

Notice of partial surrender, variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

FCC Waste Services (UK) Limited

Calvert Landfill (Pit 6)
Brackley Lane
Calvert
Buckinghamshire
MK18 2HF

Variation application number

EPR/BP3637AF/V006

Permit number

EPR/BP3637AF

Calvert Landfill (Pit 6)

Permit number **EPR/BP3637AF**

Introductory note

This introductory note does not form a part of the notice

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

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

The Calvert Landfill complex is located immediately to the south east of the village of Calvert and approximately 9km to the east of Bicester. The centre of Pit 6 is located at national grid reference SP 69833 22935.

SSSI designated sites Sheephouse wood and Decoypond wood are located adjacent to the north-eastern site boundary separated from the site by the railway line which runs in a southeast to north westerly direction immediately adjacent to the site boundary.

The wider landfill site complex is a former series of clay and mineral extractions which are being restored through landfilling. The main landfill installation (EPR/BS8605IQ) comprised of areas historically known as Pits 4, 5 and 6 that follow on in sequence from north west to south east and cover an area of approximately 148ha. In 2017, the site was split into separate areas resulting in two separately permitted landfills comprising of Pit 4 & 5 a non-hazardous waste landfill regulated by Environmental Permit EPR/BS8605IQ and Pit 6 a 'Qualifying Materials' (non-biodegradable non-hazardous wastes) landfill regulated by this permit. Pit 6 covers an area of approximately 38ha.

At the south eastern end of the landfill adjacent to Pit 6 is the Greatmoor Energy from Waste (EfW) plant which is now operational. The Incinerator Bottom Ash (IBA) produced from the EfW plant process will be brought onto the site to be processed in the IBA facility for treatment and subsequently landfill in Pit 6.

This landfill permit is for the disposal of non-hazardous (low-biodegradable) wastes within the mineral extraction void of Pit 6 within the landfill complex at Calvert. The non-hazardous (low-biodegradable) wastes to be filled in Pit 6 consist of excavation, construction and demolition wastes (mostly soils) and similar industrial wastes that are inert or have a low level of contamination.

Wastes received at the facility will be subject to rigorous waste pre-acceptance procedures which will ensure that the materials generate low volumes of gas and leachate.

The main changes made to the permit under this variation are as follows:

- Part surrender of land along north-western boundary to remove undeveloped land from the permit. This will allow for the relocation of the Leachate Treatment Plant (LTP) which serves and is regulated by the Pits 4 and 5 Permit.
- Part surrender of land along eastern boundary adjacent to the railway as HS2 will run along the route of the existing railway which is adjacent to the eastern perimeter of the Calvert Pits 4 & 5 and Pit 6 Landfill sites.
- Amend the boundary to include an additional parcel of land to the south of Pit 6 which will be developed as a new reception area and will include site offices, a wheel wash, car park, workshop and associated storage tanks that have been relocated from the northern section of Pits 4 & 5.

The schedules specify the changes made to the permit.

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

| Status log of the permit | | |
|--|--|--|
| Description | Date | Comments |
| Application EPR/BP3637AF/A001 | Duly made 21/10/2015 | Application for non-hazardous landfill and IBA facility. |
| Additional information received Schedule 5 request dated 05.01.2016 Further Information request dated 25/04/2016 and 10/05/2016 | Response dated 25/02/16 Response dated Part 1 03/06/2016 Part 2 13/06/2016 | HRA Modelling; Leachate Management (Pit 6); Separation Bund (Pits 5&6); Landfill Gas Management; IBA Facility; and Surface Water Management System. |
| Permit Determined EPR/BP3637AF/A001 | 08/02/2017 | Issued to FCC Waste Services (UK) Limited |
| Environment Agency variation and consolidation determined EPR/BP3637AF/V002 | 07/06/2017 | Varied and consolidated permit issued. |
| Environment Agency variation and consolidation EPR/BP3637AF/V003 | 27/03/2018 | Varied and consolidated permit issued |
| Variation application EPR/BP3637AF/V004 | Duly made | Variation to remove 3 landfill gas monitoring boreholes and 3 groundwater monitoring boreholes on the NE boundary with the addition of a groundwater monitoring borehole on the SE boundary. Variation required as a result of the HS2 railway encroaching onto the landfill in the NE boundary area. |
| Additional information submitted in accordance with Schedule 5 Notice dated 08/04/2020 | 06/05/2020 | Updated Calvert Landfill borehole relocation report |
| Variation application EPR/BP3637AF/V004 | 22/10/2020 | Varied and consolidated permit issued to FCC Waste Services (UK) Limited |
| Application EPR/BP3637AF/V006 (variation) | Duly made 22/10/2020 | Application to increase waste volume |
| Variation determined EPR/BP3637AF/V005 | 08/06/2021 | Notice of variation issued to FCC Waste Services (UK) Limited |
| Application EPR/BP3637AF/V006 (variation and consolidation) | Duly made 15/12/2021 | Application to vary and part surrender land along western boundary to remove undeveloped land, part surrender of land along eastern boundary and amendment to southern boundary to include an additional parcel of land. |
| Variation determined and consolidation issued EPR/BP3637AF | 01/11/2022 | Part surrender complete. Varied and consolidated permit issued in a modern format to FCC Waste Services (UK) Limited Registered office address updated from: Ground Floor West, 900 Pavilion Drive, Northampton Business Park, Northampton, NN4 7RG to 3 Sidings Court, White Rose Way, Doncaster, England, DN4 5NU |

| Other Part A installation permits relating to this installation | | |
|--|----------------------|----------------------|
| Operator | Permit number | Date of issue |
| FCC Waste Services (UK) Limited | EPR/BS8605IQ | 19/04/2005 |

