Natural Resources Wales Permitting Decisions

Eni UK Limited (Point of Ayr Gas Terminal)

Decision Document

Application for a Normal Variation

The application number is: PAN-029789
The permit variation number is: EPR/DP3934EW/V004
The applicant / operator is: Eni UK limited
The Installation is located at: Talacre, Holywell, Flintshire, CH8 9RD

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.

Contents

1. Executive summary

1.1. Application summary

Eni UK Ltd has applied for a normal variation to the existing environmental permit EPR/DP3934EW for the Point of Ayr Gas Terminal, Talacre (CH8 9RD). The permit currently regulates the operation of the gas terminal and associated emissions and controls.

The variation authorises a temporary directly associated activity consisting of collection of PFOS-affected groundwater and surface water, multistage treatment incorporating pH correction, automated chemical dosing for metals precipitation (OSSO WTS20), coagulation/flocculation, solids removal, carbon adsorption and dual-vessel GAC polishing, with controlled discharge to Talacre Brook at emission point W1, subject to validated treatment performance safeguards.

The key changes are:

- Authorisation of a temporary treatment system (buffer tank, lamella settlement, granular activated carbon (GAC) vessels and filtration) to treat abstracted groundwater prior to discharge, and associated storage/containment arrangements as a directly associated activity to the installation.
- Establishment of monitoring, sampling, reporting and shut-down controls to ensure that any treated water discharged from the site meets the PFOS discharge criterion (0.10 µg/L) at the final discharge point W1 to Talacre Brook.
- Adjustment of existing monitoring requirements (Table S3.2) to account for authorisation of continuous discharge via W1 (with the treatment described above) as well as for batch discharge as currently consented.
- Inclusion of additional management controls for the new activity (unexpected contamination discovery protocol, bunding, drainage protection, waste management and notification procedures) applicable during the temporary works
- When the temporary treatment activity ceases, or is not in operation, permit reverts to existing W1 emission arrangements (batch discharging and pre-discharge testing)

The principal pollutant of concern for the variation is perfluorooctane sulfonate (PFOS) as an indicator for a range of PFAS (per- and polyfluoroalkyl substances), identified in groundwater and surface water pathways at the site. The discharge point is to Talacre Brook, which flows to the Dee Estuary. The variation is intended to deliver environmental betterment compared with the current situation by intercepting, treating and controlling PFAS-affected waters that would otherwise migrate via the site drainage system. PFAS are a group of synthetic chemicals with a variety of uses and origins since the 1950's. They are of environmental concern owing to their persistence and possible health effects. These chemicals are ubiquitous in the environment where affected by human activity. The source of these chemicals in water abstracted on the site is beyond the scope of this variation, but the treatment and discharge proposed ensures the removal of pollution from the environment to the lowest level reasonably achievable, and in compliance with stated limits.

PFAS (per- and polyfluoroalkyl substances) are a group of synthetic, persistent chemicals used widely since the 1950s. PFOS is one of the best-studied PFAS compounds and is used as a marker for broader PFAS contamination because it has an Environmental Quality Standard (EQS) applicable to surface waters. At this site, PFOS contamination is understood to derive from historical industrial and firefighting-related activities. The purpose of this variation is not to regulate the source of PFAS contamination but to ensure contaminated groundwater and surface water are intercepted, treated and discharged in a controlled manner that achieves a net reduction in PFAS loading to the environment.

1.2. Our decision

Natural Resources Wales (NRW) has decided to issue a normal variation (Regulation 20, Environmental Permitting (England and Wales) Regulations 2016) to environmental permit EPR/DP3934EW for the Point of Ayr Gas Terminal operated by Eni UK Ltd.

In reaching this decision, NRW has taken into account all relevant legal requirements and all representations and technical information available to it. NRW is satisfied that, with the permit conditions and operating techniques specified, the varied permit will ensure a high level of protection for the environment and human health.

