1.4 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.5 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
 - (a) between nine and six months prior to the fourth anniversary of the granting of the permit; and
 - (b) between nine and six months prior to every subsequent six years after the fourth anniversary of the granting of the permit.
- 3.1.6 For the following activities referenced in schedule 1, table S1.1; (AR2, AR3, AR3A, AR4, AR5) periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) Leachate specified in tables S3.1 and S3.9;
 - (b) Point source emissions specified in tables S3.2 and S3.3;
 - (c) Groundwater specified in tables S3.4 and S3.7;
 - (d) Landfill gas specified in tables S3.5, S3.6 and S3.8;
 - (e) Surface water specified in table S3.10;
 - (f) Ambient air specified in table S3.11 and S3.11A;
 - (g) Soil quality specified in table S3.12A and
 - (h) Process monitoring as specified in tables S3.12B and 3.13.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 For the following activities referenced in schedule 1, table S1.1 (AR1) a topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
 - (a) annually; and
 - (b) prior to the disposal of waste in any new cell or new development area of the landfill; and
 - (c) following closure of the landfill or part of the landfill.

3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

- 3.6.2 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

- 3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.
- 3.7.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
 - (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) the results of groundwater monitoring;
 - (ii) sub-surface landfill gas monitoring;
 - (iii) leachate levels, quality and quantities;
 - (iv) landfill gas generation and collection;
 - (v) waste types and quantities;
 - (vi) the specification and as built drawings of the basal, sidewall and capping engineering systems.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may

be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
- (b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3;
- (c) the annual production/treatment set out in schedule 4, table S4.2;
- (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- (e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
- (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the presettlement contours and the most recent topographical survey;
- (h) a plan(s) ('the monitoring and extraction point plan MEPP') showing the locations of existing and any new leachate and landfill gas extraction and monitoring points;
- (i) a review of the annual soil and leachate quality data obtained in accordance with conditions 3.5.1(g) and (h).
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
 - (a) in respect of the parameters and emission points specified in schedule 4, table S4.1;
 - (b) using the forms specified in schedule 4, table S4.4 or other reporting format as agreed in writing with the Environment Agency; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.6 The operator shall submit to the Environment Agency a Short Rotation Coppice review report every 3 years by the 31 January. The report shall include for each plot:
 - (a) a summary of the following:
 - (i) all previous soil quality data;
 - (ii) leachate quality data for the 3 year period; and
 - (iii) total leachate volume applied during the 3 year period.

- (b) total quantity of substances listed in table S3.12B applied over the 3 year period calculated from 4.2.6 (a)(ii) and (iii).
- 4.2.7 Where notified by the Environment Agency that the data submitted in accordance with condition 4.2.6 identify that activity AR2 of Table S1.1 is giving rise to pollution in the soil, the operator shall:
 - (a) submit for approval an action plan to reduce the concentration of those substances that are giving rise to pollution; and
 - (b) implement the approved action plan in accordance, from the date of approval, unless otherwise agree in writing by the Environment Agency.

4.3 Notifications

- 4.3.1 In the event:
 - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately-
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.
- 4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR1	D5 –Specially engineered landfill; R5 - the recycling or reclamation of inorganic material and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1) (a), The disposal of waste in a landfill.	Landfill for non- hazardous waste and landfill restoration	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.7, as an integral part of landfilling.
AR2	D8 – Biological treatment of waste	Section 5.4, Part A(1)(a)(i), Biological treatment of non- hazardous waste	Treatment of leachate in a facility with a capacity of >50 tonnes/ day – Short rotation coppicing	Leachate arising from the installation and Carlton Forest Landfill (EPR/DP3836LS) and consisting of the types and quantities specified in condition 2.7.2, Table S2.2 and Tables 2, 3 and 4 of the 'Process Management Report No. 10247-R02' dated January 2017.
AR3	R5 - Recycling/reclamation of other inorganic compounds	Section 5.3 Part A1(a)(vi) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving biological treatment	Biological treatment of hazardous waste for recovery	 From receipt of waste through to storage of treated waste. Including addition of additives. All treatment and storage shall take place on an impermeable surface with a sealed drainage system Temporary storage of treated waste pending further treatment on-site or off-site recovery. Hazardous waste types and quantity as detailed in table S2.4

Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR3A	R5 - Recycling/ reclamation of other inorganic materials.	RegulationsSection 5.3PartA(1)(a)(vi)Disposal orrecovery ofhazardouswaste with acapacityexceeding 10tonnes perday involvingphysico-chemicaltreatment.	Recovery of soils impacted with identifiable pieces of bonded asbestos by separation.	From treatment of soils impacted with identifiable pieces of bonded asbestos, by handpicking of bonded asbestos only, or by 3-way screener into oversize, medium size and silt-sized fractions prior to handpicking of bonded asbestos from fractions containing visible bonded asbestos to storage of recovered soils and separated bonded asbestos. Screening and handpicking shall take place on an impermeable surface with a sealed drainage system. The screener shall be in an enclosed building with an abated air extraction system as described in 'Requirements for Enclosed Building' listed in Table S1.2. Handpicking shall take place in a dedicated enclosed picking line. No more than 29,999 tonnes per annum of soils impacted with identifiable pieces of bonded asbestos shall be treated (in aggregate). The screening and handpicking of asbestos impacted wastes shall not increase the asbestos fibre load in the waste. Screened soil impacted with visible

Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
				minimises asbestos fibre emissions such as spraying and sheeting.
				sheeting. Separated bonded asbestos fragments shall be bagged whilst handpicking is in progress. Once handpicked asbestos shall be stored double bagged in sealed, closed and locked containers. Treated waste shall be stored for no longer than 6 months prior to transfer off- site or to the landfill for use in restoration No more than 10 tonnes of picked asbestos shall be stored on site. No more than 50,000 tonnes of treated soils shall be stored on site. Non-hazardous treated soils shall be kept separate from hazardous soils. Waste types (soil wastes only) and quantities as

Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR4	R13 - Storage of hazardous waste prior to on-site treatment for the purpose of recovery	Section 5.6 Part A(1)(a)	Temporary storage of hazardous waste in a facility with a total capacity exceeding 50 tonnes.	From receipt of waste through to submission for treatment. All storage shall take place on an impermeable surface with a sealed drainage system. No more than 29,999 tonnes of hazardous waste shall be stored at any one time. No more than 29,999 tonnes of hazardous asbestos impacted wastes for activity AR3A shall be stored at any one time. Soil impacted with visible asbestos shall be stored in a way that minimises asbestos fibre
			emissions such as spraying and sheeting. Waste types and quantity as detailed in schedule 2, tables S2.4 and S2.8.	
AR5	R5 – Biological treatment of non- hazardous waste for recovery	Section 5.4 Part A(1)(b)(i)	Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment.	From receipt of waste through to storage of treated waste. All treatment and storage shall take place on an impermeable surface with a sealed drainage system Non-hazardous waste types and quantities as specified in Table S2.5

Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR6	R1 – use principally as a fuel to generate energy		Pre-treatment and utilisation of landfill gas for energy recovery in an appliance with a rated thermal input < 50MW	Treatment and utilisation of landfill gas arising from the landfill.
AR7	N/A		Temporary storage of waste (leachate)	Leachate arising from the landfill.
AR8	N/A		Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
AR9	D6 – release to water body except seas/ oceans		Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
AR10	N/A		Storage of fuel for operation of plant and equipment.	Fuel storage tank.
AR11	R13 - Storage of waste pending the operations numbered R1 and R13 (excluding temporary storage, pending collection, on the site where it is produced)		Storage of non- hazardous waste.	All storage shall take place on an impermeable surface with sealed drainage system. The maximum volume of combustible waste wood used as a process additive shall not exceed 30m ³
				Non-hazardous wastes types and quantities specified in table S2.5
AR12	N/A		Effluent treatment plant	Collection, storage and treatment of site surface water prior to reuse or tankering off site.
AR13	N/A		Abatement system	Operation of biofilter Use of waste as specified in table S2.7

Table S1.1 activities				
Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR14	R5: Recycling/reclamation of other inorganic compounds.		Screening of waste	Treatment operations shall be limited to: Physical treatment of non-hazardous wastes following biological treatment including screening for the purpose of recovery.
				Non-hazardous waste types as specified in Table 2.6.

Table S1.2 Operating techniques Description				
Description Application	Parts The response to questions 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10 and 2.11 of the Application excluding 2.2.49, 2.2.50, 2,2.51, 2.2.52, 2.2.53 and 2.2.57.	Date Received		
Response to schedule 4 notice dated 24/01/2007	All sections	24/01/2008		
Response to permit consultation 12/08/2009.	Internal memorandum, dated 12 August 2009, pertaining to active litter control measures operating on the site.	02/09/2009		
Variation Application EPR/BW2986IW/V002	Technical assessment to support an application to vary the environmental permit, dated May 2011, version 1.0, sections 1, 2, 3, 4, 5, 6, 7 but excluding section 7.5	22/12/2011		
Variation application EPR/BW2986IW/V002	H1 Risk assessment Part 1 and part 2	22/12/2011		
Further information provided (letter reference AS0161 dated 13/02/2012)	All	13/02/2012		
Establishment of Carbon Dioxide Background Concentrations and Revised Action Levels – Version 3	All	17/08/2016		
Response to Schedule 5 Notice dated 19/06/2018	Surface water management technique as detailed in the response to question 3a of letter ref. 10247/L002/KW.	13/07/2018		
Response to Schedule 5 Notice dated 30/07/20	 Responses to: Question 1 amending the removal of leachate level limits in line with the Environment Agency's recommendations in the CAR form (Report ID: NP3538MF/0356973). Questions 2 providing updated monitoring frequency for leachate levels in cells which do not have the benefit of a fully engineered cap but 	18/09/2020		

Table S1.2 Operating techniques				
Description	Parts	Date Received		
	 excluding request for Table S3.1 to refers to just Drawing Reference number Question 3 retaining the existing compliance limit for xylene. Question 5 providing revised groundwater ammoniacal nitrogen compliance limit at GW05 and GW15. 			
Additional information	Response to the follow up email in relation to Schedule 5 Notice Questions 2, 3, 5 & 6.	27/11/2020		
Additional information	Updated Leachate Management Plan	16/12/2020		
Application	Forms C2 and C3 submitted with the application	16/07/2021		
Application	Waste pre-acceptance and acceptance confirmation as described in BAT Review document			
Response to Schedule 5 notice 06/08/2021	Response to questions 4, 6 – water collection 29, 30, 31 – water treatment. Associated appendices	01/10/2021		
Response to email request for further information dated 07/01/2022	Email confirming EWC 19 02 05* will be soil from road sweepings contaminated with hydrocarbons	20/01/2022		
Response to email request for further information dated 12/01/2022	Email confirming wheel wash waters are directed for treatment and recirculation. Surface water drawing 3982-CAU-XX-XX-DR-V-1813 Showing channelling and direction of follow of non- operational areas of the site.	22/02/2022		
Appeal submission 30 April 2024	Plan 3982-CAU-XX-XX-DR-V-1815_S2-P01 'TREATMENT PAD DESIGN DETAIL' to replace the use of a crushed concrete surface where proposed previously.	30/04/2024		
Appeal submission 08 May 2024	Plan 3982-CAU-XX-XX-DR-1803_S2-P08 'DUST AND ASBESTOS MONITORING PLAN' regarding revised monitoring locations.	08/05/2024		
Appeal submission 20 May 2024	Requirements for Enclosed Building, document reference 3982-CAU-XX-XX-RP-V-0311.	20/05/2024		

Table S1.3 Improvement programme requirements				
Reference	Requirement	Date		
IC1	 The operator shall: undertake an assessment of groundwater contamination identified in the down-gradient boreholes. The main borehole currently impacted is GW06, but elevated concentrations are also observed in GW05, GW07 and GW08 down gradient of Phases 1 & 2, and GW11, which is down-gradient of Cells 1-4. The main parameters of concern are chloride, manganese, magnesium and sodium; carry out a review of the effectiveness of groundwater monitoring boreholes and consider improvements to the groundwater monitoring network (having regard to the Agency's Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water, February 2003 to achieve the spacing of boreholes) to provide a better understanding of the impacts (e.g. additional up gradient monitoring). A report detailing the findings shall be submitted to the Environment Agency for approval. 	Complete		

Table S1.3 Improvement programme requirements				
Reference	Requirement	Date		
	The report shall: • seek to identify the cause of the contamination and, propose appropriate further monitoring infrastructure if required, in order to verify the cause of the contamination; • include a drawing chawing the proposed leastion (a far installation of power)			
	 include a drawing showing the proposed location/s for installation of new or replacement boreholes. The Operator shall incorporate the additional monitoring locations into 			
	routine monitoring programme as specified in Tables S3.4 and S3.7.			
IC2	The boreholes agreed in compliance with improvement condition IC1 shall be installed having regard to the Agency's Guidance (LFTGN02) on Monitoring of Landfill Leachate, Groundwater and Surface Water.	Complete		
IC3	The Operator shall monitor the composition of the groundwater at additional boreholes at least once every month for 12 months and carry out analysis for List I and List II substances and submit for the approval of the Agency a report including:	Complete		
	 a review of the specified groundwater compliance locations, trigger substances and trigger levels for groundwater monitoring. All existing relevant compositional data from boreholes and the new additional boreholes shall be used to derive suitable triggers; and 			
	• an assessment of current on-going and additional monitoring to confirm the cause of the contamination and providing proposals for remedial measures, if Daneshill Landfill is confirmed to be the cause, to prevent further deterioration in groundwater quality and where possible, seek improvements in order to comply with the Groundwater Directive.			
IC4	Following completion of the 2nd period of annual monitoring as specified in table S3.12A;	Complete		
	a) the chemical characteristics of the soils used within the SRC plots will be analysed by the operator for the list of parameters given in table 1 of figure CE-DHL0346-RP04TA-FA of the application, using the method detailed in CE-DHL0345-RP04TA-leachate treatment facility and short rotation coppicing SRC Daneshill Landfill site-Technical Assessment December 2011 version1.0 of the application.			
	b) If the results of the monitoring required by (a) are above the limits specified in Table 9 of figure CE-DHL0346-RP04TA-F4 the operator shall submit details of an appropriate treatment activity to reduce limits obtained in (a) to below the limits set out in the table, or shall provide written details of further steps that are to be undertaken to reduce the limits to below the levels specified in table 9.			
	c) the operator shall use the results obtained in a) and b) to develop a revised soil monitoring suite and monitoring frequency for inclusion in table S3.12A			
	The requirements of c) above shall be implemented in accordance with Environment Agency written approval.			
IC5	The operator shall compare the results obtained in accordance with condition 3.5.1 (g) with the modelling submitted in support of the application and submit a report to the Environment Agency detailing, where appropriate, a revised monitoring suite and frequency for the individual process steps of the SRC treatment process. The results of the report shall only be implemented in Table S3.12B in accordance with Environment Agency written approval.	Complete		
IC6	The operator shall review the limits of detection for the substances being analysed within tables S3.12A and S3.12B.	Complete		
	The operator shall only implement use of the revised limit of detection with Environment Agency written approval.			

