Determination of an Application for an Environmental Permit under the Environmental Permitting (England & Wales) Regulations 2010

Consultation on our decision document recording our decision-making process

The Permit Number is:	EPR/ZP3196NA
The Variation Number is:	EPR/ZP3196NA/V006
The Applicant / Operator is:	Dunton Brothers Limited
The Installation is located at:	Land at Meadhams Farm Brickworks

Consultation commences on: 20/05/16
Consultation ends on: 20/06/16

What this document is about

This is a draft decision document, which accompanies a draft variation notice which we are minded to issue.

It explains how we have considered the Applicant's Application, and why we have included the specific conditions in the draft variation notice we are minded to issue to the Applicant. It is our record of our decision-making process, to show how we have taken into account all relevant factors in reaching our position. Unless the document explains otherwise, we have accepted the Applicant's proposals.

The document is in draft at this stage, because we have yet to make a final decision. Before we make this decision we want to explain our thinking to the public and other interested parties, to give them a chance to understand that thinking and, if they wish, to make relevant representations to us. We will make our final decision only after carefully taking into account any relevant matter raised in the responses we receive. Our mind remains open at this stage: although we believe we have covered all the relevant issues and reached a reasonable conclusion, our ultimate decision could yet be affected by any information that is relevant to the issues we have to consider. However, unless we receive information that leads us to alter the conditions in the draft Variation, or to reject the Application altogether, we will issue the Variation in its current form.

In this document we frequently say "we have decided". That gives the impression that our mind is already made up; but as we have explained

above, we have not yet done so. The language we use enables this document to become the final decision document in due course with no more re-drafting than is absolutely necessary.

We try to explain our decision as accurately, comprehensively and plainly as possible. Achieving all three objectives is not always easy, and we would welcome any feedback as to how we might improve our decision documents in future. A lot of technical terms and acronyms are inevitable in a document of this nature: we provide a glossary of acronyms near the front of this document, for ease of reference.

Preliminary information and use of terms

We gave the Application the reference number EPR/ZP3196NA/V006. We refer to the Application as "the **Application**" in this document in order to be consistent.

The number we have given to the permit is EPR/ZP3196NA. We refer to the proposed Variation as "the **Variation**" in this document.

The Application was duly made on 22/07/15.

The Applicant is Dunton Brothers Limited (DBL) and we refer to DBL as "the **Applicant**" in this document. Where we are talking about what would happen after the Variation is granted (if that is our final decision), we call DBL "the **Operator**".

DBL's proposed facility is located at Land at Meadhams Farm Brickworks, Ley Hill, Chesham, Buckinghamshire, HP5 1UW. We refer to this as "the **Installation**" in this document.

How this document is structured

- Glossary of acronyms
- Our proposed decision
- How we reached our decision
- The legal framework
- The Installation
    - Description of the Installation and general issues
    - Site setting, layout and history
    - Operation of the Installation – general issues
- Minimising the installation's environmental impact
    - Groundwater
    - Fugitive emissions
    - Surface water
    - Landfill gas
    - Stability
    - Impact on habitats sites, SSSIs, non-statutory conservation sites
- Other legal requirements
    - The EPR 2010 (as amended) and related Directives
    - National primary legislation
    - National secondary legislation
    - Other relevant legal requirements
- Annexes
    - Pre-Operational Conditions
    - Improvement Conditions
    - Consultation Reponses

Glossary of acronyms used in this document

(Please note that this glossary is standard for our decision documents and therefore not all these acronyms are necessarily used in this document.)

AONB	Area of Outstanding Natural Beauty
ARA	Amenity Risk Assessment
BAT	Best Available Technique(s)
BCC	Buckinghamshire County Council
CCB	Chilterns Conservation Board
CDC	Chiltern District Council
CIWM/WAMITAB	Chartered Institute of Waste Management/Waste Management Industry Training and Advisory Board
COMAH	Control of Major Accident Hazards
CQA	Construction Quality Assurance
CROW	Countryside and rights of way Act 2000
DAA	Directly associated activity – Additional activities necessary to be carried out to allow the principal activity to be carried out
DD	Decision document
DEFRA	Department of the Environment, Food and Rural Affairs
DFPMP	Dust, Fibre and Particulate Management Plan
EAL	Environmental assessment level
EIAD	Environmental Impact Assessment Directive (85/337/EEC)
ELV	Emission limit value
EMS	Environmental Management System
EPR	Environmental Permitting (England and Wales) Regulations 2010 (SI 2010 No. 675) as amended
EQS	Environmental quality standard
ES	Environmental Statement
ESID	Environmental Setting and Installation Design
EU	European Union
EU-EQS	European Union Environmental Quality Standard
EWC	European waste catalogue
FP	Financial Provision
FSA	Food Standards Agency
HRA	Hydrogeological Risk Assessment

HSE	Health and Safety Executive
HW	Hazardous waste
IED	Industrial Emissions Directive (2010/75/EU)
ISB	Internal Separation Bund
LfD	Landfill Directive (1999/31/EC)
LFGRA	Landfill Gas Risk Assessment
MP	Member of Parliament
MRV	Minimum Reporting Value
Opra	Operator Performance Risk Appraisal
PCM	Phase Contrast Microscopy
PHE	Public Health England
PPS	Public Participation Statement
PR	Public Register
RGS	Regulatory Guidance Series
SAC	Special Area of Conservation
SGN	Sector guidance note
SHPI(s)	Site(s) of High Public Interest
SRA	Stability Risk Assessment
SNRHW	Stabilised, Non-reactive, Hazardous Waste
SPA(s)	Special Protection Area(s)
SSSI(s)	Site(s) of Special Scientific Interest
SWMA	Specified waste management activity
SWMP	Surface Water Management Plan
TCM	Technically Competent Management
TGN	Technical guidance note
TOC	Total Organic Carbon
WFD	Waste Framework Directive (2008/98/EC)

1 Our proposed decision

The Applicant currently holds an environmental permit for a landfill site that allowed the disposal of industrial and commercial wastes, household waste from civic amenity sites and some “difficult” wastes including tar, scrap metal timber and silt. The landfill ceased accepting waste in 2002 and we issued a Closure Notice on 29/11/05.

The Applicant has applied to vary the existing permit to allow the deposit of asbestos wastes in the remaining void within the currently permitted area (Mild Quarry) and to extend the permitted area to incorporate a new area, Strong Quarry, for the deposit of inert waste. The Application to accept asbestos and inert wastes means that the landfill becomes an “installation” in accordance with schedule 1 of EPR and is subject to the Industrial Emissions Directive (IED). Further details about the Installation are provided in section 4 below.

We are minded to issue the Variation to the Applicant. This will allow it to operate the Installation, subject to the conditions in the Variation Notice.

We consider that, in reaching that decision, we have taken into account all relevant considerations and legal requirements and that the permit will ensure that a high level of protection is provided for the environment and human health.

This Application is to operate an installation which is subject principally to the Landfill Directive and the Industrial Emissions Directive (IED).

The draft Variation contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the Variation, we have considered the Application and accepted the details are sufficient and satisfactory to make the standard condition appropriate. This document does, however, provide an explanation of our use of “tailor-made” or installation-specific conditions, or where our permit template provides two or more options.

2 How we reached our draft decision

The environmental permitting regime is concerned with the impact of actual emissions from an activity. In reaching our draft decision we have considered whether the emissions from the landfill activity will cause pollution of the environment or harm to human health. The emissions from the activity, how these will be managed to prevent pollution of the environment and harm to human health and whether we consider the measures to be acceptable are discussed in section 5 below.

2.1 Receipt of Application

The Application was duly made on 22/07/15. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

The Applicant claimed that certain information was commercially confidential and should be withheld from the public register. The information claimed to be commercially confidential is the expenditure plan which was produced to determine the amount of financial provision that is required. The Applicant claimed that it could be placed at a commercial disadvantage if the expenditure plan was publically available as it would provide a competitor with the basis on which to work out the charges for disposal that the Applicant makes and the competitor could, therefore, under-cut those prices. We considered this request and determined that the expenditure plan should be withheld from the public register for the reasons given by the Applicant. We considered that all documents relating to the financial provision should be withheld from the public register as these documents include financial information such as bank account details. Apart from the issues and information just described, we have not received any information in relation to the Application that appears to be confidential in relation to any party.

2.2 Consultation on the Application

We carried out consultation on the Application in accordance with the EPR, our statutory PPS and our own procedures for determinations involving sites of high public interest. We consider that this process satisfies, and frequently goes beyond the requirements of the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, which are directly incorporated into the IED, which applies to the Installation and the Application. We have also taken into account our obligations under the Local Democracy, Economic Development and Construction Act 2009 (particularly Section 23). This requires us, where we consider it appropriate, to take such steps as we consider appropriate to secure the involvement of representatives of interested persons in the exercise of our functions, by providing them with information, consulting them or involving them in any other way. In this case, our consultation already satisfies the Act's requirements.

We advertised the Application by a notice placed on our website, which contained all the information required by the IED, including telling people where and when they could see a copy of the Application. We also placed an advertisement in the Bucks Free Press on 14/08/15.

We made a copy of the Application and all other documents relevant to our determination (see below) available to view on our Public Register at our office Apollo Court, 2 Bishops Square Business Park, St Albans Road, West

Hatfield, Hertfordshire, AL10 9EX. Anyone wishing to see these documents could do so and arrange for copies to be made, including requesting an electronic copy.

We sent copies of the Application to the following bodies, which includes those with whom we have "Working Together Agreements":

- Chiltern District Council – Environmental Health;
- Chiltern District Council – Strategic Environment Team;
- Public Health England;
- Health and Safety Executive;
- Director of Public Health – Buckinghamshire;
- Buckinghamshire County Council – Planning; and
- Latimer and Ley Hill Parish Council.

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly. Note under our Working Together Agreement with Natural England, we only inform Natural England of the results of our assessment of the impact of the installation on designated Habitats sites.

Further details along with a summary of consultation comments and our response to the representations we received can be found in Annex 3. We have taken all relevant representations into consideration in reaching our draft determination.

2.3 Requests for Further Information

Although we were able to consider the Application duly made, we did in fact need more information in order to determine it, and issued an information request in a schedule 5 notice on 22/10/15. A copy of the information notice was placed on our public register. The Applicant responded to the information notice on 16/11/15 and a copy of the response was placed on the public register.

Having carefully considered the Application and all other relevant information, we are now putting our draft decision before the public and other interested parties in the form of a draft Variation Notice, together with this explanatory document. As a result of this stage in the process, the public has been provided with all the information that is relevant to our determination, including the original Application and additional information obtained subsequently, and we have given the public two separate opportunities (including this one) to comment on the Application and its determination. Once again, we will consider all relevant representations we receive in response to this final consultation and will amend this explanatory document as appropriate to explain how we have done this, when we publish our final decision.

3 The legal framework

The Variation will be granted, if appropriate, under Regulation 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* for the purposes of the IED;
- a *landfill* as described by the Landfill Directive (LfD);
- an *operation* covered by the WFD, and
- subject to aspects of other relevant legislation which also have to be addressed.

We address some of the major legal requirements directly where relevant in the body of this document. Other requirements are covered in a section towards the end of this document.

We consider that, if we issue the Variation, it will ensure that the operation of the Installation complies with all relevant legal requirements and that a high level of protection will be delivered for the environment and human health.

We explain how we have addressed specific statutory requirements more fully in the rest of this document.

4 The Installation

4.1 Description of the Installation and related issues

The Applicant has applied to vary the Permit to extend the Permit boundary to include Strong Quarry and to allow the deposit of inert waste in Strong Quarry and asbestos waste in the remaining void of Mild Quarry.

4.1.1 The permitted activities

The area subject to the existing permit together with the extension area comprise a single site which accepts greater than 10 tonnes of waste per day and has the combined capacity of greater than 25,000 tonnes. Therefore, the activity is an Installation and is subject to the EPR because it carries out an activity listed in Part 1 of Schedule 1 to the EPR:

- Section 5.2 Part A(1)(a) – the disposal of waste in a landfill -
  - (i) receiving more than 10 tonnes of waste in any day, or
  - (ii) with a total capacity of more than 25,000 tonnes,

  but excluding disposal in a landfill taking only inert waste.

An installation may also comprise “directly associated activities”, which at this Installation includes the management of surface water and the storage of fuel.

Together, these listed and directly associated activities comprise the Installation.

The LfD requires that the class of landfill is specified. This landfill is classified as a non-hazardous landfill.

4.1.2 The Site

The site comprises two quarry areas (Mild Quarry and Strong Quarry) where waste disposal is proposed to take place, with part of Mild Quarry already filled with a range of wastes deposited under the existing permit. In addition, the site includes an area of unfilled land between the two quarries where the site facilities including the weighbridge, vehicle parking area and wheel cleaning facility are to be located, an area of woodland on the southern boundary where no waste disposal is proposed or has taken place and the site access road that connects the site to the public highway.

Further information on the site is addressed below in section 4.2.

The Applicant submitted a plan which we consider is satisfactory, showing the site of the Installation and its extent. A plan is included in Schedule 7 to the Permit, and the Operator is required to carry on the permitted activities within the site boundary.

4.1.3 What the Installation does

The areas for landfilling of wastes will be engineered to the standards required by the Landfill Directive for each type of waste. The engineering will be carried out in accordance with a Construction Quality Assurance (CQA) Plan and will be verified by a third party. No waste will be allowed to be deposited until the Verification Report has been submitted to us and we have approved it.

The Installation will accept the wastes specified in the Permit for disposal which include asbestos containing wastes and inert wastes. Prior to waste being accepted the Operator will require the waste producer to provide characterisation information on the waste including analytical data. Only wastes that meet the specified criteria for inert waste and asbestos waste will be accepted. In addition, asbestos waste will only be accepted if prior notification of delivery has been received by the Operator.

When waste is delivered to the site, the weighbridge operator will check the type of waste through the paperwork provided with the load and, where possible, by visual examination of the load. Asbestos waste will only be accepted at the site if it is properly contained in appropriate vehicles or containers or it is appropriately wrapped.

Any waste that is delivered that does not conform to the types of waste permitted will not be accepted and the vehicle will not be permitted to discharge the load.

Once the load has been accepted the vehicle will be directed to the appropriate area. Inert waste will be discharged into Strong Quarry and asbestos waste will be discharged into Mild Quarry. Since only pre-notified loads of asbestos waste will be accepted at the Installation, a supply of inert waste will be available adjacent to the operational area so that the asbestos can be immediately covered once discharged off the vehicle. The asbestos will be covered to a depth of 250mm. By the end of the working day cover will be increased to a depth of 1m or a material such as a geotextile will be used to provide an equivalent level of protection. Covering the asbestos waste will prevent the release of fibres to air.

Once the permitted level of waste has been reached:

- In Strong Quarry the waste will be covered with restoration soils suitable for the proposed agricultural end-use to a depth of 300mm.
- In Mild Quarry the waste will be covered with 250mm of inert, granular waste, followed by a low permeability engineered clay cap to a depth of 500mm. Restoration soils comprising materials suitable for the proposed woodland end use to a depth of 1500mm will be placed on top of the clay cap.

4.2 Site setting, layout and history

The site is located within a predominantly rural setting, approximately 600 metres (m) to the south of the village of Ley Hill and 2.5 kilometres (km) east of Chesham in Buckinghamshire and is centred on National Grid Reference SP 98690 01159. The site is surrounded by open land, farmland and woodland. There is land associated with residential properties adjacent to the site access road.

Approximately 600m and 1km to the north of the site are the villages of Ley Hill and Botley. To the north east of the site, across the public highway from the site entrance, is Leyhill Common which is designated as a local wildlife site and is also the site of Ley Hill Golf Club. Blackwall Lane runs to the east of the site and the site is accessed off this road. To the south of the Leyhill Common wildlife site, and to the east of the site, is a small area of ancient woodland, with farmland beyond.

To the south of the site's access road is land associated with residential properties. Approximately 100m to the south of the Strong Quarry area of the site are One Day Farm and Meadhams Farm. There is agricultural land to the south of the site with Green Lane and White End Park Farm beyond. To the south west of the site is Ladies Wood with a track to the south. This track is designated as Green Lane wildlife site. To the west of the site is agricultural land.

Approximately 250m north west of the site is Cowcroft Wood which is designated as ancient woodland with parts designated as a local wildlife site.

There is a footpath from Cowcroft Wood that joins the site access road at the northern boundary of the Strong Quarry area. The footpath runs along the site access road towards Blackwell Hall Lane. There is another footpath that runs to the south east of the site access road past One Day Farm and Meadhams Farm and joins Green Lane that runs to the south of the site.

