

Permitting Decisions- Environment Agency Initiated Variation

We have issued an Environment Agency initiated variation for Fawley Remediation Treatment and Recovery Facility operated by Biogenie Remediation UK Limited following a review of the permit in accordance with Environmental Permitting (England and Wales) Regulations 2016, regulation 34(1).

The variation number is EPR/ZP3133RH/V002.

Date Issued: 19/11/2024

Permit Review

This Environment Agency has a duty, under the Environmental Permitting (England and Wales) Regulations 2016 (EPR), regulation 34(1), to periodically review permits. Article 21(3) of the Industrial Emissions Directive (IED) also requires the Environment Agency to review conditions in permits to ensure that they deliver compliance with relevant standards, within four years of the publication of updated decisions on Best Available Techniques (BAT) Conclusions.

We have reviewed the permit for this [regulated facility and varied the permit to make a number of changes to reflect relevant standards and best practice. These changes principally relate to the implementation of our technical guidance <https://www.gov.uk/guidance/chemical-waste-appropriate-measures-for-permitted-facilities> and the relevant requirements of the [BAT Conclusions for Waste Treatment](#) which have been incorporated into our guidance.

In this decision document, we set out the reasoning for the variation notice that we have issued.

It explains how we have reviewed and considered the techniques used by the operator in the operation and control of the plant and activities of the installation (operating techniques) against our technical guidance.

As well as considering the review of the operating techniques used by the Operator for the operation of the plant and activities of the installation, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue. Where this has not already been done, it also modernises the entire permit to reflect the conditions contained in our current generic permit template.

Purpose of this document

This decision document provides a record of the decision making process. It:

- explains how the Environment Agency initiated variation has been determined;
- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account;
- highlights [key issues](#) in the determination.

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Key issues of the decision

Environment Agency led variation – permit review

We have carried out an Environment Agency initiated variation to the permit following a permit review as required by legislation to ensure that permit conditions deliver compliance with relevant legislative requirements and appropriate standards to protect the environment and human health.

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. Relevant existing facilities were expected to be in compliance with the BAT Conclusions within 4 years (i.e. by August 2022).

On 18 November 2020, Chemical Waste: appropriate measures for permitted facilities guidance was published on gov.uk. This technical guidance explains the standards that are relevant to regulated facilities with an environmental permit to treat or transfer chemical waste, providing relevant standards (appropriate measures) for those sites and incorporating the relevant requirements of the BAT Conclusions.

The following Appropriate Measures guidance is also applicable to the permitted activities being varied under this permit review and has been included in the operating techniques table.

- Non-hazardous and inert waste: appropriate measures for permitted facilities - published 12 July 2021.

We issued a notice under regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 05/01/2023 requiring the operator to provide information to confirm that the operation of their facility currently meets, or how it will subsequently meet, the standards (appropriate measures) described in our technical guidance.

The notice required that where the revised standards are not currently met, the operator should provide information that:

- Describes the techniques that will be implemented to ensure operations meet the relevant standards and by when, or
- Explains why they are not applicable to the facility in question, or
- Justifies why an alternative technique is appropriate and will achieve an equivalent level of environmental protection to the standards described in our guidance

The standards described in our technical guidance are split into 7 chapters:

- General management appropriate measures
- Waste pre-acceptance, acceptance and tracking appropriate measures
- Waste storage, segregation and handling appropriate measures
- Waste treatment appropriate measures
- Emissions control appropriate measures
- Emissions monitoring and limits appropriate measures
- Process efficiency appropriate measures

We have set emission limit values (ELVs) and monitoring requirements for relevant substances in line with our technical guidance and the BAT Conclusions for Waste Treatment, unless a tighter, i.e. more stringent, limit was previously imposed and these limits have been carried forward.

The Regulation 61 notice required the operator to confirm whether they could comply the standards described in each of these chapters. Table 1 below provides a summary of the response received and our assessment of it. The overall status of compliance with the standards (appropriate measures) is indicated in the table as:

NA – Not Applicable

CC – Currently Compliant

FC – Compliant in the future (through improvement conditions set in permit)

NC – Not Compliant

In accordance with Article 22(2) of the Industrial Emissions Directive, the Regulation 61 notice asked the operator to provide a soil and groundwater risk assessment, along with a baseline report or summary report confirming the current state of soil and groundwater contamination, where listed activities are undertaken that involve the use, production or release of relevant hazardous substances.