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

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

Permit number

EPR/BP3637AF

Issued to

FCC Waste Services (UK) Limited (“the operator”)

whose registered office is

**3 Sidings Court
White Rose Way
Doncaster
England
DN4 5NU**

company registration number 00988844

to operate a regulated facility at

**Calvert Landfill (Pit 6)
Brackley Lane
Calvert
Buckinghamshire
MK18 2HF**

to the extent set out in the schedules.

The notice shall take effect from 01/11/2022.

| Name | Date |
|-------------|------------|
| Louise Hann | 01/11/2022 |

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions were varied as a result of the application made by the operator:

Condition 2.7.8 Revised pre-settlement levels shown on drawing WR7825/TC/01 dated 17/11/2021.

Table S1.3 Improvement programme requirements – IC2 has been marked complete.

Table S1.4 Pre-operational measures for future development – PO1 has been marked complete.

Table S3.4 boreholes references for redrilled boreholes updated. Boreholes WB13, WB8B and WB26 removed.

Schedule 7 Site plan - showing installation boundary as referred to in condition 2.2.1 – amended.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BP3637AF

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BP3637AF/V006 authorising,

FCC Waste Services (UK) Limited (“the operator”),

whose registered office is

**3 Sidings Court
White Rose Way
Doncaster
England
DN4 5NU**

company registration number 00988844

to operate an installation at

**Calvert Landfill (Pit 6)
Brackley Lane
Calvert
Buckinghamshire
MK18 2HF**

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

| Name | Date |
|-------------|------------|
| Louise Hann | 01/11/2022 |

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Finance

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

1.3 Energy efficiency

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

1.4 Efficient use of raw materials

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

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

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

1.5.1 The operator shall:

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

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1, table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.5 Pre-operational conditions

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

2.6 Landfill Engineering

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

2.7 Waste acceptance

- 2.7.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 2, table S2.1; and

- (b) they are non- hazardous waste; and
- (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm); and
- (d) they are not shredded used tyres; and
- (e) they are not liquid waste (including waste waters but excluding sludge; and
- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown; and
- (g) all the relevant waste acceptance procedures have been completed; and
- (h) they fulfil the relevant waste acceptance criteria; and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria; and
- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment.

2.7.2 For the following activities referenced in schedule 1, table S1.1 (A2), waste shall only be accepted for treatment if:

- (a) it is of a type and quantity listed in schedule 2, table S2.2; and
- (b) it conforms to the description in the documentation supplied by the producer and holder.

2.7.3 Wastes shall only be accepted for restoration where:

- (a) they are listed in schedule 2, table S2.3; and
- (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.

2.7.4 For the following activities referenced in schedule 1, table S1.1 (A1), the operator shall:

- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
- (b) be satisfied that the waste conforms to the requirements of condition 2.7.1.

2.7.5 For the following activities referenced in schedule 1, table S1.1 (A2), the operator shall visually inspect waste at the point of dispatch and shall be satisfied that the waste conforms to the requirements of condition 2.7.1.

2.7.6 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.

2.7.7 For the following activities referenced in schedule 1, table S1.1 (A1), the operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.7.8 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing WR7825/TC/01 dated 17/11/2021.

2.7.9 The quantity of waste that is disposed of or recovered at the regulated facility in any year shall not exceed the limits in schedule 1, table S1.5.

2.7.10 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 Closure and aftercare

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

2.9 Landfill gas management

2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:

- (a) control the migration of landfill gas.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 The limits in schedule 3 shall not be exceeded.
- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, table S3.2.
- 3.1.3 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.4 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
- (a) between nine and six months prior to the fourth anniversary of the granting of the permit; and
 - (b) between nine and six months prior to every subsequent six years after the fourth anniversary of the granting of the permit.
- 3.1.5 For the following activities referenced in schedule 1, table S1.1 (A2), Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

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

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:

- (a) Leachate specified in tables S3.1 and S3.7;
- (b) Point source emissions specified in tables S3.2;
- (c) Groundwater specified in tables S3.3 and S3.5;
- (d) Landfill gas specified in tables S3.4 and S3.6; and
- (e) Surface water specified in table S3.8.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:

- (a) Annually; and
- (b) prior to the disposal of waste in any new cell or new development area of the landfill; and
- (c) following closure of the landfill or part of the landfill.