	Improvement programme requirements	Data
Reference	Requirement	Date
IC7	The Operator shall submit to the Environment Agency for approval proposed action limits for carbon dioxide in external landfill gas monitoring boreholes BH12 and BHG32A. The proposed action limits shall be derived in accordance with the methodology in the Industry code of practice (ICoP) on Perimeter Soil Gas Emissions. Following approval of the proposed action limits the Operator shall update the site landfill gas management plan and landfill gas action plan as appropriate.	Complete
IC8	The Operator shall:	Within 14
	a) Following the commencement of operations of the SRC and after 1 year of monitoring of the discharge from the containment channel of parameters as specified in Table S3.3, submit a report of the monitoring results to the Environment Agency for a written approval. The report shall include the results of discharge rate data obtained from the containment channel emission point specified in Table S3.3;	months from commencemer of discharges to the SRC plots
	b) Carry out a revised H1 risk assessment if there is a change in the discharge rate data used in the H1 assessment submitted with this application or if the results of the monitoring in a) are above the limits specified in Table S3.3 or show presence of substances where no limits are applied or substances that are currently not listed in Table S3.3;	
	 c) If the concentration of any of the assessed substances is found to be 'not insignificant' from the H1 assessment, submit a revised proposal of surface water discharge limits and a plan for ongoing monitoring to the Environment Agency for a written approval; and 	
	d) Implement any proposed changes in c) from the date and in accordance with written approval obtained from the Environment Agency.	
IC9	The operator shall submit to the Environment Agency in writing for approval an updated Gas Management Plan which incorporates the action limits for carbon dioxide agreed under the improvement condition IC7.	30/06/2021
IC10	The operator shall carry out a review of the Off Specification Compost bio filter using emissions data obtained during the first year of operation in order to validate the description of the emissions provided in the application, and to demonstrate that the bio filter has been effective in preventing and where not possible minimising emissions released to air.	12 months following commencemen of operations
	Following this review the operator shall submit a written report to the Environment Agency for assessment and approval. The report shall include but not limited to the following aspects:	
	 Summary of the technical characteristics of the biofilter (as installed), including filter media 	
	• Full investigation and characterisation of the inlet waste gas stream, including inlet gas monitoring results.	
	 Emissions monitoring results covering the full range of contaminants identified in the inlet gas 	
	Biofilter process monitoring results corresponding to periods of inlet gas and emissions monitoring	
	 An interpretive description of the monitoring results, conclusions on abatement efficacy, and review against description and expected performance as detailed in the application. 	
	 Confirmation and justification of site-specific "action levels" and responses for parameters outside of optimal range 	
	 Consideration of improvement options (as appropriate), including the replacement or upgrading of the biofilter and/or CLO media 	

Reference	Requirement	Date
	 Recommendations for any identified improvements and timescales for their implementation. 	
	• Clarification of the tonnage of CLO disposed of. The operator shall implement the improvements in line with the timescales as approved by the Environment Agency.	
IC11	 The operator shall submit a report to the Environment Agency for written approval reviewing the efficacy of the bioremediation process. The report shall include: Amount of waste treated via bioremediation Amount of waste treated within target timescales Results of validation testing for successfully treated waste Amount of waste re-treated Amount of waste disposed of after bioremediation treatment. If the results of the report show significant retreatment of waste or unsuccessful treatment of waste via bioremediation after three rounds of treatment, the Operator shall submit proposals to improve the efficacy of the process along with the timescale for implementation to the Environment Agency for written approval. 	12 months following commencement of operations
IC12	 The operator shall provide a report on the monitoring undertaken as part of the sampling of the incoming waste and the separated wastes streams, from the operation of the asbestos screening process over the first 4 months of operation, for approval by the Environment Agency. The sampling report shall: detail the method(s) used to sample and analyse the treated waste streams for asbestos fibres; demonstrate a high percentile level of confidence in the treatment process taking account of the amount of waste treated per batch and the number of samples required to adequately sample each waste stream, both initially and on an ongoing basis; demonstrate that additional asbestos fibre contamination is not being created by the screening process. recommend any additional measures to be undertaken to ensure compliance with the permit conditions. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the plan. The operator shall implement the additional measures as approved, and 	Within 6 months of the completion of commissioning.

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational Measures
PO1	Installation of the leachate drainage system in future cells	The operator shall submit the final design of the leachate drainage system for all future cells to the Environment Agency for agreement in writing. The design shall include pipe spacing at a maximum of 30 metres or be calculated using Rowe Section 2.4 (Rowe et al 2004) in accordance with Environmental Permitting Guidance for landfill (EPR5.02) and spacing agreed in writing with the Environment Agency.

Operation	Pre-operational Measures
Discharge to the SRC plots	The operator shall confirm to the Agency that they have the following: A written Environmental Management System (EMS) and integrated Management Systems (IMS) which are concerned with the operation of the SRC treatment system. The EMS and IMS are to
	demonstrate that the operation of the SRC is consistent with the details of the application.
Discharge from the SRC containment channel	Prior to the discharge of surface water from the SRC containment channel, the Operator shall propose a sample point location that is representative of the emissions from the SRC. This sample point must be located prior to the introduction of site surface runoff water, or other diluting water (excluding runoff water from the SRC). The Operator shall submit a revised emission sample points layout plan to the Environment Agency for written approval.
Operation of the Soil Treatment Facility	Prior to the commencement of waste storage and treatment operations at the soil treatment facility, the operator shall install all impermeable surfacing and associated infrastructure including drainage systems and demonstrate to the Environment Agency for written agreement that it has been installed to an appropriate CQA standard and signed off by an appropriately qualified person.
Operation of the Soil Treatment Facility	Prior to the acceptance of waste, the operator shall provide a written report to the Environment Agency which demonstrates the wheel wash and associated equipment has been installed within the site boundary and is a full sealed system. The operations can commence once written approval has been issued from the Environment Agency.
Operation of the mechanical screener for treatment of asbestos impacted wastes	 Prior to the use of the mechanical screener for the pre-screening of asbestos contaminated soils under activity reference AR3A a report shall be submitted for approval detailing the following aspects: Evidence to demonstrate that the mechanical screener is located in a fully enclosed building as set out in 'Requirements for Enclosed Building' listed in Table S1.2 and all dust emissions from the building are directed to an emission point via an active abatement system with a HEPA filter or other suitable design. Details of the proposed commissioning, operational and maintenance procedures associated with the mechanical screener, building and active abatement system to be implemented on site. Details of monitoring checks, audits and emergency procedures to be implemented on site to ensure both the mechanical screener, building and active abatement system Mo mechanical pre-screening of asbestos contaminated soils under
	Discharge to the SRC plots Discharge from the SRC containment channel Operation of the Soil Treatment Facility

Table S1.5 Annual waste input limits	
Category	Limit Tonnes/ Year
Non-hazardous waste	267,000
Waste for restoration 300,000	

Table S1.5 Annual waste input limits	
Category	Limit Tonnes/ Year
Leachate from offsite accepted at the onsite Leachate Treatment Plant	As agreed in writing with the Environment Agency prior to import of leachate from offsite.

Schedule 2 – Waste types

Table S2.1 Perm	itted waste types for disposal at a landfill for non-hazardous waste (activity AR1)
Waste code	Description
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
01 01	wastes from mineral excavation
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 10
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
01 05	drilling muds and other drilling wastes
01 05 04	freshwater drilling muds and wastes
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	sludges from washing and cleaning
02 01 02	animal-tissue waste
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07	wastes from forestry
02 01 09	agrochemical waste other than those mentioned in 02 01 08
02 01 10	waste metal
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin

Table S2.1 Perm	itted waste types for disposal at a landfill for non-hazardous waste (activity AR1)
Waste code	Description
02 02 01	sludges from washing and cleaning
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 04 03	sludges from on-site effluent treatment
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 05	de-inking sludges from paper recycling

Waste code	Description
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 09	lime mud waste
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	Wastes from the leather, fur and textile industries
04 01	wastes from the leather and fur industry
04 01 01	fleshings and lime split wastes
04 01 02	liming waste
04 01 06	sludges, in particular from on-site effluent treatment containing chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal
05 01	wastes from petroleum refining
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 13	boiler feedwater sludges
05 01 14	wastes from cooling columns
05 01 16	sulphur-containing wastes from petroleum desulphurisation
05 01 17	bitumen
05 06	wastes from the pyrolytic treatment of coal
05 06 04	waste from cooling columns
05 07	wastes from natural gas purification and transportation
05 07 02	wastes containing sulphur
06	Wastes from inorganic chemical processes
06 03	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 05	sludges from on-site effluent treatment

Table S2.1 Perm	itted waste types for disposal at a landfill for non-hazardous waste (activity AR1)
Waste code	Description
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02
06 06	wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacificiers
06 11 01	calcium-based reaction wastes from titanium dioxide production
06 13	wastes from inorganic chemical processes not otherwise specified
06 13 03	carbon black
07	Wastes from organic chemical processes
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	waste containing silicones other than those mentioned in 07 02 16
07 03	wastes from the MFSU of organic dyes and pigments (except 06 11)
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
07 04	wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
07 05	wastes from the MFSU of pharmaceuticals
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 14	solid wastes other than those mentioned in 07 05 13
07 06	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
07 07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
08	Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks
08 01	wastes from MFSU and removal of paint and varnish
08 01 12	waste paint and varnish other than those mentioned in 08 01 11
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13

Waste code	Description
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 1
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17
08 02	wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders
08 02 02	aqueous sludges containing ceramic materials
08 03	wastes from MFSU of printing inks
08 03 07	aqueous sludges containing ink
08 03 13	waste ink other than those mentioned in 08 03 12
08 03 15	ink sludges other than those mentioned in 08 03 14
08 03 18	waste printing toner other than those mentioned in 08 03 17
08 04	wastes from MFSU of adhesives and sealants (including water proofing products)
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 0 04 13
09	Wastes from the photographic industry
09 01	wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	Wastes from thermal processes
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 01 03	fly ash from peat and untreated wood
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 01 24	sands from fluidised beds
10 01 25	wastes from fuel storage and preparation of coal-fired power plants
10 01 26	wastes from cooling-water treatment

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste (activity AR1)		
Waste code	Description	
10 02	wastes from the iron and steel industry	
10 02 01	wastes from the processing of slag	
10 02 02	unprocessed slag	
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07	
10 02 10	mill scales	
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11	
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13	
10 02 15	other sludges and filter cakes	
10 03	wastes from aluminium thermal metallurgy	
10 03 02	anode scraps	
10 03 05	waste alumina	
10 03 16	skimmings other than those mentioned in 10 03 15	
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17	
10 03 20	flue-gas dust other than those mentioned in 10 03 19	
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21	
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23	
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25	
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27	
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29	
10 04	wastes from lead thermal metallurgy	
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09	
10 05	wastes from zinc thermal metallurgy	
10 05 01	slags from primary and secondary production	
10 05 04	other particulates and dust	
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08	
10 05 11	dross and skimmings other than those mentioned in 10 05 10	
10 06	wastes from copper thermal metallurgy	
10 06 01	slags from primary and secondary production	
10 06 02	dross and skimmings from primary and secondary production	
10 06 04	other particulates and dust	
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09	
10 07	wastes from silver, gold and platinum thermal metallurgy	
10 07 01	slags from primary and secondary production	
10 07 02	dross and skimmings from primary and secondary production	
10 07 03	solid wastes from gas treatment	
10 07 04	other particulates and dust	

Waste code	Description
10 07 05	sludges and filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	wastes from other non-ferrous thermal metallurgy
10 08 04	particulates and dust
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 16	flue-gas dust other than those mentioned in 10 08 15
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	wastes from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 10	flue-gas dust other than those mentioned in 10 09 09
10 09 12	other particulates other than those mentioned in 10 09 11
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	wastes from casting of non-ferrous pieces
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 10	flue-gas dust other than those mentioned in 10 10 09
10 10 12	other particulates other than those mentioned in 10 10 11
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13

Waste code	Description
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 11 20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
10 12 03	particulates and dust
10 12 05	sludges and filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 12 13	sludge from on-site effluent treatment
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 1 02 05
11 05	wastes from hot galvanising processes
11 05 01	hard zinc
	zinc ash

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste (activity AR1)Waste codeDescription	
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 15	machining sludges other than those mentioned in 12 01 14
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	Wastes not otherwise specified in the list
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 03	end-of-life tyres
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 02	wastes from electrical and electronic equipment
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste (activity AR1) Waste code Description	
Waste code	Description
	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 08	spent catalysts
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 11	waste linings and refractories
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03

Table S2.1 Permitte	Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste (activity AR1)		
Waste code	Description		
17 05 06	dredging spoil other than those mentioned in 17 05 05		
17 05 08	track ballast other than those mentioned in 17 05 07		
17 06	insulation materials and asbestos-containing construction materials		
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03		
17 09	other construction and demolition wastes		
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03		
18	Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)		
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans		
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)		
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals		
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection		
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use		
19 01	wastes from incineration or pyrolysis of waste		
19 01 02	ferrous materials removed from bottom ash		
19 01 12	bottom ash and slag other than those mentioned in 19 01 11		
19 01 14	fly ash other than those mentioned in 19 01 13		
19 01 16	boiler dust other than those mentioned in 19 01 15		
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17		
19 01 19	sands from fluidised beds		
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)		
19 02 03	premixed wastes composed only of non-hazardous wastes		
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05		
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09		
19 03	stabilised/solidified wastes		
19 03 05	stabilised wastes other than those mentioned in 19 03 04		
19 03 07	solidified wastes other than those mentioned in 19 03 06		
19 04	vitrified waste and wastes from vitrification		
19 04 01	vitrified waste		
19 05	wastes from aerobic treatment of solid wastes		
19 05 01	non-composted fraction of municipal and similar wastes		
19 05 02	non-composted fraction of animal and vegetable waste		
19 05 03	off-specification compost		

Waste code	Description
19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 02	waste from desanding
19 08 05	sludges from treatment of urban waste water
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 01	solid waste from primary filtration and screenings
19 09 02	sludges from water clarification
19 09 03	sludges from decarbonation
19 09 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
19 09 06	solutions and sludges from regeneration of ion exchangers
19 10	wastes from shredding of metal-containing wastes
19 10 01	iron and steel waste
19 10 02	non-ferrous waste
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 06	other fractions other than those mentioned in 19 10 05
19 11	wastes from oil regeneration
19 11 06	sludges from on-site effluent treatment other than those mentioned in 19 11 05
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11

Waste code	Description
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 25	edible oil and fat
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 07	bulky waste

Table S2.2 Per	Table S2.2 Permitted waste types accepted for leachate treatment (activity AR2)	
Waste code	Description	
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use	
19 07	landfill leachate	
19 07 03	landfill leachate other than those mentioned in 19 07 02	

Table S2.3 Per	mitted waste types for restoration (activity AR3)
Waste code	Description
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 03	wastes from pulp, paper and cardboard production and processing
03 03 05	de-inking sludges from paper recycling
03 03 09	lime mud waste
10	WASTES FROM THERMAL PROCESSES
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 14	waste concrete and concrete sludge
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03

Table S2.3 Per	Table S2.3 Permitted waste types for restoration (activity AR3)	
Waste code	Description	
17 05 06	dredging spoil other than those mentioned in 17 05 05	
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use	
19 05	wastes from aerobic treatment of solid wastes	
19 05 03	off-specification compost	
19 05 99	compost	
19 08	wastes from waste water treatment plants not otherwise specified	
19 08 05	sludges from treatment of urban waste water	
19 09	wastes from the preparation of water intended for human consumption or water for industrial use	
19 09 02	sludges from water clarification	
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 09	minerals (for example sand, stones)	
19 13	wastes from soil and groundwater remediation	
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01	
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03	
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	
20 02	garden and park wastes (including cemetery waste)	
20 02 02	soil and stones	