The Regulation 61 notice also asked the operator to confirm whether they operate a medium combustion plant or specified generator (as per Schedule 25A or 25B of EPR 2016) and whether they had considered how their operations could be affected by climate changes (e.g. through a climate change adaptation plan).

Our assessment of the responses received from the operator regarding soil and groundwater risk assessment, medium combustion plant and specified generators, and consideration of climate change are also summarised in Table 1.

The Regulation 61 notice response from the Operator was received on 04/04/2023.

Although we were able to consider the Regulation 61 notice response generally satisfactory at receipt, we needed more information in order to complete our permit review assessment. We requested this by email and the operator provided further information on techniques for controlling fugitive emission from the bio-piles on 01/07/2024 & 02/08/2024. We made a copy of this information available on our public register.

The Operator also provided additional information following their review of the draft permit, this included details of proposed biofilter monitoring and treatment capacities for the activities carried out on site. We have included this information in the Operating Techniques in table S1.2 of the permit. We made a copy of this information available on our public register.

Table 1 – Summary of our assessment of the operator’s Reg 61 response

Appropriate measures	Compliance status	Assessment of the installation's compliance with relevant standards (appropriate measures) and any alternative techniques proposed by the operator
<p>General management appropriate measures</p>	<p>FC</p>	<p>The Operator stated in their Regulation 61 response that a number of the management plans referenced in the Appropriate Measures were not in place but will be in place by December 2023, these include:</p> <ul style="list-style-type: none"> • Residues Management • Accident Management • Odour Management • Noise and Vibration Management • Dust Management • Fire Prevention • Contingency <p>The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that the Management System has now been updated to include the above procedures. We have included improvement condition IC1 requiring the Operator to submit a copy of the updated procedures within 2 months of variation issue.</p>
<p>Waste pre-acceptance, acceptance and tracking appropriate measures</p>	<p>FC</p>	<p>The Operator's Regulation 61 response indicated at the time of writing that they are in compliance with the appropriate measures with the exception of the following:</p> <p><u>Waste Pre-Acceptance</u></p> <p>The Operator stated in their regulation 61 Notice that they were compliant with the appropriate measures with exception of:</p> <p>Section 3.1.2 – An alternative measure is currently applied on site. We are satisfied that the alternative measure is appropriate for this installation.</p> <p>Section 3.1.3 – The Operator has stated that they do not currently hold a list of wastes that we currently receive that potentially pose unacceptable risks to the site of process. Based on the continuity of the wastes received over the lifetime of the permit and knowledge of the source of these wastes this has not been deemed necessary, however they will review this position and form a list of such wastes, if they</p>

	<p>are identified, by December 2023. Such wastes, if identified, will not be accepted into the facility. We have included improvement condition IC2 requiring the Operator to submit a copy of the updated procedure within 2 months of variation issue.</p> <p>Sections 3.1.6 – The Operator has stated that this section details specifics for wastes that they do not accept. We are satisfied that these measures do not apply to this installation.</p> <p>Section 3.1.11 – The Operator has stated that definitive odour criteria is not applied at the pre-acceptance stage based on our prior knowledge of the wastes, and as odorous wastes are not typically accepted into the treatment facility, beyond the general background odour of the existing refinery. We are satisfied that these measures do not apply to this installation.</p> <p>Sections 3.1.14 to 3.1.15 – The Operator has stated that these measures are not relevant as the site does not accept liquid wastes. We are satisfied that these measures do not apply to this installation.</p> <p><u>Waste Acceptance</u></p> <p>Section 3.2.8 - An alternative measure is currently applied on site. We are satisfied that the alternative measure is appropriate for this installation.</p> <p>Section 3.2.13 - An alternative measure is currently applied on site. We are satisfied that the alternative measure is appropriate for this installation.</p> <p>Sections 3.2.14 to 3.2.23 and 3.2.25 to 3.2.26 – The Operator has stated that these sections are not relevant. We are satisfied that these measures are not relevant to this installation.</p> <p><u>Acceptance Sampling</u></p> <p>Section 3.2.34 - An alternative measure is currently applied on site. We are satisfied that the alternative measure is appropriate for this installation.</p> <p><u>Testing and Analysis</u></p> <p>Section 3.2.41 - An alternative measure is currently applied on site. We are satisfied that the</p>
--	---

