

Compliance Assessment Report CAR_NRW0044894

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: 29/07/2024 between 10:30 and 12:30.

Parts of permit assessed: See Below.

NRW Lead Officer: Philip Harper, accompanied by David Wilby.

Report sent to: Technical Manager, Technical Manager, on 09/12/2024.

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 | Assessed (A) | |
| IR2A - Installations - Operations - Permitted activities | Assessed (A) | |
| IR2B - Installations - Operations - The site | Assessed (A) | |
| IR3A - Installations - Emissions and monitoring - Emissions to water, air or land | C3 Minor | 3.1.2 |
| IR3A - Installations - Emissions and monitoring - Emissions to water, air or land | C3 Minor | 3.1.2 |
| IR3A - Installations - Emissions and monitoring - Emissions to water, air or land | C3 Minor | 3.1.2 |
| IR3A - Installations - Emissions and monitoring - Emissions to water, air or land | C3 Minor | 3.1.2 |
| 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 |
|--------------------------------|----------------------------|
| 5 | 20 |

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 |
|----------|---------------------------|-------------------|
| IR3A | See actions in main text | Already completed |
| IR3A | See actions in main text. | 10/01/2025 |
| IR3A | See Actions in main text | 10/01/2025 |
| IR3A | See actions in main text | Already completed |
| IR1A | See actions in main text. | 10/01/2025 |

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.

You are non-compliant with your permit.

At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.

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

Site Inspection 29th July 2024.

At 10:30 on the 29th July 2024 a site inspection was undertaken by NRW officers Phil Harper, Senior Industry & Waste Regulation and David Wilby, Lead Specialist, Industry & Waste Regulation.

This compliance assessment report covers findings during the inspection and a review of the monitoring data for quarter 2 (April – June) of 2024.

The review of this data is discussed later in this compliance assessment report.

General Site Condition

A general site walkover was undertaken. The site has been visited frequently since the 30th April 2024, no further issues were identified during this inspection and processes are already in place to address issues including standing water, the integrity of site groundwater monitoring boreholes and site containment.

Lagoons

At the time of the inspection the sites effluent lagoons were inspected. The lower and upper lagoons were well below the top of the liner, no breaches of containment were evident.

Effluent its transferred around the lagoons using umbilical pipes. Connections were inspected during the visit. No leaks were found.

A request was made with the plant manager, for the pipework around the lagoons to be labelled to provide robustness to the operation of the lagoons during staff absences.

A later site inspection has found that pipework has been labelled.

Paraformaldehyde Storage Area

Removal of the paraformaldehyde which was subject to the fire on the 30th April 2024 allowed for the inspection of the paraformaldehyde storage area for the first time following the incident.

Storage of materials in this area has recommenced. The brick wall which separates the site from the River Alyn was inspected, but no obvious holes or breaches were observed. NRW is of the understanding that the containment in that area has been inspected for integrity by a qualified engineer.

The engineers report has since been sent to NRW for review. Whilst the report shows that the wall is structurally sound, further investigations will be undertaken by NRW to determine whether the wall is allowing for contaminants to move from the site into the River Alyn.

Quarterly Monitoring of Results- Q2 (April – June), due 30th June 2024.

Quarter 2 monitoring data for Synthite Limited, Mold Chemicals(Alyn Works), Denbigh Road, Mold, Flintshire, CH7 1BF were submitted to Natural Resources Wales in accordance with permit condition 4.2.3.

Emissions to Water

Monitoring for water emissions at W1 has been undertaken in accordance with the environmental permit.

Suspended Solids

A Suspended solid value of 2859 mg/L was reported against the permitted limit of 20 mg/L. A schedule 5 notification indicates that the analysed sample was take following storm Kathleen in 2024, which required the site to pump water into the River Alyn to avoid flooding.

Data for May and June show that the levels of suspended solids returned to be within compliance with the environmental permit.

A category 3 score has been applied against permit condition 3.1.2 ((IR3A) Emissions to water, air or land)

Volumetric Flow Rate

The return data discloses a maximum daily volume of 762 m³ of water discharged at the W1 emission point.

Whilst this value is over the permitted limit of 700 m³ per day, severe weather was being experienced at the time of the report and the over pumping of water was necessary to prevent flooding. **No score has been applied on this occasion**

Emissions to Sewer

Monitoring for emissions to sewer at S1 has been undertaken in accordance with the environmental permit. No breaches have been identified.

Emissions to Air

Emission Point A10

Formaldehyde

Monitoring for formaldehyde at A10 was undertaken on the 12th April 2024 providing a result of 12.4 mg/m³, this result is in breach of the permitted formaldehyde limit at A10 which is 5 mg/m³.

A category 3 score has been applied against permit condition 3.1.2 ((IR3A) Emissions to water, air or land)

Air emission point A10 is no longer use following the Synthite fire on the 30th April 2024. See actions following discussion for A11 below.

Emission Point A11

Formaldehyde

Monitoring for formaldehyde at A11 was undertaken on the 12th April 2024 providing a result of 482 mg/m³, this value is in breach of the permitted formaldehyde limit at A11 which is 5 mg/m³.

The observed emission value has been modelled by NRW's air quality team, which has concluded that a significant environmental effect from this emission was unlikely.

A category 3 score has been applied against permit condition 3.1.2 ((IR3A) Emissions to water, air or land).

A schedule 5 notification was received on the 24th April 2023 stating that the plant was not operating and that an immediate investigation had been started.

Action 1: Provide an update to the progress of the investigation to NRW by the 10th January 2025, providing investigation outcomes if completed.

Emission Point A15Formaldehyde

Monitoring for formaldehyde at A15 was undertaken on the 24th April 2024. A result of 7.5 mg/m³ was provided. This is in breach of the permitted limit of 5 mg/m³.

A category 3 score has been applied against permit condition 3.1.2 ((IR3A) Emissions to water, air or land))

NRW is aware that the operator is continuing to explore the use of a catalytic oxidation system and has made changes to tank filling operations to reduce the load on A 15.

Action 2: Continue to update NRW regularly with regard to the progress of the catalytic oxidiser.

No further emissions limits breaches were identified.

Management System

Review of the monitoring data has shown significant permitted emissions limit breaches to both air and water and indicates that the environmental management system is inadequate to prevent permit breaches.

Emissions limit breaches are currently being investigated in conjunction with the fire on the 30th April 2024. Further scores may be applied on completion of the investigation.

A category 3 score has been applied against permit condition 1.1.1a under IR1A Management system and operating procedures.

Action 3. Review the site's environmental management system with regard to emissions control from point sources and submit findings along with any necessary improvements to NRW by the 10th January 2025.

Kind Regards

Phil Harper

Industry and Waste Regulation Officer NW

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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 only relating to the activity assessment |
| 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 – Emissions to water, air or 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.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 to 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at 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.