

Permitting Decisions- Environment Agency Initiated Variation

We have decided to issue an Environment Agency initiated variation for Sapphire Specialised Fuel Plant operated by SAPPHIRE ENERGY RECOVERY 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/RP3203PQ/V002

We consider in reaching this decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Permit Review

The 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 activity and varied the notice to make a number of changes to reflect relevant standards and current best practice. These changes principally relate to the implementation of our technical guidance Non-hazardous and inert 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 against our technical guidance.

As well as considering the review of the operating techniques used by the operator, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue.

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 us to review conditions in permits issued and to ensure that the permit delivers compliance with relevant standards. This must be 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 must be in compliance with the BAT Conclusions within 4 years.

Our technical guidance Non-hazardous and inert waste: appropriate measures for permitted facilities explains the standards that are relevant for regulated facilities with an environmental permit to treat or transfer non-hazardous wastes.

We issued a notice under regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 08/11/2021 requiring the operator to provide information to confirm that the operation of their facility currently meets, or how it will subsequently meet, the standards in the Waste Treatment BAT Conclusions.

The notice required the operator to:

1. Provide a brief non-technical description of the regulated facility, including
 - all listed activities, waste operations and registered waste exemptions (if any).
 - a list of wastes handled at the site, the key stages in the “process” and the relevant disposal and recovery operations.
 - the scale of the operation i.e., the waste storage and daily treatment capacity of the process.
 - a brief description of the principal releases to air, land and water including noise, dust and odour, along with a description of any abatement techniques and site plan.
 - description of the site location and any key sensitive receptors.
2. Identify the BAT Conclusions that are applicable to the facility’s operations. Confirm whether or not the operations comply with the requirements.
3. Where operations are not currently complying, the operator was required to provide:
 - details of how the relevant standards and requirements will be met.
 - details of how they will fully comply with the requirement by 17 August 2022.
 - justification as to why an alternative technique is appropriate and will achieve an equivalent level of environmental protection to the standards in the BAT Conclusion.
 - details of any activities they intend to cease operating by the compliance date (August 2022).
4. Confirm whether they operate a medium combustion plant or specified generator (as per Schedule 25A or 25B of EPR 2016).

The Non-hazardous and inert waste: appropriate measures for permitted facilities guidance was published on 12 July 2021 on gov.uk. This technical guidance explains the standards that are relevant to regulated facilities with an environmental permit to store, treat or transfer non-hazardous waste, providing relevant standards (appropriate measures) for those sites. The operators were notified about the new guidance and were advised to consider them in their submissions.

The standards described in our technical guidance are split into 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

Our assessment of the responses received from the operator are summarised in Table 1.

The Regulation 61 Notice required the operator to confirm whether they could comply with 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/IC – Not Compliant; Improvement/New Condition included

Extent of this review

We have reviewed the operations that relate to the Installation activities in this permit against the relevant requirements of Best Available Techniques (BAT) Conclusions set out in implementing decision (EU) 2018/1147 of 10 August 2018.

Regulation 61 Response

The Regulation 61 notice response from the Operator was received on 05/04/2022.

We considered that the response did not contain sufficient information for us to commence determination of the permit review and we needed further information to complete the permit review assessment.

We sent a request for further information (RFI) by email to the operator on 15/11/2023. The operator replied on 28/11/2023 providing further documentation. A decommissioning plan was submitted on 07/12/2023.

The documents submitted by the operator which now form part of the operating techniques that the operator must implement are specified in table S1.2 in the environmental permit. These include:

- Documents received in response to the Regulation 61 Notice
 - *'Regulation 61 Notice and annex 1 spreadsheet titled "NHI Installations Reg 61 notice - Annex 1 tranche 2"*

- Documents received in response to RFI
 - *Working plan only sections*
 - *Waste Materials Acceptance*
 - *Identification and storage of Waste*
 - *Tunstead Cement Plant – Emergency Response Plan v2.2*

Further documents provided included but not included in table S1.2:

- *'PSCAPPSAPPH005 Sapphire reference Doc 11.1 Decommissioning Plan'*

- *'Sapphire - ARM-AF Qualification Form'*
- *'Emergency Procedures Specialised Fuel Plant'*
- *'Emergency Out of Hours Response Plan'*

Changes to the permit conditions

Following the assessment of the information provided by the operator in response to the Regulation 61 Notice, summarised in table 1, we have made the following changes to the permit conditions:

- Condition 2.3.4 (a) - Waste Table numbering corrected to S2.2
- Condition 2.4 - Conditions removed. Pre-operational conditions are not included within the permit.
- Conditions 3.1.1-3.1.3 - Emissions conditions added in line with template and requirement to monitor surface water emission for oil and grease. Subsequent conditions re-numbered.
- Conditions 3.5.1-3.5.4 - Monitoring conditions added in line with template and requirement to monitor surface water emission for oil and grease. Subsequent conditions re-numbered.
- Condition 3.7.2 - Condition removed. FPP added to the operating techniques. Condition no longer required.
- Table S1.1 as referenced in condition 2.1.1 - Activities updated.
- Table S1.2 as referenced in condition 2.3.1 - Operating techniques updated.
- Table S1.3 as referenced in condition 2.4 - Pre-operational conditions removed.
- Table S3.1 as referenced in condition 3.1.1 - Table added along with monitoring of surface water run off.
- Table S4.1 as referenced in condition 4.2.3 - Reporting parameters updated to include surface water monitoring.
- Table S4.4 as referenced in condition 4.2.3 - Updated reporting forms.
- Schedule 5 - Table (c) added in line with modern template.

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
General management appropriate measures	CC	The operator confirmed that they currently meet the requirements of the appropriate measures in this section with the exception of; <ul style="list-style-type: none"> • A decommissioning plan A decommissioning plan was requested as part of the Request for Further Information and was supplied.
Waste pre-acceptance, acceptance and tracking appropriate measures	CC	The operator confirmed that they currently meet the requirements of the appropriate measures in this section. Pre-acceptance and acceptance procedures were requested as part of the Request for Further Information. The operator supplied a working plan which covered these elements as well as the Sapphire material qualification form which is used for all waste derived fuels or raw materials as part of acceptance. They also confirmed only materials that are permitted by EWC are considered for the operation.
Waste storage, segregation and handling appropriate measures	CC	The operator confirmed that they currently meet the requirements of the appropriate measures in this section. Waste is stored in line with the sites FPP.
Waste treatment appropriate measures	CC	The operator confirmed that they currently meet the requirements of the appropriate measures in this section.
Emissions control appropriate measures	CC	The operator confirmed that they currently meet the requirements of the appropriate measures in this section. The operation does not give rise to any emissions. All waste storage and treatment activities are conducted within a building. There are no channelled emissions to air. The only emission is of uncontaminated rainwater leaving site to a lagoon on the wider permitted site, Tunstead Cement and Lime Works. An emission table S3.1 has been added for this emission and a visible check for oil and grease has been included.
Emissions monitoring and limits appropriate measures	CC	The operator confirmed that they currently meet the requirements of the appropriate measures in this section. The operation does not give rise to any emissions. All waste storage and treatment activities are conducted within a building. There are no channelled emissions to air. The only emission is of uncontaminated rainwater leaving site to a lagoon on the wider permitted site, Tunstead Cement and Lime Works. An emission table S3.1 has been added for this emission and a visible check for oil and grease has been included.
Process efficiency appropriate measures	CC	The operator confirmed that they are currently compliant with this section of the appropriate measures. A permit condition is in place which requires the operator to submit an end of year report for water, energy and raw materials usage. The operation does not have scope for the

