# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

Biogenie Remediation UK Limited

Fawley Remediation Treatment and Recovery Facility
Esso Refinery
Fawley
Southampton
SO45 1XT

### Variation application number

EPR/ZP3133RH/V002

### Permit number

EPR/ZP3133RH

# Fawley Remediation Treatment and Recovery Facility Permit number EPR/ZP3133RH

# Introductory note

## This introductory note does not form a part of the permit

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. All the conditions of the permit have been varied and are subject to the right of appeal.

This permit variation has been issued to implement guidance “Chemical waste: appropriate measures for permitted facilities”.

**Changes introduced by this variation notice/statutory review**

The Industrial Emissions Directive (IED) came into force on 7 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. Article 21(3) of the IED requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on Best Available Techniques (BAT) Conclusions. The BAT Conclusions for Waste Treatment (the BREF) was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018.

On 18 November 2020, Chemical waste: appropriate measures for permitted facilities guidance was published on gov.uk. The guidance explains the standards that are relevant to regulated facilities with an environmental permit to treat or transfer chemical waste, providing indicative BAT for those sites.

On 12th July 2021, Non-hazardous waste and inert waste: appropriate measures for permitted facilities guidance was published on gov.uk. The guidance explains the standards that are relevant to regulated facilities with an environmental permit to treat or transfer non-hazardous waste, providing indicative BAT for those sites.

This permit variation has been issued to update some of the conditions following a statutory review of the permits in the chemical waste treatment and transfer sector and to implement the appropriate measures guidance. The opportunity has also been taken to consolidate the original permit and subsequent variations where appropriate.

The site is made up of a number of areas (a waste storage area, a treatment area and two restoration areas) located within the boundary of the Fawley Oil Refinery. The Fawley Oil Refinery is located approximately 6.5 Kilometres to the south of Southampton on the coast of Southampton Water.

This permit covers the remediation of contaminated soils and sludges produced at the Fawley Oil Refinery, the waste will be treated through bioremediation and where required post bioremediation stabilisation/ solidification. The permit also includes a waste activity for the deposit for recovery of treated or untreated wastes (where they meet waste acceptance criteria (WAC) for deposit for recovery) within two decommissioned areas of the Fawley Oil Refinery (Block 106 and Area 1).

Under an approved waste recovery plan, the restoration scheme aims to achieve ecological and safety benefits through the improvement of land quality and contouring. Waste materials will only be accepted for deposit for recovery once testing establishes that they meet each area’s site specific WAC. Should testing establish that either the waste stream is not suitable for remediation treatment or, following remediation, that the waste is non-compliant with the WAC for deposit for recovery, it will be rejected sent off-site to a suitably licensed facility for further treatment or disposal.

The regulated facility comprises:

- treatment of hazardous waste;
- temporary storage of hazardous waste;
- treatment of non-hazardous waste;
- temporary storage of non-hazardous waste;
- Deposit of waste to land as a recovery operation.

Treatment of waste includes:

- Bioremediation of hazardous and non-hazardous waste for the purpose of recovery.
- Stabilisation/ solidification of hazardous waste for the purpose of recovery.

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/ZP3133RH/A001 | Duly made 27/11/2015 | Application for new permit for a remediation treatment facility with a deposit for recovery activity |
| Additional information received<br>Response to Schedule 5 notice | 15/09/2016 | Amended waste recovery plan. |
| Additional information received<br>Response to Schedule 5 notice | 28/10/2016 | Amended site plan and certificate of continuing competence. |
| Permit determined EPR/ZP3133RH | 04/11/2016 | Permit issued to Biogenie Site Remediation Limited. |
| Permit review- Regulation 61 Notice sent to Operator | 05/01/2023 | Regulation 61 Notice requiring information for statutory review of permit. |
| Permit review - Regulation 61 Notice response | 04/04/2023 | Response received from the Operator. |
| Notified of change of Company Name | 02/02/2024 | Name changed to Englobe Regeneration UK Limited |
| Variation issued ZP3133RH/V003 | 07/02/2024 | Varied permit issued to Englobe Regeneration UK Limited |
| Permit Review - Application (variation and consolidation) EPR/ZP3133RH/V002 | Environment Agency Initiated Variation | Statutory review of permit occasioned by Waste Treatment BAT Conclusions published on 17 August 2018 and Chemical waste: appropriate measures for permitted facilities published 18 November 2020. Non-hazardous waste and inert waste: appropriate measures for permitted facilities published 12 July 2021. |
| Environment Agency Waste Treatment Sector Review<br>Permit reviewed<br>Variation determined EPR/ZP3133RH/V002 | 19/11/2024 | Varied and consolidated permit issued. Operator name changed to Biogenie Remediation UK Limited. |

| Other Part A installation permits relating to this installation | | |
|---|---|---|
| **Operator** | **Permit number** | **Date of issue** |
| Esso Petroleum Company Limited | EPR/BR6996IC | 20/12/2007 |

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 and consolidates

### Permit number

**EPR/ZP3133RH**

### Issued to

**Biogenie Remediation UK Limited** ("the operator")

whose registered office is
**Unit 8 Commerce Park**
**Brunel Road**
**Theale**
**Reading**
**Berkshire**
**England**
**RG7 4AB**

company registration number 02695341

to operate part of a regulated facility at

**Fawley Remediation Treatment and Recovery Facility**
**Esso Refinery**
**Fawley**
**Southampton**
**SO45 1XT**

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

| Name | Date |
|---|---|
| **Daniel Timney** | **19/11/2024** |

Authorised on behalf of the Environment Agency

## Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/ZP3133RH**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/ZP3133RH/V002 authorising,