3.6 Pests

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

4 Information

4.1 Records

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

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

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
- (b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3
- (c) the annual production/treatment set out in schedule 4, table S4.2;
- (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- (e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
- (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;

- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- (h) a plan(s) ('the monitoring and extraction point plan – MEPP') showing the locations of existing and any new leachate and landfill gas extraction and monitoring points.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4, table S4.1;
- (b) using the forms specified in schedule 4, table S4.4 or other reporting format as agreed in writing with the Environment Agency; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency;
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident; and
 - (iii) take the measures necessary to prevent further possible incidents or accidents.
- (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency; and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time.
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

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

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

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

In any other case:

- (c) the death of any of the named operators (where the operator consists of more than one named individual);
- (d) any change in the operator's name(s) or address(es); and
- (e) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

| Table S1.1 activities | | | | |
|---------------------------------------|---|---|---|---|
| Activity reference | WFD Annex I and II operations (where applicable) | Activity listed in Schedule 1 of the EP Regulations | Description of specified activity | Limits of specified activity |
| A1 | D5 –Specially engineered landfill | Section 5.2 Part A(1)(a), The disposal of waste in a landfill. | Landfill for non-hazardous waste | Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling. |
| A2 | R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials | Section 5.4 Part A(1)b)(iii) | Treatment of Slags and Ashes (IBA) | Receipt, handling, storage and disposal of non-hazardous slags and ashes (IBA), consisting of the types and quantities specified in conditions 2.6.2 180,000 tonnes per annum |
| Directly Associated Activities | | | | |
| A3 | D6 – release to water body except seas/ oceans | | Discharges of site drainage from the landfill. | From surface water management system to point of entry to controlled waters. |
| A4 | N/A | | Storage of fuel for operation of plant and equipment. | Fuel storage tank. |
| A5 | R5:Recycling/reclamation of other inorganic material | - | Recovery of waste for restoration and/ or | The use of wastes in table S2.4 only to provide restoration material for the permitted landfill. |

| Table S1.1 activities | | | | |
|------------------------------|---|--|---|--|
| Activity reference | WFD Annex I and II operations (where applicable) | Activity listed in Schedule 1 of the EP Regulations | Description of specified activity | Limits of specified activity |
| A6 | R10: Land treatment resulting in benefit to agriculture or ecological improvement | | Recovery of waste for restoration and/ or | The use of wastes in table S2.4 only to provide restoration material for the permitted landfill. |

| Table S1.2 Operating techniques | | |
|--|--|----------------------|
| Description | Parts | Date Received |
| Application | Responses to Parts B2 and B3 of the application form and referenced supporting documentation, excluding all Operating techniques relating to the leachate limits | 03/08/2015 |
| Application Report No 2077-R01 | Permit Application Supporting Statement & Non-Technical Summary | July 2015 |
| Application Report No 2077-R02 | Operator Competence | July 2015 |
| Application Report No 2077-R03 | Environmental Setting And Installation Design (ESID) Pit 6 | July 2015 |
| Application Report No 2077/R/04-02-Sra | Pit5/Pit6 Interpit Bund Stability Risk Assessment | July 2015 |
| Application Report No 2077-R05 | Pit 6 H1 Risk Assessment and Associated Amenity Management Plan | July 2015 |
| Application Report No 2077-R06 | Pit 6 Monitoring Plan | July 2015 |
| Application Report No 2077-R07 | Pit 6 Hydrogeological Risk Assessment (HRA) | July 2015 |
| Application Report No 2077-R08 | Pit 6 Landfill Gas Risk Assessment (LfGRA) | July 2015 |
| Application Report No 2077-R09 | Calvert Landfill Site Pit 6 Waste Acceptance | July 2015 |

| Table S1.2 Operating techniques | | |
|--|---|--|
| Description | Parts | Date Received |
| Schedule 5 request dated 05.01.2016 | HRA Modelling; Leachate Management Pit 6; Amendment to Leachate Drainage and extraction arrangement Pit 6; Landfill Gas Management. Excluding those parts of the LfGRA that assert the re-running of GASSIM 2.05 using 20m saturated waste inputs has no effect on gas production rates. | 25/02/2016 |
| Further information requests dated 25/04/2016 and 10/05/2016 | Further Information detailing; Conceptual Understanding, Leachate Collection in Pit 6, IBA Facility and Surface Water Management System. Report No 2077/R/05-01-Sra Pit5/Pit6 Interpit Bund Stability Risk Assessment. | 03/06/2016 Part 1 13/06/2016 Part 2 |
| EPR/BP3637AF/V002 Additional Information | Letter dated 21/03/17 reference 2077/L/011-01 Leachate Drainage Blanket. Including; Annex 1 Leachate Source term; and Annex 2 Revised Waste Acceptance (Waste Types and Leachate Source term). | 21/03/2017 |
| EPR/BP3637AF/V002 Additional Information | Revised Annex 3 Preene Groundwater Consulting Report reference 17-339.101.V1 dated 03/05/17 | 04/05/2017 |
| Appeal response | Stability bund report | 03/11/2017 |
| EPR/BP3637AF/V004 | Calvert Landfill Sites Pits 4, 5 and 6: Relocation of Eastern Perimeter Boreholes. Report No: 10417-r01. May 2020 | 06/05/2020 |
| EPR/BP3637AF/V005 | Calvert Landfill Site Pit 6: Dust and Emissions Management Plan. Report No: 10575-R03 Calvert Landfill Site Pit 6: Environmental Risk Assessment. Report No: 10575-R02 Calvert IBA Facility Site Plan, reference 10110/1/002 Rev1 | 21/09/2020 |
| Application EPR/BP3637AF/V006 | Responses to Parts C2 and C3 of the application form and referenced supporting documentation | 15/12/2021 |