NRW's decision is to control the temporary remediation within the existing permit for the site, rather than through a separate standalone authorisation, because:

• the activity is ancillary and directly connected to, and located within, the permitted site boundary;

• the discharge is to the existing controlled waters pathway associated with the site and is best regulated through a single coherent permit with clear responsibilities for one operator; and

• the permit can impose enforceable controls on treatment performance, monitoring, storage, contingency response and cessation of discharge to manage risk to controlled waters and designated sites.

2. Receipt of the application

The application was received by NRW on 26/06/2025 and was accepted as duly made on 10/10/26. Duly made means that the application was submitted in the correct form and contained sufficient information for NRW to begin determination. It does not mean that NRW accepted all information as complete for determination; further information may be requested where necessary.

The application included completed Part A, Part C1 and Part F1 forms, together with supporting technical documents including an updated groundwater and surface water sampling methodology and a permit variation supporting information pack setting out the treatment process and control measures.

3. Confidential information

No claim for commercial confidentiality or national security exclusion has been made as part of this application. The information submitted as part of the application has therefore been treated as public information for the purposes of the public register, subject to the usual legal restrictions (for example, personal data).

4. Legislation

This variation is issued under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 (EPR 2016). The environmental permitting regime provides the main legal framework for regulating the facility and controlling pollution to land, air and water.

The Point of Ayr Gas Terminal is an existing regulated facility under EPR. This variation adds and regulates additional activities within the site boundary, including adirectly associated activity for water treatment (etc) as described) and associated discharges arising from the temporary remediation works.

In determining the application NRW has had regard to:

• the relevant requirements of EPR 2016 (including the regulator's duties to ensure that the permit contains such conditions as are necessary to ensure a high level of protection for the environment as a whole);

• relevant water environment legislation and objectives, including preventing pollution of controlled waters and protecting designated conservation sites;

• NRW's general purpose and duties in relation to the sustainable management of natural resources (SMNR) and the principles set out in the Environment (Wales) Act 2016, and the Well-being of Future Generations (Wales) Act 2015, insofar as they are relevant to NRW's regulatory decision making.

This decision document addresses the EPR determination only. Separate legal regimes such as planning, building control, health and safety and abstraction licensing apply independently. It is the operator's responsibility to obtain and comply with any other consents that may be required.

5. Consultation

No external consultation has been carried out on this application. NRW determined that consultation was not required because the application is a normal variation that does not fall within the categories that require consultation under the EPR 2016 and NRW's Public Participation Statement, and the risks associated with the temporary activity can be appropriately managed through permit conditions.

NRW has, however, considered information and advice generated through related regulatory processes relevant to controlled waters and contamination management for

the site (including planning condition discharge advice) where it is material to the EPR determination.

6. Requests for information

During determination NRW requested additional clarification and information to ensure that the proposed temporary treatment system can be regulated in an enforceable way, particularly in relation to PFOS control and response to breakthrough. The key areas of clarification requested included:

- a standalone Carbon Treatment and Breakthrough Management Plan for the granular activated carbon (GAC) system, including defined trigger concentrations for lead vessel breakthrough, shut-down thresholds for lag vessel breakthrough, commissioning and steady-state sampling frequencies, carbon change-out response times, available on-site storage capacity for shutdown, and NRW notification procedures;
- confirmation that discharge will cease if the PFOS emission limit value (ELV) is exceeded at the final discharge point;
- confirmation of sampling locations, analytical suites, quality assurance and chain of custody arrangements for groundwater, surface water and treated discharge monitoring; and
- confirmation of containment, bunding and drainage protection arrangements for the temporary treatment plant and stored waters.

Where any of the above information is not yet finalised at the point of permit issue (for example, where an operator's method is dependent on commissioning data), NRW has secured the requirement through improvement conditions and/or operating technique incorporation to ensure it is submitted, approved (where required) and implemented before discharge commences or continues. We are satisfied that our decision is robust and within the remit of the EP regulations on the basis of information already provided, so long as the necessary additional information is provided ahead of operation.

7. The Installation

7.1. The permitted activities

The regulated facility at Point of Ayr Gas Terminal comprises the existing permitted activities under permit EPR/DP3934EW.