**Biogenie Remediation UK Limited** ("the operator"),

whose registered office is

**Unit 8 Commerce Park**
**Brunel Road**
**Theale**
**Reading**
**Berkshire**
**England**
**RG7 4AB**

company registration number **02695341**

to operate part of an installation and waste operations at

**Fawley Remediation Treatment and Recovery Facility**
**Esso Refinery**
**Fawley**
**Southampton**
**SO45 1XT**

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

| Name | Date |
|---|---|
| **Daniel Timney** | **19/11/2024** |

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 Energy efficiency

1.2.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR7), the operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

1.3.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR7), 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.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## 1.5 Multiple operator installations

1.5.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR7), where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

# 2 Operations

## 2.1 Permitted activities

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

2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

## 2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit, which is within the area edged in red on the site plan that represents the extent of the installation covered by this permit and that of the other operator of the installation.

## 2.3 Operating techniques

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

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

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 tables S2.2, S2.3 and S2.4; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

(b) the composition of the waste;

(c) the handling requirements of the waste;

(d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

## Hazardous waste storage and treatment

2.3.7 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

## 2.4 Improvement programme

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

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

# 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 3 tables S3.1 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 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 a systematic appraisal of the risk of contamination.

## 3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

## 3.3 Odour

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

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 3.4 Noise and vibration

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

3.4.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 3.5 Monitoring

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

(a) point source emissions specified in tables S3.1 and S3.2; and

(b) process monitoring specified in table S3.3.

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

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

## 3.6 Pests

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

3.6.2 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 3.7 Fire prevention

3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3.7.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;

(b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

# 4 Information

## 4.1 Records

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

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

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

## 4.2 Reporting

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

4.2.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR7), a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production/treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 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) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

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

4.2.5 Within 1 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.

## 4.3 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 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

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

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

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

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

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

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

## 4.4 Interpretation

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

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" or "without delay", in which case it may be provided by telephone.

# Schedule 1 – Operations

| Table S1.1 activities | | | |
|---|---|---|---|
| **Activity reference** | **Activity listed in Schedule 1 of the EP Regulations** | **Description of specified activity and WFD Annex I and II operations** | **Limits of specified activity and waste types** |
| AR1 | Section 5.3 Part A1(a)(vi)<br>Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving biological treatment. | Biological treatment of hazardous waste for recovery (R5). | From receipt of waste through to storage of treated waste prior to further treatment or deposit for the purpose of recovery within 2 decommissioned areas of the Fawley Oil Refinery (Block 106 and Area1). Treatment in bioremediation area as shown on the site plans in Schedule 7.<br>No more than 4000m$^3$ of hazardous and non-hazardous waste shall be treated at any one time in aggregate with activity AR8.<br>Bio-piles shall be no higher than 3m.<br>All treatment and storage shall take place on an impermeable surface with a sealed drainage system as shown on the site plans in Schedule 7.<br>Hazardous waste types and quantities as specified in table S2.2. All waste shall originate from the Fawley Oil Refinery. |
| AR2 | Section 5.3 Part A (1)(a)(ii)<br>Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment. | Solidification/Stabilisation for recovery (R5) | From receipt of waste through to storage of treated waste.<br>No more than 360 m$^3$ of hazardous waste shall be treated at any one time.<br>All treatment and storage shall take place on an impermeable surface with a sealed drainage system as shown on the site plans in Schedule 7.<br>Hazardous waste types and quantities as specified in table S2.3. All waste shall originate from the Fawley Oil Refinery. |
| AR3 | Section 5.6 Part A(1)(a)<br>Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes. | R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)<br><br>D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending | From receipt of waste through to submission for treatment.<br>The amount of hazardous and non-hazardous waste stored on site at any one time shall not exceed 5900 m$^3$ in aggregate with activity AR9.<br>All storage shall take place on an impermeable surface with a sealed drainage system as shown on the site plans in Schedule 7.<br>Hazardous waste types and quantities as specified in tables S2.2, S2.3 and |

| Table S1.1 activities | | | |
|---|---|---|---|
| **Activity reference** | **Activity listed in Schedule 1 of the EP Regulations** | **Description of specified activity and WFD Annex I and II operations** | **Limits of specified activity and waste types** |
| | | collection, on the site where it is produced) | S2.4. All waste shall originate from the Fawley Oil Refinery. |
| **Directly Associated Activity** | | | |
| AR4 | Electrical power supply | <1 MWth diesel fuelled generator for the supply of electricity for the treatment process. | Includes receipt of fuel and its storage.<br>No fuel shall be used other than diesel. |
| AR5 | Raw material and fuel handling and storage. | Raw material and fuel handling and storage. | From receipt and storage to point of use. |
| AR6 | Waste water effluent/leachate collection and storage. | Collection and storage of waste-water effluent/leachate arising from treatment activities, prior to discharge to the effluent treatment plant for treatment. | From generation of process effluent/ leachate to discharge of effluent to the effluent treatment plant (regulated under permit reference EPR/BR6996IC). |
| AR7 | Abatement system. | Biofilter serving activities AR1 and AR8 | From the input of air to the abatement system to emission to air. |