| Table S1.3 Improvement programme requirements | | |
|--|--|--|
| Reference | Requirement | Date |
| IC1 | Following 12 months of monitoring for methane and carbon dioxide in external boreholes CVGB0037 to CVGB0042 the Operator shall submit to the Agency in writing a review of the monitoring data and derivation of suitable compliance limits for methane and assessment levels for carbon dioxide. | Completed 22/10/2020 |
| IC2 | Following compliance with table S1.4, pre-operational condition PO1 - the operator shall submit a report to the Environment Agency in writing for technical assessment and approval which compares the monitoring results from boreholes WB26, WB8b and WB13 with the monitoring results from BH02. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report. | Completed 09/08/2022 |
| IC3 | Following the collection of 6 months of consecutive monitoring data in accordance with table S1.4, PO1 - the operator shall submit a report to the Environment Agency in writing for technical assessment and approval – which proposes compliance limits for groundwater monitoring borehole BH02 for inclusion in table S3.3. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report. | 3 months following compliance with table S1.4, PO1 |

| Table S1.4 Pre-operational measures for future development | | | |
|---|---|--|-------------------------|
| Reference | Operation | Pre-operational Measures | Date |
| PO1 | Removal of original groundwater monitoring boreholes WB26, WB8b and WB13. | Prior to the removal of original monitoring boreholes WB26, WB8b and WB13 – replacement groundwater monitoring borehole BH02 shall be monitored monthly for 6 months in accordance with table S3.5 with the inclusion of one annual monitoring suite and one hazardous substances suite. | Completed 13/06/2022 |

| Table S1.5 Annual waste input limits | |
|---|--------------------------|
| Category | Limit tonnes/year |
| Non-hazardous waste | 1,500,000 |
| Inert waste | 1,500,000 |
| Waste for restoration | 1,500,000 |
| Total | 1,500,000 |

Schedule 2 – List of permitted wastes

| Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste | |
|--|---|
| 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 02 | wastes from mineral non-metalliferous excavation |
| 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 |
| 10 | Wastes from thermal processes |
| 10 11 | wastes from manufacture of glass and glass products |
| 10 11 12 | waste glass other than those mentioned in 10 11 11 |
| 10 12 | wastes from manufacture of ceramic goods, bricks, tiles and construction products |
| 10 12 06 | discarded moulds |
| 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 07 | glass packaging |
| 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 20 | glass |
| 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 02 | glass |
| 17 05 | soil (including excavated soil from contaminated sites), stones and dredging spoil |

| Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste | |
|--|--|
| Waste code | Description |
| 17 05 04 | soil and stones other than those mentioned in 17 05 03 |
| 17 05 08 | track ballast other than those mentioned in 17 05 07 |
| 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 |
| 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 12 | bottom ash and slag other than those mentioned in 19 01 11 |
| 19 12 | wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified |
| 19 12 05 | glass |
| 19 12 09 | minerals (for example sand, stones) |
| 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 |
| 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 02 | glass |
| 20 02 | garden and park wastes (including cemetery waste) |
| 20 02 02 | soil and stones |

| Table S2.2 Permitted waste types accepted for treatment | |
|--|--|
| 180,000 tonnes/ year | |
| Waste code | Description |
| 19 | Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use |
| 19 01 | wastes from incineration or pyrolysis of waste |
| 19 01 12 | bottom ash and slag other than those mentioned in 19 01 11 |

| Table S2.3 Permitted waste types for restoration | |
|---|--|
| Waste code | Description |
| 01 | Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals |
| 01 04 | wastes from physical and chemical processing of non-metalliferous minerals |
| 01 04 08 | waste gravel and crushed rocks other than those mentioned in 01 04 07 |
| 01 04 09 | waste sand and clays |
| 02 | Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing |
| 02 04 | wastes from sugar processing |
| 02 04 01 | soil from cleaning and washing beet |
| 03 | Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard |
| 03 03 | wastes from pulp, paper and cardboard production and processing |
| 03 03 05 | de-inking sludges from paper recycling |
| 03 03 09 | lime mud waste |
| 17 | Construction and demolition wastes (including excavated soil from contaminated sites) |
| 17 05 | soil (including excavated soil from contaminated sites), stones and dredging spoil |
| 17 05 04 | soil and stones other than those mentioned in 17 05 03 |
| 17 05 06 | dredging spoil other than those mentioned in 17 05 05 |
| 19 | Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use |
| 19 05 | wastes from aerobic treatment of solid wastes |
| 19 05 03 | off-specification compost |
| 19 08 | wastes from waste water treatment plants not otherwise specified |
| 19 08 05 | sludges from treatment of urban waste water |
| 19 09 | wastes from the preparation of water intended for human consumption or water for industrial use |
| 19 09 02 | sludges from water clarification |
| 19 12 | wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified |
| 19 12 09 | minerals (for example sand, stones) |
| 19 13 | wastes from soil and groundwater remediation |
| 19 13 02 | solid wastes from soil remediation other than those mentioned in 19 13 01 |
| 19 13 04 | sludges from soil remediation other than those mentioned in 19 13 03 |
| 20 | Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions |

| Table S2.3 Permitted waste types for restoration | |
|---|---|
| Waste code | Description |
| 20 02 | garden and park wastes (including cemetery waste) |
| 20 02 02 | soil and stones |