The site is situated on superficial deposits of low permeability clays with a depth of between 8 and 18m. These are underlain by a layer of putty chalk of variable thickness overlying chalk bedrock. The chalk bedrock is identified as a principal aquifer and the groundwater level is between 45m and 50m below ground level at the site. There is limited potential for groundwater to be present within the superficial deposits. Therefore, there is a significant unsaturated zone underlying the base of the landfill. The site is located partially within a groundwater source protection zone 2 and partially within zone 3, but the risk assessments provided with the Application demonstrate that no long term active management of the landfill is required.

The site was developed as a brickworks with associated quarrying activities and waste disposal was permitted in the quarries. The brickworks closed in 2013. Part of the permitted area has been filled under an existing permit and waste deposits ceased in 2002. In order to restore the site in accordance with the planning permission, the Applicant is proposing to recommence waste disposal at the site. This will result in an improved landform compared to that as at present. The majority of the remaining unfilled area, Mild Quarry, will be the footprint of the asbestos cell. The cell will overlie the existing waste deposits in the central section of its southern boundary. Only inert waste will be deposited in the new area, Strong Quarry. The site will be restored to agricultural and woodland use, to tie in with the existing woodland on the southern and south eastern boundaries of the site.

4.3 Operation of the Installation – general issues

4.3.1 Administrative issues

The Applicant is the sole Operator of the Installation.

We are satisfied that the Applicant is the person who will have control over the operation of the Installation after the granting of the Permit; and that the Applicant will be able to operate the Installation so as to comply with the conditions included in the Permit.

We are satisfied that the Applicant's submitted Opra profile is accurate.

The Opra score will be used as the basis for subsistence and other charging, in accordance with our Charging Scheme. Opra is the Environment Agency's method of ensuring application and subsistence fees are appropriate and proportionate for the level of regulation required.

4.3.2 Operator competence

The Applicant is required to demonstrate operator competence in accordance with paragraph 13 of Part 1 of Schedule 5 to the EPR and as defined in section 9 of DEFRA's Core Guidance. Operator competence comprises four elements:

- Management system;
- Technical competence;
- Record of compliance; and
- Financial competence.

4.3.2.1 Management

The Applicant has stated in the Application that they will implement an Environmental Management System (EMS) that meets the standards in our guidance. A summary of the Applicant's EMS has been submitted with the Application.

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

4.3.2.2 Technical competence

The Applicant has confirmed that technically competent managers (TCM) with the required qualification under the CIWM/WAMITAB scheme will be available to manage the site. A copy of the certificate held by the TCM has been submitted with the Application and we are satisfied that the TCM is suitably qualified to the correct level to manage a landfill accepting hazardous waste.

We are satisfied that the Operator will have the staff in place with the appropriate technical ability that satisfies our requirements with regard to technical competence.

4.3.2.3 Record of compliance

The Applicant has stated in the Application that they do not have relevant convictions and a check of our systems confirms that this is the case.

We consider that the Operator's record of compliance is satisfactory.

4.3.2.4 Financial competence

The Applicant has stated in the Application that they have never been made bankrupt or had insolvency proceedings taken against them and have indicated that financial provision, as required for landfill Installations, will be made by way of a bond. The Applicant has provided an expenditure plan that covers both the existing waste deposits (which were not previously covered by a financial provision agreement) and the proposed deposits.

Condition 1.2.1 of the Permit requires the Operator to maintain the financial provision throughout the life of the Permit. The legal agreement will be dated as the date of the issue of the Variation, should we decide to issue it.

We are satisfied that the Operator has the financial ability to ensure the Installation is operated in compliance with the Permit conditions.

4.3.3 Site security

Having considered the information submitted in the Application, we are satisfied that appropriate infrastructure and procedures will be in place to ensure that the site remains secure.

4.3.4 Accident management

The Applicant has submitted an Accident Management Plan. Having considered the Plan and other information submitted in the Application, we are satisfied that appropriate measures will be in place to ensure that accidents that may cause pollution are prevented but that, if they should occur, their consequences are minimised. An Accident Management Plan will form part of the Environmental Management System.

4.3.5 Off-site conditions

We do not consider that any off-site conditions are necessary.

4.3.6 Operating techniques

We have specified that the Applicant must operate the Installation in accordance with the following documents contained in the Application:

Description	**Parts Included**
Application EPR/ZP3196NA/V006	Environmental Setting and Installation Design (reference 407.03563.0019/ESID), March 2015, including: • Appendix ESID2 Proposed Waste list; • Appendix ESID3 Dust, Fibre and Particulate Management Plan Hydrogeological Risk Assessment (reference 407.03563.0019/HRA), March 2015: • Section 5 Requisite Surveillance H1 Annex A Environmental Risk Assessment (reference 407.03563.0019/H1), March 2015: • Risk management measures described in tables 3, 4, 5 and 6
Response to request for further information	Letter from SLR Consultants dated 22/07/15: Question 2 regarding waste acceptance
Response to request for further information	Letter from SLR dated 16/11/15:

Description	Parts Included
(schedule 5 notice dated 22/10/15)	Question 1 - confirmation that will operate in accordance with How to Comply with your environmental permit; Additional guidance for the landfill sector. Question 2 regarding final waste contours – Drawing reference ESID13 Question 4a regarding Dust, Fibre and Particulate Monitoring Plan – Drawings reference DFPM/01 and DFPM/02 Question 4b – details of wheel cleaning facility Question 4c – details of real-time fibre and particulate monitoring Question 4d – locations of dust monitoring points Question 6 – Restoration Plan, reference 407.03563.00019, dated November 2015 Question 7 – details regarding surface water management and drawing reference ESID15 Question 8 – Landfill Gas Action Plan, reference 407.03563.00019, dated November 2015
Surface Water Management Plan	As approved in accordance with pre-operational measure PO1 in table S1.4.
Revised monitoring point drawing including additional dust monitoring points for Strong Quarry	As approved in accordance with pre-operational measure PO2 in table S1.4.

The details set out above describe the techniques that will be used for the operation of the Installation that have been assessed by the Environment Agency as complying with the requirements of the LfD (which represents BAT for the Landfill sector) or are in accordance with our guidance. They form part of the Permit through Permit condition 2.3.1 and Table S1.2 in the Permit Schedules.

The Installation will be designed, constructed and operated to the standards specified in the LfD. We are satisfied that the operating and control techniques are in accordance with the LfD (which is BAT for landfill). The assessment of the proposals against the requirements of the LfD is detailed in section 5.1 of this document.

4.3.7 Waste types and quantity

Article 9(1)(b) of the LfD requires that the Permit must include a list of all types of waste which may be disposed of at the landfill and must specify the total quantity of waste that may be deposited. The Application contains a list of those wastes, coded by the European Waste Catalogue (EWC) number, which the Applicant will accept for disposal. In the Permit, we have specified the permitted waste types which can be accepted at the Installation for disposal in Tables S2.1 and S2.2, for use as cover in Table S2.3 and for restoration of the landfill in Table S2.4. We have specified the total quantity of waste that can be deposited at the Installation through condition 2.7.7 which references drawing number ESID13 showing the contours at the top of the waste deposits.

We are satisfied that the Applicant can accept the wastes contained in Tables S2.1, S2.2 and S2.3 of the Permit because they are of a type that is suitable for the landfill classification and they have been used as the source term for determining the risks to the environment as detailed in the risk assessments (HRA, SRA, LFGRA and ARA) submitted with the Application. We are satisfied that the wastes specified in Table S2.4 are suitable for use in the restoration of the landfill.

4.3.8 Closure and aftercare

Once waste deposits have ceased for the whole site the Operator will be required to demonstrate "definite closure" by provision of a closure report that confirms:

- The area of the site to which the closure refers;
- The waste mass is stable;
- The infrastructure and procedures for the management and monitoring of landfill gas, leachate, groundwater and stability/settlement are in place; and
- Procedures are in place for reporting any significant environmental effects.

We will only approve definite closure when we are satisfied with the closure report and that we no longer need to monitor the site as frequently. The site will then enter the aftercare phase.

Having considered the information submitted in the Application, we are satisfied that the Operator will provide the appropriate measures for the closure and aftercare of the Installation, as referred to in the ESID Report at section 5 to the Application. The permit would also be varied to include those measures that the Operator would be required to take to manage the Installation through the after-care phase including continuation of the monitoring specified in the Permit and other measures to ensure protection of the environment and prevention of harm from the landfill.

4.3.9 Energy Efficiency

The Installation will use minimal energy other than electricity for the operation of the site office and weighbridge and fuel for site plant and machinery. As the Installation is a landfill, we do not require the Applicant to provide any details regarding the efficient use of energy.

However, the standard permit condition regarding energy efficiency has been included in the Permit as condition 1.3.1 which requires the Operator to take appropriate measures to ensure that energy is used efficiently, to review whether there are opportunities for the activity to improve energy efficiency every four years and implement any measures as identified by the review.

4.3.10 Efficient use of raw materials

As the Installation is a landfill, we do not require the Applicant to provide any details regarding the efficient use of raw materials as none are used other than water.

However, the standard permit condition regarding raw material use has been included in the Permit as condition 1.4.1 which requires the Operator to take appropriate measures to ensure that raw materials and water are used efficiently, to maintain records of the raw materials and water used, to review whether there are opportunities to use raw materials more efficiently or use alternatives every four years and implement any measures as identified by the review.

4.3.11 Avoidance, recovery or disposal with minimal environmental impact of wastes produced by the activities

As the Installation is a landfill, we do not require the Applicant to provide any details regarding how they will avoid producing waste from the activity. The permitted activity involves the disposal of waste and there is minimal waste production, other than from the site office and from maintenance of site plant and equipment.

However, the standard permit condition regarding avoidance, recovery and disposal of wastes has been included in the Permit as condition 1.5.1 which requires the Operator to take appropriate measures to ensure that waste production is avoided or reduced, or where wastes are produced, they are recovered or disposed of with minimal impact on the environment. In addition, the Operator is required to review whether any changes to the measures are needed every four years and implement any measures as identified by the review.

5. Minimising the Installation's environmental impact

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, discharges to ground or groundwater, global warming potential and generation of waste and other environmental impacts. Consideration may also have to be given to the effect of emissions being subsequently deposited onto land (where there are ecological receptors). All these factors are discussed in this and other sections of this document.

For an installation of this kind, the principal risks are emissions of leachate to groundwater and fugitive emissions of dust and fibres to air.

The next sections of this document explain how we have approached the critical issue of assessing the likely impact on groundwater, the impact of

emissions to air from the Installation on human health and the environment and what measures we are requiring to ensure a high level of protection. They also include our assessment of the risks and impacts from other factors associated with landfill installations such as surface water management, landfill gas and stability of the waste mass.

5.1 Groundwater

Landfill sites are “groundwater activities” in accordance with paragraph 3(1)(e) of Schedule 22 to the EPR since it may lead to a discharge of a pollutant directly or indirectly to groundwater. We may not grant an environmental permit if the hydrogeological conditions, the possible purifying powers of the soils and the risk of pollution have not been examined. In addition we have to check that all investigations have been carried out to determine that measures will be taken to prevent pollution and that the groundwater will undergo requisite surveillance (monitoring).

The LfD requires that a landfill must be designed so as to meet the necessary conditions for preventing pollution of soil, groundwater and surface water and ensuring collection of leachate, when required. The LfD also sets out minimum standards for how protection of soil, groundwater and surface water is to be achieved.

In order to ensure that these requirements are considered, we require that an application for a landfill permit contains a Hydrogeological Risk Assessment (HRA) and we have provided a template for applicants that includes headings for all the issues that need to be covered. The Applicant submitted a HRA with the Application which we have assessed.

5.1.1 Landfill installation design

The LfD sets out standards for different types of landfill for the measures required to prevent pollution of the land, groundwater and surface water. Protection of soil, groundwater and surface water at non-hazardous landfill sites is usually achieved by a combination of a geological barrier and a bottom liner during the operational phase and by a combination of a geological barrier and a top liner during the post-closure phase.

The LfD (paragraph 2 to Annex I) states that the requirement to provide measures to collect contaminated water and leachate does not apply if an assessment of the location of the landfill and the wastes to be accepted shows that the landfill poses no potential hazard to the environment.

The landfill is classified as non-hazardous with a cell for stabilised, non-reactive hazardous waste (SNRHW) (asbestos) (Mild Quarry) and an area for inert waste (Strong Quarry). The proposed area of the landfill also incorporates an area of deposited waste that was disposed of under the current permit. This area was developed before the introduction of the LfD, but was engineered in accordance with the principles of containment. The

engineering comprised a minimum thickness of 2m of re-compacted or in-situ clay with a permeability of no greater than $1x10^{-9}$ m/sec.

The basal and sidewall geological barriers in the Mild Quarry and Strong Quarry areas will be formed from in-situ clays, reworked natural site materials or selected inert waste, and will have a permeability of not more than 1×10^{-7} m/sec and a minimum thickness of 1m. The Applicant is not proposing to install a bottom liner or leachate drainage layer in either Mild Quarry or Strong Quarry since the types of waste that are proposed to be accepted are unlikely to generate leachate.

Where SNRHW is proposed to be accepted in a separate cell at a non-hazardous landfill, it must be kept separate from any deposits that contain biodegradable waste. Under the proposals to construct a SNRHW cell in Mild Quarry, a central section of the southern boundary of the cell approximately 30m long will overlie the existing waste. The extent of the existing waste and proposed phased development of the site is shown on Drawing ESID4 in the ESID report. The types of waste that have already been deposited include wastes with a biodegradable content. Therefore, the Applicant is proposing to separate the SNRHW cell from the already deposited wastes by constructing a 1m thick internal separation barrier (ISB) formed from clays with permeability not greater than $1x10^{-7}$ m/sec.

The Applicant has proposed surface sealing for the SNRHW cell (Mild Quarry) comprising a 500mm thick low permeability cap constructed of on-site clay or other imported material laid with a permeability of $1x10^{-9}$ m/sec. Because only inert waste will be deposited in Strong Quarry and could thus be considered to be an inert landfill, the Applicant is not proposing to install surface sealing in this area as the LfD does not require it for inert landfills.

Although the landfill is classed as a non-hazardous landfill, the types of waste to be accepted are inert and SNRHW and are unlikely to generate any leachate and the landfill could be considered to be inert. Therefore, we have accepted the Applicant's outline proposals for the containment engineering which do not provide for a bottom liner or leachate collection. These are the same standards we would accept for inert landfills. We consider that the provision of a bottom liner and leachate collection at this site would provide a negligible contribution to the protection of soil and water and are unnecessary.

On the basis of the outline details provided in the Application, we are satisfied that the landfill design and containment engineering complies with the LfD standards and is satisfactory.

We asked the Applicant to include additional checks for potential biodegradable waste content within the asbestos waste loads as part of their pre-acceptance procedures and these are detailed in the response to question 2 in the letter dated 22/07/15 from the Applicant's consultant, SLR. On the basis of these additional checks being included in the pre-acceptance procedures, we are satisfied that a bottom liner is not required and that leachate does not need to be collected.

The engineering at the site is summarised in the ESID report in section 5 of the Application. The eventual final construction and quality assurance (CQA) details will be subject to our approval according to the requirements of permit conditions 2.6.

5.1.2 Hydrogeological conceptual model

The HRA utilises the 'source-pathway-receptor' concept to assess risks to the water environment. Modelling software is used to predict the migration and impact of landfill leachate.

The hydrogeological conceptual model is summarised in the HRA at section 6 of the Application:

Source

The void created by the extraction of superficial Clays-with-flints will be progressively restored using a combination of SNRHW and inert wastes within the two existing quarries (Mild and Strong). Strong Quarry will receive only inert waste while Mild Quarry will receive asbestos waste with inert materials used as immediate cover. These wastes do not have the potential to degrade, but some leachate will be present in the quarry voids during waste deposit as a result of rain falling on the waste.

The wastes will be emplaced at least 30m above the regional Chalk aquifer water table. The basal and sidewall geological barriers will be formed from in-situ clays, reworked natural site materials or selected inert waste, and will have a permeability of not more than 1×10^{-7}m/sec and a minimum thickness of 1m.

The leachate in the area of the site where waste was deposited under the current permit has been sampled via an existing leachate monitoring well and it is quite weak (due to the types of waste deposited and the age of the deposits). The proposal to fill the void in Mild Quarry with SNRHW will mean that the SNRHW will overlie part of these existing deposits and could potentially result in "squeezing" of the leachate. The Applicant has assessed any potential squeezing impact though the HRA.

Capping materials will include site-derived inert soils. Proposed final restoration contours will be similar to the topography prior to the quarrying, with site runoff directed to a settlement pond and soakaway recharge area in the north-western corner of Strong Quarry.

The Applicant has used typical leachate values from inert landfill sites as the source term in the modelling.