| **Waste Operations** | | |
|---|---|---|
| **Activity reference** | **Description of activities for waste operations** | **Limits of activities** |
| AR8 | Biological treatment of non-hazardous waste for recovery (R5). | From receipt of waste through to storage of treated waste prior to further treatment or deposit for the purpose of recovery within 2 decommissioned areas of the Fawley Oil Refinery (Block 106 and Area1). Treatment in bioremediation area as shown on the site plans in Schedule 7.<br>No more than 75 tonnes per day of non-hazardous waste shall be treated.<br>No more than 4000m$^3$ per day of non-hazardous and hazardous waste shall be treated at any one time in aggregate with activity AR1.<br>Bio-piles shall be no higher than 3m.<br>All treatment and storage shall take place on an impermeable surface with a sealed drainage system as shown on the site plans in Schedule 7.<br>Non-hazardous waste types and quantities as specified in table S2.2. All waste shall originate from the Fawley Oil Refinery. |
| AR9 | Temporary storage of non-hazardous waste:<br><br>**R13:** Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending | From receipt of non-hazardous waste through to submission for treatment.<br>The amount of non-hazardous and hazardous waste stored on site at any one time shall not exceed 5900 m$^3$ in aggregate with activity AR3.<br>All storage shall take place on an impermeable surface with a sealed drainage system as shown on the site plans in Schedule 7. |

| Table S1.1 activities | | | |
|---|---|---|---|
| **Activity reference** | **Activity listed in Schedule 1 of the EP Regulations** | **Description of specified activity and WFD Annex I and II operations** | **Limits of specified activity and waste types** |
| | collection, on the site where it is produced)<br><br>**D15:** Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced) | Non-hazardous waste types and quantities as specified in tables S2.2, S2.3 and S2.4. All waste shall originate from the Fawley Oil Refinery. | |
| AR10 | Deposit of waste to land as a recovery operation:<br><br>**R5:** Recycling/reclamation of other inorganic compounds<br><br>**R10:** Land treatment resulting in benefit to agriculture or ecological improvement | Use of waste types specified in table S2.4 for the purposes of restoration, reclamation or improvement of land as detailed in the approved waste recovery plan.<br><br>Only wastes originating from the Fawley Oil Refinery shall be accepted at the site. | |

| Table S1.2 Operating techniques | | |
|---|---|---|
| **Description** | **Parts** | **Date Received** |
| Application EPR/ZP3133RH/A001 | Application forms B2, B3 and B4 and referenced supporting information. | 27/11/2015 |
| Application EPR/ZP3133RH/A001 | Approved waste recovery plan document (reference ESS1859/BPA2015/05 Revision 5 dated May 2015) except where superseded by the addendum to the waste recovery plan received 15/09/2016 | 27/11/2015 |
| Final response to Schedule 5 Notice Dated 22/01/2016 | Addendum to the waste recovery plan (and all associated appendices) (reference 407.00457.000011 dated September 2016) | 15/09/2016 |
| Chemical waste: appropriate measures for permitted facilities<br><br>Version published 18 November 2020 | All parts of the appropriate measures guidance shall apply other than:<br>• those parts to which an improvement programme requirement applies in Table S1.3 (and only until the date that the improvement has been or must be met, whichever is the earlier);<br>• those parts for which an alternative measure has been proposed below.<br><br>The following alternative measures have been agreed: | 04/04/2023 |

| Table S1.2 Operating techniques | | |
|---|---|---|
| **Description** | **Parts** | **Date Received** |
| | • Waste pre-acceptance, acceptance and waste tracking appropriate measures – alternative measure for 3.1.2, 3.2.8, 3.2.13, 3.2.34, 3.2.4, 3.3.1.<br>The following alternative measures as approved by the Environment Agency in accordance with IC9 to IC12 in Table S1.3:<br>• Waste treatment appropriate measures – alterative measure for measure 5.1.10<br>• Emission control appropriate measures – alternative measure for 6.2.3 | |
| Non-hazardous and inert waste: appropriate measures for permitted facilities<br>Version published 12 July 2020 | All of the appropriate measures guidance shall apply. | N/A |
| Additional information on treatment capacities. | Biofilter Monitoring proposals.<br>Treatment capacities for activities AR1, AR2, AR3, AR8, AR9 and AR10. | 04/11/2024 |

| Table S1.3 Improvement programme requirements | | |
|---|---|---|
| **Reference** | **Requirement** | **Date** |
| IC1<br>Management System example | The operator shall review and update their written management system to ensure that they meet the requirements of the Environment Agency's guidance Chemical waste: appropriate measures for permitted facilities referred to in Table S1.2. Specifically, the operator must demonstrate that the following appropriate measure(s) of the guidance will be met:<br>• General management measures – All measures in section 2.1, 2.3 and 2.5.<br>A copy of the updated procedures shall be submitted to the Environment Agency for approval. | 31/01/2025 |
| IC2<br>Waste pre-acceptance and/or acceptance and/or tracking procedures | The operator shall review and update their waste pre-acceptance and/or waste acceptance procedures and/or tracking to ensure that they meet the requirements of the Environment Agency's guidance Chemical waste: appropriate measures for permitted facilities referred to in Table S1.2. Specifically, the operator must demonstrate that the following appropriate measure(s) of the guidance will be met:<br>• Waste pre-acceptance, acceptance and tracking appropriate measures – 3.13.<br>A copy of the updated procedures shall be submitted to the Environment Agency for approval. | 31/01/2025 |
| IC3<br>Waste treatment procedures | The operator shall review and update their waste treatment procedures to ensure that they meet the requirements of the Environment Agency's guidance Chemical waste: appropriate measures for | 31/01/2025 |

