



**ENVIRONMENT
AGENCY**

Variation Notice with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Seaton Meadows Landfill

Alab Environmental Services Ltd
Brenda Road
Hartlepool
Teesside
TS25 2BS

Variation Notice Number
JP3338ML

Permit number
EP3830LE

Seaton Meadows Landfill

Permit Number EP3830LE

Introductory note

This introductory note does not form a part of the permit

The following notice is issued under regulation 17 of The Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No. 1973 (as amended)) [the Regulations] to vary the conditions of a permit issued under the Regulations to operate an installation. The notice comprises schedule 1 containing conditions to be deleted, schedule 2 conditions to be amended and schedule 3 conditions to be added.

The effect of this variation is to delete all the existing conditions attached to the permit and replace these with an entire new set of conditions. The new conditions are in line with the new PPC permit template for landfill (version 5).

In addition, this variation:

- amends the permitted wastes for the landfill in accordance with Agency guidance on the use of the List Of Wastes (England and Wales) Regulations 2005.

There are no substantial changes to the installation as a result of this variation.

The non-technical description of the installation is detailed as follows:

Seaton Meadows Landfill is located in low-lying coastal plain approximately 1.5km from the Tees Estuary. The nearest major population centres are Seaton Carew (1.5km North) and Graythorp (1km Southwest). The Tees and Cleveland Coast Special Protection Area (SPA) is within 50m of the proposed eastern boundary of the Installation and other SSSIs have been identified within 2km of the site.

Seaton Meadows Landfill site was formerly an RAF Early Warning Radar Site, which was later developed as an industrial estate. A large, subterranean reinforced concrete bunker is still present within the area of the landfill.

The permit is for disposal of non-hazardous waste. It also permits the disposal of stabilised non-reactive hazardous wastes (as defined by the Landfill Regulations), asbestos wastes and gypsum and other high sulphate bearing wastes all of which are disposed of in separate dedicated cells. The site will accept up to 150,000 tonnes per annum of waste of which 75,000 tonnes may be stabilised non-reactive hazardous waste, asbestos waste or gypsum and other high sulphate bearing wastes.

The Installation encompasses the existing licensed cells, where both hazardous and non-hazardous wastes has been deposited together (a practice known as co-disposal) and future cells, plus ancillary operations such as waste reception. Co-disposal of wastes ceased on 16 July 2004 as required under the Landfill Regulations.

The main potential sources of emissions are the migration of landfill gas giving rise to aerial emissions and the escape of leachate from the landfill, which may contaminate groundwater. There is a landfill gas flare at the site to dispose of gas. Flaring of landfill gas could potentially give rise to aerial emissions. Other potential sources of emissions from site operation include dust, odour, litter and noise. Birds attracted to the site may also have an impact on the SPA.

Status Log of the permit

Detail	Date	Response Date
Application BV1259IL	05/06/2003	-
Response to request for information	24/06/2003	02/07/2003
Response to request for information	09/12/2003	17/02/2004
Response to request for information	31/12/2003	15/01/2004, 20/01/2004, 21/01/2004, 31/03/2004, 19/04/2004, 28/04/2004
Response to request for information	09/01/2004	17/02/2004, 16/03/2004
Response to request for information	12/03/2004	29/03/2004
Response to request for information	26/03/2004	14/05/2004
Response to request for information	31/03/2004	13/04/2004
Response to request for information	10/05/2004	18/05/2004, 03/06/2004, 28/07/2004
Response to request for information	28/05/2004	03/06/2004, 10/06/2004
Response to request for information	09/03/2005	09/03/2005
Response to request for information	14/03/2005	15/03/2005
Response to request for information	15/04/2005	25/04/2005
Response to request for information	03/06/2005	06/06/2005
Response to request for information	04/07/2005	06/07/2005
Permit BV1259IL determined	22/07/2005	-
Transfer EP3830LE	17/11/2005	-
Transfer EP3830LE determined	17/10/2006	-
Variation FP3936UE issued	22/10/2007	-
Variation JP3338ML issued	01/04/2008	-

Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Able UK Ltd	CLE 403 (EAWML60133)	10/07/1995	Fully superseded
Able UK Ltd	CLE 223 (EAWML60077)	23/03/1992	Fully superseded

End of Introductory Note

Variation Notice

Pollution Prevention and Control (England and Wales) Regulations 2000
Landfill (England and Wales) Regulations 2002

Variation Notice

Permit number

BV1259IL

Variation number

JP3338ML

The Environment Agency (the Agency) in exercise of its powers under Regulation 17 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973) hereby varies the permit held by you

Alab Environmental Services Ltd ("the operator"),

whose registered office is

Billingham Reach Industrial Estate

Haverton Hill Road

Billingham

Teesside

TS23 1PX

company registration number **2712039**

to operate an installation at

Seaton Meadows

Brenda Road

Hartlepool

Teesside

TS25 2BS

to the extent set out in schedules 1 to 3 of this variation notice.

The notice shall take effect from 01 April 2008

Signed	Date
	01 April 2008

Martin Jenkins

Authorised to sign on behalf of the Agency

SCHEDULE 1 – CONDITIONS TO BE DELETED

1. All conditions and schedules are deleted

SCHEDULE 2 – CONDITIONS TO BE AMENDED

2. None

SCHEDULE 3 – CONDITIONS TO BE ADDED

3. The following conditions and schedules are added to the permit.

1. Management

1.1 General management

- 1.1.1 The activities shall be managed and operated:
- (a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and
 - (b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Accidents that may cause pollution

- 1.2.1 The operator shall:
- (a) maintain and implement an accident management plan;
 - (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
 - (c) make any appropriate changes to the plan identified by a review.

1.3 Finance

- 1.3.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Agency dated 17/10/2006 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Agency.
- 1.3.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover the cost of operating the landfill, as far as possible the cost of the financial provision required by condition 1.3.1 and the estimated costs for the closure and aftercare of the landfill.

1.4 Energy efficiency

- 1.4.1 The operator shall:
- (a) Review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (b) Implement any appropriate measures identified by a review.

1.5 Site security

- 1.5.1 Site security measures shall prevent unauthorised access to the site, as far as practicable.