	Table S2.4 Permitted waste types and quantities for the storage and biological treatment for recovery of hazardous waste (activities AR3 and AR4)	
Maximum quantity	No more than 29,999 tonnes of hazardous waste shall be accepted per year (in aggregate with table S2.8)	
Exclusions	Wastes having any of the following characteristics shall not be accepted:	
	Wastes consisting solely or mainly of dusts, powders or loose fibres;	
	Waste liquids;	
	Odorous wastes;	
	Waste containing asbestos;	
	Wastes with hazard codes HP1, HP2, HP3, HP9, HP12, HP15;	
	Waste containing persistent organic pollutants (POPs).	
	Wastes marked ADDITIVE ONLY are permitted only as a process additive in accordance with the operational techniques.	
Waste code	Description	
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals	
01 05	wastes from physical and chemical processing of non-metalliferous minerals	

Maximum quantity	No more than 29,999 tonnes of hazardous waste shall be accepted per year (in aggregate with table S2.8)
Exclusions	Wastes having any of the following characteristics shall not be accepted:
	Wastes consisting solely or mainly of dusts, powders or loose fibres;
	Waste liquids;
	Odorous wastes;
	Waste containing asbestos;
	Wastes with hazard codes HP1, HP2, HP3, HP9, HP12, HP15;
	Waste containing persistent organic pollutants (POPs).
	Wastes marked ADDITIVE ONLY are permitted only as a process additive in accordance with the operational techniques.
Waste code	Description
01 05 05*	oil-containing drilling muds and wastes
01 05 06*	drilling muds and other drilling wastes containing hazardous substances
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal
05 01	wastes from petroleum refining
05 01 05*	oil spills
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)
13 05	oil/water separator contents
13 05 01*	solids from grit chambers and oil/water separators
13 05 02*	sludges from oil/water separators
13 05 03*	interceptor sludges
13 05 08*	mixtures of wastes from grit chambers and oil/water separators
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 02	wood, glass and plastic
17 02 01	Wood (ADDITIVE ONLY)
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 03*	soil and stones containing hazardous substances
17 05 05*	dredging spoil containing hazardous substances
17 05 07*	track ballast containing hazardous substances
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 05*	sludges from physico/chemical treatment of road sweeping (soil wastes only) containing hazardous substances
	wastes from waste water treatment plants not otherwise specified

	rmitted waste types and quantities for the storage and biological treatment for azardous waste (activities AR3 and AR4)
Maximum quantity	No more than 29,999 tonnes of hazardous waste shall be accepted per year (in aggregate with table S2.8)
Exclusions	Wastes having any of the following characteristics shall not be accepted:
	Wastes consisting solely or mainly of dusts, powders or loose fibres;
	Waste liquids;
	Odorous wastes;
	Waste containing asbestos;
	Wastes with hazard codes HP1, HP2, HP3, HP9, HP12, HP15;
	Waste containing persistent organic pollutants (POPs).
	Wastes marked ADDITIVE ONLY are permitted only as a process additive in accordance with the operational techniques.
Waste code	Description
19 08 13*	sludges containing hazardous substances from other treatment of industrial waste water
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 07	wood other than that mentioned in 19 12 06 (ADDITIVE ONLY)
19 13	wastes from soil and groundwater remediation
19 13 01*	solid wastes from soil remediation containing hazardous substances
19 13 03*	sludges from soil remediation containing hazardous substances

	mitted waste types and quantities for biological treatment for recovery of non- ste (activities AR5 and AR11)
Maximum quantity	No more than 20,001 tonnes of non-hazardous waste shall be accepted for treatment per year.
Exclusions	Wastes having any of the following characteristics shall not be accepted:
	Wastes consisting solely or mainly of dusts, powders or loose fibres;
	Waste liquids;
	Odorous wastes.
Waste code	Description
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 02	wood, glass and plastic
17 02 01	Wood (ADDITIVE ONLY)
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07

Table S2.6 Per	mitted waste types and quantities for AR14 Screening of non-hazardous wastes
Maximum quantity	No more than 50,000 tonnes of non-hazardous waste (post treatment) shall be accepted for treatment per year.
Waste code	Description
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 13	Wastes from soil and groundwater remediation
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01

Table S2.7 Pe	rmitted waste types and quantities for AR13 use as biofilter medium
Maximum quantity	The total quantity of waste accepted at the site for the above activity shall be less than 1,000 tonnes a year.
Waste code	Description
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 05	Wastes from aerobic treatment of waste
19 05 03	Off specification compost

	ted waste types and quantities for screening and handpicking, and storage of th bonded asbestos (Activities AR3A and AR4)					
Maximum quantity	No more than 29,999 tonnes of hazardous waste shall be accepted per year (in aggregate with table S2.4)					
Exclusions	Wastes having any of the following characteristics shall not be accepted:					
	Asbestos in unbound fibrous form (free chrysotile fibrous asbestos in the soil must be <0.1% w/w. Other forms or mixed forms of fibrous asbestos in the soil must be <0.01% w/w.)					
Waste code	Description					
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)					
17 05	soil (including excavated soil from contaminated sites), stones and dredging					
	spoil					
17 05 03* and 17 06 05*						

Schedule 3 – Emissions and monitoring

Monitoring point reference/Description	Limit	Monitoring frequency	Monitoring standard and method
Operational Cells or Phases (Any cells or ph	nases that do not have	a final engineered ca	agreed in accordance with the landfill engineering condition, 2.6)
Leachate compliance and monitoring points Phase 3B: Cell 2 - LMH11C, LMPP Cell 3 - LMH11A, LMPQ Phase 3: Cell 5 - LMPF, LMPBa, Cell 8B - LMP07B, LMP08B Cell 9B - LMP09, LMP10 Cell 10B - LMP17, LMP18 Cell 10D – LMP19, LMP20 on Drawing 348M419.	1.5 m above basal liner	Monthly Note 1	As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.
Leachate in the primary and secondary pre-treatment lagoons on Plan MEPP.	1 metre below the lowest level of the rim of each lagoon		
Non Operational Cells or Phases (Any cells	or phases that have a	final engineered cap	agreed in accordance with the landfill engineering condition, 2.6)

Monitoring point reference/Description	Limit	Monitoring frequency	Monitoring standard and method
Phase 1 - LMH01, LMH02, LMH03 Phase 2 LMH04, LMH05, LMH06 Phase 3A: Cell 1 - LMH07, LMPK Cell 2 - LMH08, LMPL, LMPDa Cell 3 - LMH09, LMPM Phase 3B: Cell 1 - LMH10, LMPN Phase 3: Cell 6 - LMPR, LMPS Cell 7 - LMP03, LMP04A Cell 8A - LMP05, LMP06A Cell 9A1 - LMP11, LMP12 Cell 9A2 - LMP13, LMP14 Cell 10A - LMP15, LMP16 on Drawing 348M419.	1.5m above basal liner	Quarterly	As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.

Emission point Ref. & Location	Parameter	Source	Limit (includi ng unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
A2 located in Gas	Oxides of Nitrogen	Gas utilisation plant	650 mg/m ³	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency
	СО		1500 mg/m ³			
348G254 dated 14 th August 2009.	Total VOCs		1750 mg/m ³			
Flare 1 shown on drawing 348G254 dated 14 th August 2009	Oxides of Nitrogen	Landfill Gas	150 mg/m ³	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	СО	Flares	50 mg/m ³			Monitoring is unnecessary where the flare is active t <10% of the year.
	Total VOCs		10 mg/m ³			
Biofilter as shown on soil treatment	H ₂ S	Soil treatment	No limit set	Average value of 3 consecutive measuremen ts of at least 30 minutes each	Every 6 months	CEN TS 13649 for sampling NIOSH 6013 for analysis *
activity layout plan	NH ₃	facility biofilter	20 mg/m ³			EN ISO 21877 *
	Total volatile organic compounds (TVOC)		No limit set			BS EN 12619
	Particulate Matter (Dust)		No limit set			EN 13284-1
Building air abstraction emission point (to be confirmed by pre-operational condition PO7)	Asbestos fibres	Air extraction system emission point	0.1 fibre/ml	Hourly average	Monthly (Note 1, Note 2)	ISO 10397: 1993

Emission point Ref. & Location	Parameter	Source	Limit (includi ng unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
	Particulate matter (Dust)		5 mg/m ³	Average value of 3 consecutive measuremen ts of at least 30 minutes each	Every 6 months (Note 2)	BS EN 13284-1

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
SW04 sample point (National grid reference SK 67224 86644 Discharge No. 2) shown on ESID10B Receiving waters Ranskill Brook (NGR SK6707 8658)	Suspended Solids	Surface water settlement lagoon	30 mg/l	Spot Sample	Monthly	As specified in Environment Agency Guidance TGN02
	Oil and grease		None visible	Visual inspection	Daily when operational	'Monitoring of Landfill Leachate, Groundwater and
	рН		Not <5 or >9	Spot sample	Monthly	 Surface Water' (February 2003), risk assessments for your environmental
	Ammoniacal Nitrogen	-	0.5 mg/l	Spot sample	Monthly	permit (www.gov.uk) or such other subsequent
	Chloride		50 mg/l	Spot sample	Monthly	guidance as may be agreed in writing with
	Suspended Solids		30 mg/l	Spot Sample	Monthly	

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
SW11 as shown on plan 4, 348M419 dated 01/02/2016	Oil and grease	Surface water run-off via ditch	None visible	Visual inspection	Daily when operational	the Environment Agency
	рН		Not >5 or <9	Spot sample	Monthly	
	Ammoniacal Nitrogen		0.25 mg/l	Spot sample	Monthly	
	Chloride		180 mg/l	Spot sample	Monthly]
Emission point agreed in line with pre-operational condition PO4 Final receiving waters	Discharge flow rate	Surface water runoff from SRC area	110 m ³ /day	Instantaneous	Continuous when discharging	
	Visible oil and grease		None visible	Visual check	Prior to discharge, with a maximum frequency of once per week	
	рН		6 – 9	Spot sample		
Ranskill Brook	Suspended Solids		50 mg/l			
	Ammoniacal Nitrogen		3.5 mg/l			
	BOD		30 mg/l			
	Chloride		1,560 mg/l			
	Iron		6.3 mg/l			
	Manganese		760 µg/l			
	Chromium		21 µg/l			
	Copper		8 µg/l			
	Zinc		67 µg/l			
	Nickel		25 µg/l			
	Arsenic		310 µg/l			

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method		
GW08, GW09, GW12 and GW13.	Ammoniacal nitrogen	1.25 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance TGN02		
GW05		4.26 mg/l			'Monitoring of Landfill Leachate, Groundwater and Surface		
GW15		4.59 mg/l		Water' (February 2003), <u>risk</u>			
GW16		0.39 mg/l			assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency		
GW05, GW08, GW09, GW12 GW13, GW15 and GW16.	Chloride	250 mg/l					
GW05, GW08, GW09, GW12, GW15 and GW16.	Chromium	0.020 mg/l					
GW08, GW09, GW13, GW15 and GW16.	Mecoprop	0.0001 mg/l					
GW05, GW08, GW09, GW13 GW15 and GW16.	Xylene	0.003 mg/l					

Table S3.5 Landfill gas in external monitoring	ng boreholes – limits and	monitoring requiremen	its	
Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
BHG01, BHG02, BHG03, BHG04, BHG05,	Methane	1 %v/v		As per LFTGN03 (September 2004) or
BHG06, BHG07, BHG08, BHG10, BHG14, BHG17, BHG18, BHG19, BHG20, BHG21,	Oxygen	No limit set		such other subsequent guidance as may be agreed in writing with the
BHG22, BHG23, BHG24, BHG25, BHG27,	Atmospheric pressure	No limit set		Environment Agency.
BHG28, BHG29, BHG30, BHG31, BHG32, BHG32A, BHG34, BHG35, BHG36, BHG37, BHG38, BHG39, BHG40, BHG41, BHG42, BHG43, BHG44, BHG45, BHG46, BHG47, BHG48 and BHG49.	Differential Pressure	No limit set		Record whether the ground is: • waterlogged

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
BHG09, BHG11, BHG13 and BHG16.	Methane	5.0 %v/v		frozen
BHG12A.	Methane	5.4%		snow covered
BHG15.	Methane	2.8 %v/v		
BHG09, BHG11, BHG12A, BHG13, BHG15, BHG16 and BHG33.	Oxygen	No limit set		
	Atmospheric pressure	No limit set		
	Differential pressure	No limit set		
BHG01, BHG02, BHG03, BHG04, BHG05, BHG06, BHG07, BHG08, BHG09, BHG10, BHG11, BHG12A, BHG13, BHG14, BHG15, BHG16, BHG17, BHG18, BHG19, BHG20, BHG21, BHG22, BHG23, BHG24, BHG25, BHG26A, BHG27, BHG28, BHG29, BHG30, BHG31, BHG32, BHG32A, BHG33, BHG34, BHG35, BHG36, BHG37, BHG38, BHG39, BHG40, BHG41, BHG42, BHG43, BHG44, BHG45, BHG46, BHG47, BHG48 and BHG49	Carbon Dioxide	No limit set		

Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring Standard or method
Permanently capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Temporarily capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring Standard or method
Whole site	Total methane emission	As agreed with the Environment Agency	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Uncapped areas	Methane concentration	Every 12 months	As agreed with the Environment Agency based on the wording of revised LFTGN 07 or landfill sector guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Table S3.7 Groundwa	ater – other monitoring requiremer	nts	
Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
Up gradient MEPP	Water level, Ammoniacal Nitrogen, Chloride, Electrical Conductivity, pH	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments</u> for your environmental permit (www.gov.uk) or such other subsequent guidance
	Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Annually	as may be agreed in writing with the Environment Agency
	Hazardous substances.	Annually for first six years of operation	
Down or cross gradient MEPP	Water level, Ammoniacal Nitrogen, Chloride, Electrical Conductivity, pH	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments</u> for your environmental permit (www.gov.uk) or such other subsequent guidance
	Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total	Annually	as may be agreed in writing with the Environment Agency

Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
	Alkalinity, Total Sulphates, Zinc		After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the
	Hazardous substances detected in leachate.	Annually for first six years of operation then every two years	operator shall also undertake a full leachate hazardous substances screen.
MEPP	Base of monitoring point (mAoD).	Annually	

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
In waste gas monitoring boreholes or sealed leachate wells or sacrificial gas extraction system	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly until gas extraction commences	Calibrated handheld monitoring instrument	For cells or phases which have no active gas extraction. Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	Hydrogen Sulphide	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (v3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	For cells or phases which have no active gas extraction. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring. Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans
Gas collection system at well control valve, manifolds (if applicable) and strategic points on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Gas flow rate or suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Monthly or at such other frequency as may be agreed in writing with the Environment Agency.	Calibrated handheld monitoring instrument	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertake Record the ambient air temperature and whether the ground is: waterlogged frozen snow covered

Table S3.8 Landfill gas	 other monitoring require 	ements		
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Gas collection system at well control valve	Hydrogen sulphide	Six monthly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (v3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans
Output to flare or LFG Utilisation Compound	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 (v3, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency [or a trace gas characterisation method agreed with the Environment Agency].	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Output to flare or LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate Suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Weekly		Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.

Table S3.8 Landfill gas -	- other monitoring requir	rements		
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Flares 1 shown on drawing 348G254 dated 14th August 2009	Temperature	As per LFTGN05 (v2, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.	
A1, A2 Gas engine, post turbo	NOx and CO	Quarterly	In accordance with Appendix C of LFTGN08, v2, 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Where monitoring using hand-held, electrochemical equipment indicates an exceedance of the emissions standards specified in Table S3.2, these shall be used as action levels and the operator shall investigate the cause and take appropriate measures to reduce emissions.