		<p>alternative measure is appropriate for this installation.</p> <p><u>Waste Tracking</u></p> <p>Section 3.3.1 - - An alternative measure is currently applied on site. We are satisfied that the alternative measure is appropriate for this installation.</p>
<p>Waste storage, segregation and handling appropriate measures</p>	CC	<p>The Operator has stated the following in their Regulation 61 Response:</p> <p><i>This section relates principally to containerised wastes that are held in storage prior to treatment. Where bulk wastes are accommodated, tanks and bulk storage vessels are discussed.</i></p> <p><i>Our wastes are bulk solids delivered by tipper wagon or in skips. The wastes are not containerised or stored in vessels prior to treatment.</i></p> <p><i>The requirements to store under cover and keep solids waste dry (Points 10 and 18) we believe are not relevant as incoming wastes are not in a period of storage before treatment commences. Our original permit application includes a “pre-treatment storage area” and our permit includes codes R13 and D13. However, there is no storage or accumulation of waste prior to the treatment process commencing. Wastes are conditioned with woodchip or other physical conditioning agents, if required, within the “pre-treatment storage area” before being transferred to the “bioremediation area” for treatment.</i></p> <p><i>As several hundred of tonnes of waste are typically received in batches at any one time, there is sufficient waste available to form a productive treatment batch as the material arrives at the facility.</i></p> <p>We agree that a number of the appropriate measures are not relevant to the installation, however it is our view that several of the measures are relevant and for this reason we have clarified in the permit (table S1.2) the measures that are relevant and the Operator is required to operate in accordance with these measures.</p>
<p>Waste treatment appropriate measures</p>	FC	<p>The Operator’s Regulation 61 response indicated at the time of writing that they are in compliance with the appropriate measures with the exception of the following:</p> <p>Sections 5.1.2, 5.1.3, 5.1.4 and 5.1.9 – In the Regulation 61 response the Operator stated that they were not currently compliant with these sections, but would be compliant by December 2023. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they</p>

		<p>are now in compliance with these measures. We have included improvement condition IC3 requiring the Operator to submit a copy of the updated procedures within 2 months of variation issue.</p> <p>All measures apply with the exception of the following:</p> <p>Section 5.1.10 – In the Regulation 61 response the Operator stated that they do not consider the requirement to enclose the treatment activity is applicable to this installation.</p> <p>Appropriate measures 5.1.10 states ‘Where an emission is expected, all treatment or reactor vessels must be enclosed. Only vent them to the atmosphere via an appropriate scrubbing and abatement system (subject to explosion relief)’. We consider the key fugitive emissions from the bio-remediation process to be VOCs, dust and contaminated surface water runoff. The Operator has confirmed that they do not routinely cover the bio piles during remediation. They have provided additional information on their current operating techniques which includes details of how they minimise fugitive emissions; and data from ambient air monitoring that has historically been carried out for dust and VOCs. The Operator concluded that the covering of bio piles is unnecessary and that their existing operating techniques provide an equivalent level of protection as compared to covering the bio-piles. We have reviewed their additional information, and we agree that dust and contaminated run-off can be adequately controlled by existing operating techniques. However, with regard to fugitive emissions of ambient VOCs and dust we require further evidence of control, so for this reason we have included an improvement conditions (IC9, IC10 and IC11) in the permit requiring them to carry out further ambient air monitoring around the bio piles for VOCs and dust to confirm their conclusions. In the event that the monitoring exercise reveals that fugitive emissions of VOCs cannot be adequately controlled, the Operator is required to propose measures to control fugitive emissions to an acceptable level.</p> <p>Section 5.2 – This section relates to treatment of Aerosol canisters and is therefore not relevant. The site does not accept aerosols so we are satisfied that these measures do not apply to this installation.</p>
<p>Emissions control appropriate measures</p>	<p>FC</p>	<p>The Operator’s Regulation 61 response indicated at the time of writing that they are in compliance with the appropriate measures with the exception of the following</p> <p><u>Point Source Emissions to Air</u></p>