For this variation, the key permitted activities relevant to determination are:

• A facility for the treatment of contaminated materials deployed within the site boundary for the temporary remediation (which is a directly associated activity to the installation); and

• modification to the terms of the already consented water discharge activity W1. Associated with the controlled release of treated groundwater and surface water from the site to Talacre Brook via the permitted outfall, subject to additional emission limits and monitoring requirements.

These activities are regulated through the permit conditions, schedules and the operating techniques table, which collectively specify where the activity may take place, the treatment and containment measures required, the discharge point(s), the emission limit(s), and the monitoring and reporting that must be undertaken.

7.2. What the installation will do / Changes to the installation

The variation allows treatment of surface water and treatment of abstracted groundwater using a containerised treatment plant and granular activated carbon (GAC) prior to any discharge.

The permitted change includes:

- treatment of abstracted groundwater through settlement/filtration and GAC media to remove PFOS/PFAS and other contaminants of concern;
- impoundment/storage of treated water within site containment (including use of the firewater pond and/or other containment) pending review of laboratory analytical results; and
- controlled discharge of treated water in compliance with the PFOS ELV and other relevant quality and permit conditions.
- a change from consent from batch discharge of impounded water only (after pre-discharge BOD and pH compliance testing) to continuous discharge during abstraction-treatment, reverting to batch discharge when DA1 is not operating

The abstracted water treatment/discharge activity is temporary and is authorised until **31/12/2028**. After this date, continuous discharge via W1 must cease unless otherwise varied by NRW and the previous W1 consent terms are re-instated. Although ongoing additional testing (PFOS, metals and PAH plus any other relevant determinands) will remain, in accordance with any agreements in discharging imrprovement conditions IC8 and IC9.

The variation does not change the fundamental nature of the existing gas terminal operation; it introduces additional controls for a discrete remediation activity within the existing permitted boundary.

The permitted change to the EPR installation recognises (but does not authorise):

- installation/operation of groundwater pumping and monitoring wells and surface water monitoring points, as may be regulated under other regimes
- Abstraction in accordance with separate abstraction permit

Operation of the installation

7.3. Operator competence

The operator is Eni UK Ltd. The application identifies named contacts for the application and operation, and confirms that the operator operates an environmental management system certified to ISO 14001. The operator has also appointed competent contractors and environmental specialists to design and implement the temporary remediation temporary remediation activity and associated monitoring.

NRW has considered operator competence in accordance with our published guidance. We are satisfied that the operator will have access to appropriate technical expertise to operate the temporary treatment plant, undertake sampling and analysis to the required standards, and respond to any non-compliance.

In addition, the variation incorporates specific operating techniques and conditions requiring:

• use of UKAS accredited laboratories for chemical analysis;

• sampling to recognised British Standards and documented procedures;

• appropriate training/competence for those collecting samples and maintaining chain of custody; and

• clear escalation and notification arrangements to NRW in the event of exceedance, equipment failure or other pollution incident.

7.4. Environmental Management System

The operator has described the management system arrangements that will be applied during the remediation, including roles and responsibilities, pollution prevention, incident response, monitoring and record keeping.

NRW has reviewed the submitted information describing the specific controls for the works, including:

• protection of on-site drainage and secondary containment for the treatment plant and stored waters;

• fuel and chemical storage controls and spill response arrangements;

• waste storage and segregation (including management of spent carbon and any filter media/residues);

• a discovery strategy for unexpected contamination (stop work, isolate, sample, assess, notify, agree remedial action and verify); and

• an environmental monitoring and controls plan (including dust, noise, odour/VOC, vibration and water monitoring).

NRW is satisfied that, subject to compliance with permit conditions and the incorporated operating techniques, the operator's management system arrangements are appropriate for a temporary activity of this nature and provide a clear framework for preventing pollution and responding to abnormal events.

8. The site

8.1. Site Plan

The Point of Ayr Gas Terminal is located at Talacre, Holywell, Flintshire, CH8 9RD. The site is an existing gas terminal undergoing conversion works associated with the wider Liverpool Bay project.