		replacement of raw materials with waste and does not use raw materials. No water is consumed as part of the process.
Regulation 61 Requirement	Compliance status	Assessment of the installation's compliance with relevant standards (appropriate measures) and any alternative techniques proposed by the operator
BAT 1 - EMS	CC	The operator indicated that they are compliant with this BAT conclusion.
BAT 2 - Waste pre-acceptance, acceptance and tracking appropriate measures	CC	The operator confirmed that they have waste acceptance and pre-acceptance procedures as part of their response to the RFI. These were detailed within the working plan provided. They have confirmed that they are compliant with this BATc.
BAT 3 - Inventory of wastewater and waste gas streams	N/A	The operator responded stating that this BATc was not relevant to their operation. There are no emissions to either air or water outside of uncontaminated rainwater from roofs and the yard surface. As there are no channelled emissions we agree that this requirement is not relevant.
BAT 4 - Storage procedures	CC	The operator did not provide a response to this BATc. Further information was requested, and a response was given. This response included a working plan which detailed waste storage operation and procedures. The operator is currently compliant with this BATc.
BAT 5 – Waste handling and transfer procedures	CC	The operator confirmed that they have waste handling and transfer procedures in place. Requested as part of the RFI and in response the provided working plan highlighted these procedures.
BAT 6 - monitor key process parameters	N/A	The operator detailed that they do not believe that this BATc is relevant, as no waste water is discharged from site. As the only emission from site is for uncontaminated roof and surface water we agree that the monitoring requirements detailed within BAT 6 are not applicable.
BAT 7 - monitor emissions to water	N/A	The operator detailed that they do not believe that this BATc is relevant, as no waste water is discharged from site. As the only emission from site is for uncontaminated roof and surface water we agree that this monitoring requirements detailed within BAT 7 are not applicable.
BAT 8 - monitor channelled emissions to air	N/A	There is no channelled emission to air. The permit does not allow channelled emissions to air.
BAT 9 - monitor diffuse emissions of organic compounds to air	N/A	The installation activities do not involve regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value. This BAT is therefore considered not applicable.
BAT 10 - monitor odour	N/A	Given the nature of the waste treatment operations, we agreed that this BAT is not applicable.

BAT 11 - monitor consumption of water, energy and raw materials, and generation of residues and wastewater	CC	The operator confirmed that they are currently compliant with this BATc. A permit condition is in place which requires the operator to submit an end of year report for water, energy and raw materials usage. The operation does not have scope for the replacement of raw materials with waste and does not use raw materials. No water is consumed as part of the process.
BAT 12 - odour management plan	N/A	Given the nature of the waste treatment operations, the Environment Agency agreed that this BAT is not applicable.
BAT 13 - reduce odour emissions	N/A	Given the nature of the waste treatment operations, the Environment Agency agreed that this BAT is not applicable.
BAT 14 - reduce diffuse emissions to air	CC	The operator responded to the Regulation 61 Notice, indicating that BAT 14 is not relevant to their operation. It is stated that the process does not give rise to emissions to air. It is deemed that this BATc is relevant but that the operator is compliant. All waste treatment activities take place within an enclosed building. There is limited scope for the generation of any emissions and if any were to be generated they would be contained within the building.
BAT 15 - minimise use of flaring	N/A	Given the nature of the waste treatment operations, we agreed that this BAT is not applicable.
BAT 16 - reduce emissions to air from flares	N/A	Given the nature of the waste treatment operations, we agreed that this BAT is not applicable.
BAT 17 - noise and vibration management plan	CC	The operator indicated that they are compliant with this BATC. No noise issues have been identified by area and if issues become apparent the permit includes conditions where a noise impact assessment and noise management plan can be requested.
BAT18 - reduce noise and vibration emissions	CC	The operator indicated that they are compliant with this BATC. No noise issues have been identified by area and if issues become apparent the permit includes conditions where a noise impact assessment and noise management plan can be requested.
BAT 19 - optimise water consumption, reduce wastewater and prevent or reduce emissions to soil and water	CC	The operator indicated that this BAT conclusion is not relevant to their operation. No water is used in the process and the process does not give rise to waste water. Uncontaminated rain water is managed through collection in a lagoon outside of the permit boundary. The permit area is an impermeable surface. Due to the limited application of this BATc on site it is deemed that the operator is currently compliant.
BAT 20 - waste water treatment	N/A	The operator has indicated that this BATc is not relevant as no waste water is produced from he process and therefore there is no waste water treatment on site. It is agreed that BAT 20 is therefore not relevant.