| Table S1.3 Improvement programme requirements | | |
|---|---|---|
| **Reference** | **Requirement** | **Date** |
| | permitted facilities referred to in Table S1.2. Specifically, the operator must demonstrate that the following appropriate measure(s) of the guidance will be met:<br>• Waste treatment appropriate measures – measures 5.12, 5.13, 5.14, 5.19.<br>A copy of the updated procedures shall be submitted to the Environment Agency for approval. | |
| IC4<br>Emissions control procedures | The operator shall review and update their emissions control procedures to ensure that they meet the requirements of the Environment Agency's guidance Chemical waste: appropriate measures for permitted facilities referred to in Table S1.2. Specifically, the operator must demonstrate that the following appropriate measure(s) of the guidance will be met:<br>• Emission control appropriate measures – measures 6.1.2, 6.4.1, 6.1.3, 6.4.2, 6.1.5, 6.1.6, 6.1.7, 6.2.4, 6.5.6, 6.2.12, 6.3.3, 6.3.4, 6.3.5, 6.5.11, 6.5.12, 6.5.13, 6.5.14, 6.5.15.<br>A copy of the updated procedures shall be submitted to the Environment Agency for approval. | 31/01/2025 |
| IC5 Process efficiency procedures | The operator shall review and update their process efficiency procedures to ensure that they meet the requirements of the Environment Agency's guidance Chemical waste: appropriate measures for permitted facilities referred to in Table S1.2. Specifically, the operator must demonstrate that the following appropriate measure(s) of the guidance will be met:<br>• Process efficiency appropriate measures – measures 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.2.4, 8.3.9, 8.4.1.<br>A copy of the updated procedures shall be submitted to the Environment Agency for approval. | 31/01/2025 |
| IC6<br>Updated emissions inventory and H1 (air and water) | The operator shall submit a written report to the Environment Agency for approval that proposes a monitoring programme to characterise and assess the facility's point source emissions to air and water (including sewer) in accordance with the emissions monitoring and limits specified in the Environment Agency's guidance Chemical waste: appropriate measures for permitted facilities using the Environment Agency's 'H1 Environmental Risk Assessment' tool (or equivalent as agreed with the Environment Agency).<br>The report shall detail the parameters and substances that will be tested for, the monitoring methods and equipment that will be used, and a timetable for undertaking the monitoring. The monitoring programme shall be carried out as approved by the Environment Agency.<br>A written report shall be submitted to the Environment Agency for approval detailing the results and conclusions of the emissions monitoring and assessment undertaken, including a completed H1 Environmental Risk Assessment and proposals for any ongoing monitoring or further assessment. | Submission of written report proposing monitoring programme by<br>31/01/2025<br><br>Submission of subsequent written report detailing monitoring and assessment results by<br>30/05/2025 |
| IC7<br>Site Drainage | The operator shall review and resubmit their site drainage plan to the Environment Agency for approval. The plan shall demonstrate that | 28/02/2025 |

| Table S1.3 Improvement programme requirements | | |
|---|---|---|
| **Reference** | **Requirement** | **Date** |
| | adequate segregation of clean and dirty water control measures, impermeable surfacing and a sealed drainage system are in place for external areas of the site where waste is stored or handled. | |
| IC8<br>Site Condition Report | The operator shall undertake a review of the Site Condition Report (as provided in Table S1.2) to ensure Article 22 of the Industrial Emissions Directive is complied with. The review shall include at least the following:<br>i) consideration of waste storage and treatment areas including storage vessels, bunds, loading and unloading areas and other potential sources of contamination as shown in the site location plan<br>ii) reference to any historical spillages, the chemicals involved and locations, baseline soil sample results and groundwater data | 30/05/2025 |
| IC9 | The operator shall submit a report to the Environment Agency for written approval outlining the monitoring results for ambient VOC emissions specific to the AR1 and AR8 (bioremediation) activities.<br>The report must contain:<br>• The methodology for monitoring ambient VOC emissions<br>• Locations of ambient monitoring<br>• Demonstration that monitoring locations are in suitably representative positions relative to emission source(s) and in in line with relevant Environment Agency ambient monitoring guidance.<br>• At least 3 months of weekly monitoring data for ambient VOC within the vicinity of biopiles subject to bioremediation without a weatherproof covering.<br>• Action limits for ambient VOC concentrations above which you will take action to reduce VOC emissions from the bio piles. Provide details of how the action limits have been calculated.<br>• A comparison of ambient VOC monitoring data against 3 months of process monitoring data for temperature, moisture, pH and Oxygen as listed in table S3.3 of this permit.<br>• In the event the comparison of ambient VOCs and process monitoring indicates bioremediation treatment conditions are influencing ambient VOC concentrations, and they are above the action limits, the report shall review measures to control bioremediation treatment conditions including the option of covering biopiles.<br>• Based on the review the operator shall propose measures to control the treatment conditions to ensure ambient VOC concentrations remain below the action limits.<br>• The operator shall outline timescales for the implementation of the proposed measures.<br>The operator must implement the proposals in the report in line with the timescales agreed with the Environment Agency's written approval. | 30/05/2025 |
| IC10 | The operator shall submit a report to the Environment Agency for assessment and written approval outlining a methodology for dust (including PM10 and PM2.5) emissions specific to the AR1 and AR8 (bioremediation) activities.<br>The report must contain:<br>• Methodology for monitoring ambient dust emission | 28/02/2025 |