The permitted boundary is as shown on the plan submitted with the application. The temporary water treatment plant will be deployed within a bunded area on existing hardstanding/road within the site boundary, with associated temporary pipework routed to connect the abstraction point(s), treatment plant and on-site storage/impoundment (including the firewater pond, where applicable).

NRW has reviewed the submitted site plan and is satisfied that it identifies the permitted boundary, the approximate location of the temporary treatment plant, the abstraction/monitoring locations (where shown) and the relevant discharge point(s). The plan is included in the permit and the operator is required to operate within the permitted boundary.

8.2. Site Condition Report

This application is for a variation only and does not involve the surrender of the permit. A full baseline Site Condition Report (SCR) assessment is therefore not required for this determination.

However, NRW has considered the site history and contamination context as it relates to the environmental risks of the temporary remediation and discharge activity. The supporting documents describe existing PFAS (including PFOS) contamination in groundwater and potential pathways to surface waters, which is the driver for the remediation and the need for enforceable controls. The application also notes groundwater concentrations of PAH and heavy metals which require monitoring and/or control through the proposed treatment to ensure that relevant EQS will not be exceeded.

8.3. Site protection: potentially polluting substances and prevention measures

The temporary treatment activity involves potentially polluting substances including PFAS-impacted groundwater, spent granular activated carbon, suspended solids, fuels and chemicals associated with plant operation and maintenance. NRW has assessed the prevention measures proposed and required via permit conditions and incorporated operating techniques.

The key pollution prevention measures include:

• The treated water will be stored within lined and proven containment (including the firewater pond and other designated storage vessels) prior to any release. These containment systems are not in continuity with the permitted discharge pathway and therefore provide a physical break in the system, ensuring that water cannot be discharged until analytical verification has taken place, which will confirm compliance with the PFOS limit.

Even in the unlikely event of a containment loss, the residual environmental risk is low because the stored waters will already have undergone full multistage treatment (including GAC polishing) and will typically be significantly below raw groundwater PFOS concentrations. The combination of engineered containment, treatment performance verification and mandatory shutdown/notification requirements provides adequate protection against pollution from abnormal events.

A defined response protocol for unexpected contamination or pollution events is in place, including stop work, isolate, sample, assess and notify NRW where relevant.
NRW is satisfied that these measures, together with the discharge limits, monitoring and shutdown requirements, are sufficient to prevent pollution and to minimise the consequences of any abnormal event during the temporary temporary remediation activity.

8.4. Closure and decommissioning

The activity authorised by this variation is temporary. At the end of the remediation the operator must remove the temporary plant from site (unless otherwise authorised) and manage any remaining stored waters and wastes in accordance with the permit and applicable waste legislation.
The permit requires that the operator maintains containment and pollution prevention controls until all treated water has either been lawfully discharged in compliance with permit limits or has been removed from site for treatment/disposal, and until any wastes arising (including spent carbon/media) have been consigned appropriately. The activity is therefore authorised until the abstraction requirement has ended, but a backstop date of 31/12/2028 is placed in the permit after which the arrangement would be reviewed by permit application and determination. At the end of the temporary abstraction activity, the W1 discharge reverts to previous consent conditions, i.e. batch discharge following confirmatory testing for BOD and PAH. However, IC8 and IC9 (below) mean that additional testing and treatment (for potential PFOS, PAH and metals in the surface water) will continue to be required to ensure that water Environmental Quality Standards (EQS) are met.

9. Environmental Risk Assessment

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, water, sewer and discharges to ground or groundwater, global warming potential and generation of waste. All these factors have been considered during are determination and the relevant risks from this proposal are discussed in this and other sections of this document.

The next sections of this document explain how we have approached the critical issue of assessing the likely impact of emissions from the Installation on human health and the environment and what measures we are requiring ensuring a high level of protection.

In line with our guidance, the applicant has provided an environmental risk assessment with the application which identifies and the sources of key risks from the variation, possible pathways and receptors. This risk assessment and further assessments provided by the applicant and/or completed by NRW will be discussed in further detail below.