Pathway

The only pathway for any potential leachate generated by infiltration into the inert or SNRH wastes to reach the groundwater in the aquifer (receptor) is migration through the artificially established basal and sidewall geological

barriers to be installed around the perimeter of the landfill voids, and through the extensive (at least 30m) unsaturated zone into the groundwater system within the Chalk aquifer. Degradation and retardation of potential contaminants will take place within the geological barrier and unsaturated zone.

Receptors

The receptor is the groundwater within the White Chalk Group aquifer. For Hazardous Substances the receptor is the groundwater directly beneath the landfill, after immediate dilution occurring within the groundwater, but prior to any attenuation or dispersion. For Non-Hazardous Pollutants the receptor is the groundwater at the down hydraulic gradient boundary of the site, after dilution and attenuation. The model has not taken the influence of dispersion into account for either hazardous substances or non-hazardous pollutants so the modelling is a conservative worst case.

We are satisfied that the Applicant has described the hydrogeological conceptual model appropriately.

5.1.3 Leachate squeezing

The HRA includes a review of the "squeezing" of leachate where the new deposits of SNRHW will overlie the existing deposits.

The Applicant concludes that it is unlikely that the deposit of SNRHW over the existing wastes will increase leachate discharge from the area of existing waste as:

- The area where this could potentially occur is relatively small.
- The existing waste is predominantly incompressible with only a small proportion of biodegradable waste.
- The existing waste is well degraded with only a low potential for leachate generation.
- The internal separation bund proposed to be installed between the SNRHW and the existing deposits will have a low permeability and will prevent further infiltration to the existing waste deposits.
- There is generally low permeability clay capping across the surface of the existing deposits that prevent infiltration.

We are satisfied with the Applicant's assessment of the "squeezing" potential and agree that the deposit of the proposed SNRHW over the existing waste deposits will not result in increased leachate discharge from this area.

5.1.4 Modelling

Although the types of waste proposed to be accepted at the landfill are inert, inactive and unlikely to result in the generation of leachate, the Applicant has modelled the potential impacts of leachate using our LandSim software, (version 2.5.17 which is the most up to date version), in order to represent the worst case conditions.

The leachate source term has been based on typical leachate compositions found at inert sites in south east England. The parameters selected for modelling were determined to be those that were found to be significantly elevated in leachate compared to the Environment Assessment Level (EAL) for that parameter.

The parameters chosen are:

- Hazardous substances – Arsenic, Cadmium and Mercury; and
- Non-hazardous pollutants – Chromium, Nickel, Selenium and Sulphate.

The predicted discharge has been assessed against the following EALs and minimum reporting values (MRV):

Parameter	**EAL/MRV (mg/l)**	**Source of EAL/MRV**
Arsenic	0.0049	Environment Agency guidance, H1, Annex (j) – Hydrogeological Risk Assessments for Landfills and Derivation of Groundwater Control and Trigger Levels.
Cadmium	1.0×10^{-4}	
Mercury	1.0×10^{-5}	
Chromium	0.05	Freshwater EQS or Drinking Water Standards where no EQS is available
Nickel	0.02	
Selenium	0.01	
Sulphate	250	

The results of the modelling demonstrate that there will be no discernible release of hazardous substances or non-hazardous pollutants as the modelled outputs for the parameters at the 95th percentile level are well below the designated EALs and MRVs. Therefore, we are satisfied that there will not be any discernible discharge of hazardous substances to groundwater or pollution of groundwater by non-hazardous pollutants.

The modelling of the impacts on groundwater has been carried out using worst case conditions whereby leachate is produced at the landfill. Based on the inactive and inert nature of the wastes, we accept that leachate is unlikely to be generated at the landfill.

We have reviewed the HRA and the modelling and are satisfied that the Applicant has provided an acceptable assessment of the impact of the proposed activities on groundwater and that the proposed engineering design is satisfactory for ensuring protection of groundwater.

5.1.5 Requisite surveillance

The Applicant has proposed to carry out monitoring of groundwater quality in the existing monitoring boreholes BH01, BH02, BH03R and BH04, the locations of which are shown on drawing reference ESID7.

We have specified the monitoring parameters and frequency in table S3.5 of schedule 3 to the Permit and these are in line with our standard monitoring suite for this class of landfill.

Compliance limits in groundwater are set based on the background groundwater quality and the substances detected in leachate. The compliance limit parameters chosen by the Applicant are those used in the modelling which have been derived from the results of monitoring of leachate detected at sites taking similar inert wastes. It is not expected that leachate will be generated at the site but as a precaution the Applicant has proposed to include compliance limits for groundwater.

The Applicant has proposed interim groundwater compliance limits for the substances that were modelled based on the limited data available: at date of application, there were less than 12 months of data from the four boreholes installed in 2014. We are satisfied that these parameters and limits are suitable for determining whether the landfill is having an impact on groundwater and have specified compliance monitoring in table S3.2 of schedule 3 to the Permit.

The Applicant has proposed to determine more accurate limits based on the results of monitoring of groundwater after a 12 month period. This additional monitoring will provide more accurate data on the background quality of the groundwater at the site. We have included an improvement programme requirement in table S1.3 that requires the Operator to review the monitoring data and submit proposed revised compliance limits to us for agreement (see Annex 2). Once we have approved any revised groundwater compliance limits they will be incorporated into table S3.2 of the Permit through variation of the Permit and the Operator will have to comply with the revised compliance limits.

The Applicant has proposed to continue to monitor the leachate well located in the existing waste deposits. We have included this monitoring in table S3.7 of schedule 3 to the Permit but with an annual frequency for monitoring rather than monthly as currently carried out. This frequency is in accordance with our standard monitoring requirement for leachate quality for areas of landfills that are no longer operational.

We have specified reporting of groundwater and leachate monitoring as detailed in table S4.1 of schedule 4 to the Permit. The Operator is required to submit results of groundwater monitoring every 3 months and of leachate monitoring every 12 months. This is in accordance with our standard requirements for reporting of monitoring at landfill sites.

We are satisfied that the monitoring and reporting of monitoring data specified in the Permit are appropriate for this landfill and are in accordance with our standard requirements for monitoring and reporting of monitoring data.

5.2 Fugitive emissions

Fugitive emissions from landfill sites include dust, noise, mud tracking out of the site, litter, pests and odour.

The Applicant has provided a H1 risk assessment at section 8 of the Application which has used the source – pathway – receptor methodology to identify the hazards arising from the operation of the landfill, what receptors are at risk and the way in which the hazard can affect the receptor. This assessment is presented in a series of tables in accordance with our guidance.

The Applicant has identified a number of receptors sensitive to potential fugitive emissions from the site and these are presented in Table 2 of the H1 Risk Assessment Report at section 8 of the Application. We consider that the Applicant has identified and taken into account all the relevant receptors in the risk assessments.

We did not consider that the Applicant had adequately assessed the impact of site operations and fugitive emissions on the footpath that is made up of part of the site access road. We asked the Applicant in our request for further information dated 22/10/15 to consider the specific risk to the users of this footpath. The Applicant responded on 16/11/15. They have provided some detail regarding some signage and barriers that will be put in place in order to better separate vehicles from the users of the footpath. We are satisfied there will be no significant risk to the users of the footpath.

Given the nature of the wastes to be accepted at the site, the Applicant has not proposed any management measures for litter, pests and odour. We are satisfied that management measures in relation to litter, pests and odour are not required. However, condition 3.2.1 in the Permit requires the Operator to ensure that emissions of any substances not controlled by emission limits do not cause pollution. Condition 3.3.1 of the Permit requires the Operator to prevent emissions of odour that could cause pollution outside the site and condition 3.3.2 requires the Operator to submit an odour management plan in the event we notify them that one is required.

5.2.1 Noise

Following a noise assessment in 2011 the Applicant has extended the screening bund located to the north east of Strong Quarry to prevent the noise limits specified in the planning permission being exceeded at One Day Farm. In addition, the site will only operate between the times specified in the planning permission and the Applicant will implement traffic calming measures and speed restrictions for vehicles, select and maintain plant so as to minimise noise and will carry out daily noise inspections at the site boundary.

We are satisfied that the Applicant has assessed noise and that there are adequate measures in place to prevent and minimise noise emissions. We are satisfied that the standard permit condition (condition 3.4.1) will ensure the Operator will prevent, or where that is not practicable, minimise noise and prevent pollution outside the site. Noise limits are specified in the planning permission.

5.2.2 Mud

There is the potential for mud tracking out of the site onto the public highway. The Applicant is proposing the following management measures to prevent mud tracking out of the site:

- Maintenance of site roads and operational areas to maintain the integrity of the surfacing.
- Utilising a road sweeper to clean the public highway as necessary.
- Cleaning on-site areas as necessary.
- Cleaning of vehicle wheels prior to exiting the site.

It was unclear from the Application how cleaning of vehicle wheels prior to them leaving the site was to be carried out. We asked the Applicant to clarify this in our notice requesting further information dated 22/10/15. The Applicant responded on 16/11/15 and clarified that a wheel washing facility would be installed adjacent to the car park area. The vehicles will be cleaned by high pressure water sprays from the base of the washing platform and there will be a hand lance available to clean other parts of the vehicle as necessary. The wash water will collect in a settlement sump beneath the washing platform and the water is recycled and re-used. When it is no longer suitable for use, the waste wash water will be collected by tanker for treatment and disposal off-site at a suitably permitted facility.

We are satisfied that the measures proposed to manage mud are adequate and are in accordance with the measures set out in our guidance. Condition 3.2.1 of the Permit requires the Operator to ensure that emissions of any substances not controlled by emission limits do not cause pollution and this includes mud. The measures proposed in the Application to prevent and control emissions of mud are included in table S1.2 of the Permit and condition 2.3.1 of the Permit requires the Operator to carry out the permitted activities in accordance with the techniques referenced in table S1.2.

5.2.3 Dust and Fibres

Although the Applicant has identified that the residual risk from emissions of dust and fibres to air is not significant following implementation of risk management measures (Table 5 of the H1 Risk Assessment at section 8 of the Application), the Applicant has produced a specific Dust, Fibre and Particulate Management Plan (DFPMP) due to the consequences of exposure to asbestos fibres being significant. The DFPMP is included in the Application as Appendix ESID3 to the ESID report at section 5 of the Application.

5.2.3.1 Dust and particulate management

Emissions of dust can be generated from a number of activities occurring at a landfill. These include dust from the movement of vehicles within the site, dust produced during the deposit of wastes and windblown dust from areas of deposited waste and from site roads.

The measures proposed by the Applicant to prevent and minimise emissions of dust include:

- Surfacing of site access road – The existing access road is surfaced with a mixture of concrete and compacted hardcore. Consideration will be given to increasing the hard surfacing along the road should problems arise.
- Sweeping of site access road as required.
- Spraying of site access road during dry conditions.
- Restricting vehicle speed limits to 10 mph.
- Requiring all vehicles using the site to be sheeted.
- Requiring all vehicles to use the wheelwash.
- Minimising drop heights during discharge of waste.
- Spraying of operational areas.
- Minimising operational area.
- Planning filling direction and sequence based on wind direction.
- Cessation of waste deposits in periods of high winds.
- Twice daily visual inspection at two locations on the site boundary downwind of the tipping area.

We are satisfied that these measures are appropriate for minimising emissions of dust and that they are in accordance with our guidance. The Dust, Fibre and Particulate Management Plan which includes the Applicant's measures to prevent and control emissions of dust and particulates is included in table S1.2 of the Permit and condition 2.3.1 of the Permit requires the Operator to carry out the permitted activities in accordance with the techniques referenced in table S1.2.

5.2.3.2 Asbestos management

The main risk from asbestos waste is the release of fibres which then become wind-blown and travel towards human receptors. Therefore, containment of asbestos waste is the principal management measure used to prevent emissions of fibres.

The measures proposed by the Applicant to prevent emissions of asbestos fibres include:

- Asbestos waste is only accepted with advance notification so that appropriate measures for the receipt and disposal of asbestos can be put in place.
- Asbestos waste will only be accepted on site if it is properly sealed in appropriate vehicles or containers or it is wrapped.
- Waste is rejected if:
    - it does not have the correct paperwork;
    - it is not adequately contained;
    - there are adverse weather conditions at the tipping face (high winds).

- The drop height will be kept to a minimum during discharge of asbestos waste.
- The operational area will be kept to a minimum.
- Asbestos waste will be covered immediately after deposit with inert waste to a minimum depth of 250mm, a supply of which will be available adjacent to the tipping area.
- A supply of water will be available during discharge of asbestos waste to spray the waste.
- At the end of the day the waste will be covered with at least 1m of inert waste or equivalent in the form of a geotextile.
- Areas of the site that have been completed will be capped and restored as soon as practicable.
- A 2m layer (including the capping layer) of incombustible, granular material free of objects capable of disturbing the waste will be placed over the waste prior to final restoration.
- Vehicle movements over completed and restored areas will be kept to a minimum.

We are satisfied that the measures are appropriate for preventing emissions of asbestos fibres as they are in accordance with our guidance and HSE best practice for handling asbestos wastes. The Dust, Fibre and Particulate Management Plan which includes the Applicant's measures to prevent and control emissions of asbestos is included in table S1.2 of the Permit and condition 2.3.1 of the Permit requires the Operator to carry out the permitted activities in accordance with the techniques referenced in table S1.2.

5.2.3.3 Dust and fibre monitoring

The Permit requires the monitoring of asbestos to confirm that air-borne fibres are not present (above background levels) at the permit boundary. This will confirm whether or not the site's mitigation measures effectively prevent release of asbestos fibres.

Monitoring will include twice daily visual monitoring of dust which will be carried out at the site boundary, down-wind of the area where the dusty operations are taking place and a record of the assessment will be kept. Quantitative sampling for particulates will be undertaken during the operational period of the landfill. Omni-directional dust gauges will be located at relevant locations at the site boundary adjacent to human receptors to monitor the deposition rate of particulates. Sampling will continue throughout the year, although it may be reduced or cease between October and April when the weather conditions are wetter and dust emissions are less likely. The horizontal flux of dust emissions will be also be monitored by the use of adhesive strip around the mast of the omni-directional dust gauges. At the end of the four week exposure period the samples will be sent to a UKAS accredited laboratory for analysis.

The Applicant is proposing to monitor fibres in accordance with our preferred sampling methodology which is that a known volume of air is drawn through a

membrane filter from a height of 1m above ground level. The pumps will be calibrated to a flow rate of 4 litres per minute and the sampling will continue for over 2 hours. The Applicant is proposing to undertake the sampling quarterly, during a period of asbestos deposit, at four locations. The locations will take account of the prevailing wind conditions so that there will be one sample point approximately 50m up-wind as a background, two approximately 20m down-wind of the deposition area and one at the site boundary down-wind of the deposition area.

After sampling, the filter paper will be sent to a UKAS accredited laboratory for analysis using Phase Contrast Microscopy (PCM). This method identifies the number of fibres present but does not identify specific asbestos fibres.

The Applicant has also proposed to carry out "real time" monitoring of particulates and fibres. This monitoring is in addition to the monitoring specified in the Permit. Particulates will be monitored on a quarterly basis and in response to any complaints, using a hand-held light scattering optical particle counter for at least one hour at each location. Fibres will be monitored daily for the first six months of asbestos deposit. The up-wind location prior to waste deposition and the down-wind locations during waste deposition will be monitored for at least 10 minutes using a real-time fibre detector to determine the levels of fibres present. Where levels of fibres are detected that are 0.01 fibres/ml above the background level, additional periodic monitoring (as specified in table S3.4 of the Permit) will be carried out.

The limit for fibres detected in air is specified in schedule 3, table S3.4 of the Permit and condition 3.1.1 requires that the limits specified in schedule 3 of the Permit are not exceeded.

The dust monitoring data will be reviewed against the limits specified in Table 5-2 of the DFPMP in Appendix ESID3 of the ESID report at section 5 of the Application. These limits are those specified in our guidance M17 "Monitoring Particulate Matter in Ambient Air around Waste Facilities". The limit for deposited dust is specified in schedule 3, table S3.4 of the Permit and condition 3.1.1 requires that the limits specified in schedule 3 of the Permit are not exceeded.

Where the limits for fibres and deposited dust as specified in table S3.4 of the Permit are exceeded, the Operator will carry out the actions as described in the Action Plan at section 6 of the DFPMP. These actions are described in section 5.2.3.4 below.

We are not satisfied with the number of monitoring points proposed for monitoring of dust as none are proposed around Strong Quarry. We have included a pre-operational measure in table S1.4 of the Permit (see Annex 1) that requires the Operator to submit a revised drawing with additional locations for dust monitoring at Strong Quarry as the currently proposed locations will only monitor dust arising from Mild Quarry. We have included reference to this pre-operational requirement in table S1.2 of the Permit as an operating technique so that once the drawing showing the locations of the

additional dust monitoring points has been approved, the Operator will have to carry out dust monitoring at these additional locations. The Operator is required to operate in accordance with the documents detailed in this table.