	<p>Sections 6.1.2, 6.4.1, 6.1.3, 6.4.2, 6.1.5 to 6.1.7 - – In the Regulation 61 response the Operator stated that they were not currently compliant with these sections, but would be compliant by December 2023. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with these measures.</p> <p><u>Fugitive Emissions to Air</u></p> <p>Sections 6.2.2 and 6.2.3 – The Operator has stated that with respect to fugitive emission to air, the emissions monitoring report discussed in our response to Question 5 quantifies potential fugitive emissions to air. While treatment plant does not include the infrastructure listed in 6.2.2, the potential for fugitive emission is demonstrated as sufficiently low that these are not considered necessary.</p> <p>The Operators techniques for controlling fugitive emissions have been considered in the previous section (Section 5.1.10). We are satisfied in principle that fugitive emissions are adequately controlled and routine covering of bio piles is unnecessary, however this is subject to the conclusions from the monitoring exercise carried out in accordance with IC9.</p> <p>Sections 6.2.4 and 6.2.6 - In the Regulation 61 response the Operator stated that they were not currently compliant with these sections, but would be compliant by December 2023. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with these measures.</p> <p>6.2.12 – In the Regulation 61 response the Operator stated that they were not currently compliant with these sections, but would be compliant by December 2023 - The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with these measures.</p> <p>6.2.13 to 6.2.18– The Operator has stated in the Regulation 61 response that odorous wastes are not typically accepted into the treatment facility, beyond the general background odour of the existing refinery. Esso have a site odour management plan that would by default includes the area of the permitted facility – The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with these measures.</p> <p>Section 6.1.19 – The Operator has stated in the Regulation 61 response that The facility does not have an odour management plan as it is located in the centre of the refinery, the background odour from the refinery operations renders point source odour from the treatment facility insignificant – The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that their</p>
--	---

		<p>procedures have been updated to include an odour management plan.</p> <p><u>Emissions of Noise and Vibration</u></p> <p>6.3.3 to 6.3.5 - In the Regulation 61 response the Operator stated that they were not currently compliant with these sections, but would be compliant by December 2023 - The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with these measures.</p> <p><u>Point Source Emissions to Water and Sewer</u></p> <p>Section 6.4.3 - In the Regulation 61 response the Operator stated discharges to sewer in our case comprise discharge to the internal refinery water treatment system. Waters are initially treated by Biogenie Remediation UK Limited (as detailed in response to Question 7) then treated further by the refinery. We therefore are not required to comply with the conditions of an environmental permit or trade effluent consent. – The varied permit now includes a suite of monitoring and emission limits in line with the Waste treatment BAT AELs. The Operator is required to comply with these requirements in the Environmental Permit.</p> <p>Section 6.4.11 to 6.4.15 - In the Regulation 61 response the Operator stated that they were not currently compliant with these sections, but would be compliant by December 2023 - The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with these measures.</p> <p>We have included improvement condition IC4 requiring the Operator to submit a copy of the updated procedures within 2 months of variation issue.</p>
<p>Emissions monitoring and limits appropriate measures</p>	<p>CC</p>	<p>The Operator stated in their Regulation 61 response that they do not currently monitor for BAT-AELs as listed in Annex 3 and Annex 4 of this document for point source emissions to air or sewer. – The variation notice now requires the Operator to monitor emissions to air and sewer and comply with the relevant BAT AELS in line with the relevant Waste Treatment BAT Conclusions.</p> <p>The Operator stated that they do not currently maintain an emissions inventory. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with this measure.</p>

<p>Process efficiency appropriate measures</p>	<p>FC</p>	<p>The Operator's Regulation 61 response indicated at the time of writing that they are in compliance with the appropriate measures with the exception of the following:</p> <p><u>Energy efficiency</u></p> <p>Sections 8.1.1 to 8.1.4 – The Operator stated in their Regulation 61 response that an energy plan specific to the permitted facility would be formalised and documented to include all the requirements listed in these sections. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with this measure.</p> <p><u>Raw materials</u></p> <p>Section 8.2.4 - The Operator stated in their Regulation 61 response that a quality assurance procedure for woodchip will be formalised. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with this measure.</p> <p><u>Water use</u></p> <p>Section 8.3.3 and 8.3.4: The Operator stated in their Regulation 61 response that these requirements will be subject to a water efficiency audit by December 2023 and every four years onwards. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with this measure.</p> <p>Section 8.3.9: The Operator stated in their Regulation 61 response that a flow meter will be in place by December 2023, and readings will be taken weekly. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with this measure.</p> <p><u>Waste minimisation:</u></p> <p>Section 8.4.1: The Operator stated in their Regulation 61 response that they will implement a residues management plan. The Operator has subsequently confirmed in an email received 30/04/24 (from David Smith) that they are now in compliance with this measure.</p> <p>We have included improvement condition IC5 requiring the Operator to submit a copy of the updated procedures within 2 months of variation issue.</p>
---	-----------	--