9.1. Assessment of impact on air quality

The variation relates to a temporary water treatment and discharge activity. It does not introduce new point source emissions to air and does not change the existing permitted combustion or process emission controls at the gas terminal.

Potential air impacts during the temporary works are limited to short-term construction/remediation nuisance (for example local dust, noise and vehicle movements). These matters are primarily controlled through the operator's management system and, where relevant, other regulatory regimes. NRW is satisfied that there is no material change in permitted emissions to air as a result of this variation and no additional air quality assessment is required for the EPR determination.

9.2. Assessment of impact to surface and ground water

Summary of the receiving environment and pathway

The discharge from the temporary activity is via the site's controlled waters pathway to Talacre Brook at discharge point W1. Talacre Brook flows onward to the Dee Estuary. There is therefore a plausible pathway from the site to downstream surface waters and designated sites, and NRW has treated this as a sensitive receiving environment requiring tight control of PFOS/PFAS in particular.

Nature of the emissions and key pollutant

Investigations at the site have identified PFAS contamination, with PFOS as a key substance of concern as a marker of wider PFAS contamination/removal, and because it is one of few PFOS to have an environmental quality standard (EQS) set for it. The purpose of variation is to allow treatment of abstracted groundwater and surface water, using a granular activated carbon (GAC) system and manage/verify the quality of the treated water prior to any discharge.

Treatment and operational controls

The submitted sampling methodology describes treatment of abstracted groundwater through GAC prior to discharge and states that treated water will be impounded (for example in the firewater pond) until the quality of the water is assessed and can be discharged within permitted limits.

The sampling methodology also sets out a multi-stage monitoring programme including pre-test sampling, sampling during step and constant rate phases, monitoring of the discharge point, and duplicate/quality assurance samples, with analysis undertaken by a UKAS accredited laboratory and sampling aligned with relevant British Standards.

Emission limits and compliance assurance

To protect controlled waters, the permit sets an emission limit value (ELV) for PFOS of 0.10 µg/L at the final discharge point. Via an assessment submitted by the operator, we are satisfied that if this ELV is met, there will be a [significant] reduction in PFAS compared to the existing grounwater concentration, that attainment of this ELV makes a positive contribution towards the eventual attainment of the EQS in the water body. The operator must cease discharge if the ELV is exceeded and implement contingency measures, including storage and further treatment/removal of water as necessary. The permit also requires monitoring and reporting sufficient to demonstrate ongoing

compliance and to allow NRW to take action should trends indicate increasing risk. Owing to the discharge volumes, and time for analytical results for PFOS, it is imparactical to impound all treated waters until ELV testing results are available. Therefore the discharge is consented continuously, and if a breach is recorded, the abstraction activity will be brought to a stop on receipt of that result and until NRW has been notified and appropriate corrective actions implemented. Limits have not been set for PAH and metals noted in the application H1, but a comprehensive testing programme is proposed by the operator and is part of the required operating techniques by virtue of the application. The authorised treatment will ensure that the EQS are met on an ongoing basis, and IC8 and IC9 allow for verification of this, and appropriate modifications to the treatment regime, should this be necessary.

Groundwater protection

The changes on the site include excavation for construction. While such activity is outside the scope of the EPR permit, NRW is satisfied that, subject to compliance with the required procedures and standards discussed during EP determination for borehole installation, purging, sampling and monitoring, the activity will not cause unacceptable mobilisation or spreading of contamination which is relevant to the EP site condition. The permit therefore requires that the operator follows the agreed methodology and provides results to NRW so that any concerning trends can be identified and addressed promptly.

