

Permitting Decisions- Environment Agency Initiated Variation

We have issued an Environment Agency initiated variation for Dartford Oil Management Unit operated by National Grid Electricity Transmission PLC following a review of the permit in accordance with Environmental Permitting (England and Wales) Regulations 2016, regulation 34(1).

The variation number is EPR/TP3738MY/V005.

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

Air Emissions Monitoring and Limits

Volatile Organic Compound (VOC) emissions from the storage and treatment of transformer oils are likely negligible and well-controlled, considering the composition of the oil, as well as its vapour pressure, treatment process, and potential releases. The BAT-AEL does not apply when the emission load is below 2 kg/h at the emission point provided that no carcinogens, mutagens or substances toxic for reproduction (CMR) substances are identified as relevant in the waste gas stream. The composition of the dissolved gases removed from the oil include VOCs, but their release rates are below the BAT-AEL threshold. The emission load ranges from 0.011 kg/h to 0.38 kg/h, even when assuming all dissolved gases are VOCs. Furthermore, the BAT AEL is based on a consistent flow over time.

Monitoring of storage tank vents is not possible because they have intermittent flow as the tanks only vent when they are being filled. Therefore, we have taken the decision not to include emission limits on the current permit, and we agree that the BAT AEL is not applicable.

The operator clarified that the carbon filter setup on the oil treatment plant (SL4, a Fluidex unit) within the workshop building is not required to be sampled in accordance with monitoring standard EN 12619. We agree that it is unlikely that it would be possible to accurately monitor/quantify the concentration of any releases emitted from the carbon filters fitted to the treatment unit inside the building. Consequently, we have decided to exclude monitoring requirements for TVOC parameters in the varied permit.

Storage tank abatement

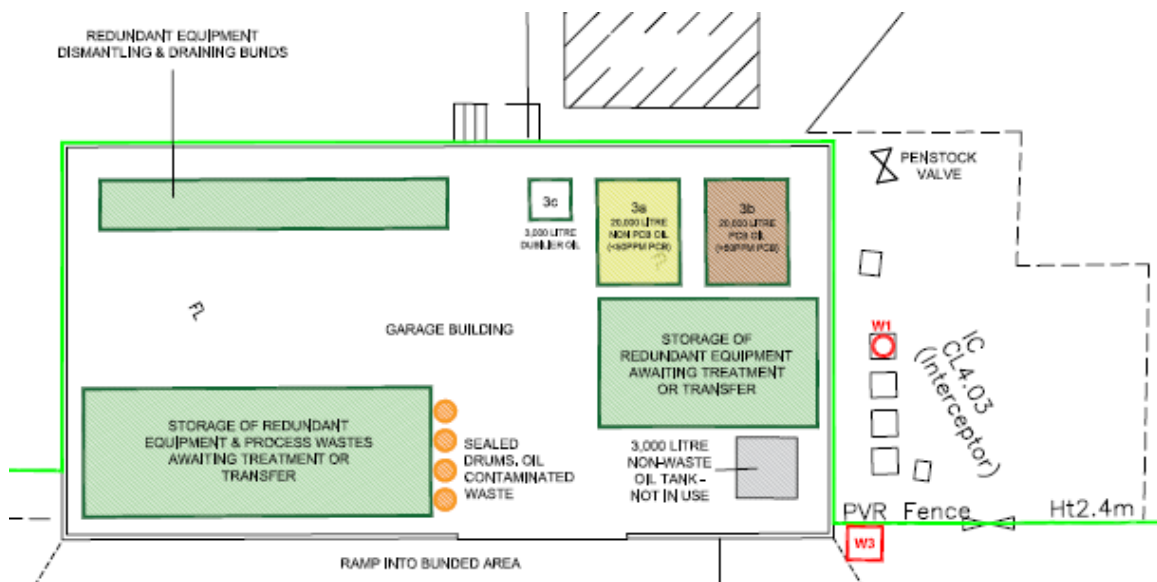
We agree that the storage tanks do not require abatement as they are limited to the storage of transformer oil that doesn't meet the criteria of a volatile organic compound (VOC) according to the Industrial Emissions Directive (2010/75/EU). The specific type of oil is stored and treated within defined temperature ranges (ambient to 50°C), ensuring that the oil's vapour pressure remains below the VOC threshold of 0.01 kPa, which is reached at 65°C. The operator has demonstrated the waste is not a VOC under the conditions of storage by providing data for Nynas virgin oil (Nytro Gemini X oil). The treatment plant temperature is continuously monitored, with heating elements activating and deactivating automatically when predetermined low and high temperatures are reached.

The operator has appropriate waste pre-acceptance and acceptance procedures in place to ensure only these specified wastes are stored in the tanks.

All the tanks have breather vents which are fitted to each tank as part of the integral structure of the tanks.

Permit boundary

Site layout plan (7682-WIE-ZZ-XX-DR-V-80005-P01) has an area of land next to the Garage building that includes an oil interceptor, monitoring point and penstock valve which is outside the permit boundary.