Monitoring point reference or description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Operational Cells o	r Phases		At leachate compliance point as	
(Any cell or phases with condition 2.6)	that do not have a final engineered cap ag	reed in accordance	listed in table S3.1.	
MEPP	Ammoniacal Nitrogen, Arsenic, BOD, Cadmium, Calcium, Chloride, Chromium, COD, Copper, Electrical Conductivity, Iron, Lead, Magnesium, Manganese, Nickel, pH, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your</u> <u>environmental permit</u> (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the	None
MEPP	Hazardous substances	Annually	Environment Agency	None
MEPP	PP Depth to base (mAoD) Annually			None
Non Operational Ce (Any cell or phases condition 2.6)	ells or Phases that have a final engineered cap agreed in	accordance with		
MEPP	Ammoniacal Nitrogen, Arsenic, BOD, Cadmium, Calcium, Chloride, Chromium, COD, Copper, Electrical Conductivity, Iron, Lead, Magnesium, Manganese, Nickel, pH, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Annually		
MEPP	Hazardous substances	Once every four years		None
MEPP	Depth to base (mAoD)	Annually		

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
MEPP	Ammoniacal Nitrogen Chloride Suspended Solids Visual Oil and Grease pH Electrical conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your</u> <u>environmental permit</u> (<u>www.gov.uk</u>) or such other subsequent guidance as may be agreed in writing with the Environment Agency

Table S3.11 Ambient air – other monitoring requirements						
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications		
Installation boundary	Hydrogen sulphide N02 in ambient air	Monthly	Spot sample	On olfactory detection ⁽¹⁾		
1. Upon receipt of compla	int(s) and investigation	and monitoring progra	amme is to be instigated	and details submitted to the Agency for approval.		

Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method	Other specifications
Ambient air sampling when asbestos contaminated soils are being received, handled and moved within the site (points shown on plan 3982-CAU-XX- XX-DR-V-1803_S2-PO8)	Asbestos fibres	0.01 fibres/ml. Where total fibre concentration exceeds 0.01 fibres/ml in any sample, that sample must be submitted for electron microscopy to confirm the concentration of asbestos fibres present.	During receipt, handling and movement of asbestos contaminated soil within the site. 1 hour at 8 l/min or other agreed period in writing.	 In line with M17 monitoring guidance. While asbestos contaminated soils are being received, handled and moved within the site. Pumped sampling 	-

Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or Other specifica	
				1 m above ground level	
				• Flow rate = 8 litres/minute	
				Minimum sample volume = 480 litres	
				 Filter pore size = 0.8-1.2 µm 	
				Asbestos fibre limit of detection = 0.001 fibres/ml.	

S3.12A Soil monitoring requirements			
Monitoring Point Reference / Description	Parameter	Monitoring Frequency	Monitoring Standard or Method
Soil SS1, SS2, SS3, SS4, SS5 as shown on drawing CE-DHL 0346-DW08 Final	Rainfall, surface water run-off, evaporation, transpiration and soil moisture content	Immediately prior to each application of treated leachate	As per LFTGN02 issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and
dated 19 December 2011	рН	Bi-annually (March and	Surface Water',
 Composite sample for each of the 	Arsenic	November).	risk assessments for your
SRC plots derived from a minimum of	Cadmium		environmental permit (www.gov.uk)
10 representative sub-samples per plot.	Chromium		or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Copper		
	Fluoride		
	Lead		
	Mercury		
	Molybdenum		
	Nickel		
	Selenium		
	Zinc		
	Phosphorous		
	Potassium		

S3.12A Soil monitoring requirements			
Monitoring Point Reference / Description	Parameter	Monitoring Frequency	Monitoring Standard or Method
	Magnesium		
	Sodium		
	Chloride		
	Electrical conductivity		

Emission point reference or source of description of point of measurement	Parameter	Monitoring Frequency	Monitoring standard or Method
Raw Leachate Feed	Volume transferred to primary treatment	Monthly	As per LFTGN02 issued February
Primary pre-treatment effluent	Volume transferred to secondary treatment		2003 'Guidance on Monitoring of
Secondary pre-treatment effluent	Volume transferred to SRC		Landfill Leachate, Groundwater and Surface Water', risk
_eachate prior to application to the SRC	pH		assessments for your
	Electrical conductivity		environmental permit
	Ammoniacal nitrogen		(www.gov.uk) or such other
	COD	-	subsequent guidance as may be agreed in writing with the
	BOD		
	TOC		Environment Agency
	Calcium		
	Magnesium		
	Sodium		
	Potassium		
	Chloride		
	Sulphate		
	Alkalinity		
	Iron		
	Manganese		
	Cadmium		
	Mercury		
	Lead		

Emission point reference or source of description of point of measurement	Parameter	Monitoring Frequency	Monitoring standard or Method
	Copper		
	Chromium		
	Nickel		
	Zinc		
	Arsenic		
	MCPP (Mecoprop)		
	MCPB		
	Chloroxun		
	Metoxuron		
	Dichlorprop		
	Chlorobenzene		
	Isoproturon		
	Linuron		
	Benazolin		
	Benzene		
	Ethyl Benzene		
	Toluene		
	m,p-xylene		
	o-xylene		
	p-isopropyltoluene		
	1,3,5-trimethylbenzene		
	Acenaphthene		
	Acenaphthylene		
	Anthracene		
	Fluoranthene		
	Fluorene		
	Naphthalene		
	Pyrene		
	Phenanthrene		
	MTBE		

Table S3.13 Process monitoring require	ments at the Soil Treatment Facility			
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Biofilter as shown on Soil Treatment	Temperature	Monthly	As per monitoring	Biofilter shall be checked and maintained
Activity Layout Plan in Schedule 7	Moisture content		standard agreed as part of Improvement	to ensure appropriate temperature and moisture content on a daily basis.
	Flow rate		condition IC7	Monitoring equipment shall be available
	Nutrient levels			on-site and used as required to ensure
	Contaminant elimination			compliance with this permit.
	Grain size			
	Total Nitrogen (mg/kg)			
	Total Phosphorus (mg/kg)			
	рН			
Soil biopiles	Total Petroleum Hydrocarbons (TPH)	Each completed batch of treated soil	-	Laboratory must be accredited to EN ISO/IEC ISO17025:2000 for the analysis specified Samples to be obtained using standard sampling procedures as per BS 812
	Polycyclic Aromatic Hydrocarbons (PAHs)	shall be sampled		
	Total Volatile Organic Compounds (VOCs)			
	Phenols			
	рН			

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Parameter	Reporting period	Period ends
Leachate and/ or groundwater level As specified by Schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by Schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by Schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by Schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by Schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission of landfill gas from capped surfaces As specified by Schedule 3, table S3.6	Every 12 months	31 December
Other groundwater monitoring As specified by Schedule 3, table S3.7	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by Schedule 3, table S3.8	Every 3 months	31 March, 30 June, 30 September, 31 December
Trace gas monitoring	Every 12 months	31 December
Other surface water monitoring As specified by Schedule 3, table S3.10	Every 12 months	31 December
Other leachate monitoring As specified by Schedule 3, table S3.9	Every 12 months	31 December
Meteorological data Landfill Directive, Annex III, Section 2	Every 12 months	31 December
Other ambient air monitoring As specified by Schedule 3, table S3.11, S3.11A	Every 12 months	31 December
Soil quality As specified by Schedule 3, table S3.12A	Every 12 months	31 December
Process monitoring As specified by Schedule 3, table S3.12B	Every 12 months	31 December
Biofilter efficiency parameters as required by condition 3.5.1	Every 12 months	31 December

* - where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

Table S4.2: Annual production/treatment	
Leachate:	Cubic metres/year
Disposed of offsite;	
Disposed of to any onsite effluent treatment plant;	
Recirculated into the waste mass.	
Accepted from offsite for treatment at any onsite effluent treatment plant.	
Landfill gas:	Normalised cubic metres/year
combustion in flares;	
combustion in gas engines;	
Other methods of gas utilisation.	
Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table S3.8 monitoring)	% methane v/v
Methane generation rate (50%ile from a representative model)	m³ /hr

Table S4.3 Performance Parameters			
Parameter	Frequency of assessment	Annual total	Unit
Energy used (including for leachate treatment)	Annually		MWh of electricity or natural gas

Table S4.4 Reporting Forms				
Media/parameter	Reporting Format	Date of Form		
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	13/11/09		
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	08/03/2021		
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	31/10/19		
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	13/11/09		
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	13/11/09		
Waste Return	Waste Return Form RATS2E	13/11/09		
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	13/11/09		
Other performance indicators (soil)	Form performance 1 or other form as agreed in writing by the Environment Agency	13/11/09		
Ambient Air	Form Ambient Air Monitoring Form 1 or other form as agreed in writing by the Environment Agency	08/03/2021		

Schedule 5 – Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment		
To be notified within 24 hours of detection		
Date and Time of the event		
Reference or description of the location of the event		
Description of where any release into the environment took place		
Substances(s) potentially released		
Best estimate of the quantity or rate of release of substances		
Measures taken, or intended to be taken, to stop any emission		
Description of the failure or accident.		

(b) Notification requirements for the breach of a limit			
To be notified within 24 hours of detection unless otherwise specified below			
Emission point reference/ source			
Parameter(s)			
Limit			
Measured value and uncertainty			
Date and time of monitoring			

(b) Notification requirements for the breach of a limit		
To be notified within 24 hours of detection unless otherwise specified below		
Measures taken, or intended to be taken, to stop the emission		

Time periods for notification following detection of a breach of a limit		
Parameter	Notification period	

(c) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment			
To be notified within 24 hours of detection			
Description of where the effect on the environment was detected			
Substances(s) detected			
Concentrations of substances detected			
Date of monitoring/sampling			

Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

"accident" means an accident that may result in pollution.

"annually" means once every year.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"Background concentration" means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge; or
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site.

"cell layout drawing" means:

- (a) A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:
 - (i) the location of the new cell on the site;
 - (ii) the proposed level (Above Ordnance Datum) of the base of the excavation;
 - (iii) the proposed finished levels of all containment and leachate drainage layers;
 - (iv) the positions of leachate management infrastructure; and
 - (v) the positions of landfill gas infrastructure (if appropriate).
- (b) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:
 - (i) changes to slope length and gradient within the cell;
 - (ii) new leachate or landfill gas infrastructure construction design;
 - (iii) slope stability issues such as new basal excavation level; and/or
 - (iv) depth of waste.

"construction proposals" means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or Landfill Infrastructure.

"CQA Validation Report" means the final "as built" construction and engineering details of the New Cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- "As-built" plans and sections of the works;
- Copies of the site engineer's daily records;
- · Records of any problems or non-compliances and the solution applied;

- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154 and words and expressions used in this permit which are also used in those Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit and for the purposes of the Short Rotation Coppice plots emission includes the application of treated leachate.

"exceeded" means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"hazardous property" has the meaning in Annex III of the Waste Framework Directive.

"hazardous substances" as defined by the Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154, schedule 22 and listed in our Hydrogeological risk assessment guidance.

"hazardous waste" has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

"landfill Infrastructure" means any specified element of the:

- · permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;
- lining within the installation.

within the site.

"inert waste" means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

"liquids" means any liquid other than leachate within the engineered landfill containment system.

"List of Wastes" means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on

waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

"LFTGN 05" means Environment Agency Guidance for monitoring enclosed landfill gas flares.

"LFTGN 07" means Environment Agency Guidance on monitoring landfill gas surface emissions.

"LFTGN 08" means Environment Agency Guidance for monitoring landfill gas engines.

"M2" means Environment Agency Guidance Monitoring of stack emissions to air.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"medicinal product" means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or their predecessors under the Medicines Act 1968, section 130.

"MEPP" Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

"new Cell" means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- · leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"no impact" means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

"pests" means Birds, Vermin and Insects.

"previous year" means the 12 month period preceding the month the annual report is submitted in.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"Relevant waste acceptance procedures" means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"relevant waste acceptance criteria" means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"review of the Hydrogeological Risk Assessment" means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the permit continue to meet the requirements of the EP Regulations.

'sustainably extracted' means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

"waste code" - See 'List of Wastes'.

"WFD" means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

Where the following terms appear in the waste code list in Tables S2.1, S2.2 or S2.3 they have the meaning given below:

'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;

'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;

'polychlorinated biphenyls and polychlorinated terphenyls' ('PCBs') means PCBs as defined in Article 2(a) of Council Directive 96/59/EC'.

Article 2(a) says that 'PCBs' means:

polychlorinated biphenyls

polychlorinated terphenyls

monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromodiphenyl methane

any mixture containing any of the above mentioned substances in a total of more than 0.005% by weight;

'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;

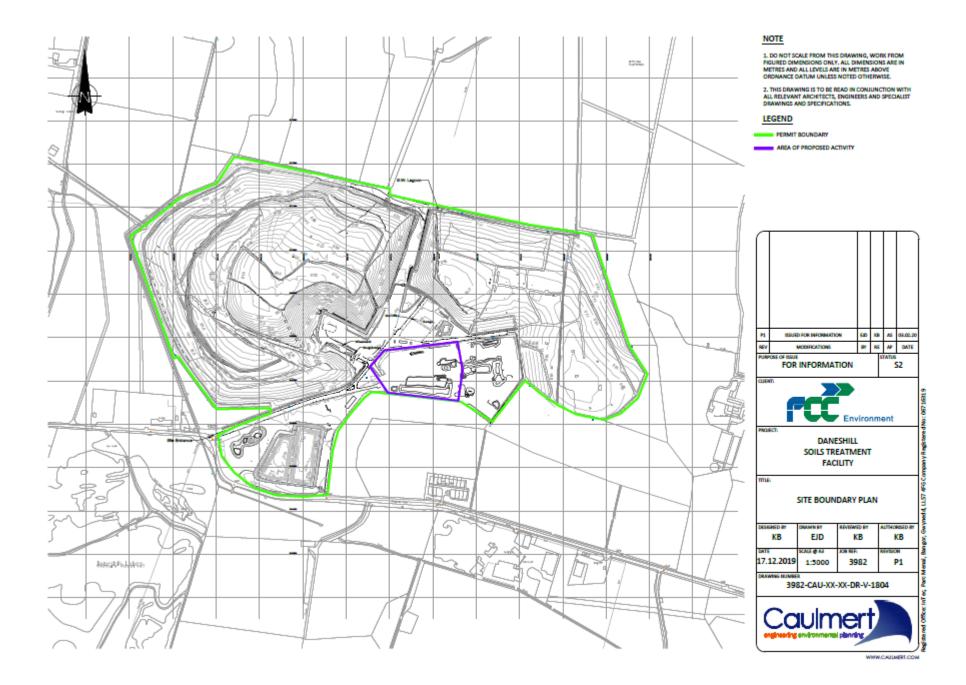
'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7 – Site plan





Permit number EPR/NP3538MF



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

3C Waste Limited

Maw Green Landfill Site Maw Green Road Coppenhall Crewe Cheshire CW1 5NG

Variation application number

EPR/BS7722ID/V011

Permit number

EPR/BS7722ID

Maw Green Landfill Site Permit number EPR/BS7722ID

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The variation has been issued as a result of an Appeal against conditions in the regulator initiated variation V010 of the permit and amends conditions regarding the asbestos screening and picking activity for soils impacted with bound asbestos at the Soil Treatment Facility (STF) located within the existing permitted landfill boundary.

The installation operates as follows.

This site undertakes the landfilling of non-hazardous wastes and will be subject to restoration.

In addition, there are a number of waste treatment activities within the boundary of the landfill. This includes a Soil Treatment Facility (STF) located within the boundary, this undertakes the sorting and separation of bound asbestos from contaminated soils along with biological treatment activities taking leachate and hazardous and non-hazardous wastes.

