

Compliance Assessment Report CAR_NRW0052422

Permit being assessed: BU2349IL.

For: Alyn Works, **held by:** Synthite Limited

At: Denbigh Road, Mold, Flintshire, CH7 1BT.

Type of assessment: Site Inspection,

Reason: Routine.

On: 13/07/2026 between 14:10 and 16:15.

Parts of permit assessed: ETP.

NRW Lead Officer: Ricky Hartleb, accompanied by Hannah Ibbotson, Caitlin McHugh.

Report sent to: Site Manager, Site Manager, on 17/07/2026.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR1A - Installations - Management - General Management	C3 Minor	1.1.1

Result types are explained in more detail in the 'Important Information' section below.

Total non-compliances recorded	Total non-compliance score
1	4

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
IR1A	See actions	17/10/2026

Compliance criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Joint NRW/DCWW inspection of the Effluent Treatment Plant (ETP), associated lagoon infrastructure, and drainage arrangements following DCWW's investigation into elevated formaldehyde concentrations within the foul sewer network serving the site.

The visit aimed to improve understanding of effluent generation, treatment, storage, monitoring and discharge arrangements associated with the permitted ETP (Activity A6).

The permit authorises biological treatment of liquid effluent and discharge to sewer.

ETP Infrastructure

Several sections of redundant overland pipework were observed during the inspection. Although the operator advised that pipework previously associated with direct discharge routes had been removed or isolated, some historic infrastructure remains in place. The presence of redundant pipework introduces uncertainty regarding drainage arrangements and potential pathways for uncontrolled releases.

One overland pipe was traced towards a manhole located beneath vegetation. DCWW obtained a sample from the manhole and further drainage investigations are being undertaken by the operator using dye tracing to confirm connectivity.

The inspection did not identify evidence of an active unauthorised discharge, however, the remaining redundant infrastructure should be formally identified and removed where no longer required.

ETP Performance and Capacity

Discussions were held regarding the site's current permitted trade effluent discharge volume of 300 m³ per day, and whether the existing treatment process has sufficient hydraulic capacity to consistently manage site effluent volumes during periods of increased loading.

DCWW outlined findings from their investigation indicating elevated formaldehyde concentrations within the receiving sewer during some rainfall events. Whilst Synthite's Trade Effluent Consent limit is reported by DCWW as 10 mg/l, concentrations of up to approximately 150 mg/l have reportedly been detected in the network during the investigation.

The operator acknowledged that further work is required to improve understanding of effluent composition and volumes entering the ETP and confirmed that specialist consultants were scheduled to review the treatment process and identify opportunities for performance and capacity improvements.

Management Systems

The inspection identified the operator currently has limited operational data available to accurately quantify flows between the upper lagoon, lower lagoon, ETP, recirculation system and final discharge point (S1). Whilst the operator demonstrated a good practical understanding of the system, the absence of sufficient flow measurement infrastructure limits the site's ability to fully understand hydraulic loading, treatment efficiency and available storage capacity.

The lagoon levels for both lower and upper are monitored through visual inspection and given the importance of the lagoons in managing both treatment performance and hydraulic resilience, more robust continuous level monitoring would improve process control and provide early warning of capacity issues.

During the visit, NRW requested information relating to the management and operation of the lagoon system, including how available capacity is assessed and managed. No documented procedure or management system documentation was presented during the time of the inspection.

NRW considers that the absence of documented procedures, together with the limited monitoring arrangements currently in place, reduces the operator's ability to effectively identify and minimise pollution risks associated with the management of the ETP and lagoon system. This has been assessed as a Category 3 breach of Permit Condition 1.1.1(a) against compliance classification IR1A Management.

If documentary evidence is available that demonstrates how lagoon capacity and associated pollution risks are managed, this should be supplied to NRW for review.

Actions

Action 1 - due by 17 October 2026

Investigate the installation of continuous level monitoring and telemetry on the upper and lower lagoons to improve process control and provide accurate inventory data.

Action 2 - due by 17 October 2026

Review flow monitoring arrangements and assess installation of additional flow meters to quantify:

- Flows from lagoons to ETP
- Recirculation flows
- Treated effluent discharge volumes

Action 3 - due by 17 October 2026

Undertake a review of all overland pipework associated with the ETP and lagoon system and remove redundant infrastructure no longer required for operations.

Action 4 - due by 17 October 2026

Complete dye tracing investigations and confirm drainage arrangements associated with the manhole identified during the inspection.

Action 5 - due by 17 October 2026

Provide NRW with a summary of the specialist ETP review, including recommended improvements to treatment performance and hydraulic capacity.

Following the inspection, the site manager confirmed that work has already begun with regards to the following:

- Investigate continuous lagoon level monitoring and telemetry.
- Review additional flow measurement across the ETP system.
- Identify and remove redundant overland pipework.
- Undertake a specialist review of the ETP to improve treatment performance and hydraulic capacity.
- Explore off-site tankering of effluent as an immediate measure to reduce lagoon inventories.

The operator also indicated an intention to explore an increase in permitted trade effluent discharge volume from 300 m³ per day to 600 m³ per day.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action required for the permit condition assessed to avoid non-compliance. No non-compliance scored at this time
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

If your assessment result in Section 1 is suspended, what does this mean?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry compliance criteria (used in section 1 and 2):**1. Management**

- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations

- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring

- IR3A(1) – Emissions to water
- IR3A(2) – Emissions to air
- IR3A(3) – Emissions to land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information

- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

Enforcement response

Any non-compliance with a permit condition is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within twenty working days to let you know if we agree to your request.

Disputing the Content of this Compliance Assessment Report Form

If you disagree with the content of this Compliance Assessment Report form, you should submit your concerns, in writing, to the regulating officer who issued it within **15 working days** of its issue. This will be treated as a **Stage 1 review**.

If you are not satisfied with the outcome of the stage 1 review, you may request a **Stage 2 appeal**. This request must be submitted **within 21 working days** of receiving the response from the stage 1 review.

Further details on our review and appeal process are available at: [Natural Resources Wales / Appeal a regulatory decision from Natural Resources Wales](#)

Concerns Not Related to the Content of this Compliance Assessment Report Form

If your concerns do not relate to the content of the Compliance Assessment Report form, you should first attempt to resolve the issue with the regulating officer or their line manager.

If the issue remains unresolved, please contact our **Customer Contact Team**:

- **Telephone:** 0300 065 3000 (Monday to Friday, 09:00–17:00)
- **Email:** enquiries@naturalresourceswales.gov.uk

They will provide details on how to escalate your concerns through our **Complaints and Commendations procedure**.

If you are dissatisfied with our response, you may contact the **Public Services Ombudsman for Wales**:

- **Telephone:** 0300 790 0203
- **Email:** ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.