WFD Assessment

The nature of the discharge to surface water means that we have considered the proposed permit variation against the requirements of the Water Framework Directive Regulations 2017 (WFD) as described in our internal guidance OGN 072. In respect of the groundwater and receiving TRaC water, the water bodies are not in high or good overall or morphology/hydromorphology status. In accordance with Annex D of our guidance we have screened out the discharge from further assessment and concluded that it is unlikely to adversely affect the objectives of the WFD. This is because the H1 assessment has been made of the discharge. It will not contain nutrients (N or P) at significant levels (below those in the water bodies), and the nature of the proposed treatment is to ensure that discharges of other pollutants will screen out of H1 assessment – for metals and PAH this is by ensuring concentrations that are below

the EQS, and for PFOS this is by treatment to reduce as far as reasonably possible, below the current level in the water bodies, i.e. a betterment. As such, the activity does not risk deterioration of the water body status, nor does the activity jeopardise attainment of an improvement in status or potential.

BAT

As part of an installation, the operator is required to implement best available techniques to all activities. There are no directly applicable BAT conclusions for this DAA. We are satisfied that a BAT approach is adopted in robustly demonstrating reduction of PFAS pollutants from abstraction of watert from the environment through treatment to return to the environment of residual waters.

Conclusion

NRW is satisfied that, with the treatment, storage, monitoring and shut-down controls required by the permit, the construction and remediation can be undertaken without causing pollution of controlled waters, and with a net betterment compared with unmanaged migration of PFOS-impacted waters via site drainage and groundwater pathways. Furthermore other pollutants (PAH, metals) are also improved by the treatment primarily instigated for PFOS.

9.3. Emissions to sewer

The variation does not propose new discharges to sewer and does not amend any existing sewer discharge limits or controls. The temporary activity relates to controlled waters discharge and on-site storage/impoundment, and any foul drainage arrangements remain unchanged.

9.4. Fugitive emissions

The activity includes pipework, tanks and treatment equipment handling contaminated groundwater. Potential fugitive emissions include leaks or spills of untreated or treated water, and mobilisation of contamination from soils during associated works.

These risks are controlled through secondary containment (bunding), routine inspection and maintenance of plant and connections, drainage protection measures,

and the requirement to cease discharge and implement contingency measures in the event of non-compliance. NRW is satisfied that fugitive emission risks are appropriately controlled for the duration of the temporary works.

9.5. Noise and vibration assessment

The temporary works may generate short-term noise and vibration from drilling, pumping and plant operation. These activities are limited in duration and are managed through standard construction controls and the operator's environmental management arrangements.

NRW is satisfied that the variation does not create a material change in the permitted installation noise impacts and that no bespoke noise limits are required under EPR for this activity. The operator must, however, operate in a manner that prevents or, where not practicable, minimises noise and vibration in accordance with permit conditions.

9.6 Impact on National Site Network Sites, SSSIs and non-statutory sites

NRW has considered whether the variation could have likely significant effects on designated conservation sites and protected areas, applying a source-pathway-receptor approach. The relevant potential pathway is via the controlled waters discharge to Talacre Brook and onward to the Dee Estuary.

The variation is designed to intercept and treat PFOS-impacted groundwater and to regulate any discharge through strict emission limits, monitoring and a requirement to cease discharge in the event of non-compliance. These controls reduce risk compared with the baseline scenario of uncontrolled migration and therefore provide environmental betterment.

9.7 The National Site Network

Habitats Regulations Assessment – Narrative Summary (OGN 200 Framework)

Natural Resources Wales has undertaken a Habitats Regulations Assessment (HRA) of this permit variation in accordance with Regulation 63 of the Conservation of Habitats and Species Regulations

2017 (as amended). The assessment has been recorded using OGN 200 Form 1A

PAN-029789 OGN 200 Form 1A

, which provides NRW's structured framework for screening and appropriate assessment.

Screening Stage – Likely Significant Effect (LSE)

The proposed variation authorises the temporary abstraction, treatment and discharge of PFOS-affected groundwater via outfall W1 to Talacre Brook. Talacre Brook flows into the Dee Estuary SAC, Dee Estuary SPA, and Dee Estuary Ramsar.
A hydrological pathway exists between the installation and the Dee Estuary via the site drainage network and Talacre Brook. In the absence of operational controls, it is theoretically possible that the abstraction and discharge of groundwater could increase PFOS loading to downstream receptors. At the screening stage of a Habitats Regulations Assessment, mitigation measures cannot normally be relied upon to exclude the possibility of a Likely Significant Effect.