2. Operations

2.1 Permitted activities

- 2.1.1 The operator is authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in blue on the site plan at schedule 2 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1 table S1.2, unless otherwise agreed in writing by the Agency.
- 2.3.2 The Operator shall ensure that all appropriate measures are taken to prevent, or where that is not practicable, to reduce the presence of gulls and corvids at the Permitted Installation during daylight hours in particular by:
- (a) use of suitable daily cover materials to prevent access to wastes that are sources of food;
 - (b) use of effective bird control techniques;
 - (c) monitoring the effectiveness of the measures used;
 - (d) provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.
- 2.3.3 All bird control techniques shall be agreed in writing by the Agency prior to their use in any new cell or phase.
- 2.3.4 No waste shall be deposited such that it comes into contact with waste or the cap overlying waste in areas of the landfill in which there is a fire or in which a fire is known to have previously existed (the Affected Area) unless:
- (a) it has been demonstrated to the satisfaction of the Agency that any fire in the Affected Area has been extinguished; or
 - (b) a written fire risk assessment has been approved by the Agency; and
 - (c) a construction quality assurance (CQA) plan for a segregation bund has been approved by the Agency; and
 - (d) the segregation bund has been installed in accordance with the CQA plan approved in accordance with condition (c).

- 2.1.9 Any changes to the CQA plan approved in accordance with condition (c) must be agreed in writing by the Agency.

2.4 Off-site conditions

There are no conditions in this permit to which regulation 12(12) of the PPC Regulations apply.

2.5 Improvement programme

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

2.6 Pre-operational conditions

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

2.7 Engineering

- 2.7.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.2 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency.
- 2.7.3 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.7.4 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.5 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency.
- 2.7.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill infrastructure.

- 2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Agency as soon as practicable.
- 2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the Agency shall be deemed to be satisfied where it has not, within the period of 4 weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.

2.8 Waste acceptance

- 2.8.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 3, and
 - (b) they are non-hazardous waste or asbestos and construction materials containing asbestos or stable, non-reactive hazardous wastes, and
 - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
 - (d) they are not shredded used tyres, and
 - (e) they are not liquid waste (including waste waters but excluding sludge)
 - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
 - (g) all the relevant waste acceptance procedures set out in schedule 1 of the Landfill Regulations have been completed, and
 - (h) they fulfil the relevant waste acceptance criteria, and
 - (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
 - (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment,
 - (k) any code beginning with 07 05 and 16 03 shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.
- 2.8.2 Stable non-reactive hazardous waste shall not be deposited in cells used or intended to be used for the disposal of biodegradable non-hazardous waste. Stable non-reactive hazardous waste and non-hazardous waste which is landfilled in the same cell must meet the relevant waste acceptance criteria.
- 2.8.3 Gypsum and other high sulphate bearing waste shall only be disposed of in cells where no biodegradable waste is accepted. Wastes disposed of in a cell with gypsum and other high sulphate bearing wastes must meet the relevant waste acceptance criteria.

- 2.8.4 Asbestos waste and construction material containing asbestos shall only be disposed of in cells dedicated to those wastes. Asbestos waste and construction material containing asbestos must meet the relevant waste acceptance criteria and must be covered daily and before each compaction operation with appropriate material. No other waste shall be disposed of in the self-contained cell.
- 2.8.5 The operator shall visually inspect:
- (a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and
 - (b) waste at the point of deposit;
- and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.
- 2.8.6 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.8.7 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.8.8 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing AB/06 Rev 0, dated 27 March 2003.
- 2.8.9 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.
- 2.8.10 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.
- 2.8.11 The operator shall maintain and implement a system to record the disposal location of any hazardous waste.

2.9 Leachate levels

- 2.9.1 The limits for the level of leachate listed in schedule 4 table S4.1 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

- 2.10.1 The operator shall maintain and operate the activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.
- 2.10.2 The operator shall maintain a site closure plan which demonstrates how the activities can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state.
- 2.10.3 The operator shall carry out and record a review of the site closure plan at least every 4 years.
- 2.10.4 The site closure plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the activities or part thereof.

2.11 Site protection and monitoring programme

- 2.11.1 The operator shall, within 6 months of the issue of this variation submit a Site Protection and Monitoring Programme.
- 2.11.2 The operator shall implement and maintain the Site Protection and Monitoring Programme in relation to all areas which will not comprise permanent deposits of waste and shall carry out and record a review of it at least every 4 years commencing from the date the Site Protection and Monitoring Programme was received.

3. Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 4 table S4.2.
- 3.1.2 The limits given in that schedule shall not be exceeded, save that compliance with an emission limit shall include incorporation of the uncertainty allowance stated in Agency guidance LFTGN 05 and LFTGN 08.

3.2 Emissions to groundwater

- 3.2.1 There shall be no emission from the activities into groundwater of any substance in List I (as defined by the Groundwater Regulations) contrary to those regulations.
- 3.2.2 There shall be no emission from the activities into groundwater of any substance in List II (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those regulations).
- 3.2.3 The trigger levels for emissions into groundwater for the parameters and monitoring points set out in schedule 4 Table S4.3 shall not be exceeded.
- 3.2.4 The operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:
 - (a) between 9 and 6 months prior to the fourth anniversary of the granting of the permit, and
 - (b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the permit.

3.3 Fugitive emissions of substances

- 3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.3.2 Litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been used to prevent or where that is not practicable to minimise, the litter and mud.
- 3.3.3 Litter or mud arising from the activities shall be cleared from affected areas outside the site as soon as practicable.

- 3.3.4 All liquids, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.3.5 The limits for landfill gas arising from the installation set out in schedule 4, table S4.4 shall not be exceeded.
- 3.3.6 The limits for particulate matter arising from the installation set out in schedule 4, table S4.10, shall not be exceeded.

3.4 Odour

- 3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

- 3.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

- 3.6.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring specified in the following tables in schedule 4 to this permit:
 - (a) Leachate specified in tables S4.1 and S4.7;
 - (b) Point source emissions specified in table S4.2;
 - (c) Groundwater specified in tables S4.3 and S4.9;
 - (d) Landfill gas specified in tables S4.4, S4.5, and S4.6;
 - (e) Surface water specified in table S4.8; and
 - (f) Particulate matter specified in table S4.10.
- 3.6.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.6.3 A topographical survey of the site referenced to ordnance datum shall be carried out:
 - (a) annually, and
 - (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
 - (c) following closure of the landfill or part of the landfill.