| Table S1.3 Improvement programme requirements | | |
|---|---|---|
| **Reference** | **Requirement** | **Date** |
| | • Locations of ambient monitoring<br>• Demonstration that monitoring locations are in suitably representative positions relative to emission source(s) and in in line with relevant Environment Agency ambient monitoring guidance.<br>• Proposals for action limits for ambient dust concentrations above which the operator will take action to reduce dust emissions from the biopiles. Provide details of how the action limits have been calculated.<br><br>The operator must implement the monitoring proposals as agree with the Environment Agency. | |
| IC11 | The operator shall submit a report to the Environment Agency for written approval outlining the monitoring results for ambient dust emissions specific to the AR1 and AR8 (bioremediation) activity as per the methodology agreed under IC10.<br><br>The report must contain:<br><br>• At least 3 months of weekly monitoring data for dust concentrations within the vicinity of biopiles subject to bioremediation without a weatherproof covering.<br>• A comparison of ambient dust concentration monitoring data against 3 months of process monitoring data for temperature, moisture, pH and Oxygen as listed in table S3.3 of this permit.<br>• In the event the comparison of ambient dust concentration monitoring and process monitoring data indicates bioremediation treatment conditions are influencing ambient dust concentrations, and the concentrations are above the action limits agreed under IC10, the report shall review measures to control bioremediation treatment conditions including the option of covering biopiles.<br>• Based on the review the operator shall propose measures to control the treatment conditions to ensure ambient dust concentrations remain below the action limits proposed under IC10<br>• The operator shall outline timescales for the implementation of the proposed measures.<br><br>The operator must implement the proposals in the report in line with the timescales agreed with the Environment Agency's written approval. | Within 6 months of completion of IC10. |
| IC12 | The Operator shall submit a report to the Environment Agency for written approval reviewing the process efficiency of the bioremediation process.<br><br>The report shall include:<br><br>• 6 months of process monitoring results specific to AR1 and AR8 (bioremediation)<br>• Process monitoring of internal biopile conditions covering those process parameters temperature, moisture, pH and oxygen as listed in Table S3.3 for each biopile batch during bioremediation<br>• Proposed operational target/optimum treatment ranges for each process parameter listed in Table S3.3<br>• Comparison of 6 months of process monitoring results against target/optimum treatment ranges | 29/08/2025 |

| Table S1.3 Improvement programme requirements | | |
|---|---|---|
| **Reference** | **Requirement** | **Date** |
| | • A comprehensive review of optimisation to demonstrate how efficient the bioremediation process is<br>• A review of options for further optimising the biopile processes parameters to improve treatment efficiency throughout the year. This could include for example covering of biopiles.<br>• Proposals to optimise and improve the efficiency of the bioremediation process along with timescales for implementation.<br><br>The operator shall implement the proposals in line with the timescales agreed with the Environment Agency. | |

# Schedule 2 – Waste types, raw materials and fuels

| Table S2.1 Raw materials and fuels | |
|---|---|
| **Raw materials and fuel description** | **Specification** |
| Diesel | Less than 0.1% sulphur content. |

| Table S2.2 Permitted waste types and quantities for treatment in the bioremediation process | |
|---|---|
| **Maximum quantity** | **In total no more than 15,750 tonnes per annum of waste shall be accepted for treatment at the site.** |
| **Exclusions** | **Wastes having any of the following characteristics shall not be accepted:**<br>**Wastes consisting solely or mainly of dusts, powders or loose fibres;**<br>**Waste liquids;**<br>**Odorous wastes;**<br>**Waste containing asbestos;**<br>**Wastes with hazard codes HP1, HP2, HP3, HP9, HP12, HP15.**<br>**Waste containing persistent organic pollutants (POPs).** |
| **Waste code** | **Description** |
| **05** | **Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal** |
| **05 01** | **wastes from petroleum refining** |
| 05 01 03* | tank bottom sludges |
| 05 01 09* | sludges from on-site effluent treatment containing hazardous substances |
| 05 01 10 | sludges from on-site effluent treatment other than those mentioned in 05 01 09 |
| **17** | **Construction and demolition wastes (including excavated soil from contaminated sites)** |
| **17 05** | **soil (including excavated soil from contaminated sites), stones and dredging spoil** |
| 17 05 03* | soil and stones containing hazardous substances |
| 17 05 04 | soil and stones other than those mentioned in 17 05 03 |