We are satisfied that the Applicant's proposed monitoring for fibres is appropriate and is in excess of the standards and methodologies specified in our M17 guidance. For the annual tonnage of asbestos waste proposed to be accepted at the site, we would only require that sampling is carried out three times per year, whereas the Applicant has proposed to sample four times per year.

We have specified monitoring of particulates and fibres in table S3.4 of schedule 3 to the Permit, and included the additional asbestos sampling methodologies and frequencies proposed by the Applicant.

We have specified the reporting of dust and fibre monitoring in table S4.1 of schedule 4 to the Permit. The Operator is required to submit results of dust and fibre monitoring every 6 months. This is in accordance with our standard requirements for reporting of monitoring at landfill sites.

5.2.3.4 Dust and fibre action plan

Table S3.4 of schedule 3 to the Permit includes limits for fibres and deposited dust and condition 3.1.1 of the Permit specifies that the Operator must not exceed these limits.

The Applicant has included an Action Plan in the DFPMP that sets out the actions to be taken in the event that significant quantities of dust are identified at the site, the limits set out in the Permit are exceeded or a complaint is received.

The actions to be taken in relation to dust emissions are as follows:

- Identify source of significant dust;
- Increase road sweeping and use of water bowser;
- Cease accepting a specific dusty waste;
- Spray the exposed waste deposit face with water;
- Further reduction in waste dropping heights;
- Consideration of use of mobile dust suppression units in the area of filling;
- Modification of site operations;
- Temporary cessation of operations (in periods of high winds, for example).

Where the results of the laboratory analyses show that the total fibre count exceeds 0.01 fibres/ml or that the reliability of the PCM analysis has been compromised by dusty conditions during sampling, the Operator will take the following actions:

- The site weather records and any non-standard operations during the sampling will be reviewed.
- Additional monitoring will be carried out.
- Duplicate samples will be analysed and fibre speciation will be carried out (to identify if the fibres are asbestos).
- The Environment Agency will be notified.

If the duplicate samples identify asbestos or confirm an exceedence, the Operator will inform the Environment Agency, investigate the material that was deposited and the control measures that were employed and identify any improvements needed to the control measures.

The Applicant will make and keep records of all the visual monitoring for dust, the sampling and analysis of dust and fibres and any complaints received and how they have been investigated and resolved.

We are satisfied that the proposed actions are appropriate for identifying and resolving the reasons that dust or fibre emissions may be significant and exceed emission limits as specified in the Permit. The Action Plan is included in table S1.2 of the Permit and condition 2.3.1 of the Permit requires the Operator to carry out the permitted activities in accordance with the techniques referenced in table S1.2.

5.3 Surface water

The Applicant provided only limited details in the Application regarding surface water management. In our schedule 5 notice requesting further information dated 22/10/15 we asked the Applicant to provide more details regarding the proposals for managing surface water. We received these details on 16/11/15.

The Applicant is proposing to construct a perimeter ditch around the site to intercept rain water and prevent it flowing into the waste. The drainage will discharge into a surface water lagoon located near to the north west corner of Strong Quarry and flow from here to a soakaway adjacent to the lagoon.

We agree in principle with the proposals for surface water management and are satisfied that the collected water will not be contaminated and will not result in pollution or flooding. The soakaway drains to land and it is unlikely that the groundwater will be affected by the surface water as the groundwater level is approximately 30m below the site.

The Applicant has stated that the precise locations and sizes of the lagoon and soakaway and the location of the perimeter drainage ditches will be determined as part of the detailed design. Therefore, we have included a pre-operational measure in table S1.4 of the Permit that requires the Operator to submit the detailed design of the surface water management system before waste is accepted at the site (see Annex 1 below for the detail of the requirement). We have included reference to this pre-operational requirement in table S1.2 of the Permit as an operating technique so that once the surface water management plan that includes the detailed design of the system has

been approved, the Operator is required to implement the plan. The Operator is required to operate in accordance with the documents detailed in this table.

5.4 Landfill gas

Landfill gas is generated primarily as a result of microbial action on organic materials within the waste. The hazardous effects of landfill gas usually occur if gas is allowed to migrate laterally from the landfill or vertically from the surface of the landfill. The LfD requires that landfill gas is controlled by preventing its migration from a landfill and, at landfills taking biodegradable waste, by collecting and treating or utilising the gas.

In order to ensure that these requirements are considered, we require that an application for a landfill permit contains a Landfill Gas Risk Assessment (LFGRA) and we have provided a template for applicants that includes headings for all the issues that need to be covered. The Applicant has submitted a qualitative assessment of landfill gas.

5.4.1 Landfill gas generation

The Applicant has stated that the LFGRA has determined that, based on the nature of the wastes to be accepted, significant quantities of gas will not be generated at the site so management of landfill gas will not be required.

We have reviewed the LFGRA and agree with the Applicant's conclusion. For landfill gas to be generated there needs to be a source of biodegradable waste and in the case of this Application the types of waste proposed (inert and asbestos) do not contain any significant amounts of biodegradable matter.

5.4.2 Landfill gas monitoring

Although it is not anticipated that landfill gas will be produced, the Applicant has proposed to carry out precautionary monitoring for landfill gas.

Following completion of landfilling in Strong Quarry two boreholes will be installed to enable the monitoring of landfill gas within the waste. In Mild Quarry gas monitoring wells will be installed prior to the commencement of waste deposits in each phase of the cell up to a maximum of six wells.

The Operator will continue to monitor landfill gas in the existing five monitoring boreholes. These monitoring boreholes have been monitored on a quarterly basis in the period 2010 to 2014 and methane has not been detected in any of these boreholes above 1% v/v, which is the limit for methane in perimeter boreholes. Due to the age of the existing wastes and the results of monitoring for the landfill gas, it is considered that gas generation in the existing waste deposits is unlikely.

We are satisfied with the Applicant's proposals for monitoring of landfill gas and have specified the monitoring in tables S3.3 and S3.6 of schedule 3 to the Permit.

We have specified reporting of landfill gas monitoring as detailed in table S4.1 of schedule 4 to the Permit. The Operator is required to submit results of the landfill gas monitoring every 3 months and trace gas analysis every 12 months. This is in accordance with our standard requirements for reporting of monitoring at landfill sites.

5.5 Stability

The LfD requires that the placement of waste takes place in a manner to ensure the stability of the waste mass and where the geological barrier is artificially established it must be ascertained that the landfill form and waste mass are sufficiently stable so as to prevent settlement that may cause damage to the barrier.

In order to ensure that these requirements are considered, we require that an application for a landfill permit contains a Stability Risk Assessment (SRA) and we have provided a template for applicants that includes headings for all the issues that need to be covered. The Applicant submitted a SRA at section 7 of the Application which we have assessed.

The SRA includes a conceptual stability site model that includes all the components that need to be assessed including the basal and side slope engineering, the cap and the waste mass. The Applicant has assessed the stability of these components and has concluded that they will perform within, or exceed, adequate factors of safety.

We have reviewed the SRA submitted by the Applicant with the Application and are satisfied that the Applicant has considered all the necessary components and factors in the SRA and has carried out an appropriate assessment of the stability of the site. We agree with the conclusions made by the Applicant.

5.6 Impact on Habitats sites, SSSIs, non-statutory conservation sites

5.6.1 Sites Considered

There are no Habitats sites, such as Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar, within 2km of the proposed Installation.

There are no Sites of Special Scientific Interest (SSSI) within 2km of the proposed Installation.

The non-statutory local wildlife and conservation sites located within the specific distance criteria of the Installation are listed in the table below.

Non-statutory conservation sites within screening distance		
Site type	**Name**	**Distance from boundary (m)**
Protected habitat	Deciduous woodland	223
Protected habitat	Deciduous woodland	504
Protected habitat	Deciduous woodland	299
Local wildlife site	Cowcroft Wood	395
Local wildlife site	Green Lane	492
Local wildlife site	Bunn's Lane	696
Local wildlife site	Tyler's Hill and Cowcroft Wood	481
Local wildlife site	Ley Hill Common	548
Ancient woodland	Unknown	715
Ancient woodland	Frith/Codmore Woods	785
Ancient woodland	Unknown	525
Ancient woodland	Cowcroft Woods	307

5.6.2 Assessment of conservation sites

Conservation sites are protected in law by legislation. The Habitats Directive provides the highest level of protection for SACs and SPAs and domestic legislation provides a lower but important level of protection for SSSIs. Finally the Environment Act provides more generalised protection for flora and fauna rather than for specifically named conservation designations. It is under the Environment Act that we assess other sites (such as local wildlife sites) which prevents us from permitting something that will result in significant pollution; and which offers levels of protection proportionate with other European and national legislation. However, it should not be assumed that because levels of protection are less stringent for these other sites that they are not of considerable importance. Local sites link and support EU and national nature conservation sites together and hence help to maintain the UK's biodiversity resilience.

There are no point source emissions to air or to water from the Installation that require a quantitative assessment of impact on the conservation sites. Therefore, only a qualitative assessment of the impact of fugitive emissions from the Installation is required.

As stated in section 5.2 above, the main emissions from the site are dust and fibres. Fibres from asbestos waste would not impact on the conservation sites identified within the screening distance of the landfill. All the identified conservation sites have been listed as conservation sites due to the plants and trees present. The mechanism for impact on the conservation sites from emissions of dust is considered to be smothering by dust blowing towards the conservation sites and settling on the vegetation. Since the wastes proposed to be deposited at the Installation that would generate dust are inert or stable and non-reactive, the impact on the vegetation would be physical and the

vegetation would not be affected by any toxic contamination or nutrient increase.

The Applicant has produced a DFPMP with details of how emissions of dust and fibres will be prevented and minimised and, as stated in section 5.2.3.1 above, we are satisfied that the measures proposed are appropriate. Therefore, we consider that the operation of the Installation will not have an impact on the interest features of the conservation sites.

6 Other legal requirements

In this section we explain how we have addressed other relevant legal requirements, to the extent that we have not addressed them elsewhere in this document.

6.1 The EPR 2010 (as amended) and related Directives

The EPR delivers the requirements of a number of European and national laws.

6.1.1 Schedules 1 and 7 to the EPR 2010 – IED Directive

We address the requirements of the IED in the body of this document above.

There is one requirement not addressed above, which is that contained in Article 5(3) IED. Article 5(3) requires that "In the case of a new installation or a substantial change where Article 4 of Directive 85/337/EC (the EIA Directive) applies, any relevant information obtained or conclusion arrived at pursuant to articles 5, 6 and 7 of that Directive shall be examined and used for the purposes of granting the permit."

- Article 5 of EIA Directive relates to the obligation on developers to supply the information set out in Annex IV of the Directive when making an application for development consent.
- Article 6(1) requires Member States to ensure that the authorities likely to be concerned by a development by reason of their specific environmental responsibilities are consulted on the Environmental Statement (ES) and the request for development consent.
- Article 6(2)-6(6) makes provision for public consultation on applications for development consent.
- Article 7 relates to projects with transboundary effects and consequential obligations to consult with affected Member States.

The grant or refusal of development consent is a matter for the relevant local planning authority. The Environment Agency's obligation is therefore to examine and use any relevant information obtained or conclusion arrived at by the local planning authorities pursuant to those EIA Directive articles. However, the Applicant already has planning consent to operate the site as a landfill so has not had to submit any information to the planning authority

pursuant to the EIA Directive, but has submitted an ES with the variation Application.

We have had regard to the ES submitted with the Variation Application.

In the ES, the Applicant has only considered the environmental impact of the change in wastes types from the currently permitted range of non-hazardous commercial, industrial and civic amenity wastes to a restricted range of SNRH wastes.

Issues in the ES regarding management of emissions from the landfill activity, assessment of the impact of the proposed changes to the activity on the environment and human health and measures to prevent pollution are also presented in other parts of the Application in accordance with the requirements of the permitting process for applications under the EPR. We have reviewed these parts of the Application in order to reach our draft decision and our assessment of these matters is presented in this document, specifically in section 5 above.

The Environment Agency has also carried out consultation on the Environmental Permitting Application which includes the Environmental Statement. The results of our consultation are described elsewhere in this decision document.

6.1.2 Schedule 9 to the EPR 2010 – Waste Framework Directive

As the Installation involves the disposal of waste, it is carrying out a *waste operation* for the purposes of the EPR 2010, and the requirements of Schedule 9 therefore apply. This means that we must exercise our functions so as to ensure implementation of certain articles of the WFD.

We must exercise our relevant functions for the purposes of ensuring that the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste and that any waste generated is treated in accordance with Article 4 of the Waste Framework Directive.

The conditions of the permit ensure that waste generation from the facility is minimised. Where the production of waste cannot be prevented it will be recovered wherever possible or otherwise disposed of in a manner that minimises its impact on the environment. This is in accordance with Article 4.

We must also exercise our relevant functions for the purposes of implementing Article 13 of the Waste Framework Directive; ensuring that the requirements in the second paragraph of Article 23(1) of the Waste Framework Directive are met; and ensuring compliance with Articles 18(2)(b), 18(2)(c) and 35(1) of the Waste Framework Directive.

Article 13 relates to the protection of human health and the environment. These objectives are addressed elsewhere in this document.

Article 23(1) requires the permit to specify:

(a) the types and quantities of waste that may be disposed of;
(b) for each type of operation permitted, the technical and any other requirements relevant to the site concerned;
(c) the safety and precautionary measures to be taken;
(d) the method to be used for each type of operation;
(e) such monitoring and control operations as may be necessary;
(f) such closure and after-care provisions as may be necessary.

These are all covered by Permit conditions.

Article 18 relates to the ban on the mixing of hazardous waste. The Permit does not allow this. The Permit only allows the disposal of SNRHW in accordance with the LfD.

Article 35(1) relates to record keeping and its requirements are delivered through Permit conditions.

6.1.3 Schedule 10 to the EPR 2010 – Landfill Directive

We address the main issues covered by the LfD such as engineering and stability in the body of this document above. The LfD represents best available techniques (BAT) for landfills. We are satisfied the proposals are compliant with the requirements of the LfD.

6.1.4 Schedule 16 to the EPR 2010 – Asbestos Directive

We have addressed the requirements of this Directive in section 5.2.3 above and the requirements to ensure appropriate handling of asbestos during deposit and monitoring for asbestos fibres are delivered through the Permit conditions.

6.1.5 Schedule 22 to the EPR 2010 – Groundwater, Water Framework and Groundwater Daughter Directives

To the extent that it might lead to a discharge of pollutants to groundwater (a "groundwater activity" under the EPR 2010), the Permit is subject to the requirements of Schedule 22, which delivers the requirements of EU Directives relating to pollution of groundwater. The Permit will require the taking of all necessary measures to prevent the input of any hazardous substances to groundwater, and to limit the input of non-hazardous pollutants into groundwater so as to ensure such pollutants do not cause pollution, and satisfies the requirements of Schedule 22.

We have addressed the requirements of these Directives in the body of the document in section 5.1 above. We have included standard condition 3.1.3 in the Permit that prevents the Operator discharging any hazardous substances into groundwater.

6.1.6 Directive 2003/35/EC – The Public Participation Directive

Regulation 59 of the EPR 2010 requires the Environment Agency to prepare and publish a statement of its policies for complying with its public participation duties. We have published our public participation statement.

This Application is being consulted upon in line with this statement, as well as with our guidance on sites of high public interest, which addresses specifically extended consultation arrangements for determinations where public interest is particularly high. This satisfies the requirements of the Public Participation Directive.

Our draft decision in this case has been reached following a programme of public consultation on the original Application. The way in which this has been done is set out in section 2.2 of this document. A summary of the responses received to our consultations and our consideration of them is set out in Annex 3.

6.2 National primary legislation

6.2.1 Environment Act 1995 - Section 7 (Pursuit of Conservation Objectives)

We considered whether we should impose any additional or different requirements in terms of our duty to have regard to the various conservation objectives set out in Section 7, but concluded that we should not.

We have considered the impact of the Installation on local wildlife sites within the relevant screening distance which are not designated as either European Sites or SSSIs. We are satisfied that no additional conditions are required.

6.2.2 Countryside and Rights of Way Act 2000 (CROW 2000)

Section 85 of this Act imposes a duty on Environment Agency to have regard to the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty (AONB).

Part of the Installation lies within the Chilterns AONB. We have considered whether the proposals could affect the AONB and conclude that they will not as there is no additional infrastructure associated with the proposal which comprises the restoration of mineral workings in a manner that is environmentally acceptable and for which planning permission has already been granted. We are satisfied that no further assessment is required.