The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site.

- 3.6.4 Within 10 months of the issue of this permit (unless otherwise agreed in writing by the Agency) the site reference data identified in the Site Protection and Monitoring Programme shall be collected and submitted to the Agency.

4. Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

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

4.1.2 Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.

4.1.3 All records required to be held by this permit shall be held on site and shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

4.2.1 A report or reports on the performance of the activities over the previous year shall be submitted to the Agency by 31 January (or other date agreed in writing by the Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto;
- (b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;

- (c) the energy consumed at the site, reported in the format set out in schedule 5 table S5.3;
 - (d) the annual production/treatment set out in schedule 5 table S5.2;
 - (e) details of any contamination or decontamination of the site which has occurred;
 - (f) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;
 - (g) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
 - (h) an assessment of the settlement behavior of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
 - (i) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 5 Table S5.1;
 - (b) for the reporting periods specified in schedule 5 Table S5.1 and using the forms specified in schedule 5 Table S5.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency.
- 4.2.6 The results of reviews and any changes made to the Site Protection and Monitoring Programme shall be reported to the Agency, within 1 month of the review or change.

4.3 Notifications

- 4.3.1 The Agency shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the permit;

- (c) any significant adverse environmental effects.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.
- 4.3.3. Prior written notification shall be given to the Agency of the following events and in the specified timescales:
 - (a) as soon as practicable prior to the permanent cessation of any of the permitted activities;
 - (b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and
 - (c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.
- 4.3.4 The Agency shall be given at least 14 days notice before implementation of any part of the site closure plan in respect of any activities other than the disposal of waste in the landfill.
- 4.3.5 Where the Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.6 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.
- 4.3.7 The Agency shall be provided, within 14 days of the operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.
- 4.3.8 The Agency shall be notified within 14 days of the operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.
- 4.3.9 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
 - (a) any change in the operator's trading name, registered name or registered office address;
 - (b) any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and
 - (c) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in Schedule 1 of the PPC Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1) (a). The disposal of waste in a landfill.	Landfill for non-hazardous waste (landfill classification under the Landfill Regulations 2002).	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in condition 2.8, as an integral part of landfilling.
Directly Associated Activity		
Landfill gas flaring	Collection and flaring of landfill gas.	Landfill gas arising from the landfill.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the Application Form, excluding the responses to the following: 2.2.1 to 2.2.6, 2.2.8, 2.3.17 to 2.3.29, 2.3.46 to 2.3.48, 2.4.6, 2.4.9, 2.5.4	5 June 2003
Response dated 15/01/2004 to request for information dated 31/12/2003	All parts excluding revised plan ref. AB/02.	15 January 2004
Response dated 20/01/2004 to request for information dated 31/12/2003	Section B2.2.8, excluding revised waste acceptance procedures (ref AEP 006.1 Date: Jan-04, Rev 0). Section B2.4.9.	20 January 2004
Response dated 19/01/2004 to request for information dated 31/12/2003	Sections B2.3.32, B2.3.34, B2.3.43, B2.3.64, B2.3.79, B2.3.82	21 January 2004
Golder Associates letter re Hydrogeological, Stability and Landfill Gas Risk Assessment.	All Parts	17 February 2004
Able letter re waste types and landfill layout.	Plan ref. AB/02 Rev 2 only	29 March 2004
Able letter re nuisance prevention procedures.	All parts	01 April 2004
Able e-mail regarding bunker.	All Parts	13 April 2004
Able Letter re Agency letter of 31 December 2003 re revised Nuisance Risk Assessment and leachate side riser monitoring procedure.	All Parts	19 April 2004
Able Letter re Agency letter of 31 December 2003 re Environmental Water Monitoring Schedule and List of VOCs to be Monitored.	All Parts	30 April 2004
Hydrogeological, Stability and Landfill Gas Risk Assessment letter.	All Parts	14 May 2004
Revised Cell Design for Phase 4A and 4B and revised waste types list.	All Parts	18 May 2004
Response to Schedule 4 Notice Issued 10 May 2004.	All Parts	03 June 2004
Method Statement for the Construction of Phases 4A, 4B and 4C.	All Parts	10 June 2004

Table S1.2 Operating techniques

Description	Parts	Date Received
Post Permit Issue		
Asbestos Monitoring Plan	Document AES/SM/09/05 (IF) Rev 1 and Letter GH/BV12591IL dated 07/10/05	07 October 2005
Revised Waste Acceptance Procedures	Procedure AL EP06.1 Rev 4 (May 06)	May 2006
Submission in response to Improvement condition 1.4.1.1 – Leachate Management Plan	Documents 05/567/02 – Rev 1- November 2005 0567/02 – Rev 2 August 2006	November 2005 06 September 2006
Submission in response to Improvement condition 1.4.1.5 – Meteorological Monitoring Plan	Document 567/1.4.1.5 Rev1 Letter BV12591L/AD-Tees East/2110906/21 dated	07 July 2006
Submission to response to Improvement condition 1.4.1.7 regarding inspection and maintenance of leachate drainage pipework.	Document 05-582-7 May 06 Letter from Kevin Wanless Letter EP3830/AD/Tees-East/291106/26 dated 29 November 2006	May 2006 24 June 2006 -
Submission in response to Improvement condition 1.4.1.9 regarding collection and disposal of surface water.	05-561-SWManP Rev 1 and 05-561-SWManP Rev August 06 Letter EP3830/AD/Tees-East/121206/28 dated 12 December 2006	November 2006 -
Site Protection and Monitoring Programme	Site Protection and Monitoring Plan submitted in response to condition 2.11 of this variation notice.	