BAT 21 - prevent or limit the environmental consequences of accidents and incidents	CC	The operator responded stating that BAT 21 was not relevant to their operation. An Accident Management Plan was requested as part of the Request for Further Information and this was supplied. The operator is compliant with this BATc.
BAT 22 - substitute materials with waste	N/A	There is limited use of raw materials within the SRF production process. Given the nature of the waste treatment operations, we agreed that this BAT is not applicable.
BAT 23 - Energy efficiency plan, energy balance record	CC	The operator indicated that they are compliant with BATc 23 and have an Energy Efficiency Plan in place.
BAT 24 - maximise reuse of packaging	N/A	No packaging is generated during the waste processing operations. Given the nature of the waste treatment operations, we agreed that this BAT is not applicable.
BAT 25 - General - Emissions to air (Techniques to reduce plus AEL for dust).	N/A	There are no channelled emissions of dust from the process. As such this requirement is not relevant to the operations.
BAT 26 - Metal shredders (Reduce accidents & incidents)	N/A	The installation is for the mechanical processing of SRF. There is no treatment in shredders of metal waste, including WEEE and ELVs and their components and as such we agree that BAT 26 does not apply.
BAT 27 - Deflagrations (Prevent & reduce emissions from deflagrations)	N/A	The installation is for the mechanical processing of SRF. There is no treatment in shredders of metal waste, including WEEE and ELVs and their components and as such we agree that BAT 27 does not apply.
BAT 28 - Energy efficiency (Shredder feed stability)	N/A	The installation is for the mechanical processing of SRF. There is no treatment in shredders of metal waste, including WEEE and ELVs and their components and as such we agree that BAT 28 does not apply.
BAT 29 - WEEE containing VFCs and/or VHCs (Emissions of organic compounds to air including AELs)	N/A	Given the nature of the waste treatment operations and waste types, we agreed that this BAT is not applicable. There is no treatment in shredders of metal waste, including WEEE, ELVs and their components and there are no channelled emission points to air at the site.
BAT 30 - Explosions when treating WEEE (Prevent emissions due to explosions)	N/A	Given the nature of the waste treatment operations and waste types, we agreed that this BAT is not applicable. There is no treatment in shredders of metal waste, including WEEE and ELVs and their components. There is a non-conforming waste procedure in place at the site.
BAT 31 - Emissions to air (Techniques to reduce emissions to air including AEL)	N/A	There is no channelled emission to air and the permit does not allow channelled emission to air.
BAT 32 - WEEE containing mercury (Emissions to air including AEL)	N/A	WEEE is not being treated at the site. There is no channelled emission to air and the permit does not allow channelled emission to air.

BATs 33 - 53	N/A	We considered that BATs 33 - 53 are not applicable to installations processing waste wood for incineration. We consider these treatment activities as mechanical treatment.
Reg. 61 Request for Further Information (RFI) Assessment of response received		
Provide waste pre-acceptance and acceptance procedures.	The operator responded with a copy of their working plan. Contained within this are sections on both waste pre-acceptance and acceptance. They also supplied Sapphire material qualification form which is used for all waste derived fuels or raw materials coming onto site.	
Provide a response to BAT Conclusion 4 with associated waste storage procedures.	The operator responded with a copy of their working plan. Contained within this are numerous sections which address how waste is stored on site.	
Provide waste handling procedures in line with BAT 5	The operator responded with a copy of their working plan. Section 4 addresses waste handling.	
Provide a response to BAT Conclusion 21 and confirm if an accident management plan is in place for site.	<p>The operator responded providing a number of documents which comprise accident and emergency response.</p> <ul style="list-style-type: none"> • Working Plan Appendix 4 – Emergency Response Plan • Emergency Out of Hours Response Plan • Emergency Procedures Specialised Fuel Plant • Tunstead Cement Plant – Emergency Response Plan v2.2 	
Provide a decommissioning plan in line with section 2.5 of the Non-hazardous and inert waste: appropriate measures for permitted facilities or a timescale within which one will be supplied	The operator has provided a decommissioning plan to demonstrate they meet this aspect of the appropriate measures.	