Schedule 3 – Emissions and monitoring

| Table S3.1 Leachate level limits and monitoring requirements | | | |
|---|----------------|-----------------------------|--|
| Monitoring point reference/Description | Limit | Monitoring frequency | Monitoring standard and method |
| Operational Cells or Phases (Any cells or phases that do not have a final engineered cap agreed in accordance with the landfill engineering condition, 2.6) | | | |
| Leachate monitoring points LMP01, LMP02, LMP03, LMP04, LMP05, LMP06 LMP07, LMP08, LMP09, LMP10, LMP11, LMP12, LMP13, LMP14, LMP15, LMP16 Cells 1 to 16 on QBF MEPP drawing reference 465M587 Plan 04 dated 24/10/2022. | None specified | Monthly | As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan. |
| Non Operational Cells or Phases (Any cells or phases that have a final engineered cap agreed in accordance with the landfill engineering condition, 2.6) | | | |
| To be confirmed as and when cells become non-operational. | None specified | Quarterly | As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan. |

Table S3.2 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

| Emission point Ref. & Location | Parameter | Source | Limit (incl unit) | Reference Period | Monitoring Frequency | Monitoring Standard or Method |
|--|---------------------------|--|---------------------------|------------------|----------------------|---|
| WP10: Discharge to Muxwell Brook shown on Plan 2 of the Surface Water Management Plan dated July 2009, Grid Reference SP69962228 | Ammoniacal Nitrogen | Surface Water Collection System uncontaminated surface water | 1mg/l | Spot sample | Monthly* | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency |
| | BOD | | 10mg/l | | | |
| | Cadmium | | 5µg/l | | | |
| | Chloride | | 200mg/l | | | |
| | Oil/Grease | | 20mg/l | | | |
| | Phenol | | 2µg/l | | | |
| | Sulphate | | 1150mg/l | | | |
| | Suspended Solids | | 60mg/l | | | |
| | Total Chromium | | 5µg/l | | | |
| | Total Copper | | 10µg/l | | | |
| | Total Lead | | 5µg/l | | | |
| | Total Nickel | | 150µg/l | | | |
| | Total Zinc | | 250µg/l | | | |
| | Maximum flow rate | | 2,865m ³ /hour | | | |
| Maximum volume | 25,500m ³ /day | | | | | |
| *Once WP10 is commissioned | | | | | | |

Table S3.2 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

| Emission point Ref. & Location | Parameter | Source | Limit (incl unit) | Reference Period | Monitoring Frequency | Monitoring Standard or Method |
|---|---------------------|---|-------------------|------------------|----------------------|---|
| WP8: Pumped discharge to WP8 prior to discharge to Muxwell Brook Grid reference SP69554 22883 as shown on plan 2 of the surface water management plan dated July 2009 | Ammoniacal Nitrogen | Surface Water Collection System uncontaminated surface water - Pit 6 Sump and IBA Sump located within the Pit 6 void (Drawing 2077-1-013) | 1mg/l | Spot sample | Monthly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency |
| | BOD | | 10mg/l | | | |
| | Cadmium | | 5µg/l | | | |
| | Chloride | | 200mg/l | | | |
| | Oil/Grease | | 20mg/l | | | |
| | Phenol | | 2µg/l | | | |
| | Sulphate | | 1150mg/l | | | |
| | Suspended Solids | | 60mg/l | | | |
| | Total Chromium | | 5µg/l | | | |
| | Total Copper | | 10µg/l | | | |
| | Total Lead | | 5µg/l | | | |
| | Total Nickel | | 150µg/l | | | |
| Total Zinc | 250µg/l | | | | | |

Table S3.3 Groundwater – emission limits and monitoring requirements

| Monitoring point reference | Parameter | Limit (including unit) | Reference Period | Monitoring frequency | Monitoring standard or method |
|---|--------------------------------------|------------------------|------------------|----------------------|--|
| Kellaways Sand: WB24, WB29, WB30, BH02* Bilsworth Limestone: WB31, QBF MEPP drawing reference 465M587 Plan 04 dated 24/10/2022 | Ammoniacal Nitrogen | 4mg/l | Spot Sample | Quarterly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency. |
| | Potassium: in Kellaways Sand | 70mg/l | | | |
| | Potassium: in Bilsworth Limestone | 100mg/l | | | |
| | Total Organic Carbon | 60mg/l | | | |
| | Toluene | 4µg/l | | | |

*Limit for BH02 are interim until agreed in accordance with table S1.3, IC3.