Screening of soils impacted with bound asbestos will be enclosed in a building with localised air extraction and abatement via a HEPA filter to prevent and minimise emissions from the process. The STF will accept and treat up to 50,000 tonnes per annum of hazardous and non-hazardous waste (including the soils impacted with bound asbestos). Once treated the wastes will be tested for suitability for use in the wider landfill restoration. Soils that do not meet the reuse criteria will be sent offsite for disposal.

The schedules specify the changes made to the permit.

Status log of the permit				
Description	Date	Comments		
Application EPR/BS7722ID/A001	09/10/2003	Received		
Request for information	17/06/2004	Response received 19/07/2004		
Request for information	23/06/2004	Response received 06/07/2004		
Request for information	06/07/2004	Response received 20/07/2004		
Request for information	25/08/2004	Response received 06/10/2004 and 11/10/2004		
Request for information	30/12/2004	Response received 14/01/2005 and 27/01/2005		
Permit determined EPR/BS7722ID	15/02/2005			
Variation notice UP3232LQ determined (EPR/BS7722ID/V002)	17/03/2005			

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit				
Description	Date	Comments		
Application for Permit variation (EPR/BS7722ID/V003)	10/10/2007	Application received		
Variation notice FP3931XK determined (EPR/BS7722ID/V003)	30/05/2008			
Environment Agency variation determined (EPR/BS7722ID/V005)	14/05/2013	Agency variation to implement changes introduced by IED		
Environment Agency Landfill Sector Review Permit reviewed Variation notice determined EPR/BS7722ID/V006	15/02/2017	Permit varied and consolidated permit issued in the modern format		
Application EPR/BS7722ID/V007	Duly made 11/07/2019	Application to vary Permit to include soil treatment facility and associated Activities on site.		
Request for information in Schedule 5 Notice	23/08/2019	Response received 23/10/2019		
Request for information in Schedule 5 Notice	22/11/2019	Responses received13/12/2019 and 10/01/2020		
Request for information by email	20/01/2020	Response received 12/02/2020		
Variation determined EPR/BS7722ID/V007	18/03/2020	Varied permit issued.		
Application EPR/BS7722ID/V008 (variation and consolidation)	Duly made 27/09/2022	Application to vary and update the permit. Increasing the treatment capacity for hazardous soils at the Soil Treatment Facility. Operator registered office change of address		
		incorporated as administrative change.		
Variation determined and consolidation issued EPR/BS7722ID	25/01/2023	Varied and consolidated permit issued in modern format.		
Application EPR/BS7722ID/V009 (variation and consolidation)	Duly Made 13/04/2023	Application to add an additional listed activity for the treatment and storage of soils contaminated with asbestos at the Soil Treatment Facility (STF), add associated waste codes and increase hazardous storage capacity at any one time.		
Variation determination and consolidation issued EPR/BS7722ID	20/07/2023	Varied and consolidated permit issued.		
Variation determined and consolidation issued EPR/BS7722ID/V010 Billing Reference BS7722ID	05/10/2023	Environment Agency initiated variation. Varied and consolidated permit issued.		
The Environment Agency has been directed by the Secretary of State for the Environment to issue this variation.	#####	Variation determined and issued as a result of an Appeal against Version V010 of the permit, Appeal reference APP/EPR/652.		

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 has varied:

Permit number

EPR/BS7722ID

Issued to

3C Waste Limited ("the operator")

whose registered office is

3 Sidings Court White Rose Way Doncaster DN4 5NU

company registration number 02632581

to operate a regulated facility at

Maw Green Landfill Site Maw Green Road Coppenhall Crewe Cheshire CW1 5NG

to the extent set out in the schedules.

Name	Date
Principal Permitting Team Leader	######

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions are amended as a result of the variation:

Table S1.1, Table S1.2, Table S1.3, Table S1.4, Table S2.4, Table S3.2, Table S3.14.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BS7722ID

This is the consolidated permit referred to in the variation and consolidation notice EPR/BS7722ID/V011 authorising,

3C Waste Limited ("the operator"),

whose registered office is

3 Sidings Court White Rose Way Doncaster DN4 5NU

company registration number 02632581

to operate an installation at

Maw Green Landfill Site Maw Green Road Coppenhall Crewe Cheshire CW1 5NG

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Principal Permitting Team Leader	#####

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
 - (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit shall be as set out in the Deed of Performance dated 17 October 2007 between the Waste Recycling Group Limited (now known as FCC Environment (UK) Limited) and the Environment Agency as varied by a Deed of Variation dated 15 October 2010 (as varied by further Deeds of Variation from time to time). The operator shall accordingly ensure that the Permit is and remains throughout its subsistence a Permit to which the Deed relates and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
 - (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.2.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.

1.3 Energy efficiency

- 1.3.1 The operator shall:
 - (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) implement any appropriate measures identified by a review.

1.4 Efficient use of raw materials

- 1.4.1 The operator shall:
 - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;

- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

1.5 Avoidance, recovery and disposal of wastes produced by the activities

- 1.5.1 The operator shall take appropriate measures to ensure that:
 - (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment
- 1.5.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").
- 2.1.2 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16) waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in blue on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.5 shall conform to the specifications set out in that table.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.6 Landfill Engineering

- 2.6.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.6.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
 - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.6.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
 - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.7 The operator shall submit a CQA Validation Report within four weeks of the completion of the construction of the relevant landfill infrastructure or other time period agreed in writing with the Environment Agency.
- 2.6.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.5 and 2.6.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.

- 2.6.9 For the purposes of conditions 2.6.1, 2.6.2, 2.6.4 and 2.6.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
 - (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.
- 2.6.10 Where the Environment Agency has required further information under condition 2.6.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
 - (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.

2.7 Waste acceptance

- 2.7.1 For the following activities referenced in Schedule 1, Table S1.1 (AR1), wastes shall only be accepted for disposal if:
 - (a) they are listed in schedule 2, Table S2.1, and
 - (b) they are non-hazardous waste, and
 - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400 mm), and
 - (d) they are not shredded used tyres, and
 - (e) they are not liquid waste (including waste waters but excluding sludge), and
 - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
 - (g) all the relevant waste acceptance procedures have been completed, and
 - (h) they fulfil the relevant waste acceptance criteria, and
 - (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
 - (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and
 - (k) they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.
- 2.7.2 Wastes shall only be accepted for restoration where:
 - (a) they are listed in schedule 2, table S2.2 and
 - (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.
- 2.7.3 For the following activities referenced in Schedule 1, Table S1.1 (AR1) the operator shall:
 - (1) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
 - (2) be satisfied that the waste conforms to the requirements of condition 2.6.1.

- 2.7.4 For the following activities referenced in schedule 1, Table S1.1 (AR3 AR8 and AR16) waste shall only be accepted if:
 - (a) it is of a type and quantity listed in schedule 2, Tables S2.3a and S2.3b and S2.4
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.7.5 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.7.6 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.7.7 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing reference 1351-01-08 Final Restoration Plan.
- 2.7.8 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.
- 2.7.9 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.
- 2.7.10 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.
- 2.7.11 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
 - (1) the nature of the process producing the waste;
 - (2) the composition of the waste;
 - (3) the handling requirements of the waste;
 - (4) the hazardous property associated with the waste, if applicable; and
 - (5) the waste code of the waste.
- 2.7.12 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.8 Leachate levels

2.8.1 The limits for the level of leachate listed in schedule 3 table S3.1 shall not be exceeded.

2.9 Closure and aftercare

2.9.1 The operator shall maintain a closure and aftercare management plan.

2.10 Landfill gas management

- 2.10.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:
 - (a) collect landfill gas; and
 - (b) control the migration of landfill gas.
- 2.10.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.
- 2.10.3 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;
 - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 The limits in Schedule 3 shall not be exceeded.
- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.2, S3.3 and S3.4.
- 3.1.3 The limits given in Table S3.2 shall not be exceeded, save that compliance with an emission limit in that table shall include incorporation of the uncertainty allowance stated in Environment Agency guidance LFTGN 05 and LFTGN 08.
- 3.1.4 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.5 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
 - (a) between nine and six months prior to the sixth anniversary of the granting of the permit, and
 - (b) between nine and six months prior to every subsequent six years after the fourth anniversary of the granting of the permit.
- 3.1.6 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16) periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:
 - (a) Leachate specified in tables S3.1 and S3.11;
 - (b) Point source emissions specified in tables S3.2, S3.3 and S3.4;
 - (c) Groundwater specified in tables S3.5 and S3.9;
 - (d) Landfill gas specified in tables S3.6, S3.8 and S3.10;
 - (e) Surface water specified in table S3.12;
 - (f) Particulate matter specified in table S3.7;
 - (g) Ambient air monitoring specified in table S3.14.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
 - (a) annually, and
 - (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
 - (c) following closure of the landfill or part of the landfill.
- 3.5.5 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 to S3.13 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution hazard or annoyance from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

- 3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.
- 3.7.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
 - (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) the results of groundwater monitoring;
 - (ii) sub-surface landfill gas monitoring;
 - (iii) leachate levels, quality and quantities;
 - (iv) landfill gas generation and collection;
 - (v) waste types and quantities;
 - (vi) the specification and as built drawings of the basal, sidewall and capping engineering systems.

for the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16):

- (vii) off-site environmental effects; and
- (viii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 For the following activities referenced in schedule 1, Table S1.1 (AR1 and AR2), a report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:
 - (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
 - (b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3;
 - (c) the annual production/treatment set out in schedule 4 table S4.2;
 - (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
 - the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
 - (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
 - (g) a calculation of the remaining capacity (reported in cubic metres) derived from the presettlement contours and the most recent topographical survey;
 - (h) a plan(s) ('the monitoring and extraction point plan MEPP') showing the locations of existing and any new leachate and landfill gas extraction and all monitoring points.
- 4.2.3 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and A16) a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31st January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
 - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.4 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
 - (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

- 4.2.5 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.6 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 In the event:
 - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents.
 - (b) in the event of a breach of any permit condition the operator must immediately-
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 For the following activities referenced in schedule 1, table S1.1 (AR3 to AR8 and AR16) where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities					
Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity	
AR1	D5 –Specially engineered landfill; R5 - the recycling or reclamation of inorganic material and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1) (a), The disposal of waste in a landfill.	Landfill for non-hazardous waste and landfill restoration.	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.7, as an integral part of landfilling.	
AR2	D8 – Biological treatment of waste	Section 5.4, Part A(1)(a)(i), Biological treatment of non- hazardous waste.	Treatment of leachate in a facility with a capacity of >50 tonnes/day.	Leachate arising from the landfill.	
AR3	D8 – Biological treatment of waste and R5 - the recycling or reclamation of inorganic material	Section 5.3 Part A(1)(a)(ii)	Bioremediation process for hazardous waste.	A maximum treatment capacity of 38,000 tonnes at any one time. Hazardous waste types and quantities as specified in table S2.3b.	
AR4	D8 – Biological treatment of waste and R5 - the recycling or reclamation of inorganic material	Section 5.4 Part A(1)(b)(i), Biological treatment of non- hazardous waste.	Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment.	A maximum treatment capacity of 38,000 tonnes at any one time. Non-hazardous waste types and quantities as specified in table S2.3b.	

Table S1.1 activities				
AR5	D8 – Biological treatment of waste and R5 - the recycling or reclamation of inorganic material	Section 5.3 Part A(1)(a)(ii)	Screening to remove oversize material.	A maximum treatment capacity of 38,000 tonnes at any one time. Hazardous waste types and quantities as specified in table S2.3a.
AR6	R13 - Storage of waste pending any of the operations numbered R1 to R12	Section 5.6 Part A(1)(a)	Temporary storage of hazardous waste.	 A maximum of 38,000 tonnes at any one time on site for wastes due to undergo treatment as per Activities AR3, AR4, AR5 or AR7. All storage shall take place on an impermeable surface with a sealed drainage system. No more than 38,000 tonnes of hazardous waste shall be stored in aggregate. Soil impacted with visible asbestos shall be stored in a way that minimises asbestos fibre emissions such as spraying and sheeting. Hazardous waste types and quantities as specified in table S2.3a, S2.3b and S2.4.

AR7	R5 - the recycling or reclamation of inorganic material	Section 5.3 Part A(1)(a)(vi) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.	Recovery of soils impacted with identifiable pieces of bonded asbestos by separation.	From treatment of soils impacted with identifiable pieces of bonded asbestos, by handpicking of bonded asbestos only, or by 3-way screener into oversize, medium size and silt-sized fractions prior to handpicking of bonded asbestos from fractions containing visible bonded asbestos, to storage of recovered soils and separated bonded asbestos.
				Screening and handpicking shall take place on an impermeable surface with a sealed drainage system.
				The screener shall be in an enclosed building with an abated air extraction system as described in in 'Requirements for Enclosed Building' listed in Table S1.2.
				Handpicking shall take place in a dedicated enclosed picking line.
				No more than 38,000 tonnes at any one time of soils impacted with identifiable pieces of bonded asbestos shall be treated (in aggregate).
				The screening and handpicking of asbestos wastes shall not increase the asbestos fibre load in the waste.
				Screened soil impacted with visible asbestos shall be stored in a way that minimises asbestos fibre emissions such as spraying and sheeting.
				Separated bonded asbestos fragments shall be bagged whilst handpicking is in progress. Once handpicked asbestos shall be stored double bagged in sealed, closed and locked containers.
				Treated waste shall be stored for no longer than 6 months prior to transfer off-site or to the landfill as restoration soil.

Table S1.1	activities			
				No more than 10 tonnes of picked asbestos shall be stored on site.
				No more than 38,000 tonnes of treated soils shall be stored on site at any one time.
				Non-hazardous treated soils shall be kept separate from hazardous soils.
				Waste types (soil wastes only) and quantities as specified in schedule 2, table S2.4.
AR8	R5 - the recycling or reclamation of inorganic material	Section 5.4 Part A (1)(a)(ii) Physico-chemical treatment of non-	Screening of non-hazardous waste to remove oversized material for recovery.	Non-hazardous waste following treatment on site by Activity AR4.
		hazardous waste with a capacity exceeding 50 tonnes per day.		Non-hazardous waste types and quantities as specified in table S2.3b.
Directly A	ssociated Activities			
AR9	R1 – use principally as a fuel to generate energy		Pre-treatment and utilisation of landfill gas for energy recovery in an appliance with a rated thermal input < 50MW.	Treatment and utilisation of landfill gas arising from the landfill.
AR10	N/A		Temporary storage of waste (leachate).	Leachate arising from the landfill.
AR11	N/A		Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
AR12	D6 – release to water body except seas/ oceans		Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
AR13	N/A		Fuel Storage.	Storage of diesel for use in mobile plant at Soil Treatment Facility.
AR14	N/A		Water Storage.	Collection and storage of process water.

Table S1.	Table S1.1 activities			
AR15	N/A	Pipework between the leachate treatment plant and public sewerage system.	From the point of discharge from the leachate treatment plant to the point where the pipework leaves the land under the control of the operator.	
AR16	R13 – Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Storage of waste.	Temporary storage of non-hazardous waste prior to treatment on site.	