		<p>Section 8.4.2 & 8.4.3: The Operator stated in their Regulation 61 response that no waste residues have historically been disposed of from the treatment facility. The objective of the treatment facility is to recover wastes for permanent deposit on land. Wastes accepted, treated and recovered are fully documented in an electronic tracking system. Any wastes that are disposed of include packaging and office wastes. These are segregated based on material types (recyclables, non-recyclable wastes, food wastes, etc.) and disposed of appropriately. In the event that waste residues are generated that are not suitable for recovery, this would be abnormal operations, and the following would occur:</p> <ul style="list-style-type: none"> • Segregation and quarantining of the wastes • Waste assessment and classification, undertaken by a Waste Assessor within Biogenie Remediation UK Limited with appropriate education, training and experience • Dependant on the properties of the wastes, including physical and chemical properties, EWC code, calorific value, etc. options for the waste will be considered. This may include: <ul style="list-style-type: none"> • Disposal to landfill • Removal to EfW facility • Removal to alternative off-site treatment facility for treatment and recovery by others • Additional stages of treatment within the treatment facility at Fawley to allow recovery • The selected option for the waste will consider the best environmental option (including impact of transport) favouring recovery over disposal where technically viable, and economic impact. <p>We are satisfied that the alternative measure is appropriate for this installation.</p>
<p>Reg 61 requirement Assessment of response received</p>		
<p>Soil and groundwater risk assessment</p>	<p>The Operator has submitted a risk assessment that considers the risk to groundwater as low. The site has an existing site condition report that was submitted with the original permit application in 2015.</p>	

<p>Medium combustion plant and specified generators</p>	<p>The Operator has stated in their regulation 61 response that the site is run from a single diesel generator set feeding the following infrastructure:</p> <ul style="list-style-type: none"> • Site offices and welfare • Water treatment plant • Biofilter aeration system <p>The generator is a Harrington /HRD100T, 100KVa capacity diesel generator. The generator was installed in December 2016, as part of the facility infrastructure development following the permit being 'duly made'. The generator runs 24 hours a day 7 days a week (8,760 hours) to power the key process systems in the facility. Emissions released are as per standard diesel generators. There is no existing monitoring specific to emissions from our site generator.</p> <p>The combustion plant is less than 1MW_{th} so MCP conditions, limits and monitoring requirements do not apply. The plant has been listed as a point source emission and as a DAA in the permit.</p>
<p>Climate change</p>	<p>The Operator has confirmed that they have a Climate Change Adaption Plan in place.</p>
<p>Summary of other changes made to the permit as a result of our assessment of the Reg 61 response</p>	
<p>-</p>	<p>-</p>

Decision Considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the Regulation 61 notice response that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

The site

The operator has provided a plan which we consider to be satisfactory.

The plan is included in the permit.

Operating techniques

The operating techniques that the applicant must use are specified in S1.2 in the environmental permit.

Changes to the permit conditions

We have varied the permit as stated in the variation notice.

Improvement programme

We have included 12 new improvement conditions in the permit.

Changes to EWC codes

EWC codes for non-hazardous waste have been removed for the stabilisation/solidification activity following the Operator confirming that stabilisation/solidification of non-hazardous does not happen on site.

Emission limits and monitoring

Emission Limit Values (ELV's) and monitoring for emissions to air from point A1 based on Best Available Techniques – Associated Emission Levels (BAT-AELS) for Waste Treatment, have been added for the following substances:

- Total Volatile Organic Compounds (TVOCs)
- Ammonia (NH₃)

Emissions limits and monitoring have been added for indirect emissions to sewer as a result of this variation based on Best Available Techniques – Associated Emission Levels (BAT-AELS) for Waste Treatment. The limits and monitoring are based on requirements for physico- chemical treatment of waste (Activity AR2).

Reporting

We have amended reporting in the permit to include annual reporting of the following:

- Hazardous waste treated – Recovery
- Hazardous waste treated – Disposal
- Non-hazardous waste treated – Recovery
- Non-hazardous waste treated – Disposal
- Total raw material used

We made these decisions in accordance with Best Available Techniques for Waste Treatment.

Other changes

The Operator's company name has changed on Companies House. We have therefore changed this on permit. The name has changed from Englobe Regeneration UK Limited to Biogenie Remediation UK Limited. There has been no change to the company registration number.

Growth Duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 100 of that Act in deciding whether to grant the variation of this permit.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all

specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standar