Table S3.4 Landfill gas in external monitoring boreholes – limits and monitoring requirements

| Monitoring point Ref./Description As detailed on QBF MEPP drawing reference 465M587 Plan 04 dated 24/10/2022 | Parameter | Limit (including units) | Monitoring frequency | Monitoring standard or method | | |
|--|--|-----------------------------------|---|--|---------|--|
| CVGB0015C | Methane | 1.0%v/v | Monthly | As per LFTGN03 (September 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Record whether the ground is: waterlogged frozen snow covered | | |
| CVWB0024C | | 3.0%v/v | | | | |
| CVGP0027 | | 2.6%v/v | | | | |
| CVGP0032 | | 2.5%v/v | | | | |
| CVGP0033 | | 3.3%v/v | | | | |
| CVGP0034 | | 3.3%v/v | | | | |
| CVGB0038 | | 1%v/v | | | | |
| CVGB0039 | | 1%v/v | | | | |
| CVGB0040B | | 1%v/v | | | | |
| CVGB0041B | | 1%v/v | | | | |
| CVGB0042B | | 1%v/v | | | | |
| The limits specified for methane take into account the background concentrations. | | | | | | |
| CVGB0015C CVGP0032 CVGB0038 CVGB0041B | CVWB0024C CVGP0033 CVGB0039 CVGB0042B | CVGP0027 CVGP0034 CVGB0040B | Carbon Dioxide Oxygen Atmospheric pressure Differential pressure | no limit no limit no limit no limit | Monthly | As per LFTGN03 (September 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Record whether the ground is: waterlogged frozen snow covered |

Table S3.5 Groundwater – other monitoring requirements

| Monitoring Point Ref./Description | Parameter | Monitoring frequency | Monitoring standard or method |
|-----------------------------------|---|--|--|
| Up gradient MEPP | Water level, Ammoniacal Nitrogen, Chloride, Electrical Conductivity, pH | Quarterly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency |
| | Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc | Annually | |
| | Hazardous substances | Annually for first six years of operation | |
| Down or cross gradient MEPP | Water level, Ammoniacal Nitrogen, Chloride, Electrical Conductivity, pH | Quarterly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen. |
| | Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc | Annually | |
| | Hazardous substances detected in leachate | Annually for first six years of operation then every two years | |
| MEPP | Base of monitoring point (mAoD) | Annually | |

| Table S3.6 Landfill gas – other monitoring requirements | | | | |
|--|--|-----------------------------|---|---|
| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| In waste gas monitoring boreholes | Methane Carbon Dioxide Oxygen Carbon Monoxide Hydrogen Sulphide Differential pressure Atmospheric pressure | Quarterly | Calibrated handheld monitoring instrument | As per LFTGN03 (Sept 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. |

| Table S3.7 Leachate – other monitoring requirements | | | | |
|---|---|-----------------------------|--|-----------------------------|
| Monitoring point reference or description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Operational Cells or Phases (Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.5) | | | At leachate monitoring points as listed in table S3.1. | |
| MEPP | Ammoniacal Nitrogen, Arsenic, BOD, Cadmium, Calcium, Chloride, Chromium, COD, Copper, Electrical Conductivity, Iron, Lead, Magnesium, Manganese, Nickel, pH, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc | Quarterly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit</u> (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency | None |
| MEPP | Hazardous substances | Annually | | None |
| MEPP | Depth to base (mAoD) | Annually | | None |

| Table S3.7 Leachate – other monitoring requirements | | | | |
|--|---|-----------------------------|--------------------------------------|-----------------------------|
| Monitoring point reference or description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Non Operational Cells or Phases (Any cell or phases that have a final engineered cap agreed in accordance with condition 2.5) | | | | |
| MEPP | Ammoniacal Nitrogen, Arsenic, BOD, Cadmium, Calcium, Chloride, Chromium, COD, Copper, Electrical Conductivity, Iron, Lead, Magnesium, Manganese, Nickel, pH, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc | Annually | | |
| MEPP | Hazardous substances | Once every four years | | None |
| MEPP | Depth to base (mAoD) | Annually | | |

| Table S3.8 Surface water – other monitoring requirements | | | | |
|---|---|-----------------------------|--------------------------------------|---|
| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| MEPP | Ammoniacal Nitrogen Chloride Suspended Solids Visual Oil and Grease pH Electrical Conductivity | Monthly | Spot sample | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency |

Schedule 4 – Reporting

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

| Table S4.1 Reporting of monitoring data | | |
|---|-------------------------|--|
| Parameter | Reporting period | Period ends |
| Leachate and/ or groundwater level As specified by schedule 3, table S3.1 | Every 3 months | 31 March, 30 June, 30 September, 31 December |
| Point source emission to water (other than sewer) As specified by schedule 3, table S3.2 | Every 3 months | 31 March, 30 June, 30 September, 31 December |
| Emission to groundwater As specified by schedule 3, table S3.3 | Every 3 months | 31 March, 30 June, 30 September, 31 December |
| Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.4 | Every 3 months | 31 March, 30 June, 30 September, 31 December |
| Other groundwater monitoring As specified by schedule 3, table S3.5 | Every 3 months | 31 March, 30 June, 30 September, 31 December |
| Other Landfill gas monitoring As specified by schedule 3, table S3.6 | Every 3 months | 31 March, 30 June, 30 September, 31 December |
| Trace gas monitoring | Every 12 months | 31 December |
| Other leachate monitoring As specified by schedule 3, table S3.7 | Every 12 months | 31 December |
| Other surface water monitoring As specified by schedule 3, table S3.8 | Every 12 months | 31 December |
| Meteorological data Landfill Directive, annex III, section 2 | Every 12 months | 31 December |