| Table S2.3 Permitted waste types and quantities for treatment in the stabilisation/ solidification process | |
|---|---|
| **Maximum quantity** | **In total no more than 15,750 tonnes per annum of waste shall be accepted for treatment at the site.** |
| **Exclusions** | **Wastes having any of the following characteristics shall not be accepted:**<br>**Wastes consisting solely or mainly of dusts, powders or loose fibres;**<br>**Waste liquids;**<br>**Odorous wastes;**<br>**Waste containing asbestos;**<br>**Wastes with hazard codes HP1, HP2, HP3, HP9, HP12, HP15.**<br>**Waste containing persistent organic pollutants (POPs).** |
| **Waste code** | **Description** |
| **17** | **Construction and demolition wastes (including excavated soil from contaminated sites)** |
| **17 05** | **soil (including excavated soil from contaminated sites), stones and dredging spoil** |
| 17 05 03* | soil and stones containing hazardous substances |
| **19** | **Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use** |
| **19 02** | **wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)** |
| 19 02 11* | other wastes containing hazardous substances |

| Table S2.4 Permitted waste types and quantities for use of waste in deposit for recovery | |
|---|---|
| **Maximum quantity** | **The total quantity of waste accepted at the site shall be less than 9915m$^3$** |
| **Waste code** | **Description** |
| **05** | **Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal** |
| **05 01** | **wastes from petroleum refining** |
| 05 01 03* | tank bottom sludges |
| 05 01 09* | sludges from on-site effluent treatment containing hazardous substances |
| 05 01 10 | sludges from on-site effluent treatment other than those mentioned in 05 01 09 |
| **17** | **Construction and demolition wastes (including excavated soil from contaminated sites)** |
| **17 05** | **soil (including excavated soil from contaminated sites), stones and dredging spoil** |
| 17 05 03* | soil and stones containing hazardous substances |
| 17 05 04 | soil and stones other than those mentioned in 17 05 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 02** | **wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)** |

| Table S2.4 Permitted waste types and quantities for use of waste in deposit for recovery | |
|---|---|
| **Maximum quantity** | **The total quantity of waste accepted at the site shall be less than 9915m$^3$** |
| **Waste code** | **Description** |
| 19 02 11* | other wastes containing hazardous substances |
| 19 02 99 | Post-bioremediation wastes compliant with waste acceptance criteria |
| **19 03** | **stabilised/solidified wastes** |
| 19 03 04* | wastes marked as hazardous, partly stabilised other than 19 03 08 |
| 19 03 05 | stabilised wastes other than those mentioned in 19 03 04 |

# Schedule 3 – Emissions and monitoring

| Table S3.1 Point source emissions to air – emission limits and monitoring requirements | | | | | | |
|---|---|---|---|---|---|---|
| **Emission point ref. & location** | **Source** | **Parameter** | **Limit (incl. unit)** | **Reference Period** | **Monitoring frequency** | **Monitoring standard or method** |
| A1 (Shown as on Figure 2 - emission point and treatment site layout plan in Schedule 7) | Air extraction from biopiles via biofilter temporary air trap. | Total volatile organic compounds (TVOC) | 40 $mg/m^3$ | Average value of 3 consecutive measurements of at least 30 minutes each | Once every 6 months | BS EN 12619 |
| | | Ammonia | 20 $mg/m^3$ | | | EN ISO 21877 |
| | | Hydrogen Sulphide ($H_2S$) | No limit | | | CEN TS 13649 for sampling<br>NIOSH 6013 for analysis |
| | | Dust | 5 $mg/m^3$ | | Once every 6 months (note 1) | EN 13284-1 |
| A2 (Shown as on Figure 2 - emission point and treatment site layout plan in Schedule 7) | Exhaust from diesel generator | No Parameter set | No limit set | - | -- | - |
| Note 1: Monitoring frequencies may be reduced if the emission levels are proven to be sufficiently stable. | | | | | | |

| Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements. | | | | | | |
|---|---|---|---|---|---|---|
| **Emission point ref. & location** | **Source** | **Parameter (note 1)** | **Limit (incl. unit)** | **Reference period (Note 2)** | **Monitoring frequency (Note 4)** | **Monitoring standard or method** |
| S1 – (Shown as on Figure 2 - emission point and treatment site layout plan in Schedule 7) | Process effluent | Arsenic (expressed as As) | 0.05 mg/l | - | Monthly | EN ISO 11885<br>EN ISO 17294-2<br>EN ISO 15586<br>BS ISO 17378-1 |
| | | Cadmium (expressed as Cd) | 0.05 mg/l | - | Monthly | EN ISO 11885<br>EN ISO 17294-2<br>EN ISO 15586<br>BS EN ISO 5961 |
| | | Chromium (expressed as Cr) | 0.15 mg/l | - | Monthly | EN ISO 11885<br>EN ISO 17294-2<br>EN ISO 15586<br>BS EN 1233 |

| **Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements**. | | | | | | |
|---|---|---|---|---|---|---|
| **Emission point ref. & location** | **Source** | **Parameter (note 1)** | **Limit (incl. unit)** | **Reference period (Note 2)** | **Monitoring frequency (Note 4)** | **Monitoring standard or method** |
| | | Copper (expressed as Cu) | 0.5 mg/l | - | Monthly | EN ISO 11885<br>EN ISO 17294-2<br>EN ISO 15586 |
| | | Lead (expressed as Pb) | 0.1 mg/l | - | Monthly | EN ISO 11885<br>EN ISO 17294-2<br>EN ISO 15586 |
| | | Mercury (expressed as Hg) | 5 µg/l | - | Monthly | BS EN 12846<br>BS EN ISO 17852 |
| | | Nickel (expressed as Ni) | 0.5 mg/l | - | Monthly | EN ISO 11885<br>EN ISO 17294-2<br>EN ISO 15586 |
| | | Zinc (expressed as Zn) | 1 mg/l | - | Monthly | EN ISO 11885<br>EN ISO 17294-2<br>EN ISO 15586 |
| | | PFOA<br>(Note 3) | No limit set | - | Every 6 months | BS ISO 25101 |
| | | PFOS<br>(Note 3) | No limit set | - | Every 6 months | BS ISO 25101 |

Note 1: In addition the operator shall also monitor for relevant waste water parameters as required for example flow, pH, temperature, conductivity, BOD.