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the Application Form, excluding the following sections:	09/10/2003
	2.2.4 to 2.2.6, 2.3.32, 2.3.33, 2.3.34, 2.3.35, 2.3.39, 2.3.43, 2.3.50 to 2.3.54, 2.3.68, 2.3.69, 2.3.71, 2.3.72 and 2.3.78	
SLR letter and supporting documents regarding requests for information dated 17/06/2004.	All Parts	19/07/2004
SLR letter and supporting documents regarding requests for information dated 06/07/2004.	All Parts	20/07/2004
SLR letter and supporting documents regarding requests for information dated 25/08/2004.	All Parts	11/10/2004
SLR e-mail and supporting documents regarding revised waste list.	All Parts	14/01/2005
SLR e-mail and supporting documents	All Parts	28/02/2006
All parts 14/01/2005 and 27/01/2005 regarding requests for information dated 30/12/2004.		
Correspondence dated 27/02/2006 re: 27/02/2006 re: Improvement condition 1.4.1.1	All Parts	28/02/2006
Correspondence dated 03/04/2006 re: Improvement condition 1.4.1.2	All Parts	03/04/2006
Correspondence dated 01/03/2006 re: Improvement condition 1.4.1.3	All Parts	06/03/2006
Correspondence dated 15/02/2006, (ref: 404- 0197-00178) re: Improvement condition 1.4.1.5	All Parts	16/02/2006
Correspondence dated 02/2006 (ref 404-0197-00178), CQA plan for downstream monitoring wells)	All Parts	02/2006
Correspondence dated 06/04/2006 (ref:402.0197.00423) re: Improvement condition 1.4.1.7	All Parts	12/04/2006
Correspondence dated 13/04/2006 (ref: 404.0197.00178)	All Parts	18/04/2006
Re: improvement condition 1.4.1.9		
Correspondence dated 15/03/2005 (ref: 4D-197-178) re improvement condition 1.4.1.12	All Parts	21/05/2005

Table S1.2 Operating techniques		
Description	Parts	Date Received
Correspondence 'Maw Green Leachate Extraction Review'	All parts	06/2006
re improvement condition 1.4.1.13		
Revised monitoring location plan (drawing no. ESID 14, dated August 2007)	All parts	22/01/2008
Monitoring reduction letter	All Parts	22/01/2014
Ref ALM/MG/EAL53		
FCC letter ref MG/LC2.2AR/ 20140829	All Parts	29/08/2014
FCC Document	All Parts	29/01/2015
E mail from FCC 29 Jan 2016Attached updated tables for Doc ref: ALM/MG/EAL53		
Landfill Restoration Plan (referenced report 10228-R07 and dated May 2017)	All Parts	15/05/2017
Application	Application Forms (All Parts)	01/04/2019
	ESID Amendment Site Condition Report (referenced 3695-CAU-XX-XX-RP-V-0305.A0- C2 and dated March 2019)	
	Soil Treatment Facility Amenity and Accident Plan (referenced 3695-CAU-XX-XX-RP-V- 0302.A0-C2 and dated March 2019)	
Response to Schedule 5 Notice (1) dated 23/08/2019	Soil Treatment Facility Dust Management Plan (reference 3695-CAU-XX-XX-RP-V-0307-A0- C1 and dated October 2019)	02/10/2019
	Soil Treatment Facility Operating Techniques (reference 3695-CAU-XX-XX-RP-V-0303 and dated October 2019)	
	Response includes clarification on area drainage, clarification on waste codes and biofilter/air quality monitoring details.	
Response to Schedule 5 Notice (2) follow up request dated 22/11/2019	STC Soil Characterisation Procedure (referenced WI-003) and dated 26/11/2019)	13/12/2019
and 02/01/2020	Response includes further detail on waste code acceptance, biofilter and air quality monitoring.	
	Soil Treatment Facility Odour Management Plan (reference 3695-CAU-XX-XX-RP-V-0308-	10/01/2020

Description	Parts	Date Received
	A0-C3 OMP Combined and dated December 2019)	
Response to request for more information dated 20/01/2020	Drawings Leachate Pipeline Route (ref. 3695- CAU-XX-XX-DR-V-1802 P1) and Proposed Layout Plan (ref. 3695-CAU-XX-XX-DR-V-1801 P3) detailing sewer connections to site and proposed monitoring locations respectively.	12/02/2020
Response to Improvement Condition 4	H1 Assessment (referenced 5193-CAU-XX-XX- RP-V-0308.A0.C1 Final and dated November 2021)	08/11/2021
Application	Application Forms (All Parts)	15/12/2021
	Updated Supporting Document (reference 5193-CAU-XX-XX-RP-V-0300.A0.C1 and dated December 2021)	
	Updated Amenity and Accident Plan (reference 5193-CAU-XX-XX-RP-V-0301-A0.C1 and dated December 2021)	
	Addendum to ESID Report (referenced 5193- CAU-XX-XX-RP-V-0302-A0.C1 and dated December 2021)	
	Updated Operating Techniques Document (referenced 5193-CAU-XX-XX-RP-V- 0306.A0.C1 and dated December 2021)	
	Updated BAT Review (referenced 5193-CAU- XX-XX-RP-V-0307.A0.C1 and dated December 2021)	
Application EPR/BS7722ID/V009	Documents received in response to Section 3a of form Part C3:	10/01/2023
	 Treatment process & BAT review - reference 10012023, excluding all references to mechanical screener that is not enclosed. Dust & Emissions Management Plan (Document Ref: 5193-CAU-XX-XX-RP- V-0313.A0.C1), excluding all references to mechanical screener that is not enclosed. Environmental Setting and Installation Design (ESID) - Addendum 2022 (Document Ref: 5193-CAU-XX-XX-RP- V-0309.A0.C1), excluding all reference to mechanical screener that is not enclosed. Amenity & Accidents Risk Assessment (Document Ref: 5193-CAU-XX-XX-RP- 	

Table S1.2 Operating techniques		
Description	Parts	Date Received
	V-0310.A0.C1), excluding all references to mechanical screener that is not enclosed. Activities & Operating Techniques Report (Document Ref: 5193-CAU-XX- XX-RP-V-0311.A0.C1), excluding all references to mechanical screener that is not enclosed	
Description - Chemical waste: appropriate measures for permitted facilities	Parts: All parts of the appropriate measures guidance shall apply.	05/10/2023
Version published 18 November 2020		
Appeal submission 30 April 2024	Plan 3982-CAU-XX-XX-DR-V-1815_S2-P01 'TREATMENT PAD DESIGN DETAIL' to replace the use of a crushed concrete surface where proposed previously.	30/04/2024
Appeal submission 08 May 2024	Plans 5193-CAU-XX-XX-DR-1810_S2-P01 'PROPOSED MONITORING PLAN – PAD 1' and	08/05/2024
	5193-CAU-XX-XX-DR-1806_S2-P02 'PROPOSED MONITORING PLAN – PAD 2' regarding revised monitoring locations.	
Appeal submission 20 May 2024	Requirements for Enclosed Building, document reference 3982-CAU-XX-XX-RP-V-0311.	20/05/2024

Table S1.3 Impre	Table S1.3 Improvement programme requirements		
Reference	Reference Requirement		
4	(b) The operator shall submit to the Environment Agency in writing for approval, a report detailing monthly chemical analysis monitoring results of collected waters from the Soil Treatment Facility (STF) at the point of discharge from the STF. The report should contain details of comparison of results from the chemical analysis to existing discharge consent limits and the Environment Agency's H1 Guidance.	Complete	
5	The operator shall provide a report on the monitoring undertaken as part of the sampling of the incoming waste and the separated wastes streams, from the operation of the asbestos screening process over 4 months of operation, for approval by the Environment Agency.		
	The sampling report shall:		
	 detail the method(s) used to sample and analyse the treated waste streams for asbestos fibres; 		

Table S1.3 Impre	Table S1.3 Improvement programme requirements		
Reference	Requirement	Date	
	 demonstrate a high percentile level of confidence in the treatment process taking account of the amount of waste treated per batch and the number of samples required to adequately sample each waste stream, both initially and on an ongoing basis; 		
	• demonstrate that additional asbestos fibre contamination is not being created by the screening process.		
	 recommend any additional measures to be undertaken to ensure compliance with the permit conditions. 		
	The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the plan.		
	The operator shall implement the additional measures as approved, and from the date stipulated by, the Environment Agency.		

Table S1.4	Table S1.4 Pre-operational measures for future development			
Reference	Operation	Pre-operational Measures		
1	Deposit of wastes in any area of the Permitted installation where waste deposit commences after the issue of the permit	As part of any construction proposals required by condition 2.5.1 the operator shall include a design for leachate collection infrastructure, which includes details of the leachate collection layer, drainage pipework, collection systems and drilling targets.		
2	Deposit of waste over previously completed areas of phase 1	A leachate drainage layer shall be incorporated into the design of the internal slope between phase 1 and future phases. The design specification of this layer shall be approved in accordance with condition 2.5.1.		
3	Engineering of any new cell	As part of any construction proposals required by condition 2.5.1, the operator shall submit a report investigating the existence of sand horizons beneath the cell base. The report shall detail the thickness of any encountered sand horizon, the presence of groundwater including the piezometric head and shall also include an assessment into the possibility of basal heave and any necessary preventative action required for the cell, together with any required amendments to CQA procedures for engineering at the site. If in the preparation of the report, extra intrusive site investigation is undertaken, the report shall contain all relevant borehole logs and descriptions.		
4	Operation of the mechanical screener for treatment of asbestos impacted wastes	 Prior to the use of the mechanical screener for the pre-screening of asbestos contaminated soils under activity reference AR7 a report shall be submitted for written approval detailing the following aspects: Evidence to demonstrate that the mechanical screener is located in a fully enclosed building as set out in 'Requirements for Enclosed Building' listed in Table S1.2 and all dust emissions from the building screening operation are directed to an emission point via an active abatement system with a HEPA filter or other suitable design. Details of the proposed commissioning, operational and maintenance procedures associated with the mechanical screener, building and active abatement system to be implemented on site. Details of monitoring checks, audits and emergency procedures to be implemented on site to ensure both the mechanical screener, building and active abatement system are fully operational and working as designed. 		

Table S1.4 Pre-operational measures for future development		
Reference Operation Pre-operational Measures		
		No mechanical pre-screening of asbestos contaminated soils under activity reference AR7 shall commence unless the Environment Agency has given prior approval under this condition.

Table S1.5 Annual waste input limits		
Category	Limit Tonnes/ Year	
Non-hazardous waste	450,000	
Inert waste	450,000	
Waste for restoration	75,000	

Schedule 2 – List of permitted wastes

Waste code	itted waste types for disposal at a landfill for non-hazardous waste Description	
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals	
01 01	wastes from mineral excavation	
01 01 01	wastes from mineral metalliferous excavation	
01 01 02	wastes from mineral non-metalliferous excavation	
01 03	wastes from physical and chemical processing of metalliferous minerals	
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05	
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07	
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 10	
01 04	wastes from physical and chemical processing of non-metalliferous minerals	
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07	
01 04 09	waste sand and clays	
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07	
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07	
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11	
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07	
01 05	drilling muds and other drilling wastes	
01 05 04	freshwater drilling muds and wastes	
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06	
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06	
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing	
02 01 01	sludges from washing and cleaning	
02 01 02	animal-tissue waste	
02 01 03	plant-tissue waste	
02 01 04	waste plastics (except packaging)	
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site	
02 01 07	wastes from forestry	
02 01 09	agrochemical waste other than those mentioned in 02 01 08	
02 01 10	waste metal	
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin	

Waste code	Description
02 02 01	sludges from washing and cleaning
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 04 03	sludges from on-site effluent treatment
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 05	de-inking sludges from paper recycling

Waste code	Description
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 09	lime mud waste
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	Wastes from the leather, fur and textile industries
04 01	wastes from the leather and fur industry
04 01 01	fleshings and lime split wastes
04 01 02	liming waste
04 01 06	sludges, in particular from on-site effluent treatment containing chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal
05 01	wastes from petroleum refining
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 13	boiler feedwater sludges
05 01 14	wastes from cooling columns
05 01 16	sulphur-containing wastes from petroleum desulphurisation
05 01 17	bitumen
05 06	wastes from the pyrolytic treatment of coal
05 06 04	waste from cooling columns
05 07	wastes from natural gas purification and transportation
05 07 02	wastes containing sulphur
06	Wastes from inorganic chemical processes
06 03	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 05	sludges from on-site effluent treatment

Waste code	Description
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02
06 06	wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacificiers
06 11 01	calcium-based reaction wastes from titanium dioxide production
06 13	wastes from inorganic chemical processes not otherwise specified
06 13 03	carbon black
07	Wastes from organic chemical processes
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	waste containing silicones other than those mentioned in 07 02 16
07 03	wastes from the MFSU of organic dyes and pigments (except 06 11)
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
07 04	wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
07 05	wastes from the MFSU of pharmaceuticals
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 14	solid wastes other than those mentioned in 07 05 13
07 06	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
07 07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
08	Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks
08 01	wastes from MFSU and removal of paint and varnish
08 01 12	waste paint and varnish other than those mentioned in 08 01 11
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13

Waste code	Description
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17
08 02	wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders
08 02 02	aqueous sludges containing ceramic materials
08 03	wastes from MFSU of printing inks
08 03 07	aqueous sludges containing ink
08 03 13	waste ink other than those mentioned in 08 03 12
08 03 15	ink sludges other than those mentioned in 08 03 14
08 03 18	waste printing toner other than those mentioned in 08 03 17
08 04	wastes from MFSU of adhesives and sealants (including water proofing products)
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
09	Wastes from the photographic industry
09 01	wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	Wastes from thermal processes
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 01 03	fly ash from peat and untreated wood
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 01 24	sands from fluidised beds
10 01 25	wastes from fuel storage and preparation of coal-fired power plants
10 01 26	wastes from cooling-water treatment

Waste code	Description
10 02	wastes from the iron and steel industry
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other sludges and filter cakes
10 03	wastes from aluminium thermal metallurgy
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 20	flue-gas dust other than those mentioned in 10 03 19
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 2
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	wastes from lead thermal metallurgy
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	wastes from zinc thermal metallurgy
10 05 01	slags from primary and secondary production
10 05 04	other particulates and dust
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	wastes from copper thermal metallurgy
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 04	other particulates and dust
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	wastes from silver, gold and platinum thermal metallurgy
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 04	other particulates and dust

	itted waste types for disposal at a landfill for non-hazardous waste
Waste code	Description
10 07 05	sludges and filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	wastes from other non-ferrous thermal metallurgy
10 08 04	particulates and dust
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 16	flue-gas dust other than those mentioned in 10 08 15
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	wastes from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 10	flue-gas dust other than those mentioned in 10 09 09
10 09 12	other particulates other than those mentioned in 10 09 11
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	wastes from casting of non-ferrous pieces
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 10	flue-gas dust other than those mentioned in 10 10 09
10 10 12	other particulates other than those mentioned in 10 10 11
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13

Waste code	Description
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 11 20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
10 12 03	particulates and dust
10 12 05	sludges and filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 12 13	sludge from on-site effluent treatment
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 1 02 05
11 05	wastes from hot galvanising processes
11 05 01	hard zinc
11 05 02	zinc ash

Waste code	Description
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 15	machining sludges other than those mentioned in 12 01 14
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	Wastes not otherwise specified in the list
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 03	end-of-life tyres
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 02	wastes from electrical and electronic equipment
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15

Waste code	Description
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 08	spent catalysts
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 11	waste linings and refractories
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 0 06
17 02	wood, glass and plastic
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03

Waste code	Description
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
18	Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 04	wastes whose collection and disposal is not subject to special requirements in orde to prevent infection (for example dressings, plaster casts, linen, disposable clothing diapers)
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 03	wastes whose collection and disposal is not subject to special requirements in orde to prevent infection
18 02 06	chemicals other than those mentioned in 18 02 05
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 01	wastes from incineration or pyrolysis of waste
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 14	fly ash other than those mentioned in 19 01 13
19 01 16	boiler dust other than those mentioned in 19 01 15
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	wastes from physico/chemical treatments of waste (including dechromatation decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 03	stabilised/solidified wastes
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 04	vitrified waste and wastes from vitrification
19 04 01	vitrified waste
19 05	wastes from aerobic treatment of solid wastes
19 05 19 05 01	non-composted fraction of municipal and similar wastes