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

| Table S4.2: Annual production/treatment | |
|--|-------------------|
| Leachate: Disposed of off site | Cubic metres/year |

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

| Table S4.4 Reporting Forms | | |
|---|--|---------------------|
| Media/parameter | Reporting Format | Date of Form |
| Leachate | Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency | 08/02/2017 |
| Controlled water | Form Water 1 or other reporting format to be agreed in writing with the Environment Agency | 08/02/2017 |
| Groundwater | Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency | 08/02/2017 |
| Landfill gas | Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency | 14/02/2018 |
| Waste Return | E-waste Return Form | - |
| Landfill topographical surveys and interpretation | Reporting format to be agreed in writing with the Environment Agency | 08/02/2017 |

Schedule 5 – Notification

This page outlines the information that the operator must provide.

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

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

Part A

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

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

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

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

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

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

Part B to be supplied as soon as practicable

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

| | |
|------------------|--|
| Name* | |
| Post | |
| Signature | |
| Date | |

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

“annually” means once every year.

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

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

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

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

“cell layout drawing” means:

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

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

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

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;

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

“emissions to land” includes emissions to groundwater.

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

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

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

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

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

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

“landfill Infrastructure” means any specified element of the:

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

within the site.

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

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

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

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

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

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

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

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

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

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

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

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

for the New Cell.

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

“pests” means Birds, Vermin and Insects.

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

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

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

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

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

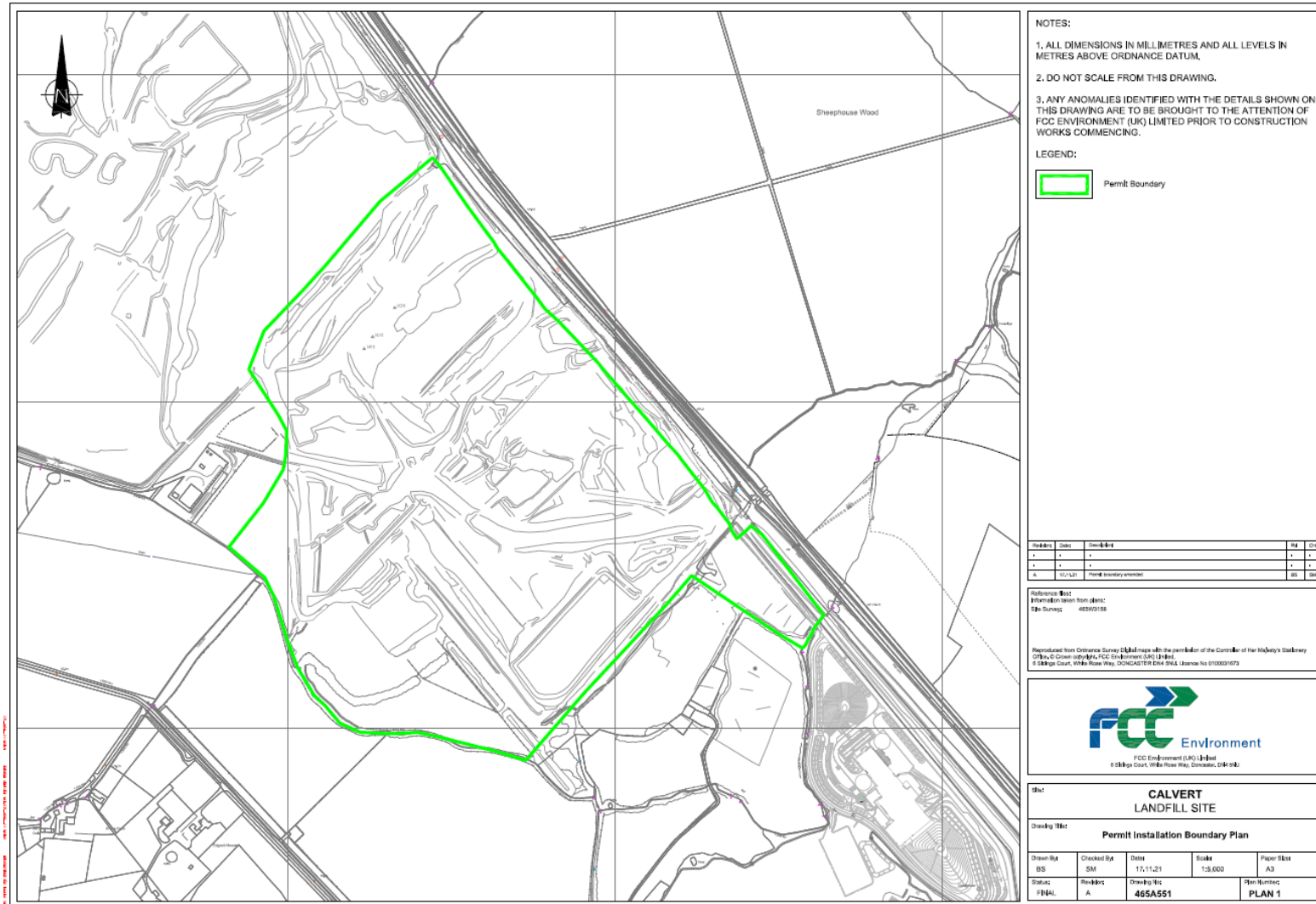
‘sustainably extracted’ means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic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