Note 2: Relevant reference period:

• In the case of continuous discharge, daily average values, i.e. 24-hour flow-proportional composite samples.

• In the case of batch discharge, average values over the release duration taken as flow-proportional composite samples, or, provided that the effluent is appropriately mixed and homogeneous, a spot sample taken before discharge.

Note 3: PFOA and PFOS are required to be monitored where present in the waste water emissions inventory.

Note 4: An alternative monitoring frequency may be agreed in writing with Environment Agency following completion of IC6.

| Table S3.3 Process monitoring requirements | | | | |
|---|---|---|---|---|
| **Emission point reference or source or description of point of measurement** | **Parameter** | **Monitoring frequency** | **Monitoring standard or method** | **Other Specifications** |
| Internal for each biopile batch during bioremediation | Temperature | At least weekly | Temperature probe | Monitoring equipment shall be available on site and used as required to maintain aerobic conditions and ensure compliance with this permit.<br>Equipment shall be calibrated on a 4 monthly basis or as agreed in writing by the Environment Agency. |
| | Moisture | At least weekly | Industry grab test as a minimum, or oven drying in accordance with BS EN 13040 | |
| | pH | At least weekly | None specified | |
| | Oxygen | At least weekly | None specified | |
| Open Biofilter | Gas temperature – inlet and outlet | Daily | Temperature probe/traceable national standard | Biofilter should be checked and maintained to ensure appropriate temperature and moisture content on a daily basis. Monitoring equipment shall be available on-site and used as required. |
| | Surface condition (signs of vegetation and channelling) | Daily | Visual assessment | |
| | Biofilter media moisture | Daily | Moisture meter, Grab test, oven drying or recognised industry method | |
| | Gas flow- rate inlet | Continuous | Gas flow meter | |
| | Thatching /compaction | Weekly | Back pressure | |
| | pH (biofilter drainage effluent) | Weekly | pH metre or litmus paper | |
| | Efficiency assessment | Annual | Media health, air-flow distribution and emission removal efficiency (BS EN 13725 for odour removal) | |
| Soil biopiles | Total Petroleum Hydrocarbons (TPH),<br>Polycyclic Aromatic Hydrocarbons (PAHs), | Each completed batch of treated soil shall be sampled | - | Laboratory must be accredited to EN ISO/IEC ISO1702:2000 for the analysis specified samples to be obtained using standard sampling procedures as per BS 812. |

| Table S3.3 Process monitoring requirements | | | | |
|---|---|---|---|---|
| | Total Volatile Organic (VOCs), Phenols and pH | | | |

# 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** | **Emission or monitoring point/reference** | **Reporting period** | **First period begins** |
| Emissions to air<br>Parameters as required by condition 3.5.1. | A1 | Every 6 months | 1 January |
| Emissions to sewer<br>Parameters as required by condition 3.5.1 | S1 | Annually | 1 January |
| Process monitoring<br>Parameters as required by condition 3.5.1 | Biopile & Biofilter | Annually or as agreed in writing by the Environment Agency. | 1 January |

| **Table S4.2 Annual production/treatment** | |
|---|---|
| **Parameter** | **Units** |
| Hazardous waste treated - Recovery | tonnes |
| Hazardous waste treated - Disposal | tonnes |
| Non-hazardous waste treated - Recovery | tonnes |
| Non-hazardous waste treated - Disposal | tonnes |

| **Table S4.3 Performance parameters** | | |
|---|---|---|
| **Parameter** | **Frequency of assessment** | **Units** |
| Water usage | Annually | cubic metres |
| Energy usage | Annually | MWh |
| Total raw material used | Annually | tonnes |

| **Table S4.4 Reporting forms** | | |
|---|---|---|
| **Media/parameter** | **Reporting format** | **Date of form** |
| Emissions to air | Emissions to Air Reporting Form: version 1 or other form as agreed in writing by the Environment Agency | 08/03/2021 |
| Emissions to sewer | Emissions to Sewer Reporting Form: version 1 or other form as agreed in writing by the Environment Agency | 08/03/2021 |
| Water usage | Water Usage Reporting Form: version 1 or other form as agreed in writing by the Environment Agency | 08/03/2021 |
| Energy usage | Energy Usage Reporting Form: version 1 or other form as agreed in writing by the Environment Agency | 08/03/2021 |
| Process Monitoring | Process Monitoring Reporting Form: Version 1 or other form as agreed in writing by the Environment Agency | 08/03/2021 |

| Table S4.4 Reporting forms | | |
|---|---|---|
| **Media/parameter** | **Reporting format** | **Date of form** |
| Other performance indicators | Other Performance Parameters Reporting Form: version 1 or other form as agreed in writing by the Environment Agency | 08/03/2021 |

# Schedule 5 – Notification

These pages outline 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 malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit 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 | |

| (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 for the breach of permit conditions not related to limits | |
|---|---|
| To be notified within 24 hours of detection | |
| Condition breached | |
| Date, time and duration of breach | |
| Details of the permit breach i.e. what happened including impacts observed. | |
| Measures taken, or intended to be taken, to restore permit compliance. | |

| (d) 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 submitted 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.