6.2.3 Wildlife and Countryside Act 1981

Under section 28G of the Wildlife and Countryside Act 1981 the Environment Agency has a duty to take reasonable steps to further the conservation and

enhancement of the flora, fauna or geological or physiographical features by reason of which a site is of special scientific interest. Under section 28I the Environment Agency has a duty to consult Natural England in relation to any permit that is likely to damage SSSIs.

There are no SSSIs within the relevant screening distance. We are satisfied that no further assessment is required.

6.2.4 Natural Environment and Rural Communities Act 2006

Section 40 of this Act requires us to have regard, so far as is consistent with the proper exercise of our functions, to the purpose of conserving biodiversity. We have done so and consider that no different or additional conditions in the Permit are required.

6.2.5 Human Rights Act 1998

We have considered potential interference with rights addressed by the European Convention on Human Rights in reaching our decision and consider that our decision is compatible with our duties under the Human Rights Act 1998. In particular, we have considered the right to life (Article 2), the right to a fair trial (Article 6), the right to respect for private and family life (Article 8) and the right to protection of property (Article 1, First Protocol). We do not believe that Convention rights are engaged in relation to this determination.

6.3 National secondary legislation

6.3.1 The Conservation of Natural Habitats and Species Regulations 2010

We have assessed the Application in accordance with guidance agreed jointly with Natural England and concluded that there are no relevant Habitats sites within the relevant screening distances.

6.3.2 Water Framework Directive Regulations 2003

Consideration has been given to whether any additional requirements should be imposed in terms of the Environment Agency's duty under regulation 3 to secure the requirements of the Water Framework Directive through (inter alia) EP permits, but it is felt that existing conditions are sufficient in this regard and no other appropriate requirements have been identified.

6.4 Other relevant legal requirements

6.4.1 Duty to Involve

S23 of the Local Democracy, Economic Development and Construction Act 2009 require us where we consider it appropriate to take such steps as we consider appropriate to secure the involvement of interested persons in the exercise of our functions by providing them with information, consulting them

or involving them in any other way. S24 requires us to have regard to any Secretary of State guidance as to how we should do that.

The way in which the Environment Agency has consulted with the public and other interested parties is set out in section 2.2 of this document. The way in which we have taken account of the representations we have received is set out in Annex 3. Our public consultation duties are also set out in the EP Regulations, and our statutory Public Participation Statement, which implement the requirements of the Public Participation Directive. In addition to meeting our consultation responsibilities, we have also taken account of our guidance on sites of high public interest and the Environment Agency's Building Trust with Communities toolkit.

ANNEX 1: Pre-Operational Conditions

Based on the information on the Application, we consider that we do need to impose pre-operational conditions. These conditions are set out below and referred to, where applicable, in the text of the decision document. We are using these conditions to require the Operator to confirm that the details and measures proposed in the Application have been adopted or implemented prior to the operation of the Installation.

Reference	Pre-operational measures
PO1	The operator shall submit a detailed Surface Water Management Plan to the Environment Agency in writing for written approval. The Plan shall include the following: • The specifications of the surface water management infrastructure, including the design of the soakaway; • Justification that a soakaway is suitable for the discharge of surface water; • A drawing showing the locations of the surface water management infrastructure; • Details of surface water management during both the operational and after-care phases of the landfill development; • Procedures for the maintenance and repair of the surface water management system.
PO2	The operator shall submit a revised drawing (ESID7) to the Environment Agency for written approval showing additional locations for monitoring dust at Strong Quarry. The locations should include a minimum of one up-wind and two down-wind (based on prevailing wind direction) of the site and near sensitive receptors. The locations should take account of our guidance TGN M17 “Monitoring Particulate Matter in Ambient Air Around Waste Facilities”.

ANNEX 2: Improvement Conditions

Based in the information in the Application we consider that we need to set improvement conditions. These conditions are set out below - justification for these is provided at the relevant section of the decision document. We are using these conditions to require the Operator to provide the Environment Agency with details that need to be established or confirmed after commissioning.

Reference	Improvement measure	Completion date
IC1	The operator shall submit in writing to the Environment Agency for written approval revised groundwater compliance limits for each compliance point. The operator shall review the compliance parameters based on the source term and the revised compliance limits (and parameters where appropriate) shall be derived from existing groundwater monitoring data and new groundwater monitoring data taken over a 12 month period.	15 months from date of issue of the variation

ANNEX 3: Consultation Reponses

A) Advertising and Consultation on the Application

The Application has been advertised and consulted upon in accordance with the Environment Agency's Public Participation Statement. The way in which this has been carried out along with the results of our consultation and how we have taken consultation responses into account in reaching our draft decision is summarised in this Annex. Copies of all consultation responses have been placed on the Environment Agency public register.

The Application was advertised on the Environment Agency website from 14/08/15 to 14/09/15 and in the Bucks Free Press on 14/08/15. The Application was made available to view at the Environment Agency Public Register at Apollo Court, 2 Bishops Square Business Park, St. Albans Road West, Hatfield, Hertfordshire, AL10 9EX. Additionally, copies of the Application were available electronically on request.

The following statutory and non-statutory bodies were consulted: -

- Chiltern District Council (CDC) - Environmental Health;
- Chiltern District Council (CDC) – Strategic Environment Team;
- Buckinghamshire County Council (BCC) – Director of Public Health;
- Buckinghamshire County Council – Planning Department;
- Latimer and Ley Hill Parish Council;
- Health and Safety Executive (HSE); and
- Public Health England (PHE).

1) Consultation Responses from Statutory and Non-Statutory Bodies

Response Received from Public Health England		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
1	There is a discrepancy in the identified nearest properties in different documents in the application. The main public health issue is dust, but PHE are satisfied that a suitable dust, fibre and particulate management plan is proposed. It should be noted that the dust guideline is not a health based guideline and is instead a nuisance guideline. The Environment Agency needs to be satisfied with the timeliness of when the monitoring data is received as annually will not be sufficient.	We are satisfied that all the sensitive receptors have been identified and that the risks to these receptors have been assessed and that suitable measures are proposed to prevent or minimise emissions. The emission limit referred to is the standard emission limit that we apply for monitoring of dust. We have included this limit in table S3.4 of schedule 3 to the Permit. Table S4.1 of schedule 4 to the Permit requires the Operator to submit the results of dust monitoring every six months in line with our standard requirement. Should the limit specified in table S3.4 be exceeded, the Operator will be required to submit a notification of this breach using the form specified in schedule 5 to the Permit.

Response Received from Chiltern District Council – Environmental Health		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
2	The council is not aware of any recent noise or other amenity issues at this site, nor any enforcement action in regards to nuisance.	We have taken into consideration the points outlined as part of our determination of this application and we are satisfied that no action is required.

Response Received from Chiltern District Council – Strategic Environment Team		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
3	Wish to highlight the need for careful planning, handling, transport and communication with local residents before, during and after if the permit is	The ways in which we have consulted with the public is described in section 2.2 above. How we have considered the responses from the public to our consultation are

Response Received from Chiltern District Council – Strategic Environment Team		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	indeed varied.	detailed in this section – Annex 3.
4	Recommended all nearby receptors and potential pathways are considered before the decision is made in order to safeguard the local vicinity. Suggested perimeter planting along all sides of the area to provide additional screening.	We are satisfied that the Applicant has identified and considered all nearby relevant receptors. See section 5 above. Planting to provide screening is not a matter for the Environment Agency. This matter is dealt with by the Local Authority Planning department.
5	The conditions of the permit should take into account the Environment Agency's "Guidance on Waste acceptance procedures and criteria at landfills" (November 2010) in particular those relating to asbestos. Only Waste meeting the Waste Acceptance Criteria of the Landfill should be accepted and any other waste arriving to site should be removed as soon as possible. Particular care should be given to the acceptance of Asbestos products with "Hazardous" components.	We are satisfied that the Applicant's proposals for waste acceptance, handling and deposit of asbestos waste are in accordance with the requirements of the LfD and our guidance. See sections 4.1.3 and 5.2.3.2 above. Condition 2.3.1 of the Permit requires the Operator to operate the Installation in accordance with table S1.2 of schedule 1 to the Permit and this table includes all the approved operating techniques.
6	Due to the nature of the material being landfilled the "The Control of Asbestos Regulations 2012" and the Health and Safety at work Act 1974 should be adhered to in terms of duty of care, use of licenced contractors and/or effective controls, trained/competent staff involved in the transportation and safe burial of the asbestos.	Ensuring the adherence to the Regulations and Act specified is not a matter for the Environment Agency.

Response Received from Chiltern District Council – Strategic Environment Team		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
7	While Chiltern District Council recognise that this type of landfill should not necessarily be capable of producing certain amenity issues, the variation of the permit must include requirements to prevent and mitigate the below; • Odour • Noise, from vehicle movement, operation of plant or other • Vibration, from vehicle movement, operation of plant or other • Dust, particulate or any emissions to air. A Dust, Fibre and Particulate Management plan should be put in place, including monitoring. • Deterioration of surrounding roads due to mud, litter etc, roads should be swept, sprinkled with water in dry weather, vehicle wheel washes etc • Site Traffic movement should be restricted in volume and speed so as not to cause disturbance to local residents and road users and restricted to normal working hours. Idling of site traffic should also be prohibited. Any planned disruption to traffic flows around the site should be submitted to Transport for Bucks for consideration. • Water runoff should be managed so as not to cause pollution, pooling or flood risk in the vicinity. • If lighting is to be used on the site, it must be	Where the matters detailed have been considered, they are discussed in section 5 above. Where they are not included in section 5, we do not consider them to represent a significant risk. Condition 1.1.1 of the Permit places a general requirement on the Operator to manage the site such that the risk of pollution is identified and minimised. Disruption in traffic flows around the site are not matters for the Environment Agency and have not been considered in the determination of the Application. The site is not within a flood risk area. We have included a pre-operational measure in table S1.4 of the Permit that requires the Operator to provide a detailed surface water management plan. The Operator would consider the risk of flooding as part of the detailed design of the system for managing surface water.

Response Received from Chiltern District Council – Strategic Environment Team		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	used sensitively so as not to cause disturbance to local residents. • Pests	
8	Land quality should be protected by the secured placement of fuels, oils, lubricants etc in secure tanks and bunds. Spill kits should be available on site to deal with leaks or accidents and regular inspection of this storage is advised.	Condition 3.2.2 of the Permit requires the Operator to provide secondary containment for all liquids stored in containers that could cause pollution of land or water, or use appropriate measures to prevent spillage or leaks from the container. The Environmental Management System required by condition 1.1 requires them to indentify and minimises risks which would include accidents, spillages and leaks.
9	Suitable security measures should be in place to prevent acts of vandalism producing a pollution risk.	We are satisfied with the Applicant's proposals for site security.
10	Ecological investigations should identify any habitats or protected species such as Great Crested Newt in and around the site and permit conditions should require protection of these should they be found.	The Applicant has considered the impact of the activities on habitats and wildlife sites within the relevant screening distances. See section 5.6 above. The Applicant has confirmed in response to our notice requesting further information dated 22/10/15 that they have applied to Natural England for the relevant license in respect to protected species. We consulted with Natural England and they confirmed that a European Protected Species Mitigation License was issued to the Applicant on 20/04/16 and that they had no concerns in relation to the proposals.
11	An aftercare plan should provide continuous monitoring and maintenance requirements for the landfill. A suitable landscaping plan should also be considered to compliment the new status of the site.	See section 4.3.8 regarding the aftercare plan. Landscaping is not a matter for the Environment Agency except in so far as required for pollution prevention purposes. This is primarily a matter dealt with by the Planning regime.
12	The construction, operation, capping and future use of the site should all be considered in line with the landfill Directive 1999/31/EC and Council Decision 2003/33/EC	We are satisfied that the Applicant's proposed engineering and operating techniques are in accordance with the LfD and EPR. We are satisfied that the Applicant's proposed waste acceptance procedures and criteria are in accordance with those in

Response Received from Chiltern District Council – Strategic Environment Team		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	and the Environmental Permitting Regulations 2010	the council Decision. See sections 4 and 5 above.

Response Received from Latimer and Ley Hill Parish Council		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
13	The Environment Statement submitted as part of the licence application refers to the presence of the great crested newt and badgers on the site nearby. Do either of these require approval from Natural England?	The Applicant has confirmed that the relevant licence has been applied for from Natural England with respect to Great Crested Newts. Where development could potentially disturb badgers a licence from Natural England is required.
14	Will the depth of the landfill cap on completion of the restoration be sufficient to avoid disturbance by roots of trees?	The minimum depth of restoration soils for tree planting is 1500mm above a clay cap. The Applicant is proposing a 500mm clay cap overlain with 1500mm of restoration soils (see section 5.1.1 above) so we are satisfied the waste will not be disturbed.
15	Will the depth of the landfill cap on completion of the restoration be sufficient to avoid disturbance by badgers? There are concerns that badgers will bring asbestos to the surface. The Parish Council asks the Agency to specify that the thickness of the landfill cap be increased beyond 2.0 metres.	As the types of waste to be accepted at the landfill do not contain any food waste it is unlikely that badgers will be attracted to the landfill. As well as 1.5m of restoration soil there will be a cap comprising 500mm of low permeability clay overlying a cover of inert waste on top of the asbestos waste. The Operator is required to inspect the restored landfill and ensure the integrity of the cap and over-lying restoration layer, which could include installation of a barrier should it appear that badgers are digging into the restoration material.
16	The Environment Agency appears to want an aftercare period of 60 years whereas Dunton's are proposing only three years. What precautions will the EA put in place to prevent Dunton's from walking away from the site having filled it with hazardous waste, for example, should asbestos come to the surface who would be	Our guidance regarding Financial Provision (FP) requires that for non-hazardous landfill sites the FP is for a period of 60 years aftercare (the period after the site ceases to accept waste and is capped) unless the Applicant can demonstrate a more rapid stabilisation of the waste mass, and which we have approved. For landfills for inert waste we accept that the FP needs only be provided for a 3 year aftercare period.

Response Received from Latimer and Ley Hill Parish Council		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	responsible and for how long?	In this case the types of waste proposed to be accepted are inert and asbestos wastes. The area of Strong Quarry is to be filled with inert waste only so we accept that FP for this area needs to only consider a 3 year aftercare period as this area is equivalent to an inert landfill. For Mild Quarry where asbestos waste and inert waste (for cover) is proposed to be accepted, the Applicant's risk assessments demonstrate that leachate and landfill gas do not need to be managed and that there will be little settlement of the waste mass and we agree with this view (see sections 5.1, 5.4 and 5.5). Therefore, we consider that provision for a 3 year aftercare period is acceptable. The holder of the environmental permit is responsible for ensuring that all the conditions of the permit are complied with for the life of the permit until we accept the surrender of the permit. This is set out in EPR 2010. Therefore, if the waste was to come to the surface, the permit holder would be responsible for the repairs. Once the permit is surrendered, the owner of the land will be responsible for the condition of the land.
17	Does the EA require financial guarantees (e.g. a bond) from the operator of the site to cover any liabilities in the event of the operator becoming insolvent and going into liquidation? Should the operator become insolvent, what procedures will the Agency put in place?	The LfD requires that all operators of landfill sites make provision for the financial security of the site to cover all the obligations arising from the permit for the life of the permit [Article 8(a)(iv)]. The Applicant has provided an expenditure plan in accordance with our guidance to cover all the costs associated with complying with the permit obligations (such as installing the cap and monitoring) and this agreed amount forms the FP for the site. A legal agreement between the Agency and the operator will be in place before any waste is deposited at the site and condition 1.2.1 in the Permit requires the Operator to maintain the agreement throughout the life of the Permit. Should the Operator become insolvent and go into liquidation, the Liquidator will take on the responsibilities of the permit holder and will have to ensure that the permit is complied with. The Liquidator could then transfer the permit to a third party (by application from both parties to the Environment Agency).
18	There are footpaths adjacent to the site. What measures will be taken to protect the public from dust	The measures the Applicant is proposing to prevent dust emissions are detailed in section 5.2.3.1 above.