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
1	<p>The Operator shall submit to the Agency for approval a Landfill Gas Management Plan. The plan shall:</p> <ul style="list-style-type: none"> take account of the requirements set out in sections 2.3.46 and 2.3.47 of Part B of the application form; include proposals for installation of an enclosed gas flare that complies with the Agency's Guidance on Landfill Gas Flaring (Version 2.1). The flare shall be of adequate capacity to flare all the gas anticipated by the Landfill Gas Risk Assessment submitted as part of this application; include construction specification and method statement for operation and maintenance of gas extraction wells, connecting pipework, condensate removal facilities, control systems and any other required collection infrastructure; include construction specification and method statement for operation and maintenance of the flare; include proposals (including timings) for the installation of gas monitoring points in all cells or phases of the site in accordance with the requirements of condition 2.2.4.10. set control and trigger levels for in-waste gas monitoring boreholes (including control and trigger levels for oxygen within the gas management system). <p>Following submission of the plan required by this condition the Operator shall undertake any measures notified in writing by the Agency to the timescales indicated in the notification. Completion of the measures shall be reported to the Agency following their full implementation.</p>	01 July 2008
2	<p>The Operator shall complete and submit a report to the Agency for approval that:</p> <ul style="list-style-type: none"> reviews the adequacy of the position and construction of all groundwater monitoring boreholes at the installation; where necessary to comply with Agency's guidance on Monitoring 	01 October 2008

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
	<p>of Leachate, Groundwater and Surface Water (LFTGN02) proposals shall be included for the installation of additional groundwater boreholes;</p> <ul style="list-style-type: none"> • includes proposals to replace boreholes that: <ul style="list-style-type: none"> a found to be inadequate by way of position or construction; and b downstream of the landfill area where existing boreholes are within the footprint of the proposed future landfill cells. <p>Additional and/or replacement monitoring boreholes shall be designed and installed in accordance with the Agency's guidance on Monitoring of Landfill Leachate, Groundwater and Surface water (LFTGN02). Details of the installation and final locations including drilling logs and as built construction shall be forwarded to the Agency upon completion. The report shall consider the impact on the monitoring of landfill gas where boreholes are dual use.</p> <p>Following submission of the report required by this condition the Operator shall undertake any measures notified in writing by the Agency to the timescales indicated in the notification. Completion of the measures shall be reported to the Agency following their full implementation.</p>	
3	<p>The Operator shall complete and submit a restoration and aftercare report to the Agency for approval. The Report shall include the following:</p> <ul style="list-style-type: none"> • the requirements listed in section 2.5.4 of Part B of the application form; • a phasing scheme for the landfill including timescales detailing the periods for preparation, in-filling, temporary capping and final capping for each cell; • the capping specifications for temporarily capped areas (defined as a covered area that will not receive any further waste for a period of at least three months, but for engineering reasons does not yet have a permanent cap (e.g. capping may be temporary until adjacent cells are filled to final levels)) <p>Following submission of the report required by this condition the Operator shall undertake any measures notified in writing by the Agency to the timescales indicated in the notification. Completion of the measures shall be reported to the Agency following their full implementation.</p>	01 November 2008
4	<p>The Operator shall complete and submit a review of the existing leachate monitoring points and leachate extraction wells against the requirements of the Agency's Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water (LFTGN02).</p> <p>Where monitoring points are found to be damaged or unable to meet monitoring objectives for any reason, they shall be remediated or replaced. All replacement or remediated monitoring points shall be certified and recommissioned in accordance with the guidance referred to above.</p> <p>Following submission of the review required by this condition the Operator shall undertake any measures notified in writing by the Agency to the timescales indicated in the notification. Completion of the measures shall be reported to the Agency following their full implementation.</p>	01 September 2008