However, the activity proposed under this variation forms part of a remediation strategy addressing existing PFOS contamination associated with historic site activities. The treatment and discharge system is intended to intercept contaminated groundwater and remove PFOS prior to discharge. As such, the activity does not introduce a new source of contamination but instead addresses an existing pollutant source within the environmental baseline.

When considered against this baseline condition, the remediation works are expected to reduce the overall mass of PFOS leaving the site. The activity therefore represents an environmental betterment measure rather than mitigation designed to offset impacts of a new emission.
Any reduction in PFOS loading to the receiving environment would represent a positive effect on downstream receptors, including the Dee Estuary European sites.

As a matter of principle, effects that improve the environmental condition of a qualifying feature cannot constitute a significant adverse effect within the meaning of the Habitats Regulations. In this case, the interception and treatment of contaminated groundwater is expected to reduce PFOS loading relative to the current baseline.

Natural Resources Wales therefore concludes that the proposal will not result in a Likely Significant Effect on the Dee Estuary SAC, SPA or Ramsar site, either alone or in combination with other plans or projects. Appropriate Assessment is therefore not required.

9.8 Sites of Special Scientific Interest (SSSI)

NRW has considered Sites of Special Scientific Interest (SSSIs) within the relevant screening distance of the site and downstream surface water pathways.

A SSSI assessment was completed to determine whether the permitted activity is likely to damage any features of special interest. The assessment concluded that the variation is not likely to damage any of the flora, fauna, geological or physiographical features of any relevant SSSI, taking account of the permit limits and controls. Therefore, no consultation with NRW's protected sites advisors was required for this determination.

10 The Permit Conditions

This section summarises the key permit conditions added or amended by this normal variation to ensure the activity can be regulated in an enforceable and transparent way.

This variation does not undertake a full permit consolidation. Existing conditions remain in force unless specifically amended by the variation notice.

Incorporating the variation

The operating techniques table has been updated to incorporate the key documents underpinning the variation, including the groundwater and surface water sampling methodology and the permit variation supporting information pack (including discovery strategy and monitoring/controls). Incorporation ensures these commitments are legally binding through the permit.

Emission limits

A PFOS emission limit value (ELV) of 0.10 µg/L applies at the final discharge point to Talacre Brook. The limit has been set to protect controlled waters and downstream designated sites, and reflects the site-specific risk context and NRW's requirement for

betterment and tight control of PFOS during temporary discharge. It is considered that attainment of PFOS control will act as a proxy for achievement of required PAH and metals control, so these are not subject to separate limits, but will be monitored by the operator and are subject to examination by NRW.

Monitoring and reporting

The permit requires monitoring at appropriate points (including post-treatment and at the discharge point) and reporting of monitoring results to NRW. Monitoring includes enhanced sampling during commissioning and the early operation period, with laboratory analysis undertaken by UKAS accredited laboratories and with quality assurance samples as appropriate. Reporting requirements ensure NRW has timely information to assess compliance and trends.

Improvement conditions

Where elements of the final operational methodology depend on commissioning results (for example, carbon vessel change-out triggers and breakthrough management), NRW has secured these through improvement conditions requiring submission and implementation of a Carbon Treatment and Breakthrough Management Plan prior to continued discharge (IC8). The improvement condition require the plan to define triggers, shut-down thresholds, sampling frequency, carbon replacement response times, storage capacity and notification procedures. IC9 allows verification that expected performance for PAH and heavy metals is achieved, such that the EQS are not exceeded. It is anticipated that with continued abstraction, the level of treatment required may reduce, so IC9 also allows the operator to propose changes/cessation of treatment for these determinands, based on reported evidence submitted in respect of the IC. See Variation notice for the condition IC8 and IC9 imposed.

11 OPRA

The OPRA assessment will be updated to reflect the additional temporary activities and the associated risk controls.