Response Received from Latimer and Ley Hill Parish Council		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	and to prevent the public, in particular children, from gaining access to the site?	Access to the site is via lockable gate and the site is fenced. The Applicant will inspect the gates and fencing daily. Repairs, where required, will be carried out by the end of the working day, or a temporary fix will be made and a permanent repair made as soon as practicable.
19	There are concerns that asbestos fibres could seep through the landfill floor with any leachate present in the landfill itself and enter the natural groundwater aquifer.	It is unlikely given the nature of the wastes to be accepted that leachate will be generated at the site. However, leachate from rain falling on the waste will collect at the base of the landfill. Asbestos fibres have been found to be immobile in leachate. The base of the site will be constructed with a low permeability barrier (see section 5.1.1 above) through which the asbestos fibres are unable to travel given the larger size of the fibre particles in relation to the pore size within the clay barrier. In addition, the groundwater level lies about 30m below the site beneath a low permeability geological layer.
20	What procedures will be put in place to prevent leachate overflowing from the landfill itself?	Due to the types of waste to be accepted at the site, leachate will not be generated and will not overflow. Leachate within the area of existing waste deposits in Mild Quarry is of a very weak concentration due to its age and will not increase as a result of over-tipping of part of this area by asbestos waste. The existing area of waste deposit has been constructed with containment engineering to the standards specified in the LfD and we are satisfied that leachate will not be discharged from the site. Therefore no plan or procedures for managing leachate or preventing over-flowing are considered necessary.
21	Should a sheet of asbestos break, or a bag break open when being tipped, what precautionary measures will be in place to prevent the release of asbestos fibres into the atmosphere?	The Operator will use water sprays during discharge of asbestos waste and the water droplets will prevent any fibres becoming airborne (see section 5.2 above).
22	There appears to be confusion on the distance of certain receptors. The Agency's pre-application screening map appears to show Ley Hill School within a 500 meter radius of the site. The submission from Dunton's shows no school within 500m. The Parish Council asks the Agency comment on this apparent	Our pre-application screen has used a 500m circular radius from a point roughly in the middle of the site. The drawings presented by the Applicant showing the receptors within 500m of the site use a line that is off-set by 500m from the site boundary so follows the shape of the site. This is more accurate than using a circular radius from a central point and shows that the school is more than 500m from the site boundary.

Response Received from Latimer and Ley Hill Parish Council		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	discrepancy and what the consequences will be should the school lie within the 500m radius?	We ask applicants to identify sensitive receptors within 500m as beyond this it is unlikely that receptors will be significantly affected (unless from point source emissions to air, of which there are none at this site). The Applicant is required to propose measures to prevent emissions from moving beyond the site boundary and the Applicant has done this. We have accepted that the proposed measures are appropriate (see section 5.2 above).
23	Queries were raised about how the site would be regulated.	The frequency of inspections is based on the type of site (the level of risk) and the compliance history of the operator. The compliance officer will check that the Operator is complying with the conditions of the Permit. On site checks will include checks on dust emissions, mud tracking from the site, site records. The officer will also check that the Operator submits the monitoring data and other data submissions in accordance with the Permit requirements. The compliance officer will initially provide advice and guidance to ensure the operator is using the best available techniques (BAT). This is a constant ongoing process throughout the life of the site. If a site inspection reveals that the Operator is not complying with the Permit conditions then a range of options are available: advice and guidance; specified actions with deadlines detailed in the site inspection reports; warning letters; enforcement notices; suspension of the Permit; prosecution; and revocation of the Environmental Permit.
24	The Parish Council and Community request that for the first three months of asbestos tipping operations the Agency should conduct weekly inspections of the site and thereafter monthly for the life of the asbestos tipping operation. The Parish Council requests that the results of these inspections made available to the public.	As stated above in point 23, the frequency of inspection depends on the type of site and the competency of the operator. This information is included in the site's OPRA profile and produces a score from which the number of inspections is determined. This method is applied at all permitted installation sites. Following each compliance inspection we produce a report which is sent to the operator. A copy is also available on our public register.
25	There are very deep concerns about the possible	We are satisfied with the Applicant's proposed measures for preventing the release of asbestos fibres and with the proposed monitoring for asbestos fibres. We are

Response Received from Latimer and Ley Hill Parish Council		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	emissions to atmosphere of asbestos fibres. The Parish Council requests that the Agency include in the Licence a requirement for air monitoring equipment to be installed around the site perimeter and be monitored monthly for the life of the landfill operation and the results made public on a regular basis (ideally monthly).	satisfied with the Applicant's proposed actions to be taken in the event that the compliance limit for asbestos fibres is exceeded. (See section 5.2.3.4 above). The Operator is required to submit the results of the monitoring to us and these will be available on the public register. We do not consider it necessary for the Operator to monitor for fibres more frequently than that proposed.
26	How will the Agency satisfy itself that there are no fugitive emissions of asbestos fibres during periods of high winds? The Parish Council requests that the Agency make on-going continuous monitoring of dust & particulate (including air-born asbestos fibres) a condition of the site licence.	The Applicant has made provision for managing and preventing emissions of asbestos fibres during periods of high winds in the DFPMP (see section 5.2.3.2 above). We are satisfied with these proposals. We do not consider that continuous monitoring of dust or fibres is necessary. We have specified monitoring of dust and fibres in table S3.4 of the Permit.
27	It was queried whether a Working Plan is required. The Parish Council and the Community would expect to see much greater detail to explain how the site will be operated.	Working Plans are not required as part of the permitting process. The Environment Agency is satisfied with the level of detail provided. The techniques that the Applicant proposes to use to operate the Installation are included in the Application and in their Environmental Management System in the form of operational procedures. The proposed operating techniques are presented in the ESID, Appendix ESID3 which is the DFPMP, the HRA (for the engineering proposals) and in the additional information regarding waste acceptance that was submitted on 22/07/15 in response to our request for further information. In addition, the Applicant has confirmed that the site will be operated in accordance with our guidance "How to comply with your environmental permit – Additional guidance for landfill (EPR5.02)". This is available on our website. The Operator will be required to operate the installation in accordance with these agreed procedures and methods as specified in table S1.2 of schedule 1 to the

Response Received from Latimer and Ley Hill Parish Council		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		Permit.
28	Will this site fall under the COMAH Regulations? If so, what does the plan say about the site? If not, what actions will be taken in the event of an accidental release of asbestos?	The COMAH regulations do not apply to this site. The Operator's management system includes an Accident and Incident Management Plan.
29	The Parish Council requests that a wheelwash is a condition of approving the application.	We asked the Applicant to clarify their proposals with regard to the proposed wheel washing facilities in our schedule 5 notice dated 22/10/15. In the response dated 16/11/15 the Applicant has stated that a fixed wheel wash facility will be installed adjacent to the car park area (see section 5.2.2 above).
30	There are great concerns about LGV exhaust emissions in the surrounding area and particularly in relation to Ley Hill School. .	The impact of vehicle movements outside the site is not a matter for the Environment Agency. This is a matter for the Local Planning Authority in relation to planning applications or the Local Highway Authority.

2) Consultation Responses from Members of the Public and Community Organisations

The consultation responses received were wide ranging and a number of the issues raised were outside the Environment Agency's remit in reaching its permitting decisions. Specifically questions were raised which fall within the jurisdiction of the planning system, both on the development of planning policy and the grant of planning permission.

Guidance on the interaction between planning and pollution control is given in the National Planning Policy Framework. It says that the planning and pollution control systems are separate but complementary. We are only able to take into account those issues, which fall within the scope of the Environmental Permitting Regulations.

a) Representations from Local MP

Representations were received from Cheryl Gillan MP, who raised the following issues.

Representation from Chery Gillan MP		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
31	Enclosed a copy of a letter from a constituent that we have already received. Asked us to consider her concerns.	The concerns raised by the constituent are addressed in part c) below.

b) Representations from Community and Other Organisations

Representations were received from The Chilterns Conservation Board, who raised the following issues.

Representation received from The Chilterns Conservation Board		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
32	CCB is concerned, in principle, to the Chilterns AONB being used to dispose of asbestos waste. In making a decision on the licence, the Environment Agency has a duty to have regard to the purposes of conserving and enhancing the natural beauty of the AONB under section 85 of the CRoW Act 2000.	We have had regard to our duties under this Act. See section 6.2.2 above.
33	We are concerned that hazardous waste could sterilise the remaining clay resource and prevent any later reopening for local brick production.	This is not a matter for the Environment Agency. It is a matter relevant to any further planning applications.
34	Protecting the River Chess and the chalk aquifer should be given high priority to ensure zero risk of asbestos fibres entering the water system.	We are satisfied with the Applicant's proposals for the protection of groundwater. See section 5.1 above.

Representation received from The Chilterns Conservation Board		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
35	We could find no details to mitigate the loss of reptile habitat. The policy in the National Planning Policy Framework (NPPF) here is to favour mitigation in preference to compensation.	The Applicant has confirmed in response to our notice requesting further information dated 22/10/15 that they have applied to Natural England for the relevant license in respect to protected species. We have consulted with Natural England who confirmed that the relevant licence was issued on 20/04/16. The licence from Natural England specifies the measures the Applicant will need to take regarding the protection of the Great Crested Newts
36	We also note that the Applicant has been advised by Buckinghamshire County Council that planning permission exists for the disposal of asbestos so no application for planning in respect of asbestos disposal needs to be made, but we have not seen confirmation of this. Asbestos waste could impact on the use of footpaths, on public perception and on enjoyment of the area for recreational purposes	The existence or not of planning permission is not a matter for the Environment Agency. It is a matter for the Local Planning Authority. The environmental permitting regime is concerned with the impact of actual emissions from an activity. As explained in the main body of this document the Environment Agency is satisfied that there will be no significant pollution of the environment or harm to human health from the proposals.

c) Representations from Individual Members of the Public

A total of 23 responses were received from individual members of the public including one representation in support of the proposal. Some of the issues raised were the same as those considered above. Only those issues additional to those already considered are listed below.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
37	Concerns were raised about the frequency and effectiveness of monitoring, whether monitoring results would be shared with the public and how monitoring requirements would be enforced.	Monitoring for both dust and asbestos fibres is discussed in sections 5.2.3.3 and 5.2.3.4 above. The dust monitoring includes determination of the particle size of deposited dust as PM_{10}. We are satisfied that the proposed monitoring is appropriate and is in accordance

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		with the standards and methodologies specified in our guidance and have specified that monitoring should be carried out in table S3.4 of the Permit. The Operator will carry out the monitoring as discussed in sections 5.2.3.3 and 5.2.3.4 above and specified in table S3.4 of the Permit. The Operator is required to submit the results of the monitoring to us (table S4.1 of the Permit) and this data will be placed on the public register. The Applicant's proposals for monitoring are included as an operating technique in table S1.2 of the Permit and the Operator will be required to comply with all conditions of the Permit. We will carry out compliance checks of the operations, which include both visits to the site and review of monitoring data and other reports and notifications the Operator is required to submit as specified by the conditions in the Permit.
38	Queried whether the operator should test the ground on the access road for asbestos.	We are satisfied that the Applicant's proposals for preventing the emissions of asbestos fibres as described in section 5.2.3.2 above are appropriate. Therefore, we do not consider it necessary for the Operator to test the ground on the access road for fibres.
39	Concerns were raised about traffic outside the site in terms of the number of vehicles, the management of traffic flow and the impact of the vehicles on the village.	We are not able to consider the number of vehicles or the impact of traffic outside the site as these are not within our remit.
40	Concerns were raised about emissions from traffic outside the site.	We do not usually consider emissions from vehicles outside the site in our determination, except where there are established high background concentrations contributing to poor air quality and the increased level of traffic might be significant in these limited circumstances. These limited circumstances do not apply in this case.
41	Concerns were raised about the proposals for the off-loading of asbestos waste, including the drop height,	We are satisfied that the Applicant has suitable measures in place to prevent the emission of asbestos fibres as described in section 5.2.3.2 above in the main body

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	and whether these measures would be sufficient to prevent fibres from becoming airborne.	of this document. These measures are in accordance with our guidance and HSE best practice for handling of asbestos waste.
42	How will HGVs safely drive onto the waste mass and is there a risk the waste mass could deform, and what action will be taken?	The Operator will construct haul roads from inert waste to enable vehicles to access the tipping areas. These temporary roads are removed and constructed as needed when the tipping face moves. The stability of the waste mass has been considered in the SRA and we are satisfied that the site will be operated using measures that will not result in the waste mass becoming unstable.
43	Unclear whether the leveller will be used to more evenly distribute bags of asbestos or to spread soil.	Once the asbestos waste has been off-loaded from the vehicles, it will not be moved again. Appropriate site plant will be used to cover the deposited waste with inert waste.
44	Issues were raised about whether this was a suitable location for the proposed activities: close to a village and in an AONB.	Decisions over land use are matters for the planning system. The location of the Installation is a relevant consideration for Environmental Permitting, but only in so far as its potential to have an adverse environmental impact on communities or sensitive environmental receptors. The environmental impact is assessed as part of the determination process and has been reported upon in the main body of this document. We have considered the impact of the landfill on the AONB and conclude that it will have no effect – see section 6.2.2 above.
45	Concerns were raised about the frequency and effectiveness of compliance checking.	We are required to assess the Operator's compliance with the conditions of the Permit. Compliance checking includes review of submitted monitoring data and other information specified by the Permit conditions as well as site visits. As stated above in point 23, the frequency of inspection depends on the type of site and the competency of the operator. This information is included in the site's OPRA profile and produces a score from which the number of inspections is determined. This method is applied at all permitted installation sites.
46	Although, EA inspect the site, any irregularities found, even if corrected, are after the event and locals could be exposed.	We are satisfied with the Applicant's proposals for preventing and controlling emissions for the site. In addition, the Operator's management system includes an Accident and Incident Plan. Therefore, in the unlikely event that any emissions are

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		released, they would be identified and rectified before any significant impacts could occur.
47	Concerns were raised about noise levels particularly from lorries on the site. No further mention of auditory inspections – how and when.	The Applicant has included a Noise Risk Assessment and Management Plan in Table 4 of the H1 Risk Assessment in Section 8 of the Application. This Plan includes measures for the management of noise emissions and includes daily inspections for noise. We are satisfied that these measures are appropriate to prevent and control noise emissions. We have not included noise limits within the Permit,as these are already included in the Planning Permission. The Applicant has to comply with both the conditions in the Environmental Permit and in the Planning Permission.
48	Concerns were raised about the risk of and from airborne fibres. In particular concerns were raised about the impact on local amenity, agricultural land, and a local business and that most fibres would be released towards the village.	We are satisfied that the Applicant has suitable measures in place to prevent the emission of asbestos fibres as described above in section 5.2.3.2 in the main body of this document. These measures are in accordance with our guidance and HSE best practice for handling of asbestos waste. We published a report in March 2013,"Improving Business Performance – Review of Asbestos Monitoring and Compliance Approach" setting out the results of a programme of monitoring at operational landfill sites to help inform our monitoring requirements and compliance limits for asbestos fibres. The results showed that there was no increase in measured fibres above background at the down-wind monitoring point compared to the up-wind (background) monitoring point beyond 20m of the tipping face where the operators had suitable measures in place to prevent release of fibres that were in accordance with our guidance and HSE best practice for the management of asbestos waste.
49	Concerns were raised about the economic impact of the activities, whether alternatives had been considered and the scope of the EIA.	These are matters that are outside our remit and are unable to consider them in the determination of the Application.
50	How many sites accept asbestos in England?	Our latest published data shows that 31 sites accepted asbestos in 2014.
51	Operator is considered competent, there are adequate controls around asbestos disposal, asbestos is	No action required.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	preferable to biodegradable waste.	
52	Planning permission says the site should be returned to the original condition but it will be domed above original level. Site should be left as it is.	The final landform is a matter for the Planning Authority. The final landform is only a relevant consideration for our determination in so far as we assess the stability of the proposed landform to ensure the waste mass does not affect the integrity of the engineered geological barrier and cap. As stated in section 5.5 above, we are satisfied that the Applicant has considered all the necessary components and factors in the SRA and has carried out an appropriate assessment of the site's stability.
53	Will the site be manned and regulated 24/7?	The site will not be manned 24 hours per day, unless the Operator has out of hours security. We have an incident hotline that is available 24 hours per day, seven days per week for the reporting of pollution and incidents at sites regulated by us.
54	Will the applicant provide bond/guarantee that no leakage will occur and no bearing on health or value of properties?	The Applicant is required to provide a bond, or other similar mechanism, to the value of the cost of complying with the conditions of the Permit. We are satisfied that the Applicant's proposed measures for preventing or minimising emissions from the site together with the conditions in the Permit will ensure that the site is operated without causing pollution of the environment or harm to human health. Impact on property prices is not a relevant consideration under environmental permitting.
55	It was suggested that there are more suitable sites that could be used for asbestos disposal and that asbestos disposal would prevent it being suitable for agricultural use or development in the future. The site should remain as is or only used for inert waste.	Decisions over land use are matters for the planning system and outside our remit. We have to make our determination based on the information provided for the site and the activity included in the Application. We are satisfied that the activity can be undertaken at this site without causing any significant pollution or harm to human health. The Applicant has applied to dispose of inert waste in Strong Quarry.
56	Alternatives to landfill for asbestos should be used such as vitrification.	We have to make our determination based on the activity applied for in the Application. At this time landfilling can still be considered a suitable method for disposing of asbestos
57	Concern was raised about the variation of original	Changes to the planning agreement are outside our remit and are a matter for the