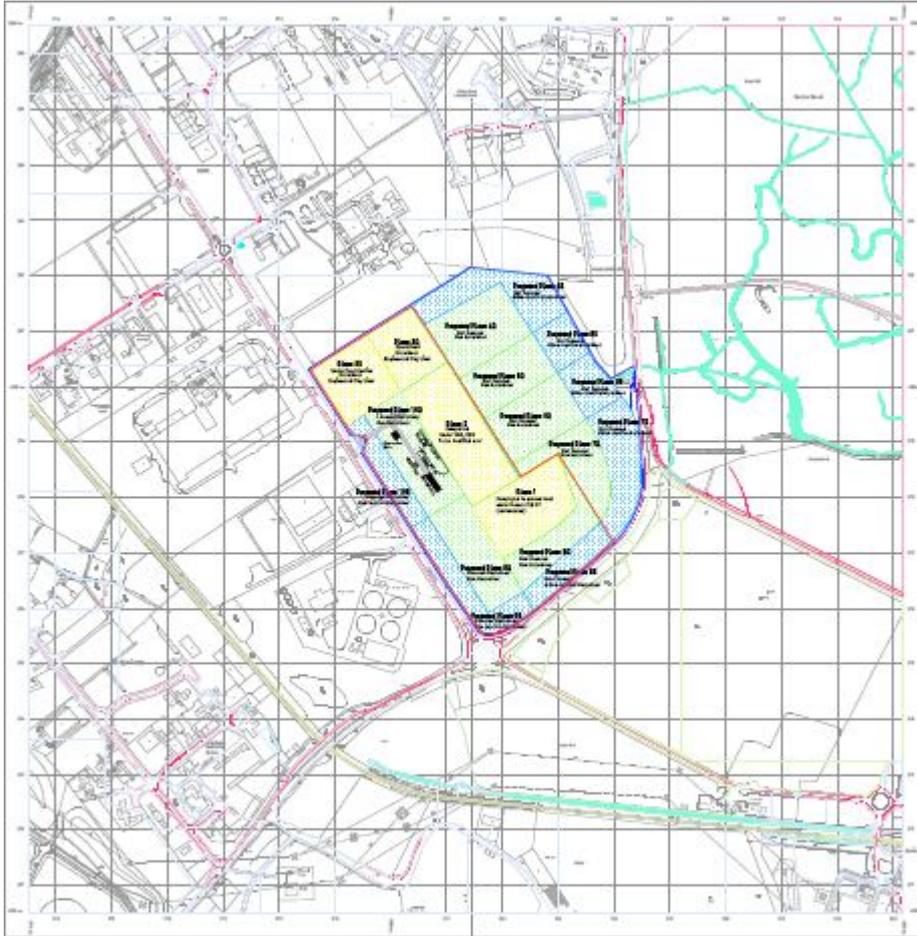
Table S1.4 Pre-operational measures

Reference	Pre-operational Measures
1.6.2	Prior to the commencement of construction in any new cell or phase, a report shall be submitted to the Agency for approval assessing the risk of basal heave occurring. This report shall include calculated factors of safety against basal heave to be based on representative groundwater monitoring data obtained from appropriately constructed monitoring boreholes. The report shall also contain details of any modifications to the engineering methodology or site monitoring required to minimise the risk of basal heave.
1.6.3	Prior to engineering in any cell or phase whose footprint coincides with the concrete bunker, proposals shall be submitted to the Agency for approval detailing the engineering solution to address differential settlement at the interface between the natural subgrade and the concrete bunker.
1.6.4	<p>No site engineering or deposit of waste shall take place within or adjacent to phase 1 (as shown on Plan Reference AB/02) until a report has been submitted to the Agency for approval and the Agency has approved in writing. The report shall include the following</p> <ol style="list-style-type: none"> 1. Assessment of the possible impact on the environment of depositing further wastes upon phase 1 including a revision of the Hydrogeological Risk Assessment for the site that shall take account of the impact of loading upon phase 1. Existing monitoring data for groundwater within the vicinity of phase 1 should be used as a baseline., 2. Details of any pollution prevention/ mitigation measures required as a result of the assessment, 3. Design of an engineering system to both contain and control leachate and landfill gas from future waste deposits. The engineering system should remain stable in the short, medium and long term, 4. Details of monitoring infrastructure for both leachate and landfill gas, 5. A monitoring scheme to ensure satisfactory performance of the engineering system.
1.6.5	Prior to construction of new leachate extraction and monitoring points, stability calculations shall be provided which demonstrate the long-term stability and integrity of the points over the lifetime of the site. The calculations shall consider the proposed method of operation to ensure that the emplacement of waste should take place in such a way as to ensure stability of leachate extraction and monitoring structures.
1.4.1.10	<p>Prior to the commencement of construction in any new cell or phase, the operator shall undertake an investigation into a suitable permeability specification for future lining works. An acceptable permeability range should be determined considering:</p> <p>The head difference between the groundwater adjacent to the cell and the proposed leachate head, and The balance between advective and diffusive fluxes across the barrier.</p> <p>The findings of this investigation shall be submitted to the Agency for approval and shall be incorporated within the CQA programme.</p>

Table S1.5 Annual waste input limits

Category	Limit Tonnes/ Year
Non-hazardous waste (including inert waste)	75,000
Asbestos waste and construction material containing asbestos	75,000
Stable, non-reactive hazardous waste	75,000
Total	150,000

Schedule 2 - Site plan



Schedule 3 - List of permitted wastes

Table S3.1 Permitted waste types: non-hazardous wastes	
Waste code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 01	wastes from mineral excavation
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 07
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
01 05	drilling muds and other drilling wastes
01 05 04	freshwater drilling muds and wastes
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	sludges from washing and cleaning
02 01 02	animal-tissue waste
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07	wastes from forestry
02 01 09	agrochemical waste other than those mentioned in 02 01 08
02 01 10	waste metal
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 01	sludges from washing and cleaning
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 04	wastes from sugar processing

Table S3.1 Permitted waste types: non-hazardous wastes	
Waste code	Description
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 04 03	sludges from on-site effluent treatment
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 05	de-inking sludges from paper recycling
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 09	lime mud waste
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 01	wastes from the leather and fur industry
04 01 01	fleshings and lime split wastes
04 01 02	liming waste
04 01 06	sludges, in particular from on-site effluent treatment containing chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyesuffs and pigments other than those mentioned in 04 02 16
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05	WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL

Table S3.1 Permitted waste types: non-hazardous wastes

Waste code	Description
05 01	wastes from petroleum refining
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 13	boiler feedwater sludges
05 01 14	wastes from cooling columns
05 01 16	sulphur-containing wastes from petroleum desulphurisation
05 01 17	bitumen
05 06	wastes from the pyrolytic treatment of coal
05 06 04	waste from cooling columns
05 07	wastes from natural gas purification and transportation
05 07 02	wastes containing sulphur
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 03	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 05	sludges from on-site effluent treatment
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02
06 06	wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02
06 09	wastes from the MFSU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacifiers
06 11 01	calcium-based reaction wastes from titanium dioxide production
06 13	wastes from inorganic chemical processes not otherwise specified
06 13 03	carbon black
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	wastes containing silicones other than those mentioned in 07 02 16
07 03	wastes from the MFSU of organic dyes and pigments (except 06 11)
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
07 05	wastes from the MFSU of pharmaceuticals
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 14	solid wastes other than those mentioned in 07 05 13
07 06	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
07 07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
08	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01	wastes from MFSU and removal of paint and varnish
08 01 12	waste paint and varnish other than those mentioned in 08 01 11
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17

Table S3.1 Permitted waste types: non-hazardous wastes

Waste code	Description
08 02	wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders
08 03	wastes from MFSU of printing inks
08 03 07	aqueous sludges containing ink
08 03 15	ink sludges other than those mentioned in 08 03 14
08 03 18	waste printing toner other than those mentioned in 08 03 17
08 04	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	WASTES FROM THERMAL PROCESSES
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 01 03	fly ash from peat and untreated wood
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 01 24	sands from fluidised beds
10 01 25	wastes from fuel storage and preparation of coal-fired power plants
10 01 26	wastes from cooling-water treatment
10 02	wastes from the iron and steel industry
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other sludges and filter cakes
10 03	wastes from aluminium thermal metallurgy
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 20	flue-gas dust other than those mentioned in 10 03 19
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27

