

Compliance Assessment Report CAR_NRW0044680

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: 12/06/2024 - 19/06/2024 between 10:00 and 10:00.

Parts of permit assessed: See Below.

NRW Lead Officer: Philip Harper.

Report sent to: Technical Manager, Technical Manager, on 26/07/2024.

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	1.1.1a
IR1A - Installations - Management - General Management	C3 Minor	1.1.1a
IR1A - Installations - Management - General Management	C2 Significant	1.1.1

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

Total non-compliances recorded	Total non-compliance score
3	39

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.	Already completed
IR1A	See actions in main text	09/08/2024
IR1A	See actions in main text	Already completed

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.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

This compliance assessment report covers site visits at Synthite which were undertaken on the 12th, 17th and 19th of June 2024.

On the 12th June 2024 a site visit was undertaken by NRW officers Phil Harper, Senior Industry and Waste Regulation and James McClymont, Industry and Waste Regulation team leader.

General Site Observations

Paraformaldehyde Storage Area

The paraformaldehyde storage area was inspected on the 12th June 2024. 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.

Removal of the paraformaldehyde from the storage area commenced on the 17th June 2024. It is planned that this will be undertaken as a dry operation, with excavation of the paraformaldehyde and the removal of residual material using a road sweeper.

Removal works were observed to have progressed efficiently on the 19th June 2024.

Positioning of Materials in Standing Water.

It was observed that materials were still positioned in standing water as discussed in compliance assessment report CAR_NRW004413.

A category 3 breach has been applied against permit condition 1.1.1a under subheading IR1A.

It was observed during a site visit on the 19th June 2024 that these materials had been removed.

Water in Tank Farm Bunds

On the 12th of June officers observed that the bunds at the tank farm still 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 usual practice for the operator is to test the water in the bunds before discharging it to the site lagoons

for treatment and discharge. If this operation is not possible then site bunds should be emptied by other means, for example by road tanker.

Site bunds were not inspected during visits on the 17th or 19th June.

The repeated failure to empty site bunds indicates poor management of the site activities and has attracted a **category 3 score against permit condition 1.1.1a under subheading IR1A.**

Action 1: Ensure that site management processes are appropriate to ensure that site bunds are emptied on a regular basis.

Action 2: Submit evidence to show that steps have been taken to ensure that bunds are emptied on a regular basis by the 9th August 2024.

Synthite Upper and Lower Lagoons

The lagoons at Alyn works are used to contain waste process water and surface water prior to treatment through the effluent treatment plant and discharge to sewer. A perimeter check of the lagoons was undertaken during the inspection. It was observed that the water in the lagoons was above the level of the lagoon liner causing contaminated water to pool on unmade ground adjacent to the lagoons.

Dead vegetation and ground conditions around the lagoons indicated that the lagoons had been in breach for some time, or had experienced breaches on a regular basis.

A track of dead vegetation leading from the lower lagoon indicated that water had runoff into a neighbouring ditch, though no active runoff was observed during the inspection. Vegetation in the base of the ditch was also dead in appearance. It is unknown whether the ditch leads off the site and into nearby surface waters. It is known that a pond lies outside the eastern boundary of the site, a connection between the ditch and the pond could not be established due to overgrown vegetation.

Water samples from the breach points of the upper and lower lagoons at Synthite and the aforementioned pond were collected on the afternoon of the 12th June 2024. The results are shown in the table which is attached to this compliance assessment report.

The data indicates that the water in the upper and lower lagoons is highly polluting and has the potential to cause significant pollution in contact with ground and surface waters.

These events signify that an unauthorised discharge has occurred.

Data for water samples were taken from the pond which lies outside the Eastern boundary are also shown. The data shows that the water quality of the pond is poor. Natural Resources Wales is currently undertaking an investigation to determine whether there is a connection between the formaldehyde levels in the pond or whether there are other local sources of formaldehyde which are having an effect on this body of water.

Lagoon levels were observed to have fallen below the level of the liner by the 19th June 2024.

NRW is actively investigating the levels of the lagoons. A compliance score will be applied on completion of the investigation.

Action 3: Steps should be taken by the operator to ensure that the overfilling of the lagoons does not re-occur.

Action 4. Natural Resources Wales will shortly be requesting information to aid the investigation separately to this compliance assessment report. Supply the required information by the date specified.

Water Sampling Campaign 17th June 2024

A water sampling campaign was undertaken on the 17th June 2024 to better understand inputs into the River Alyn from Synthite and the surrounding area. In addition to the routine up and downstream sampling locations that have been used since the fire on the 30th April 2024 a further three locations were sampled at various locations on the River Alyn and at the Synthite upper lagoon which was observed to be in breach of its containment at the time of the inspection.

The sample data for the campaign is shown in the attached document.

The data indicates that formaldehyde is input to the River Alyn close to the location on the site where the fire occurred on the 30th April 2024. At this location formaldehyde levels were observed to be 10.7 mg/L. The data also shows a reduction in the concentration of formaldehyde as the River Alyn to a final observed concentration of 0.269 mg/L at Leadmills in Mold. This supports that no other inputs were observed.

The data suggests that there may still be an input close to the location in which the fire occurred on the 30th April 2024. At present access to the area is restricted due to ongoing paraformaldehyde works. The operator is urged to investigate potential breaches in containment once the recovery work has been completed.

Weather conditions had been dry for several days prior to the sampling on the 17th June. Natural Resources Wales plans to repeat this exercise following prolonged rainfall, compliance scores may be applied on the completion of NRW's investigation.

Action 5: Investigate potential routes for formaldehyde to enter the river Alyn in this location and make site improvements where required.

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 for example;

- Failure to manage lagoon levels to ensure that containment of effluent is maintained.
- Failure to manage site activities, in particular the storage of materials to ensure that environmental risk is minimised.

The breaches highlighted demonstrate a serious lack of awareness of the requirements of the sites environmental permit. This increases the potential risk of environmental harm being caused by the site.

A category 2 score has been applied against permit condition 1.1.1a under IR1A- General Management

The investigation continues.

Kind Regards

Phil Harper

Senior Industry and Waste Regulation Officer NE

03000 65 3717/ 07890025506

philip.harper@cyfoethnaturiolcymru.gov.uk

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.