Waste code	Description
19 05 03	off-specification compost
19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 02	waste from desanding
19 08 05	sludges from treatment of urban waste water
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 01	solid waste from primary filtration and screenings
19 09 02	sludges from water clarification
19 09 03	sludges from decarbonation
19 09 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
19 09 06	solutions and sludges from regeneration of ion exchangers
19 10	wastes from shredding of metal-containing wastes
19 10 01	iron and steel waste
19 10 02	non-ferrous waste
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 06	other fractions other than those mentioned in 19 10 05
19 11	wastes from oil regeneration
19 11 06	sludges from on-site effluent treatment other than those mentioned in 19 11 05
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)

Waste code	Description
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 25	edible oil and fat
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 07	bulky waste

Table S2.2 Per	rmitted waste types for restoration						
Waste code	Description						
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals						
01 04	wastes from physical and chemical processing of non-metalliferous minerals						
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07						
01 04 09	waste sand and clays						
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing						
02 04	wastes from sugar processing						
02 04 01	soil from cleaning and washing beet						
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard						
03 03	wastes from pulp, paper and cardboard production and processing						
03 03 05	de-inking sludges from paper recycling						
03 03 09	lime mud waste						
17	Construction and demolition wastes (including excavated soil from contaminated sites)						
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil						
17 05 04	soil and stones other than those mentioned in 17 05 03						
17 05 06	dredging spoil other than those mentioned in 17 05 05						
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use						
19 05	wastes from aerobic treatment of solid wastes						
19 05 03	off-specification compost						
19 08	wastes from waste water treatment plants not otherwise specified						
19 08 05	sludges from treatment of urban waste water						
19 09	wastes from the preparation of water intended for human consumption or water for industrial use						
19 09 02	sludges from water clarification						
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified						
19 12 09	minerals (for example sand, stones)						
19 13	wastes from soil and groundwater remediation						
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01						
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03						
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions						
20 02	garden and park wastes (including cemetery waste)						
20 02 02	soil and stones						

Table S2.3a Po Soil Treatmen	ermitted waste types for Physico-Chemical Treatment (Activity A5 in Table S1.1) at t Facility						
Maximum Quantity	Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16						
Waste code	Description						
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals						
01 04	wastes from physical and chemical processing of non-metalliferous minerals						
01 04 09	waste sand and clays						
01 05	Drilling muds and other wastes						
01 05 05*	oil-containing drilling muds and wastes						
01 05 06*	drilling muds and other drilling wastes containing hazardous substances						
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal						
05 01	wastes from petroleum refining						
05 01 05*	oil spills						
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)						
13 05	Oil/water separator contents						
13 05 01*	solids from grit chambers and oil/water separators						
13 05 02*	sludges from oil/water separators						
13 05 03*	interceptor sludges						
13 05 08*	mixtures of wastes from grit chambers and oil/water separators						
17	Construction and demolitions wastes (including excavated soil from contaminated sites)						
17 02	Wood, glass and plastic						
17 02 01	wood						
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil						
17 05 03*	soil and stones containing hazardous substances						
17 05 04	soil and stones other than those mentioned in 17 05 03						
17 05 05*	dredging spoil containing hazardous substances						
17 05 06	dredging spoil other than those mentioned in 17 05 05						
17 05 07*	track ballast containing hazardous substances						
17 05 08	track ballast other than those mentioned in 17 05 07						
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use						
19 02	Wastes from physico/chemical treatment treatments of waste (including dechromatation, decyanidation, neutralisation)						
19 02 05*	sludges from physico/chemical treatment containing hazardous substances – wastes suitable for biological treatment only						
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 – wastes suitable for biological treatment only						
19 05	wastes from aerobic treatment of solid wastes						

Maximum Quantity	Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16				
Waste code	Description				
19 05 03	off-specification compost				
19 08	wastes from waste water treatment plants not otherwise specified				
19 08 02	waste from desanding				
19 08 13*	sludges containing hazardous substances from other treatment of industrial waste water				
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13				
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified				
19 12 07	wood other than those mentioned in 19 12 06				
19 13	Wastes from soil and groundwater remediation				
19 13 01*	solid wastes from soil remediation containing hazardous substances				
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01				
19 13 03*	sludges from soil remediation containing hazardous substances				
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03				
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions				
20 01	Separately collected fractions (except 15 01)				
20 01 38	wood other than that mentioned in 20 01 37				
20 02	Garden and park wastes (including cemetery waste)				
20 02 01	biodegradable waste				
20 02 02	soil and stones				
20 03	Other municipal wastes				
20 03 03	street cleaning residues				

Table S2.3b Po Treatment Fac	ermitted waste types for Biological Treatment (Activity A3/A4 in Table S1.1) at Soil cility					
Maximum Quantity	Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16					
Waste code	Description					
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals					
01 04	wastes from physical and chemical processing of non-metalliferous minerals					
01 04 09	waste sand and clays					
01 05	Drilling muds and other wastes					
01 05 05*	oil-containing drilling muds and wastes					
01 05 06*	drilling muds and other drilling wastes containing hazardous substances					
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal					
05 01	wastes from petroleum refining					
05 01 05*	oil spills					
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)					
13 05	Oil/water separator contents					
13 05 01*	solids from grit chambers and oil/water separators					
13 05 02*	sludges from oil/water separators					
13 05 03*	interceptor sludges					
13 05 08*	mixtures of wastes from grit chambers and oil/water separators					
17	Construction and demolitions wastes (including excavated soil from contaminated sites)					
17 02	Wood, glass and plastic					
17 02 01	wood					
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil					
17 05 03*	soil and stones containing hazardous substances					
17 05 04	soil and stones other than those mentioned in 17 05 03					
17 05 05*	dredging spoil containing hazardous substances					
17 05 06	dredging spoil other than those mentioned in 17 05 05					
17 05 07*	track ballast containing hazardous substances					
17 05 08	track ballast other than those mentioned in 17 05 07					
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use					
19 02	Wastes from physico/chemical treatment treatments of waste (including dechromatation, decyanidation, neutralisation)					
19 02 05*	sludges from physico/chemical treatment containing hazardous substances – wastes suitable for biological treatment only					
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05 – wastes suitable for biological treatment only					
19 05	wastes from aerobic treatment of solid wastes					

cility
Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16
Description
off-specification compost
wastes from waste water treatment plants not otherwise specified
waste from desanding
sludges containing hazardous substances from other treatment of industrial waste water
sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
wood other than those mentioned in 19 12 06
other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances
Wastes from soil and groundwater remediation
solid wastes from soil remediation containing hazardous substances
solid wastes from soil remediation other than those mentioned in 19 13 01
sludges from soil remediation containing hazardous substances
sludges from soil remediation other than those mentioned in 19 13 03
Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
Separately collected fractions (except 15 01)
wood other than that mentioned in 20 01 37
Garden and park wastes (including cemetery waste)
biodegradable waste
Other municipal wastes
street cleaning residues

	d waste types and quantities for screening and handpicking, and storage of bonded asbestos (AR6, AR7)				
Maximum quantity	Annual throughput shall not exceed 50,000 tonnes for activities AR3, AR4, AR5, AR6, AR7, AR8, AR16				
Waste code	Description				
Exclusions	Wastes having any of the following characteristics shall not be accepted: Asbestos in unbound fibrous form (free chrysotile fibrous asbestos in the soil must be <0.1% w/w. Other forms or mixed forms of fibrous asbestos in the soil must be <0.01% w/w.)				
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITE				
17 05	coll (including everyted coll from contemineted cites) stones and dradging				
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil				
17 05 03* and 17 06 05*	spoil				

Table S2.5 Raw materials and fuels	
Raw materials and fuel description	Specification
NPK fertilizers	50 tonnes storage maximum at any one time

Schedule 3 – Emissions and monitoring

Table S3.1 Leachate level limits and monitoring requirements						
Monitoring point reference/Description	Limit	Monitoring frequency	Monitoring method			
Phase 1: Two leachate monitoring points in addition to the collection sump for each hydraulically separate cell unless otherwise agreed in writing with the Agency.	3 m above cell base	Monthly	In accordance with Environment Agency document LFTGN02 (February 2003) 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or			
Phase 2: Two leachate monitoring points in addition to the collection sump for each hydraulically separate cell unless otherwise agreed in writing with the Agency.	6 m above cell base		such other subsequent guidance as may be agreed in writing with the Environment Agency.			

Table S3.2 Point	Table S3.2 Point source emissions to air – emission limits and monitoring requirements							
Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method		
Engines 1-5 Landfill gas engine on Plan ESID4	Oxides of Nitrogen	Gas utilisation plant	650 mg/m ³	500 g/m ³ 750 g/m ³	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.		
	СО		1500 mg/m ³					
	Total VOCs	-	1750 mg/m ³					
A1: Flare on plan 116-1- 3026/A dated 27/02/2006	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m ³		Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment		
	СО		50 mg/m ³					
	Total VOCs		10 mg/m ³			Agency. Monitoring is unnecessary		
						where the flare is active for <10% of the year.		

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Biofilter	Ammonia	Biofilter at Soil	20 mg/m ³	Hourly mean	Every six	As agreed in writing with the
Monitoring Point as shown	TVOCs	Treatment Facility	40 mg/m ³		months	Environment Agency.
on plan 3695- CAU-XX-XX- DR-V-1801	Hydrogen Sulphide		No Limit			
Building air extraction emissions point to be confirmed	Asbestos fibres	Air extraction emission point	0.1 fibre/ml	Hourly average	Monthly (Note 1, Note 2)	ISO 10397: 1993
oy pre- operational condition PO4)	Particulate matter	-	5 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes each	Every 6 months (Note 2)	BS EN 13284-1

	Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements Emission Parameter Source Limit (incl Reference Monitoring Monitoring Standard or Method							
Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Period	Monitoring Frequency	Monitoring Standard or Method		
W1	Suspended Solids	Site drainage	75 mg/l	Spot Sample	Monthly	As specified in Environment Agency		
On Plan ESID14 dated	Oil or grease	from the site surface water drainage	No visible discharge	Spot Sample	Monthly	Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments</u>		
ualeu	рН	system	>6 and <9	Spot Sample	Monthly	for your environmental permit (www.gov.uk) or such other subsequent		

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
August 2007	Volume		750 m³/day	24 hours	Monthly	guidance as may be agreed in writing with the Environment Agency
	Flow rate		20 l/s	Instantaneous	Monthly	
	Conductivity		No limit set	Spot Sample	Monthly	
	Ammoniacal Nitrogen	_	No limit set	Spot Sample	Monthly	
	Chloride		No limit set	Spot Sample	Monthly	
	DO	_	No limit set	Spot Sample	Monthly	
	Sulphate		No limit set	Spot Sample	Quarterly	
	Alkalinity (as CaCO ₃₎	_	No limit set	Spot Sample	Quarterly	
	COD	_	No limit set	Spot Sample	Quarterly	
	TON		No limit set	Spot Sample	Quarterly	
	Na	_	No limit set	Spot Sample	Quarterly	
	К		No limit set	Spot Sample	Quarterly	
	Са		No limit set	Spot Sample	Quarterly	
	Mg		No limit set	Spot Sample	Quarterly	
	Cr		No limit set	Spot Sample	Quarterly	

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
	Cd		No limit set	Spot Sample	Quarterly	
	Mn		No limit set	Spot Sample	Quarterly	
	Fe		No limit set	Spot Sample	Quarterly	
	Cu		No limit set	Spot Sample	Quarterly	
	Ni		No limit set	Spot Sample	Quarterly	
	Zn		No limit set	Spot Sample	Quarterly	
	Pb		No limit set	Spot Sample	Quarterly	
	Hg		No limit set	Spot Sample	Quarterly	
	List 1 substances identified in leachate, unless otherwise agreed in writing with the Environment Agency		No limit set	Spot Sample	Annually	

Table S3.4 Point source emissions to sewer, effluent treatment plant or by tankering or other transfer off-site – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Treated Process Water Monitoring Point as shown on Plan 3695- CAU-XX-XX-DR- V-1801	No parameters	Soil Treatment Facility	No limits	-	-	As agreed in writing with the Environment Agency

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
GW5.01 as detailed	Ammoniacal Nitrogen	1.41 mg/l ¹	Spot Sample	Monthly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your</u>
on drawing number 124E232 dated	Chloride	225 mg/l ¹		Monthly	
February 2013	Месоргор	0.04 µg/l ¹		Quarterly	
	Xylene	3.0 µg/l¹		Quarterly	 <u>environmental permit</u> (<u>www.gov.uk</u>) or such other subsequent guidance as may be
	Trichlorobenzene	0.01 µg/l ¹		Quarterly	agreed in writing with the Environment Agency
GW08 as detailed	Ammoniacal Nitrogen	1.80 mg/l		Monthly	
on drawing number 124E232 dated	Chloride	410 mg/l		Monthly	
February 2013	Месоргор	0.04 µg/l		Quarterly	
	Xylene	3.0 µg/l		Quarterly	
	Trichlorobenzene	0.01 µg/l		Quarterly	1

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
BH1, BH2, BH5- BH18, BH22-BH35 as detailed on drawing no.	Methane	1% v/v	Monthly	As per LFTGN03 (Sept 2004) or such other subsequent guidance
	Carbon Dioxide	1.5% v/v		as may be agreed in writing with the Environment Agency. Record whether the ground is:
	Oxygen	No limit		
124E232 dated February 2013	Atmospheric pressure	No limit		waterlogged
	Differential Pressure	No limit		frozen snow covered
BH3, BH3.01,	Methane	1% v/v		
BH3.02, BH4.00, BH4.01 as detailed	Carbon Dioxide	2% v/v		
on drawing no.	Oxygen	No limit		
124E232 dated February 2013	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
BH4.02 as detailed	Methane	1% v/v		
on drawing no. 124E232 dated	Carbon Dioxide	11.5% v/v		
February 2013	Oxygen	No limit		
	Atmospheric pressure	No limit	_	
	Differential Pressure	No limit		
BH36, BH37,	Methane	1% v/v		
BH38.1, BH39.1, BH40.1, BH41-BH44	Oxygen	No limit		
as detailed on drawing no. 124E232	Atmospheric pressure	No limit		
dated February 2013	Differential Pressure	No limit		
BH36 and BH37	Carbon Dioxide	1.5% v/v		
BH38.1	Carbon Dioxide	2.6% v/v		
BH39.1	Carbon Dioxide	5.5% v/v	1	

Table S3.6 Landfill gas in external monitoring boreholes – limits and mo				
Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
BH40.1	Carbon Dioxide	3.3% v/v	Monthly	As per LFTGN03 (Sept 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
BH41	Carbon Dioxide	3.0% v/v		
BH42	Carbon Dioxide	2.7% v/v		Record whether the ground is:
BH43	Carbon Dioxide	2.2% v/v		waterlogged frozen
BH44	Carbon Dioxide	2.3% v/v		snow covered

Monitoring Point Ref. /Description	Parameter	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Dust monitoring points as detailed on	Deposited dust	200 mg/m²/day	24 hours	Monthly	
drawing no.ESID14, dated August 2007	Suspended particulate PM10	None set	In accordance with correspondence ref: 402.0197.00423 dated 06/04/2006	In accordance with correspondence ref: 402.0197.00423 dated 06/04/2006	

Table S3.8 Landfill grequirements	gas emissions from capped sur	faces for cells that have accepted no	on-hazardous biodegradable waste – monitoring
Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring Standard or method
Permanently capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Table S3.8 Landfill gas emissions from capped surfaces for cells that have accepted non-hazardous biodegradable waste – monitoring requirements

requirements			
Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring Standard or method
Temporarily capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Whole site	Total methane emission	As agreed with the Environment Agency	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Uncapped areas	Methane concentration	Every 12 months	As agreed with the Environment Agency based on the wording of revised LFTGN 07 or landfill sector guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
Up gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments</u> for your environmental permit (www.gov.uk) or such other subsequent guidance
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	Annually	as may be agreed in writing with the Environment Agency
	Hazardous substances	Annually for first six years of operation	
Down or cross gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments</u> for your environmental permit (www.gov.uk) or such other subsequent guidance
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	as may be agreed in writing with the Environment Agency After the initial 6 year monitoring period for hazardous substances, if the result of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen.	
	Hazardous substances detected in leachate	Annually for first six years of operation then every two years	
MEPP	Base of monitoring point (mAoD)	Annually	

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
In waste gas monitoring boreholes or sealed leachate wells or sacrificial gas extraction system	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly until gas extraction commences	Calibrated handheld monitoring instrument	For cells or phases which have no active gas extraction. Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.
	Hydrogen sulphide	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (V3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	For cells or phases which have no active gas extraction. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring. Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans

Table S3.10 Landfill ga			Manifesting standard or	Other an a ifi a tiona
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Gas collection system at well control valve, manifolds (if applicable) and strategic points on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Gas flow rate or suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Monthly or at such other frequency as may be agreed in writing with the Environment Agency.	Calibrated handheld monitoring instrument	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertake Record the ambient air temperature and whether the ground is: waterlogged frozen snow covered
Gas collection system at well control valve	Hydrogen sulphide	Six monthly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (v3, March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans

Table S3.10 Landfill ga	s – other monitorin	g requirements		
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Output to flare or LFG Utilisation Compound	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 (v3, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency [or a trace gas characterisation method agreed with the Environment Agency].	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Output to flare or LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate Suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Weekly		Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Flare 1 shown on Plan 3026/A dated 27/02/2006	Temperature	As per LFTGN05 (v2, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.	
Gas engines 1-5, post turbo	NOx and CO	Quarterly	In accordance with Appendix C of LFTGN08, (v2, 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Where monitoring using hand-held, electrochemical equipment indicates an exceedance of the emissions standards specified in Table S3.2, these shall be used as action levels and the operator shall investigate the cause and take appropriate measures to reduce emissions.