Table S3.1 Permitted waste types: non-hazardous wastes

Waste code	Description
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	wastes from lead thermal metallurgy
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	wastes from zinc thermal metallurgy
10 05 01	slags from primary and secondary production
10 05 04	other particulates and dust
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	wastes from copper thermal metallurgy
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 04	other particulates and dust
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	wastes from silver, gold and platinum thermal metallurgy
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 04	other particulates and dust
10 07 05	sludges and filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	wastes from other non-ferrous thermal metallurgy
10 08 04	particulates and dust
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 16	flue-gas dust other than those mentioned in 10 08 15
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	wastes from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 10	flue-gas dust other than those mentioned in 10 09 09
10 09 12	other particulates other than those mentioned in 10 09 11
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	wastes from casting of non-ferrous pieces
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 10	flue-gas dust other than those mentioned in 10 10 09
10 10 12	other particulates other than those mentioned in 10 10 11
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09

Table S3.1 Permitted waste types: non-hazardous wastes

Waste code	Description
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 11 20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
10 12 03	particulates and dust
10 12 05	sludges and filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 12 13	sludge from on-site effluent treatment
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	wastes from hot galvanising processes
11 05 01	hard zinc
11 05 02	zinc ash
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 15	machining sludges other than those mentioned in 12 01 14
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)

Table S3.1 Permitted waste types: non-hazardous wastes

Waste code	Description
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 16	tanks for liquefied gas
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 01 22	components not otherwise specified
16 02	wastes from electrical and electronic equipment
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 05	gases in pressure containers and discarded chemicals
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
16 06	batteries and accumulators
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators
16 08	spent catalysts
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 08 04	spent fluid catalytic cracking catalysts (except 16 08 07)
16 11	waste linings and refractories
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 01	wood

Table S3.1 Permitted waste types: non-hazardous wastes	
Waste code	Description
17 02 02	glass
17 02 03	plastic
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
18	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18 01 07	chemicals other than those mentioned in 18 01 06
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 01	wastes from incineration or pyrolysis of waste
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 14	fly ash other than those mentioned in 19 01 13
19 01 16	boiler dust other than those mentioned in 19 01 15
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 03	stabilised/solidified wastes
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 04	vitrified waste and wastes from vitrification

Table S3.1 Permitted waste types: non-hazardous wastes

Waste code	Description
19 04 01	vitrified waste
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 02	waste from desanding
19 08 05	sludges from treatment of urban waste water
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 01	solid waste from primary filtration and screenings
19 09 02	sludges from water clarification
19 09 03	sludges from decarbonation
19 09 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
19 09 06	solutions and sludges from regeneration of ion exchangers
19 10	wastes from shredding of metal-containing wastes
19 10 01	iron and steel waste
19 10 02	non-ferrous waste
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 06	other fractions other than those mentioned in 19 10 05
19 11	wastes from oil regeneration
19 11 06	sludges from on-site effluent treatment other than those mentioned in 19 11 05
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard

Table S3.1 Permitted waste types: non-hazardous wastes	
Waste code	Description
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 25	edible oil and fat
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 07	bulky waste

Table S3.2 Permitted waste types: Stable non-reactive hazardous waste	
Waste code	Description
05	WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL
05 01	wastes from petroleum refining
05 01 15*	spent filter clays
06 13	wastes from inorganic chemical processes not otherwise specified
06 13 05*	soot
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 16*	wastes containing dangerous silicones
11	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)
11 01 16*	saturated or spent ion exchange resins
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 06*	mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 03*	soil and stones containing dangerous substances
17 08	gypsum-based construction material
17 08 01*	gypsum-based construction materials contaminated with dangerous substances

Table S3.2 Permitted waste types: Stable non-reactive hazardous waste	
Waste code	Description
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 11*	other wastes containing dangerous substances
19 03	stabilised/solidified wastes
19 03 04*	wastes marked as hazardous, partly stabilised
19 03 06*	wastes marked as hazardous, solidified
19 04	vitrified waste and wastes from vitrification
19 04 02*	fly ash and other flue-gas treatment wastes
19 04 03*	non-vitrified solid phase
19 10	wastes from shredding of metal-containing wastes
19 10 03*	fluff-light fraction and dust containing dangerous substances
19 10 05*	other fractions containing dangerous substances

Table S3.3 Permitted waste types: Asbestos and asbestos contaminated wastes	
Waste code	Description
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 07	wastes from the MFSU of halogens and halogen chemical processes
06 07 01*	wastes containing asbestos from electrolysis
06 13	wastes from inorganic chemical processes not otherwise specified
06 13 04*	wastes from asbestos processing
10	WASTES FROM THERMAL PROCESSES
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 09*	wastes from asbestos-cement manufacture containing asbestos
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 11*	metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 11*	brake pads containing asbestos
16 02	wastes from electrical and electronic equipment
16 02 12*	discarded equipment containing free asbestos
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 06	insulation materials and asbestos-containing construction materials
17 06 01*	insulation materials containing asbestos
17 06 05*	construction materials containing asbestos

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
Two leachate monitoring points and the collection sump for each hydraulically separate cell, unless otherwise agreed in writing by the Agency.	1 m above cell base	Monthly	Unless otherwise agreed in writing with the Agency monitoring methods used shall be in accordance with Agency guidance document 'Guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)

Table S4.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (incl. units)	Reference Period	Monitoring Frequency ¹	Monitoring Standard or Method
A1, Landfill Gas Flare as detailed on Plan 05/567/1/002 of document 05/567/01	Oxides of Nitrogen (NOx)	Landfill Gas Flare	150	Hourly mean	Annually	In accordance with that described in the Agency's Technical Guidance Note M2 "Monitoring of stack emissions to air".
	Carbon Monoxide (CO)	Landfill Gas Flare	50	Hourly mean	Annually	
	Total Volatile Organic Compounds (VOCs)	Landfill Gas Flare	10	Hourly mean	Annually	
	None Methane Volatile Organic Compounds (NMVOCs)	Landfill Gas Flare	5	Hourly mean	Annually	
	Operational Temperature	Landfill Gas Flare	>1000°C	Hourly mean	Weekly while flare operational	

Footnote: Annual monitoring is only required when flares operate in excess of 10% of the time, taken on an annual assessment period.