For any further changes to the site, it should be considered to extend the site boundary and assess the impact of including the oil interceptor, monitoring point and penstock valve. Assessment and inclusion of these features does not fall under the scope of the permit review.

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.

We issued a notice under regulation 61(1) of the Environmental Permitting (England and Wales) Regulations 2016 (a Regulation 61 Notice) on 18/11/2021 requiring the operator to provide information to confirm that the operation of their facility currently meets, or how it will subsequently meet, the standards (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 11/03/2022.

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 the following on 03/09/2024, 29/10/2024 and 04/11/2024

as summarised in the status log of the permit. We made a copy of this information available on our public register.

03/09/2024:

- Site Location Plan and Emissions Point Plan
- Air Emissions Points, Monitoring and Limits
- Tank Details
- Waste Pre-acceptance Appropriate Measures
- Waste Storage, Segregation and Handling Appropriate Measures
- Surface Water Management
- Waste Tonnage Activities
- Storage Arrangements

29/10/2024:

- Information confirming the operator has acceptance responsibility.

04/11/2024:

- Updated site layout plan to include surface water emission points, W3 and W4.

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 all appropriate measures in this section. Compliance with the appropriate measures in this section of the guidance has been incorporated into the varied permit through the updated operating techniques listed in Table S1.2.
Waste pre-acceptance, acceptance and tracking appropriate measures	CC	<p>The operator confirmed that they currently meet the requirements of all appropriate measures in this section apart from where not applicable is pointed out at individual points below. Compliance with the appropriate measures in this section of the guidance has been incorporated into the varied permit through the updated operating techniques listed in Table S1.2.</p> <p>3.1.6.5 is not applicable as only two types of waste transformer oils are produced, and they would not be mixed or arrive at the same time. Transformer oils without PCB arrive in tanks as drained from assets on site. PCB containing oils are contained within the equipment when they arrive on site.</p> <p>3.1.9, 3.1.10 and 3.1.11 are not currently considered to be applicable.</p> <p>3.1.12 is not applicable as the composition of the waste does not change and the staff involved in planning and scheduling are trained in the process which has become administrative in nature.</p> <p><u>3.2 Waste acceptance</u></p> <p>3.2.13 is not applicable as on-site sampling of waste oil is a visual internal check only to inform the length of the treatment process. No laboratory analysis is required for waste acceptance purposes because the source is consistent. Sampling and on-site analysis is part of the treatment process to establish that the recovery process is complete, and the treated oil is of sufficient quality for re-use in NG transformers.</p> <p>Acceptance of bulk wastes:</p> <p>3.2.25 is not applicable as no tanker wash-out certificate is required. A dedicated fleet of tankers, used exclusively by one waste carrier, services the OMUs. For dirty oil removal from NG transformer sites to the OMU, a tanker wash-out certificate is unnecessary because the oil is transferred prior to treatment,</p>

		<p>and the tankers are solely used for this purpose. Before loading reconditioned oil into a tanker, the tanker and its pipework are rinsed with clean (reconditioned) oil, which is then returned to the dirty tank at the OMU site for repeat treatment.</p> <p>Acceptance sampling 3.2.27 to 3.2.39 and Testing and analysis 3.2.40 and 3.2.41:</p> <p>A sample is obtained by the OMU operator from each mobile tank when it arrives at the facility. It is visually inspected to confirm the degree of degradation. It is rare that the oil is found to be not viable for recovery (too degraded / dark in colour).</p> <p>Discarded equipment is not sampled because the oil is inaccessible until dismantling and draining. This is not critical since PCB-containing oil is only stored before off-site disposal. Non-PCB oil, identified by the equipment's age, can be treated on-site during the diverter oil regeneration process, pending a visual inspection.</p>
<p>Waste storage, segregation and handling appropriate measures</p>	<p>FC</p>	<p>The operator confirmed that they currently meet the requirements of the appropriate measures in this section with the exception of the following:</p> <p>4.3, 4.41, 4.42 and 4.45:</p> <p>No formal assessment against CIRIA C736 for secondary and tertiary containment within buildings and the inspection and testing to the requirements of EEMUA 231 guidance has been done.</p> <p>Compliance with these measures has been addressed through the improvement programme we have included in the permit, IC1 to conduct a survey of the site's primary, secondary, and tertiary containment by a qualified professional survey in line with the requirements in Chemical Waste: appropriate measures for permitted facilities including CIRIA, HSE, and EEMUA guidelines.</p> <p>The Operator's Regulation 61 notice response states that there are no point source emissions to water or sewer at the facility. We disagree with this as a point source emission to surface water has been identified. The effluent discharges to a ditch to the south of the site. We have included two emission points in the varied permit and included the relevant monitoring requirements.</p> <p>4.43 is not applicable because all bulk tanks have their own breather valve that are vented into the buildings. No abatement of emissions is required as they do not constitute a hazard to the environment as no VOCs are released under the storage conditions (see key issue sections).</p>