“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.

“building” is a covered structure enclosed on all vertical sides that provides sheltered cover and contains emissions of, for example, noise, particulate matter, odour and litter.

“D” means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste.

“disposal” means any of the operations provided for in Annex I to the Waste Framework Directive.

“dust” means total particulate matter (in air)

“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 these standard rules or from other localised or diffuse sources, which are not controlled by an emission or background concentration limits.

“emissions to land” includes emissions to groundwater.

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

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

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

“hazardous property” has the meaning in Annex lll of the Waste Framework Directive.

“hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005.

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

“Industrial Emissions Directive” means Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“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.

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

“pests” means birds, vermin and insects.

“pollution” includes pollution of the environment, harm to human health and serious detriment to the amenities of the locality, resulting from the permitted activities.

“POPs” means persistent organic pollutants, which are the substances listed in Annexes I and II of the retained Regulation (EU) 2019/1021 as amended by The Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020/1358 and The Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2022/1293.

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

“R” means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste.

“recovery” means any of the operations provided for in Annex II to the Waste Framework Directive.

“sealed drainage” in relation to an impermeable surface means a drainage system with impermeable components which does not leak and which will ensure that:

- no liquid will run off the surface otherwise than via the system, and
- except where they may lawfully be discharged to foul sewer, all liquids entering the system are collected in a sealed sump

“volatile organic compound” (VOC) means any organic compound as well as the fraction of creosote, having at 293.15 K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use.

“waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

‘waste oils’ means any mineral or synthetic lubrication or industrial oils which have become unfit for the use for which they were originally intended, such as used combustion engine oils and gearbox oils, lubricating oils, oils for turbines and hydraulic oils.

“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.

“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:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

When the following terms appear in the waste code list in Schedule 2, table 2.3, 2.4 and 2.5, for those tables, they have the meaning given below:

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

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

“PCBs” means.

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0.005% by weight.

“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium,

molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“stabilisation” means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste.

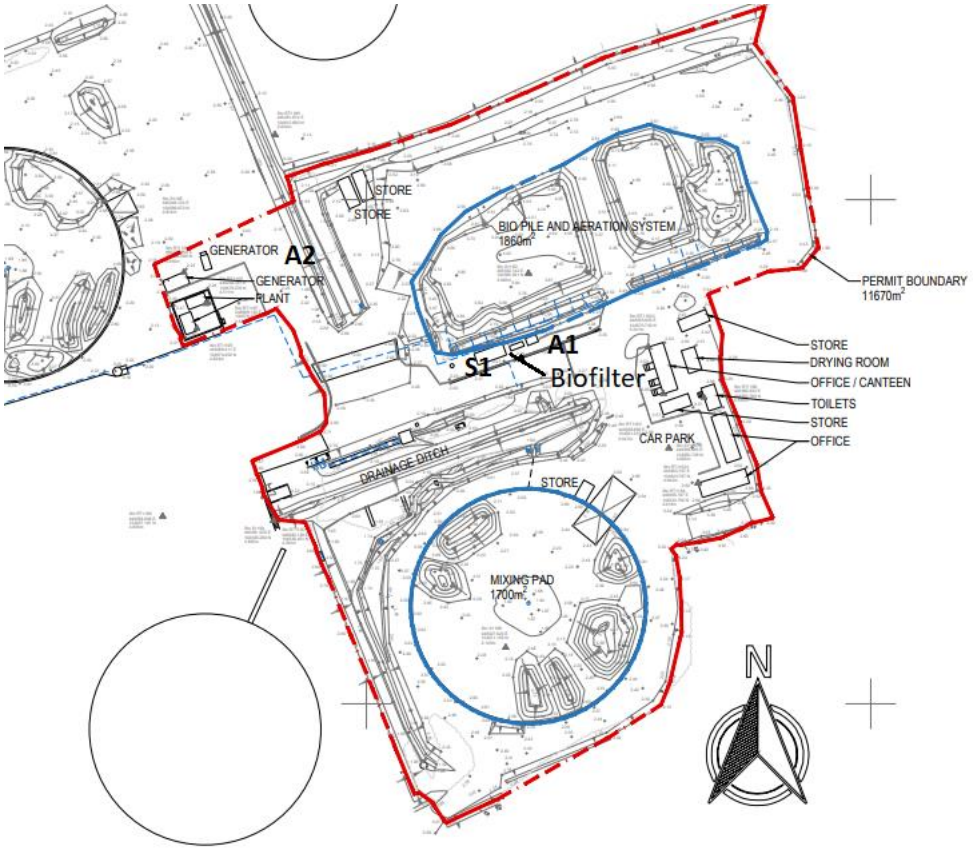
“solidification” means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste.

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

# Schedule 7 – Site plan

**Figure 1: Site location and permit boundary**

**Figure 2**: **Emission point and treatment site layout**




END OF PERMIT