Table S4.3 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Limit (incl. units)	Reference Period	Monitoring frequency	Monitoring standard or method
Boreholes BH1, BH9, BH10, BH11, BH12 as shown on plan Figure 3 of the Seaton Meadows Groundwater Impact Assessment Report (Ref 02523568 dated May 2003).	Cadmium	0.1 µg/l	Spot Sample	Quarterly	Monitoring methods in accordance with the Agency's 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' (LFTGN02)
	Mecoprop	0.04 µg/l	Spot Sample	Annually	
	Toluene	4 µg/l	Spot Sample	Quarterly	
	Naphthalene	0.5 µg/l	Spot Sample	Quarterly	
	Benzene	1 µg/l	Spot Sample	Quarterly	
	Lead	0.1 mg/l	Spot Sample	Quarterly	
	Zinc	5 mg/l	Spot Sample	Quarterly	

Table S4.4 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (incl. units)	Monitoring frequency	Monitoring standard or method
BH01 to BH12 and any additional or replacement monitoring points installed	Methane	1% by volume	Monthly	Monitoring methods in accordance with the Agency's 'Guidance on the management of landfill gas' (LFTGN03)
	Carbon Dioxide	1.5% by volume	Monthly	
	Oxygen	No limit	Monthly	
	Atmospheric Pressure	No limit	Monthly	

Table S4.5 Landfill gas from capped surfaces - monitoring requirements

Monitoring point Ref. /description	Parameter	Monitoring frequency	Other specifications	Monitoring Standard or method
Permanently capped zones	Average Methane flux and total methane emission	Annually	Where the average zone emission rate of 0.001 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN 07 or as otherwise agreed in writing by the Agency.
Temporarily capped zones	Average Methane flux	Annually	Where the average zone emission rate of 0.1 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN 07 or as otherwise agreed in writing by the Agency

Footnote * If a cap has previously been shown compliant and there have been no significant physical changes in the gas management during the year, a detailed walkover survey can be used to demonstrate that the surface emissions are under control. If this survey shows no change in the pattern of methane emission, it may be used as the annual survey and the values for average methane flux and total methane emissions measured in the previous year may be reported. A quantitative survey is not necessary. If the zone remains stable, the results of a detailed walkover survey will be acceptable for the annual report for a period of four years before a further quantitative survey is required.

Table S4.6 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All in-waste gas monitoring points unless otherwise agreed in writing by the Agency.	Oxygen	Monthly	Monitoring methods in accordance with the Agency's 'Guidance on the management of landfill gas' (LFTGN03)	
	Carbon Dioxide			
	Methane			
	Hydrogen Sulphide			
	Temperature			
	Atmospheric pressure			
One in-waste gas monitoring point in each cell, unless otherwise agreed in writing by the Agency.	Chloroethane	Annually	Monitoring methods in accordance with the Agency's 'Guidance for monitoring trace components in landfill gas' (LFTGN04)	Minimum detection limits in accordance with the Agency's 'Guidance for monitoring trace components in landfill gas' (LFTGN04), Appendix 3.
	Chloroethene			
	Benzene			
	2-butoxyl ethanol			
	Arsenic			
	1,1-dichloroethane			
	Trichloroethane			
	Tetrachloroethane			
	Methanal (formaldehyde)			
	Hydrogen sulphide			
	1,1-dichloroethene			
	1,2-dichloroethene			
	Mercury			
	Carbon disulphide			
	Methanethiol			
	Butyric acid			
	Ethanal (acetaldehyde)			
	Ethyl butyrate			
	1-propanethiol			
	Dimethyl sulphide			
	Ethanethiol			
	1-pentene			
	1-butanethiol			
	Dimethyl disulphide			
	1,3-butadiene			
	Furan (1,4-epoxy-1,3-butadiene)			
PCDDs and PCDFs				
Carbon Monoxide				

Table S4.6 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Input to Flare	Trace gas analysis in accordance with LFTGN04.	Annually		The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Input to Flare	Methane Carbon Dioxide Oxygen Gas flow rate	Weekly		Where the Oxygen level exceeds 5% or where the addition of the Carbon Dioxide and Methane percentages is less than 80%, an assessment of air ingress into the system shall be undertaken.

Table S4.7 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Leachate sampled from the	pH	Quarterly	Monitoring methods in	

Table S4.7 Leachate- other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	Chloride			
	Ammoniacal nitrogen (NH4-N)			
	Sulphate			
	Chemical Oxygen Demand (COD)			
	Biochemical Oxygen Demand (BOD)			
	Total Organic Carbon (TOC)			
	Sodium			
	Potassium			
	Calcium			
	Magnesium			
	Iron			
	Manganese			
	Copper			
	Nickel			
	Lead			
	Zinc			
	Cadmium			
Leachate sampled from the collection sump of each hydraulically separate cell	Organic substances as described in the Environmental Water Monitoring Schedule, list of VOCs, dated 28 April 2004	Six-monthly	Monitoring methods in accordance with the Agency's 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' (LFTGN02)	
	List 1 screen	Annually	Monitoring methods in accordance with the Agency's guidance 'Hydrogeological Risk Assessment for Landfills' (LFTGN01)	
Each leachate monitoring well and collection sump	Level of base	Annually	Referenced to surveyed datum level	+/- 0.05 Metres

Table S4.8 Surface water – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
SW01, SW02, SW03 as detailed on plan AB/04	pH	Quarterly	Monitoring methods in accordance with the Agency's 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' (LFTGN02)	
	Ammoniacal nitrogen	Quarterly		
	Chloride	Quarterly		
	COD	Quarterly		

Table S4.8 Surface water – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	List I substances identified in leachate, unless otherwise agreed in writing with the Agency.	Annually	Monitoring methods in accordance with the Agency's guidance 'Hydrogeological Risk Assessment for Landfills' (LFTGN01)	

Table S4.9 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
BH1 to BH12 and any additional or replacement groundwater monitoring points installed	pH	Quarterly	Monitoring methods in accordance with the Agency's 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' (LFTGN02)	
	Chloride			
	Ammoniacal nitrogen			
	Sulphate			
	COD			
	BOD			
	TOC			
	Sodium			
	Potassium			
	Calcium			
	Magnesium			
	Iron			
	Manganese			
	Copper			
	Nickel			
	Lead			
Zinc				
Phenols				
Cadmium				
	Water Level			
	Organic substances as described in the Environmental Water Monitoring Schedule, list of VOCs, dated 28 April 2004	Six-monthly	Monitoring methods in accordance with the Agency's 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' (LFTGN02)	
	Mecoprop	Annually	Monitoring methods in accordance with the Agency's 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' (LFTGN02)	