		Compliance with appropriate measures in this section, other than those to which an improvement condition applies, has been incorporated into the varied permit through the updated operating techniques listed in Table S1.2.
Waste treatment appropriate measures	CC	The operator confirmed that they currently meet the requirements of all appropriate measures in this section. Compliance with the appropriate measures in this section of the guidance has been incorporated into the varied permit through the updated operating techniques listed in Table S1.2.
Emissions control appropriate measures	CC	<p>The operator confirmed that they currently meet the requirements of all appropriate measures in this section apart from where not applicable is pointed out at individual points below. Compliance with the appropriate measures in this section of the guidance has been incorporated into the varied permit through the updated operating techniques listed in Table S1.2.</p> <p>6.2.6 is not applicable as the leak detection and repair programme is not required as there are no sources of fugitive emissions to air because the mineral insulating oil treated at the facility is not volatile as it controlled at 50°C below the VOC threshold (See key issues section).</p> <p>6.2.16, 6.2.17, 6.2.18 and 6.2.19 are considered not to be applicable to the site due to the low risk of odour and is not expected at the receptors.</p>
Emissions monitoring and limits appropriate measures	CC	<p>The operator confirmed that they currently meet the requirements of all appropriate measures in this section apart from where not applicable is pointed out at individual points below. Compliance with the appropriate measures in this section of the guidance has been incorporated into the varied permit through the updated operating techniques listed in Table S1.2.</p> <p>7.1.1 is not applicable as there are no monitoring requirements for air emissions in the permit and we agree that we do not need to introduce any monitoring requirements (see key issues section).</p> <p>7.2 - Emissions to water or sewer:</p> <p>7.2.2 is not applicable as there is no point source emissions to water or sewer for process effluent at the facility.</p> <p>There are no emission limits in the current permit. We agree that the BAT AEL is not applicable.</p>

Process efficiency appropriate measures	CC	The operator confirmed that they currently meet the requirements of all appropriate measures in this section. Compliance with the appropriate measures in this section of the guidance has been incorporated into the varied permit through the updated operating techniques listed in Table S1.2.
Reg 61 requirement Assessment of response received		
Soil and groundwater risk assessment	The original Site Condition Report (SCR) (known as an application site report) was prepared in 2007. The latest SCR being submitted in 2021.	
Medium combustion plant and specified generators	There are no medium combustion plant or specified generators on site.	
Climate change	Submission of climate change risk assessment is no longer an application requirement. It now forms a part of the operator's EMS and will be reviewed within compliance assessment.	
Summary of other changes made to the permit as a result of our assessment of the Reg 61 response		
Change	Reason for change	
Changes to the Activity Table, S1.1 within Schedule 1 of the Permit	The following directly associated activities (DAAs) have been added in line with current sector expectations: <ul style="list-style-type: none"> • Surface water discharge (AR4) • Raw material handling and storage (AR5) 	
Changes to Schedule 3, monitoring and emissions limits in the permit	In Schedule 3, an update was required for the monitoring of emissions to air from the treatment process and water emissions to sewer. This is reflected by the following: <ul style="list-style-type: none"> • Table S3.1 has been updated to include emissions point A1. • Table S3.2 has been updated to include emissions point W3 and W4 on a new site layout plan. 	

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 regulated facility

We considered the extent and nature of the facility at the site in accordance with Appendix 1 of RGN 2 'Interpretation of Schedule 1'. Our decision is summarised in the Key Issues section.

The site

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

These show the extent of the site of the facility including the emission points.

The plan is included in the permit.

Operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

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.

Management plans

We did not review any management plan under the scope of the permit review. Under the conditions of the permit, where we consider that activities are giving

rise to pollution in the form of fugitive emissions, we will ask for the submission and implementation of a suitable management plan.

Improvement programme

We have included an improvement programme to ensure continued compliance with the appropriate technical guidance for this facility.

The improvement condition, IC1 included in the permit ensures compliance by requiring a qualified professional to review the site's primary, secondary, and tertiary containment. This survey will follow the guidelines set out in "Chemical Waste: appropriate measures for permitted facilities," including those from CIRIA, HSE, and EEMUA.

Changes to EWC codes

The following changes have been made as part of the permit review as a result of change to the listed activities in the varied permit:

Table S2.4 EWC code 16 02 10* has been restricted to [transformers and capacitors only], and 16 02 13* to [transformers containing non-PCB oil only].

Emission limits

Emissions limits have been added for indirect emissions to surface water as a result of this variation based on Best Available Techniques – Associated Emission Levels (BAT-AELS) for Waste Treatment.

For rainfall runoff from non-process areas of waste storage/treatment (e.g. roofs and car parks) we have included descriptive limits on visible oil and grease.

Reporting

We have added reporting requirements in the permit for parameters relating to emissions to water and process monitoring. This is explained in the key issues section.

- Table S4.1 has been amended to include emissions to water and process monitoring parameters as required by condition 3.5.1.
- Table S4.2 has been amended to revise the parameter wording to hazardous waste treated – recovery. Hazardous waste treated – disposal has also been added.
- Table S4.3 has been amended to add reference to water usage.
- Table S4.4 has been amended to include reporting forms for emissions to water and land and water usage.

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 standards.