Monitoring point reference or description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Operational Cells or Phases		At leachate compliance point as listed in		
(Any cell or phases that do not h with condition 2.6)	ave a final engineered cap agreed in	accordance	table S3.1.	
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese		As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk</u> <u>assessments for your environmental</u> <u>permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency	None
MEPP	Hazardous substances	Annually	-	None
MEPP	Depth to base Annually (mAoD)			None
Non Operational Cells or Phases (Any cell or phases that have a f condition 2.6)	nal engineered cap agreed in accord	ance with		
MEPP pH, EC, total alkalinity, Annually ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese				
MEPP	Hazardous substances Once every four years]	None
MEPP	Depth to base (mAoD)	Annually	1	

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
MEPP	Ammoniacal nitrogen Chloride Suspended Solids Visual Oil and Grease pH electrical conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your</u> <u>environmental permit</u> (<u>www.gov.uk</u>) or such other subsequent guidance as may be agreed in writing with the Environment Agency

Table S3.13 Process monitoring requirements					
Monitoring Point	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications	
Biofilter Monitoring Point as shown on Plan 3695-CAU- XX-XX-DR-V-1801	Moisture content, flow rate, nutrient levels, contaminant elimination	As required	As required	Biofilter should be checked and maintained to ensure appropriate temperature and moisture content on a daily basis. Monitoring equipment shall be available on-site and used as required.	

Location or description of point of measurement	Parameter	Limit	Monitoring frequency	Monitoring standard or method	Other specifications
Ambient Air sampling when asbestos contaminated soils are being eccived, handled and moved within he site (points as shown on plans 5193-CAU-XX-XX-DR-V-1810_S2- P01 or 5193-CAU-XX-XX-DR-V- 1806_S2-P02 depending on the activity location).	Asbestos fibres	0.01 fibres/ml. Where total fibre concentration exceeds 0.01 fibres/ml in any sample, that sample must be submitted for electron microscopy to confirm the concentration of asbestos fibres present.	During receipt, handling and movement of asbestos contaminated soil within the site. 1 hour at 8 l/min or other agreed period in writing.	In line with M17 monitoring guidance. While asbestos contaminated soils are being received, handled and moved within the site. • Pumped sampling • 1 m above ground level • Flow rate = 8 litres/minute • Minimum sample volume = 480 litres • Filter pore size = 0.8-1.2 µm • Asbestos fibre limit of detection = 0.001 fibres/ml.	

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Parameter	Reporting period	Period ends
Leachate and/ or groundwater level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to sewer As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.6	Every 3 months	31 March, 30 June, 30 September, 31 December
Particulate matter in ambient air. As required by schedule 3, table S3.7	Every 6 months	30 June, 31 December
Emission of landfill gas from capped surfaces As specified by schedule 3, table S3.8	Every 12 months	31 December
Other groundwater monitoring As specified by schedule 3, table S3.9	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.10	Every 3 months	31 March, 30 June, 30 September, 31 December
Trace gas monitoring	Every 12 months	31 December
Other leachate monitoring As specified by schedule 3, table S3.11	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.12	Every 12 months	31 December

Table S4.1 Reporting of monitoring	Table S4.1 Reporting of monitoring data				
Parameter	Reporting period	Period ends			
Process monitoring requirements As specified by Schedule 3, table S3.13	As agreed with the Environment Agency	31 December			
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December			
Ambient air monitoring Parameters as required by condition 3.5.	Every 12 months	31 December			

* - where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

Table S4.2 Annual production/treatment	
Leachate:	Cubic metres/year
Disposed of off site;	
Disposed of to any onsite effluent treatment plant;	
Recirculated into the waste mass.	
Accepted from offsite for treatment at any onsite effluent treatment plant.	
Landfill gas:	Normalised cubic metres/year
combustion in flares;	
combustion in gas engines;	
Other methods of gas utilisation.	
Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table S3.9 monitoring)	% methane v/v
Methane generation rate (50%ile from a representative model)	m3 /hr

Table S4.3 Performance Parameters				
Parameter	Frequency of assessment	Annual total	Unit	
Energy used (including for leachate treatment)	Annually		MWh of electricity or natural gas	

Table S4.4 Reporting Forms					
Media/parameter	Reporting Format	Date of Form			
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17			
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	Version 1, 08/03/2021			
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17			
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17			
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17			
Particulate matter	Form Particulate 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17			
Waste Return	Waste Return Form RATS2E	02/02/17			
Landfill topographical surveys and interpretation	topographical Environment Agency surveys and				
Ambient air monitoring	Ambient Air Monitoring Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021			

Schedule 5 – Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment				
To be notified within 24 hours of detection				
Date and Time of the event				
Reference or description of the location of the event				
Description of where any release into the environment took place				
Substances(s) potentially released				
Best estimate of the quantity or rate of release of substances				
Measures taken, or intended to be taken, to stop any emission				
Description of the failure or accident.				

(b) Notification requirements for the breach of a limit				
To be notified within 24 hours of detection unless otherwise specified below				
Emission point reference/ source				
Parameter(s)				
Limit				
Measured value and uncertainty				
Date and time of monitoring				

(b) Notification requirements for the breach of a limit				
To be notified within 24 hours of detection unless otherwise specified below				
Measures taken, or intended to be taken, to stop the emission				

Time periods for notification following detection of a breach of a limit				
Parameter Notification period				

(c) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment					
To be notified within 24 hours of detection					
Description of where the effect on the environment was detected					
Substances(s) detected					
Concentrations of substances detected					
Date of monitoring/sampling					

Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

"accident" means an accident that may result in pollution.

"annually" means once every year.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"Background concentration" means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge; or
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site.
- (3) "Cell layout drawing" means: A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:
 - (i) the location of the new cell on the site;
 - (ii) the proposed level (Above Ordnance Datum) of the base of the excavation;
 - (iii) the proposed finished levels of all containment and leachate drainage layers;
 - (iv) the positions of leachate management infrastructure; and
 - (v) the positions of landfill gas infrastructure (if appropriate).
- (4) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:
 - (i) changes to slope length and gradient within the cell;
 - (ii) new leachate or landfill gas infrastructure construction design;
 - (iii) slope stability issues such as new basal excavation level; and/or
 - (iv) depth of waste.

"Construction Proposals" means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or Landfill Infrastructure.

"CQA Validation Report" means the final "as built" construction and engineering details of the New Cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- "As-built" plans and sections of the works;
- · Copies of the site engineer's daily records;
- · Records of any problems or non-compliances and the solution applied;

- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154 and words and expressions used in this permit which are also used in those Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

"exceeded" means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

'Hazardous property' has the meaning in Annex III of the Waste Framework Directive.

"Hazardous substances" as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

'Hazardous waste' has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

"Landfill Infrastructure" means any specified element of the:

- · permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- · leachate abstraction systems;
- · leachate transfer, treatment and storage systems;
- surface water drainage systems;
- · leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;
- lining within the installation.

within the site.

"Liquids" means any liquid other than leachate within the engineered landfill containment system.

"List of Wastes" means the list of wastes established by Commission Decision <u>2000/532/EC</u> replacing Decision <u>94/3/EC</u> establishing a list of wastes pursuant to Article 1(a) of Council Directive <u>75/442/EEC</u> on waste and Council Decision <u>94/904/EC</u> establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive <u>91/689/EEC</u> on hazardous waste, as amended from time to time.

"LFTGN 05" means Environment Agency Guidance for monitoring enclosed landfill gas flares.

"LFTGN 07" means Environment Agency Guidance on monitoring landfill gas surface emissions.

"LFTGN 08" means Environment Agency Guidance for monitoring landfill gas engines.

"Groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"Inert waste" means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

"Medicinal product" means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or their predecessors under the Medicines Act 1968, section 130.

"MEPP" Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

"M2" means Environment Agency Guidance Monitoring of stack emissions to air.

"New Cell" means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"No impact" means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

"Pests" means Birds, Vermin and Insects.

"Previous year" means the 12 month period preceding the month the annual report is submitted in.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"Relevant waste acceptance procedures" means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"Relevant waste acceptance criteria" means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"Review of the Hydrogeological Risk Assessment" means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the permit continue to meet the requirements of the EP Regulations.

'Sustainably extracted' means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

'Waste code' - See 'List of Wastes'.

"WFD" means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

Where the following terms appear in the waste code list in Tables S2.1 or S2.2 they have the meaning given below:

'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;

'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;

'polychlorinated biphenyls and polychlorinated terphenyls' ('PCBs') means PCBs as defined in Article 2(a) of Council Directive 96/59/EC'.

Article 2(a) says that 'PCBs' means:

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 % by weight;

'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;

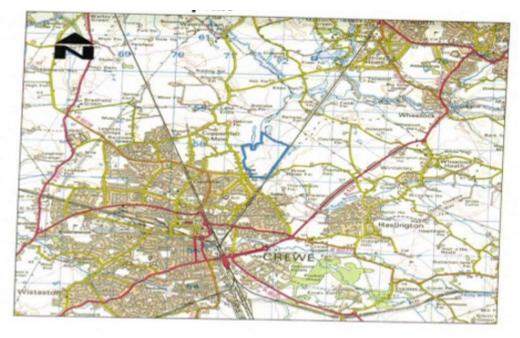
'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

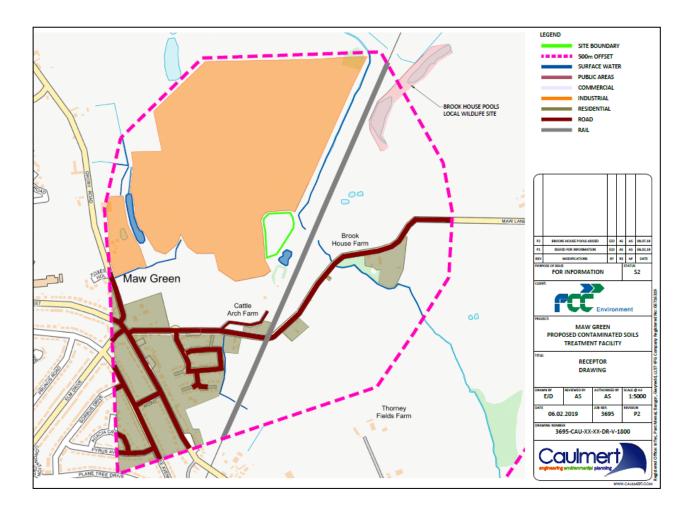
'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7

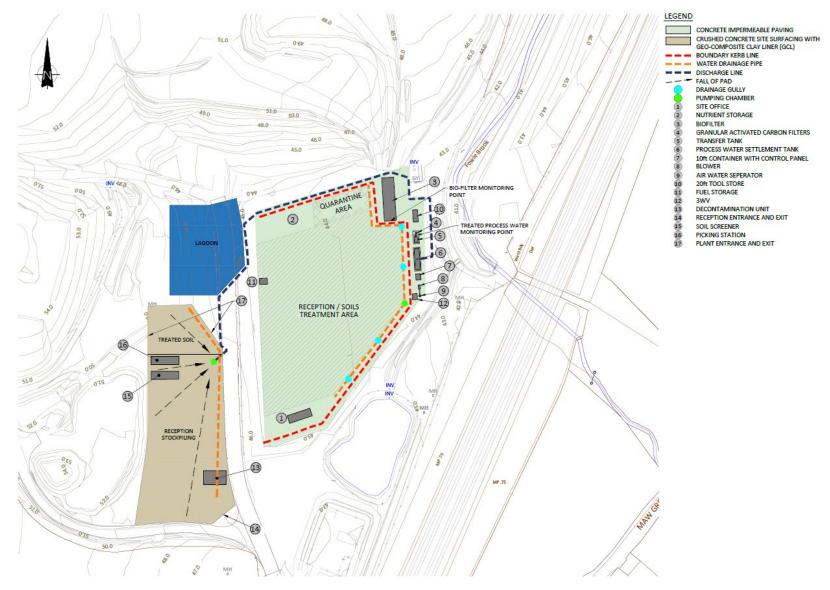
Site boundary plan



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Site layout plan



END OF PERMIT

Ambient Air Monitoring Form

Permit number: [EPR/AB1234CB]

Operator: [A Company Name Limited]

Facility name: [Unit A, Anytown]

Ambient Air Monitoring Form: version 1, 08/03/2021

Reporting of monitoring ambient air for the period from [DD/MM/YY] to [DD/MM/YY]

Monitoring point	Substance / parameter	Compliance limit	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
[e.g. P1]	[e.g. PM ₁₀ suspended particulate matter]	[e.g. 50 µg/m³]	[24 hour average]	[e.g. BS EN 12341:2014]	[State result]	[State relevant dates and time periods]	[State uncertainty if not 95% confidence interval]

Signed: [Name]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.

Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Air Reporting Form

Permit number: [EPR/AB1234CB]

Facility name: [Unit A, Anytown]

Operator: [A Company Name Limited]

Emissions to Air Reporting Form: version 1, 08/03/2021

Reporting of emissions to air for the period from [DD/MM/YY] to [DD/MM/YY]

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
[e.g. A1]	[e.g. Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)]	[e.g. 200 mg/m ³]	[e.g. daily average]	[e.g. BS EN 14181]	[State result]	[State relevant dates and time periods]	[State uncertainty if not 95% confidence interval]

Signed: [Name] Date:

[DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.

² Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.

³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.

⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.