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	planning agreement.	relevant Planning Authority.
58	Concerns were raised about tipping on this scale and the long term implications to the environment: groundwater contamination, air pollution, wildlife movement, land erosion, side effects to flora and natural diversity.	The Applicant has applied to accept 60,000 tonnes of waste for disposal per year, comprising 45,000 tonnes of inert waste and 15,000 tonnes of asbestos waste. The modelling in the HRA has been based on 6.5 years from start of waste disposal to cessation of disposal, so the total quantity of waste deposited will be approximately 390,000 tonnes. We are satisfied that the Applicant has considered all the risks to the environment from the proposal and that there will be suitable measures in place to manage those risks.
59	Will there be camera surveillance – on vehicle arrival, at off-loading and during soil capping?	The Applicant may install CCTV cameras as part of their security arrangements to prevent unauthorised access to the site, but we do not require cameras to be installed. The Applicant's management system will include measures and procedures for the acceptance and deposit of waste, as described in section 5 above, and we are satisfied that these are in accordance with our guidance and appropriate measures. Conditions 2.6.5, 2.6.6 and 2.6.7 of the Permit require the Operator to agree the specifications of the landfill infrastructure, including the cap, with us, to install it in accordance with the agreed proposals and to provide a CQA Validation Report following installation. This Validation Report is required to be produced by a third-party independent engineer who will confirm that the cap has been constructed in accordance with the agreed construction proposals.
60	Concern was raised that the proposals presented an unnecessary risk that had not been justified.	We are satisfied that the Applicant has identified the risks from the proposed activities at the site and that there will be suitable measures in place to manage these risks. We are satisfied that the proposed measures will prevent pollution of the environment and harm to human health.
61	Queries were raised about whether footpaths would be diverted, whether the impact on users of the footpath had been assessed and whether walkers on the perimeter path would be protected and warned if there	The diversion of footpaths is not a matter within our remit, but is dealt with by the local authority and as part of the planning process The location of footpaths is a relevant consideration for the determination only in so far as footpaths are identified as relevant sensitive receptors.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	is an emission.	We have assessed the impact of the activities on the footpaths in their current location. If we become aware of any proposals to move footpaths, we will assess the potential consequences of this move at that time and respond accordingly. In our request for further information dated 22/10/15 we asked the Applicant to assess the impact of users of the footpath that is located along part of the site access road. The Applicant provided this information in their response received on 16/11/15. Condition 4.3.1 of the Permit requires the Operator to notify us immediately of any breaches in Permit conditions or emission limits and provide us with details of the measures carried out to mitigate that breach. If we are notified under condition 4.3.1 we will take any action we consider appropriate to notify interested parties. There is no separate requirement on the Operator to notify the public. However, we are satisfied that there will be no impact on the users of the footpaths from the permitted activities as we consider that the Operator will have all appropriate measures in place to prevent the release of dust and fibres.
62	Concerns were raised about site security measures to prevent unauthorised access.	The site security proposals are detailed in Section 8 of the Application: H1 Environmental Risk Assessment, table 6, and we are satisfied that these measures are adequate to prevent unauthorised access to the site. Management of security is included in the Operator's Environmental Management System.
63	Fencing would affect the amenity of the surrounding footpaths.	In accordance with LfD we are required to consider whether the Operator of a landfill site has the appropriate measures in place to ensure the security of the site and that illegal deposit of waste is discouraged. The amenity aspect of the security measures, such as fencing, would be a matter for the Local Planning Authority and would likely require planning permission.
64	Concerns were raised about the suitability of the site access road and whether mud would be tracked out onto the public highway.	There is no change proposed to the access road which is the same one that has been used by vehicles to access the brickworks and the landfill when they were operating. There is no reason to consider that it is now unsuitable. Condition 3.2.1 of the Permit requires the Operator to take all appropriate measures

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		to prevent fugitive emissions from the site. This includes dust emissions and mud tracking out of the site. The Applicant has proposed measures to prevent dust emissions from the access road which include spraying roads with water from a mobile bowser in periods of dry weather and using a road sweeper to clean the road as necessary. The Applicant states that they will surface the road if it is considered necessary. We are satisfied that the proposals for preventing emissions from the site access road are appropriate.
65	Concerns were raised about the adequacy of measures for cleaning vehicles leaving the site.	In our request for further information dated 22/10/15, we asked the Applicant to provide details of the proposals for vehicle wheel cleaning. These were provided in their response dated 16/11/15 and are described in section 5.2.2 of the main body of this document above. The information was placed on the public register. We are satisfied that the proposals are adequate for controlling emissions of mud. The Operator is required to ensure compliance with the conditions of the Permit throughout the whole year; therefore, the Operator must ensure that the wheel wash is capable of operating in all weather conditions. In the unlikely event that there are any fibres present on the outside of the vehicles they will be removed by the wheel wash and be contained within the wash water. The wheel wash proposed by the Applicant includes a hand held hose which can be used as necessary to clean the sides of the vehicles.
66	Concern about the transport of asbestos.	The packaging of asbestos during transport is outside our remit and is not considered as part of our determination. It is the responsibility of the waste producer to ensure that the waste is contained and transported so as to comply with the relevant legislation regarding the transport of dangerous goods. However, the Applicant has specified in the waste acceptance procedures that only asbestos waste that is properly contained in sealed containers or is appropriately wrapped will be accepted.
67	Concern was raised as to whether the level of lighting at the site would be adequate to ensure its safe operation.	Safety at work is not a relevant consideration in the determination of the Application. Where the pollution prevention and control measures rely on the Operator being able to make a visual inspection to ensure compliance, the Operator will not accept

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		waste if these measures cannot be implemented. Therefore, the Operator will not be accepting waste when it is dark.
68	Limit putrescible waste due to situation at site and aquifer.	The Applicant has not applied to accept putrescible waste. Only inert waste and asbestos waste are permitted as specified in Schedule 2, tables S2.1, S2.2 and S2.3 of the Permit.
69	Nothing in application which mitigates against a serious accident or incident.	The H1 Risk Assessment at Section 8 of the Application includes an Accidents Risk Assessment and Management Plan and the Dust, Fibre and Particulate Management Plan at Appendix ESID3 to the ESID at Section 5 of the Application includes details of how emissions of dust and fibres will be prevented
70	Great Crested Newts were found in 2011, but no recent survey. What measures will be taken to protect them during filling?	We asked the Applicant in our request for further information dated 22/10/15 to confirm whether a further survey for Great Crested Newts had been carried out. In the Applicant's response received on 16/11/15 they confirmed that a survey was carried out between 01/04/15 and 14/05/15 and that an application for the relevant licence has been made to Natural England. The licence from Natural England will specify the measures the Applicant will need to take regarding the protection of the Great Crested Newts.
71	The noise bund had to be installed as Duntons removed vegetation contrary to the planning. Shows a pattern of non-compliance with planning regulations.	We are not the regulator with regard to planning. The regulator for planning matters is the relevant planning authority, in this case Buckinghamshire County Council. This is not a relevant consideration for our determination.
72	How are speed limits going to be implemented?	The details of how speed limits will be enforced will be included in the Environmental Management System for the site. We are satisfied that restrictions on speed limits are suitable measures to prevent dust and excessive noise emissions, but we do not need to know the precise means by which this will be achieved during our determination of the Application.
73	A query was raised about the availability of the Environmental Statement.	The ES was available on our public register during the consultation.
74	No planning in place for hazardous waste.	We are not required to consider the status of planning before we determine an application for an environmental permit.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		We have consulted with Buckinghamshire County Council Planning Department on this Application. We have not received any information from them to contradict the Applicant's view that the site has planning permission.
75	It was queried whether a permit could be granted without planning consent and concerns were raised about the status of the planning.	The EPR allow us to issue an environmental permit irrespective of whether planning permission is in place. Where we have issued an environmental permit, this does not mean that the operator can carry out the activity without the relevant planning consent. The operator has to comply with both the environmental permit and the planning permission. The status of the planning consent is not a matter within our remit and is not relevant in the determination of the Application.
76	Queried whether there was an existing permit to vary or whether a new permit was required.	Because the Operator did not apply for a permit under the Pollution Prevention and Control Regulations (PPC), they were not allowed to accept waste after July 2001. We issued a Closure Notice on 29/11/05 and considered that the site was closed. The licence continued to exist and the Operator was required to comply with the conditions of it. All waste licences became environmental permits with the introduction of EPR which came into force on 06/04/08. Landfill sites that accept inert waste only are waste operations in accordance with schedule 10 of the EPR 2010. Landfill sites that accept hazardous or non-hazardous waste are installations in accordance with schedule 1 of EPR and are subject to the IED. This Application is a variation to change the activity from a closed, waste operation landfill to an installation landfill. We determine this type of variation in the same way we would for an application for a new landfill and require all the same information and risk assessments in the variation application as we would for a new application.
77	Concern was raised about location of the site above an aquifer, the contamination of the aquifer by asbestos and the possible contamination of drinking water supplies including from the discharge of site run off by a soakaway. Concerns were also raised about the long term stability of the asbestos cell and the	We are satisfied that the proposed activities will not cause contamination of the aquifer beneath the site as: • The types of waste proposed to be deposited at the site (asbestos and inert) are not biodegradable and are unlikely to generate any leachate. • There is a significant unsaturated zone of low permeability materials

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	impact of this on the aquifer.	between the base of the landfill and the aquifer. • The Applicant has adequately assessed the risk to groundwater (aquifer) in the Hydrogeological Risk Assessment in Section 6 of the Application and we agree with the conclusion that there will not be any significant discharge of substances to groundwater or pollution of groundwater by any substances. • Asbestos fibres have been found to be immobile in leachate. The base of the site will be constructed with a low permeability barrier (see section 5.1.1 above) through which the asbestos fibres are unable to travel given the larger size of the fibre particles in relation to the pore size within the clay barrier. Drainage to the soakaway will be from surface water run-off from the unfilled areas of the site and the capped areas of the landfill that has not come into contact with the asbestos waste. We are satisfied that the proposed engineering of the side walls and base is acceptable and that the SRA demonstrates that this engineering is stable.
78	The application does not propose a system for detection of leaks in the liner.	Asbestos wastes and inert wastes do not degrade to form leachate so an engineered liner is not required. We are satisfied that the proposed engineering of the base and side walls to establish a geological barrier is satisfactory and that the HRA demonstrates that there will not be any significant discharge of substances to groundwater or pollution of groundwater by any substances. Therefore, we consider that leak detection is not necessary.
79	Proposing to install a clay base and side walls only 1 metre thick despite predicting fibres will pass through and enter groundwater.	The HRA at section 6 of the Application does not predict that fibres will migrate through the engineered containment. We are satisfied that the proposals for engineering the base and side slopes of the site are in accordance with the requirements of the LfD. The Applicant has adequately assessed the risk to groundwater in the Hydrogeological Risk Assessment at Section 6 of the Application and we agree with the conclusion that there will not be any significant discharge of substances to groundwater or pollution

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		of groundwater by any substances.
80	The stretch of the Chess in Latimer about half a mile from the aquifer discharge point is used by schools for geography field exercises and the water level becomes low on banks so any asbestos fibres could dry out and become airborne.	We are satisfied that asbestos fibres will not enter the aquifer (see response to point 75) so we consider that asbestos will not enter the River Chess.
81	Effect on local economy.	The effect on the local economy is outside our remit and is a matter for the local planning authority. It is not a relevant consideration in the determination of the Application. However, given there will be no significant pollution of the environment or harm to human health there is no reason why the local economy should be affected.
82	Concern was raised about the competence of the operator.	The Applicant is Dunton Brothers Limited. As detailed in section 4.3.2 above, we are satisfied that the Applicant has demonstrated it is competent to operate the site so as to comply with the conditions of the Permit.
83	Concerns raised about planning for fugitive emissions, a plan should be in place to warn those in receptor zone 500m around site.	The DFPMP includes an Action Plan detailing the measures the Operator will take in the event that there are unacceptable emissions or a complaint is received. We are satisfied that the proposed measures are appropriate. See section 5.2.3.4 above. We do not consider it necessary for the Operator to have a system in place to warn those within the 500m receptor zone.
84	Concern was raised about the procedures for waste arrival if loads are damaged, their storage, management and emergency procedures.	Section 3.1 of the DFPMP in the Application sets out the Operator's procedures for waste acceptance and includes proposed measures for non-conforming wastes and incorrectly packaged loads. We are satisfied that the Operator will have the appropriate procedures in place for managing non-conforming wastes and loads.
85	No detail on sequencing of landfill.	Mild Quarry will be filled from west to east and String Quarry will be filled from the north east corner.
86	Concern that landfilling asbestos may present risks as yet unknown and present risks in the future.	We can only assess this application based on the current understanding of the position. We are satisfied that the Applicant has assessed the risks from the

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		proposals and we are satisfied that they will have suitable measures in place to control emissions from the site. This is detailed in the main body of this document, specifically in section 5. The assessment of the risk to groundwater includes modelling of the impact for a period of 20,000 years.
87	Flooding may cause fibres to flow out.	The site is not within a flood plain.
88	Concern raised that bees may pick up fibres and take them back to the hive.	We are satisfied that asbestos fibres will not be released from the site and that the release of fibres on site will be minimised. The likelihood of bees, or other insects, picking up fibres from the site in any significant quantities is insignificant.
89	Concern raised about who to contact and how re possible permit breaches	Our incident hotline is available 24 hours per day for the reporting of pollution and incidents at sites regulated by us. The number for the hotline is 0800 807060.
90	Reference made to the Stowey Quarry case where the decision was overturned by the Inspector.	The Stowey Quarry case related to the application for planning permission. It was a planning appeal and it upheld the original decision. It does not set a precedent and we have to assess each application made to us and reach our own decisions on the merits of each application.
91	Who will guarantee and be responsible for accidents/loss of business.	The Operator will be responsible for ensuring the site is operated in accordance with the Permit conditions and their proposed operating techniques as set out in the Application and as discussed in section 5 above in the main body of this document.
92	Control on what is dumped is not enough and there is nothing to prevent other toxic waste being buried.	The Permit contains conditions that control the operations at the site and condition 2.7.1 and schedule 2 of the Permit specify the types of waste that can be disposed of. The Operator is required to comply with these conditions.
93	Concerns raised about possible over tipping, flies and methane.	The height of the landfill is restricted to that shown on the drawing specified in condition 2.7.7 of the Permit. The types of waste to be accepted do not include food wastes or any biodegradable wastes so the site will not be attractive to flies and the potential for landfill gas to be generated is low.
94	Concerns were raised about loss of amenity.	We do not consider there will be any impact on amenity from the operation of the