Table S4.9 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	List I substances identified in leachate, unless otherwise agreed in writing with the Agency.	Annually	Monitoring methods in accordance with the Agency's guidance 'Hydrogeological Risk Assessment for Landfills' (LFTGN01)	

Table S4.10 Particulate matter in ambient air - limits and monitoring requirements

Monitoring Point Ref. /Description	Parameter	Limit (incl. units)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
At the number and type of location determined in accordance with Asbestos Monitoring Plan – Document AES/SM/09/05 (IF) Rev 1	Fibres	No limit set ¹	Monitoring methods in accordance with the Agency's "Monitoring of particulate matter in ambient air around waste facilities" (Technical Guidance Document (Monitoring) M17).	Quarterly	Monitoring methods in accordance with the Agency's "Monitoring of particulate matter in ambient air around waste facilities" (Technical Guidance Document (Monitoring) M17).
	Asbestos fibres	0.01 asbestos fibres/ml above the background concentration at the site.	Monitoring methods in accordance with the Agency's "Monitoring of particulate matter in ambient air around waste facilities" (Technical Guidance Document (Monitoring) M17).	No frequency set ¹	Scanning electron microscope (SEM) or energy dispersive analysis by X-ray (EDAX).

Footnote ¹: If more than 0.01 fibres/ml above the background concentration at the site are detected during the quarterly monitoring for fibres, the operator shall undertake monitoring for asbestos fibres as specified in the table.

Schedule 5 - Reporting

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

Table S5.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels As required by condition 3.6.1	Two leachate monitoring points and leachate collection sump for each hydraulically separate cell.	Every 3 months	22/07/2005
Emissions to air Parameters as required by condition 3.6.1	A1	Every 12 months	01/04/08
Groundwater Parameters as required by condition 3.6.1	BH1 to BH12	Every 3 months for all parameters monitored at a monthly or quarterly frequency. Every 12 months for all parameters monitored at six monthly or annual frequency.	22/07/2005
Landfill gas surface emissions Parameters as required by condition 3.6.1	Each capped cell	Every 12 months	22/07/2005
Particulate matter Parameters as required by condition 3.6.1	Locations approved as part of the fibre monitoring plan.	Every 3 months	01/04/08
Landfill gas lateral migration Parameters as required by condition 3.6.1	All perimeter gas monitoring boreholes.	Every 3 months	22/07/2005
Other Landfill gas monitoring Parameters as required by condition 3.6.1			22/07/2005
In-waste gas monitoring:	All in-waste gas monitoring points.	Every 3 months	
Trace gases:	One in-waste gas monitoring point in each cell.	Every 12 months	
Other leachate monitoring Parameters as required by condition 3.6.1			22/07/2005
Leachate quality:	Leachate collection sump of each hydraulically separate cell.	Every 3 months for all parameters monitored at a monthly or quarterly frequency. Every 12 months for all parameters monitored at six monthly or annual frequency.	
Level of base:	Each leachate monitoring well and sump.	Every 12 months	

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Other surface water monitoring Parameters as required by condition 3.6.1	SW01, SW02, SW03 as detailed on plan AB/04.	Every 3 months for all parameters monitored at a monthly or quarterly frequency. Every 12 months for all parameters monitored at six monthly or annual frequency.	22/07/2005

Table S5.2 Annual production/treatment

Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass.	Cubic metres/year
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S5.3 Performance Parameters

Parameter	Frequency of assessment	Annual total	Unit
Energy used (including for leachate treatment)	Annually		MWh of electricity
Non potable water use	Annually		Cubic metres

Table S5.4 Reporting Forms

Media/parameter	Reporting Format	Date of Form
Leachate	Form Leachate 1 or other reporting format to be agreed in writing with the Agency	
Air	Form Air 1 or other reporting format to be agreed in writing with the Agency	
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Agency	
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Agency	
Sewer	Form Sewer 1 or other reporting format to be agreed in writing with the Agency	
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Agency	
Particulate matter	Form Particulate 1 or other reporting format to be agreed in writing with the Agency	
Waste Return	Waste Return Form RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Agency	

Schedule 6 - Notification

This page outlines the information that the operator must provide.

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

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

Part A

Permit Number	EP3830LE
Name of operator	Alab Environmental Services Ltd
Location of Installation	Brenda Road Hartlepool Teesside TS25 2BS
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident	

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

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

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be supplied as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Alab Environmental Services Limited

Schedule 7 - Interpretation

“*Accident*” means an accident that may result in pollution.

“*Annually*” means once every Year.

“*Application*” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 4 to the PPC Regulations.

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

“*Background concentration*” means such concentration of that substance as is present in:

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

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

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

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“*Fugitive emission*” means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

“*Groundwater Regulations*” means the Groundwater Regulations SI 1998 No. 2746, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

“*Landfill Infrastructure*” means any specified element of the:

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

within the site.

“*Landfill Regulations*” means the Landfill (England and Wales) Regulations SI 2002 No. 1559, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

“*Land Protection Guidance*” means Agency guidance “H7 - Guidance on the protection of land under the PPC Regime: Application site report and site protection monitoring programme”.

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

"*LFTGN 05*" means Environment Agency Guidance for monitoring enclosed landfill gas flares, September 2004.

"*LFTGN 08*" means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

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

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

for the New Cell.

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

"*Notify without delay*" and "*notified without delay*" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

"*PPC Regulations*" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

"*Relevant person*" and "*relevant conviction*" shall have the meanings given to them in the Environmental Protection Act 1990.

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

"*Site Protection and Monitoring Programme*" means a document which meets the requirements for Site Protection and Monitoring Programmes described in the Land Protection Guidance.

"*Technically competent management*" and "*technical competence*" shall have the meanings given to them in the Environmental Protection Act 1990.

"*Waste code*" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, List of Wastes (Northern Ireland) Regulations 2005 (as amended), or The Special Waste Amendment (Scotland) Regulations 2004 as appropriate, and in relation to hazardous waste, includes the asterisk.

"*Year*" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

END OF PERMIT