

## Compliance Assessment Report CAR\_NRW0044613

**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:** 05/06/2024 between 10:30 and 14:40.

**Parts of permit assessed:** See Below.

**NRW Lead Officer:** Philip Harper, accompanied by Rebecca Harwood.

**Report sent to:** Technical Manager, Technical Manager, on 11/07/2024.

### 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	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 in main text	31/07/2024

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

This compliance assessment report discusses observations made during a site inspection on the 5<sup>th</sup> June 2024 at Synthite Ltd, Alyn Works, Mold, CH7 1BT.

### Site Inspection 5<sup>th</sup> June 2024.

On the 5<sup>th</sup> June 2024 a joint site visit was undertaken by NRW officers Phil Harper and Rebecca Harwood, Senior Industry and Waste Regulation and Dwr Cymru officers Raymond Jones, Trade effluent officer and Louis Gaskin, Science Manager.

The visit was undertaken following reports of high formaldehyde levels in the domestic sewer following the fire on the 30<sup>th</sup> April 2024.

### **Monitoring Samples**

The purpose of the visit was to investigate potential sources of formaldehyde in the domestic sewage inlet at Mold sewage works.

The sampling points and observations are discussed below;

### Synthite Domestic Well

The Synthite Domestic well is located close to formaldehyde storage silos at the site entrance. The domestic well and pump are covered by metal drain covers. The cover pump well was lifted for to allow for a water sample to be taken. It was noted that the access point lacked protection from the ingress of contaminated surface water. Analysis for formaldehyde in the domestic well gave a result of 1.57 mg/L. This value is typical for raw sewage materials.

**Action 1:** Undertake a risk assessment concerning containment at the domestic well for Synthite Ltd and submit a report detailing the findings to NRW by the 31<sup>st</sup> July 2024.

### Synthite Lagoons

The Synthite lagoons are used to contain waste process water and surface water prior to treatment through the effluent treatment plant and discharge to sewer. At the time of the inspection water levels were observed to be high in the lagoons, though no breaches were noted at the time of the inspection.

### Synthite Effluent Treatment Plant

Water samples were taken at the inlet works for the effluent treatment plant and at the S1 discharge to sewer. It was noted water from the lagoons is treated through the effluent treatment plant prior to discharge to the sewer at the S1 emission point. Water samples were taken from the raw effluent and discharged effluent and

analysed for a range of analytes. The results are shown in the table below.

	Biological Oxygen Demand [mg/l]	Chemical Oxygen Demand [mg/l]	Ammonia(N) [mg/l]	Suspended Solids [mg/l]	Formaldehyde [mg/l]
<b>Synthite LTD ETP Raw Effluent</b>	631	887	1.06	27	36.7
<b>Synthite LTD Final Effluent at S1</b>	161	1580	0.5	1290	1.2

The results show an appreciable reduction in levels from biological oxygen demand ammonia and formaldehyde, however, a striking increase has been observed from chemical oxygen demand and suspended solids levels.

During the inspection the final effluent appeared to contain suspended solids indicating that the effluent treatment plant was not operating at optimal conditions.

The site permit provides a limit for ammonia (as N) only with a permitted limit of 50 mg/l of ammonia. The analysis shows that the effluent was well within this limit on the day of the inspection. It should be noted that whilst no permit breaches have been breached at the S1 emission point, an increase of chemical oxygen demand to 1580 mg/l from 887 mg/l and an increase of suspended solids from 27 mg/l to 1290 mg/l indicates that the effluent treatment plant may not be managed in accordance with the sites environmental management system. This matter is being investigated further by NRW. Whilst no scores have been applied under this compliance assessment report, score may be applied in a later compliance assessment report on conclusion of the investigation.

### **General Site Observations**

A general site walk round was undertaken to provide awareness of the proposed sampling locations. The following observations were made.

#### Paraformaldehyde Storage Area

The paraformaldehyde storage area was inspected. There was no evidence of surface water runoff from the paraformaldehyde storage area and the plastic sheeting that had been used to cover the material prior to removal appeared to be in place and intact.

#### Cooling Tower

A substantial leak was noted from the cooling tower adjacent to the grinding plant. During the inspection the cooling tower was desilted by site operatives which stopped the leak.

#### Positioning of Materials in Standing Water.

The site is currently experiencing drainage issues. Works need to be undertaken on a site drain to provide a better gradient for drainage. However, access to the drain is currently obstructed by welfare cabins which are connected with the construction of a new formaldehyde plant which is expected to be commissioned in July 2024. NRW is of the understanding that the operator intends to carry out improvement works on the drainage when access is restored.

The drainage issues cause surface water to pool near the formaldehyde manufacturing plant. Officers observed that bulk bags containing an off specification paraformaldehyde product had been stored in the standing water.

Permit condition 1.1.1(a) states that "The operator shall manage and operate the activities in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints.

Whilst the bulk bags had been secured to wooden pallets using plastic wrap, there is a potential for the surface water to become contaminated with formaldehyde, increasing the potential for pollution to be caused by the site activities. The placement of the materials in surface water is a failure to manage the site activities in accordance with permit condition 1.1.1(a).

#### Water in Tank Farm Bunds

Officers observed that the bunds at the tank farm contained a significant volume of water. Secondary containment bunds for tanks should be emptied on a regular basis to ensure that their volume is not compromised in the event of a tank failure. The operator stated that the water would be tested before draining the bunds to the lagoon for treatment by the sites effluent treatment plant, prior to the next site visit.

This issue is discussed further in compliance assessment report CAR\_NRW0044680 which will follow this compliance assessment report in due course.

#### IR1A General Management.

The permit breaches highlighted within this CAR form can be attributed to the failure to operate the site in accordance with a suitable management system.

#### **A category 3 score has been applied against permit condition 1.1.1a under IR1A- General Management**

**Action 2:** Ensure that relevant sections of the environmental management system which are relevant to the observed breaches are reviewed and that operators have the required level of competence against the permit and management systems by the 31<sup>st</sup> July 2024.

Kind Regards

**Phil Harper**

**Senior Industry and Waste Regulation Officer NE**

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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](mailto: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](mailto: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.