‘waste code’ - See ‘List of Wastes’.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

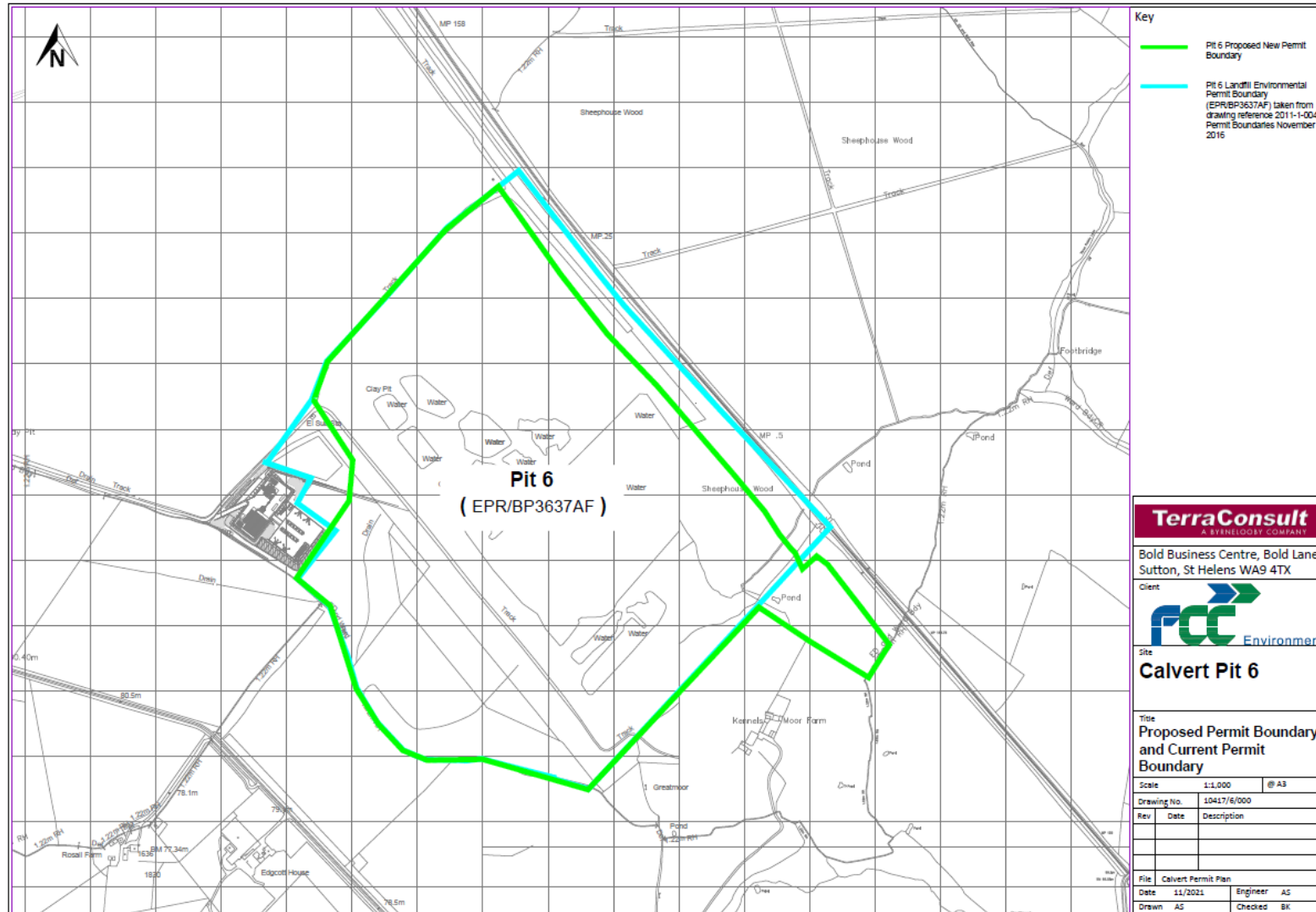
Schedule 7 – Site plan

Drawing No. 465A551 Permit Installation Boundary Plan



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Drawing No. 10417/6/000 showing surrendered areas in light blue. Amended installation boundary in green.



Key

- Pit 6 Proposed New Permit Boundary
- Pit 6 Landfill Environmental Permit Boundary (EPR/BP3637AF) taken from drawing reference 2011-1-004A Permit Boundaries November 2016

TerraConsult
A ERM COMPANY

Bold Business Centre, Bold Lane,
Sutton, St Helens WA9 4TX

Client
FCC Environment

Site
Calvert Pit 6

Title
Proposed Permit Boundary and Current Permit Boundary

Scale 1:1,000 @ A3

Drawing No. 10417/6/000

| Rev | Date | Description |
|-----|------|-------------|
| | | |
| | | |
| | | |

File Calvert Permit Plan

Date 11/2021 Engineer AS

Drawn AS Checked BK

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END OF PERMIT

Permit number
EPR/BP3637AF