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		landfill.
95	Concerns were raised regarding the adequacy of some of the risk assessments, specifically in relation to fugitive emissions being deposited on the ground, for different types of accidents and the inclusions of plastic bags in relation to fire risk.	The Operator's proposed measures for preventing and minimising emissions of dust and fibres are described in section 5.2 above. An assessment of the risks from the proposed activity is presented in the H1 Environmental Risk Assessment at Section 8 of the Application and in the response dated 16/11/15 to our request for further information sent on 22/10/15. We are satisfied that the Applicant has assessed the risks from the activity and that there will be suitable measures in place to manage fugitive emissions. In addition, we are satisfied that the Applicant has included accidents in the risk assessments, has an accident management plan in place as part of the environmental management system and has adequately addressed the risk of fires.
96	Concerns were raised regarding the covering of asbestos during transport, the measures in place to carry out checks on the lorries as they arrive at the site, the procedures in place for dealing with unsafe loads which may have affected the footpath and who has the responsibility should a footpath user be affected and how would compensation be claimed.	The packaging of asbestos during transport is outside our remit and is not considered as part of our determination. Packaging of hazardous waste for transport is covered by the Carriage of Dangerous Goods Regulations which is regulated by the HSE. It is the responsibility of the waste producer to ensure that the waste is contained and transported so as to comply with the relevant legislation regarding the transport of dangerous goods. As producers of asbestos waste have to pre-book the loads for disposal with the Operator, it is likely that these producers will understand their obligations under the legislation and will wrap and contain the asbestos waste appropriately so the risk of fibres being deposited on the site access road is negligible. We are satisfied that the Operator will have suitable procedures in place for rejecting non-conforming wastes and for dealing with unsafe loads. Through condition 1.1.1 of the Permit the Operator is required to ensure the site is operated in accordance with their management system to identify and minimise risks of pollution. Therefore, should an unsafe load be identified, condition 1.1.1 of the Permit would require them to take appropriate action in order that all relevant conditions of the Permit are complied with. The claiming of compensation by a footpath user for being affected by asbestos is an issue of civil liability and is outside the scope of EPR.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
97	Concern that sweeping the site road could release fugitive fibres into the air.	As stated in the response to point 94 above, the likelihood of asbestos fibres being present on the ground is negligible. Should the Operator identify that there could be fibres on the road condition 1.1.1 of the Permit will require the Operator to take action in accordance with their management system so as to comply with all relevant conditions in the Permit.
98	How would incidents be reported to the local community?	The conditions of the Permit require the Operator to report any incidents to us which is all we can require. Should the Operator choose to notify others that is a matter for them. The forms used to report incidents to us are placed on the public register.
99	Concern was raised that visual dust monitoring suggested dust would be released in large quantities. What impact would spotting dust have on site practices? Is visual monitoring to help monitor and control harmless dust or containing asbestos fibre? How would receptors be informed? How would the company vary the times to make it more useful?	Visual inspection is a standard method of assessing emissions of dust. As described in section 5.2.3.4 above, where emissions of dust are identified, the Applicant will determine the source of the dust and implement the Action Plan. Table S3.4 in schedule 3 of the Permit sets limits for particulate matter at the site boundary and condition 3.1.1 of the Permit specifies that the limits in schedule 3 shall not be exceeded. The Applicant is proposing to carry out twice daily inspections downwind of the tipping area at the site boundary for emissions of dust. The inspections will take place downwind of any on-site activities that have the potential to generate dust so the times will be varied, but one will generally take place in the morning and one in the afternoon. The monitoring for fibres as specified in table S3.4 in schedule 3 of the Permit will be carried out to determine the effectiveness of the measures to contain asbestos. Condition 4.3.1 of the Permit requires the Operator to report any incidents to us. If we are notified under condition 4.3.1 we will take any action we consider appropriate to notify interested parties. There is no separate requirement on the Operator to notify the public. The forms used to report incidents to us are placed on the public register.
100	Spraying with a bowser would not be an effective means of keeping down dust levels. This is a cheaper option than a wheelwash and surfacing the road.	Spraying with water from a bowser is an acceptable method for dust suppression as dust particles adhere to the fine water droplets and fall to the ground or are prevented from becoming airborne.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		As described in section 5.2.3.1 above, the Applicant will install a wheelwash and will give consideration to surfacing the whole site access road if problems arise. We are satisfied that the Operator will have appropriate measures in place for controlling emissions of dust.
101	Concern a windsock to measure wind direction seems basic and simple considering how crucial it could be to monitor wind strength and changes. How will site operations change in response to the action of the windsock and if wind direction or speed is changeable?	As described in sections 5.2.3.1 and 5.2.3.2 we are satisfied that the Operator will have measures in place to manage dust and asbestos in periods of high winds and these measures include observation of the wind sock to ensure that the wind direction is known and the appropriate response carried out. During periods of high winds the Applicant is proposing that operations at the site cease or are reduced so that the risk of emissions is reduced. Monitoring specified in schedule 3 of Permit requires the Operator to monitor at locations downwind of the tipping face therefore, there is a requirement for the Operator to monitor wind direction. As described in section 4.3.2.2 above, we are satisfied that the Operator will have the staff in place with the appropriate technical ability to manage the site operations. In addition, conditions 1.1.1 and 1.1.3 require the Operator to ensure that there are sufficient suitable staff available and that they have access to the Permit so are aware of their duties under the Permit.
102	Comment that in other industrial contexts there are more prescriptive measures for working with asbestos.	Those controls are not relevant to operations at a landfill. Asbestos fibres can be released during the break-up of the asbestos containing material, but only bonded and wrapped asbestos and asbestos delivered in a sealed skip will be deposited at the landfill and it will not be broken up. We are satisfied that the Operator will have the appropriate measures in place for accepting and depositing of asbestos waste at the site in accordance with our guidance and HSE best practice.
103	Where is risk assessment for an inert waste lorry being involved in a fibre release incident? Will fill be managed so Strong Quarry and Mild Quarry are filled on different days, or how will traffic movements to different quarries be managed?	We are satisfied that the Operator will have the appropriate measures in place to manage asbestos so it is unlikely that lorries will pick up fibres. Therefore, no specific management of traffic movement to different quarries is considered necessary.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
104	Concerns that bags could split when cover applied or cover could fail exposing asbestos.	The area for the deposit of asbestos waste will be kept to a minimum, water sprays will be used as asbestos waste is deposited and the deposited waste will be covered immediately. Appropriate site plant will be used to spread the inert waste over the asbestos to ensure it is covered. Where waste deposit has occurred but the area is not the working face, a cover of 1m of soils will be used. Vehicles depositing asbestos waste will not travel across the tipping face. If the location of the tipping face requires the delivery vehicles to travel across previously deposited waste, hardcore or other suitable construction wastes will be used to create a suitable surface for vehicles to travel across so that they do not disturb the deposited asbestos or become stuck. We are satisfied that the Operator will have appropriate measures in place to cover the asbestos and ensure the vehicles accessing the tipping waste can do so safely and without disturbing the deposited asbestos.
105	Concerns were raised about the appropriateness of using geotextile as a possible cover material.	The Operator is required to ensure that asbestos waste is covered immediately upon deposit and that it is suitably covered by the end of the day. Geotextile is suitable for use as cover as it meets these requirements. We are satisfied that the Operator will have the appropriate measures in place to ensure that asbestos waste is covered so it is not exposed. As described in section 5.3 in the main body of this report, we are satisfied that the Applicant has considered all the necessary components and factors in the SRA and has carried out an appropriate assessment of the stability of the site.
106	Concerns were raised about the efficacy of visual checks of incoming waste	Visual inspection of loads is necessary to ensure that the waste materials conform to the description provided in the documentation that accompanies the load and to ensure that the load does not contain any wastes that are not permitted. Condition 2.7.4 of the Permit requires the Operator to visually inspect the waste before unloading and at the point of deposit to ensure it conforms to the types of waste permitted. We are satisfied that the Operator will have the appropriate waste acceptance measures in place and that these include procedures for the rejection of waste.

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		The safe transport of hazardous waste is outside our remit.
107	Concerns were raised about waste testing and in particular the risks of testing asbestos waste.	The testing referred to is in relation to inert waste and will be carried out as part of the Operator's pre-acceptance checks. The testing will take place before the waste is despatched from its place of production. The criteria and methods for testing of inert waste are set out in the Council Decision of 19/12/02 which established the criteria and procedures for the acceptance of waste at landfills. Condition 2.7.1 of the Permit requires the Operator to ensure that the relevant waste acceptance procedures and criteria are met. If any testing of asbestos waste is required, this will take place at the place where the waste is produced and the testing and handling requirements at that point are outside our remit and are matters for the HSE.
108	It is not clear where supplies of covering soil will be stored. How much will be stored, what type of inert waste?	Waste for use as cover for the asbestos wastes will be stored adjacent to the area of waste deposit. No quantity of waste to be used as cover is specified and we do not require the Applicant to specify this. However, all loads of asbestos are required to be pre-booked at the landfill (the Applicant has specified at least one day's notice) so that the tipping area, including a supply of cover material, can be prepared. As the waste handling procedures, which are a requirement of the Permit through table S1.2 of the Permit, state that asbestos waste will be covered immediately on deposit, if there is no cover material available, no asbestos waste can be accepted. Table S2.3 of the Permit specifies the types of waste that can be used to cover the asbestos waste.
109	Concern raised that the site does not and cannot meet current HSE Landfill Site Safety requirements.	This is not a consideration for our determination. We consulted with the HSE but they made no comment on the Application. We are satisfied with the measures proposed in respect of those matters we regulate.
110	Concerns were raised about site stability and the lack of plans to deal with any instability.	As described in section 5.5 in the main body of this document, we are satisfied that the Applicant has considered all the necessary components and factors in the SRA and has carried out an appropriate assessment of the stability of the site. Condition 2.6.1 of the Permit requires the Operator to submit construction

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		proposals for each cell or area of the landfill for our approval. Condition 2.6.3 of the Permit requires the Operator to engineer all parts of the landfill in accordance with the agreed proposals and condition 2.6.4 of the Permit specifies that no waste can be deposited unless a CQA Validation report is submitted. These conditions ensure that the engineered containment is designed and constructed appropriately and that no waste is accepted until we are satisfied that the engineering is fit for purpose. Therefore, failure of the engineering at the site leading to instability of the waste mass is unlikely to occur. The environmental management system for the site will include plans in relation to site instability.
111	There is already some landfill in Mild Quarry. The cells are on top of each other which is a concern because the company suggests the potential to squeeze waste and also the potential for the basal clay liner to shear.	The Applicant has assessed the "squeezing" of leachate as described in section 5.1.3 above. As part of the SRA, the Applicant has assessed the impact of the waste mass on the stability of the basal geological barrier as described in section 5.5 above in the main body of this document. We are satisfied that the Applicant has addressed these issues appropriately.
112	Concerns were raised about the adequacy of the leachate monitoring and management proposals in Mild Quarry.	We are satisfied that no leachate management is required in Mild Quarry in the areas proposed for waste deposit as no leachate will be generated from the deposit of asbestos waste. The results of monitoring of leachate from the existing deposits of waste in Mild Quarry demonstrate that the quality of the leachate is very weak with a low polluting potential so management of leachate is not required. Table S3.7 in the Permit requires the Operator to monitor leachate quality on an annual basis and we are satisfied that this monitoring is appropriate. The Operator will construct the side slope geological barrier comprising 1m of clay over the existing waste deposits which will prevent leachate from the existing deposits entering the asbestos cell.
113	Concern was raised about the modelling approach and reliance on a 95% confidence level.	The HRA details the approach taken to the modelling of emissions to groundwater using the LandSim software. The "95 percentile" confidence level used in the modelling is a standard and accepted level and means that 95% of the concentrations of each parameter modelled are below the appropriate assessment level at the compliance point. Because the modelling software is conservative, that is it uses worst case, it is considered that the 95 percentile for modelling results is

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		acceptable. We are satisfied that the Applicant has fully justified the modelling approach and that this approach is acceptable.
114	Concern raised about the risk to groundwater and what was meant by discernible concentrations of hazardous substances.	In this case, discernible means “detectable” and above the minimum reporting values. Modelling has demonstrated that there will be no discernible, or detectable, concentrations of hazardous substances in groundwater at the compliance point (which is immediately below the site).
115	Concern raised about the frequency of groundwater monitoring and what action would be taken if groundwater was found to be contaminated.	Tables S3.2 and S3.5 of the Permit specifies the monitoring of groundwater that the Operator is required to carry out. Monitoring is required quarterly for some parameters and annually for others. Table S3.2 specifies compliance limits for specific parameters in groundwater in boreholes down-stream of the site and table S3.5 specifies general background monitoring of groundwater around the site. Condition 3.1.1 of the Permit states that the limits in schedule 3 (which includes table S3.2) shall not be exceeded and condition 3.1.3 of the Permit states that the Operator shall prevent hazardous substances from the activity entering groundwater. If the results of monitoring showed that the groundwater compliance limits were exceeded, then the Operator would have to notify us in accordance with conditions 4.3.1 and 4.3.2 of the Permit, and carry out appropriate measures to ensure compliance is restored as soon as possible. What those appropriate measures would be, will be determined at the time and would be specific to the circumstances.
116	Concern raised that as asbestos is not inert there could be a risk to groundwater from it and that the protective measures proposed are not robust enough.	Asbestos is “inert” in that it does not have the potential to “leach” hazardous or polluting substances. It does not degrade. Any liquid accumulating in the waste will be from rain. As stated in response to point 77 above, asbestos fibres have been found to be immobile in leachate. The base of the site will be constructed with a low permeability barrier (see section 5.1.1 above) through which the asbestos fibres are unable to travel given the larger size of the fibre particles in relation to the pore size within the clay barrier. In addition, the groundwater level lies about 30m below the site beneath a low permeability geological layer. References to retardation in the clay beneath the site relate to the movement of

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		liquid (from rain falling on the waste) through the base of the site. As stated previously, due to the larger size of asbestos fibres in relation to the pore size in the clay, asbestos fibres will not migrate through the base of the site. The modelling of the impact of the site on groundwater has been carried out for a period of 20,000 years and has shown that there are no unacceptable discharges to groundwater in this period. We are satisfied that leachate collection and management are not required.
117	Concern about the adequacy of existing groundwater data.	The applicant recognises that there is limited groundwater monitoring data from which to derive the compliance limits so has proposed to derive more appropriate compliance limits following a further 12 months of monitoring. We have included a requirement in the Permit in table S1.3 for the Operator to provide revised groundwater compliance limits based on a further 12 months of monitoring data.
118	Concerns were raised about the detail of and adequacy of the surface water collection system and whether asbestos could be released from it.	The surface water management system is described in section 5.3 above. We are satisfied in principle with the proposals, but have included a pre-operational measure in the Permit in table S1.4 requiring the Operator to submit detailed proposals for approval by us prior to commencement of site operations, including maintenance proposals. The proposals for surface water management relate to surface water run-off from areas of the site where there has been no deposit of waste and the surface water is not contaminated. Any water used to spray waste as it is deposited will remain within the engineered landfill. Asbestos waste will be covered as soon as it is deposited so in the unlikely event that fibres are released they will be contained at the point of deposit. Rain water falling onto the waste will be contained within the engineered landfill. The Operator will be responsible for operating and maintaining the surface water management system during both the operational and closed phases of the landfill and until the Permit is surrendered.
119	Concern raised that previously after heavy rain the access road had water pouring down it from springs	The site is not within a flood plain of a controlled water and the Applicant has included flooding in the H1 Risk Assessment in section 8 of the Application and has

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
	that appeared above the site.	determined that the risk is low. We agree with this conclusion. In the unlikely event that surface water flooding would be contaminated, it would be retained within the engineered containment and would be dealt with appropriately.
120	It was queried whether the EA document "How to comply with your environmental permit additional guidance" was relevant in terms of friction between various asbestos types and geosynthetics and mineral layers.	The requirement in our guidance referred to relates to the interface between the different layers in the lining system, where the layers in the lining system are constructed of different materials. At this site the only engineered lining required is the geological barrier which comprises one material, clay. Therefore, no consideration of the interactions between layers is required. As stated in section 5.5 above, we are satisfied that the Applicant has considered all the necessary components and factors in the SRA and has carried out an appropriate assessment of the stability of the site.
121	Query raised about whether the waste would be compacted.	Asbestos waste will be covered immediately it is deposited and the site plant will not track over the waste so as to prevent rupturing of the asbestos bags. It will not be compacted. Inert waste deposited in Strong Quarry will be deposited and then spread using site plant. Due to the nature of this waste it does not need to be compacted.
122	Query raised about whether inert waste other than soil will be used a cover.	The Applicant has applied to dispose of asbestos waste and inert waste and these wastes are included in the Permit in tables S2.1 and S2.2. Table S2.3 in the Permit includes a list of inert wastes that can be used as cover for the asbestos waste. These wastes are the wastes specified in the Council Decision of 19/12/02 establishing the criteria and procedures for waste acceptance at landfills that can be accepted without testing. Wastes accepted under the code 17 05 04: soil and stones other than those mentioned in 17 05 03 exclude topsoil, peat and soil and stones from contaminated sites. Therefore, only inert wastes, including inert soils, will be used as cover for the asbestos.
123	Concern raised that tree planting on the site could lead to sitting water and roots exposing asbestos.	The restoration scheme is outside our remit and is only considered in the determination of the Application in so far as we require a Restoration Plan that includes an assessment of the materials to be used in the restoration, their quantities and application rates and the risk to the environment from their use. The

Representation from Individual Members of the Public		
Ref.	**Brief summary of issues raised**	**Summary of action taken / how this has been covered**
		end use of the site is a matter for the planning authority. The restoration soils will be placed above an engineered cap at Mild Quarry. The Operator will be required to ensure this cap is maintained so as to provide containment of the waste and to prevent ingress of water into the waste mass until the Permit is surrendered.
124	Reference was made to previous asbestos tipping in the area which it was said had been forgotten about and then used unsafely.	What has happened at any historic site is not directly relevant and such a situation should not be able to reoccur now.
125	The monitoring of landfill gas was queried.	Although the wastes proposed to be deposited at the site do not have the potential to generate landfill gas as they do not contain any biodegradable material, we have required the Operator to monitor for landfill gas in boreholes within the waste mass and in boreholes outside the waste. This monitoring is specified in tables S3.3 and S3.6 of the Permit. We require the Operator to carry out monitoring within the waste in order to confirm compliance with the waste acceptance procedures which require that no wastes with a biodegradable content should be accepted. The monitoring for landfill gas in the boreholes outside the waste is a continuation of the existing monitoring and is required to determine the effectiveness of the engineered containment around the existing waste deposits which do comprise some biodegradable wastes.
126	Concerns were raised about the types of waste to be deposited.	We are satisfied that the proposed engineering is suitable for the types of waste proposed to be accepted, that the risk assessments in the Application have adequately assessed the risks associated with the proposed types of wastes and that the Operator will have appropriate measures in place to manage emissions arising as a result of the deposit of these wastes.