

Compliance Assessment Report CAR_NRW0039691

Permit being assessed: BU2357IP.

For: Mostyn Chemical Works, held by Mostyn Chemical Works

At: Warwick Chemicals Dock Road , Mostyn, HOLYWELL, Clwyd, CH8 9HE.

Type of assessment carried out: Site Inspection, Reason: Routine.

On 11/02/2022 between 10:00 and 15:00.

Parts of permit assessed: Site familiarisation, compliance and permitting.

NRW Lead Officer: Ian Oakes, accompanied by Stuart Ross.

Report sent to: Peter Bryant, HS & E Manager on 08/04/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E1 - Emissions - Air	C3 Minor	2.3.5

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

Total number of 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
E1	Refer text	Already completed

Action 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

1. Site familiarisation

The site processes were followed from discharge of raw materials to final product packing and included walking the site and discussing the main activities in the production of intermediate Diacetylenediamine (DAED) and product Tetraacetylenediamine (TAED) e.g.

- Handling raw materials ethylene diamine, acetic acid and acetic anhydride and Tank Farms 1 & 2,
- DAED continuous manufacture, AED recovery proposals 2022 and ultimate closure of plants 6/3 and Luwa 2,
- Site bunding, surface water management, central effluent collection chamber and two effluent holding tanks,
- Water quality, fungal hyphae and suspended solids and discharges to the Dee Estuary,
- Flood risk, susceptible assets and site access,
- DAED Hot oil building and boiler plant activities and future energy generation,
- Plant 5 reactor / crystalliser arrangements and TAED manufacture and intermediates,
- Filtration, drying and acetic acid abatement scrubbers,
- Organic residue incineration and heat recovery,
- Granulation plants and fire prevention, plant cleaning and maintenance,
- Warehousing and on site movements.

2. Site meeting

2.1 The site visit was very useful and though no obvious non-compliances were identified it was felt that the plants in general starting with granulation would benefit from a review of plant cleaning activities.

2.2 Potential alteration to site boundary due to installation of Energy Plant at East end of site. The site has had previous experience in that an application for a substantial variation to install a biomass plant, which was subsequently withdrawn may provide some of the answers. NRW is able to provide pre-application advice.

2.3 Alteration to solid content measurement to annual limit. The permit is long overdue for a BAT assessment and consolidation having fallen outside the Large Volume Organic Chemicals (LVOC) review just undertaken.

The IPPC Bureau has indicated that publication of the Common Waste Gas Management and Treatment Systems in the Chemical Sector (WGC) BReF [BAT reference documents | Eippcb \(europa.eu\)](#) will trigger the review and is due to be published in 2022 and then be subject to a UK BAT review (implementation will also trigger all applicable BRefs).

2.4. Testing each wastewater discharge for hydrocarbon/oil content has been interpreted as monthly from the permit in error and change to emissions measurements for mercury and other metals require more time than was available and need to be picked up separately.

2.5 There was general shortfall in monitoring submissions in the latter half of 2021, which has been the subject of a separate CAR. It is understood that finding a replacement for the SHE Assistant is a high priority.

3. 16 January 2022 at 14.25 an oil/mineral wool lagging fire occurred on Luwa 2 wiped film evaporator

At 14.25hrs the shift maintenance fitter noticed a fire around the mid section of the Luwa column and raised

the alarm and the on-site fire engine attended. The Luwa plant was shut down and plant transfers stopped. NWFRS was called in reducing the pre-determined six fire engines to three en route. The fire was extinguished with water in around 10 minutes before the NWFRS arrived. They then assisted with checking the area with a thermal camera before the fire teams were stood down. There were no injuries or loss of primary containment.

The root cause was attributed to an oil leak on the rotor shaft allowing pressurised oil to discharge over the top of the column into the lagging subsequently ignited by the steam heated jacket (at 150°C).

The Luwa Plant remained shut down for lagging/cladding replacement and oil seal refitting. The cladding system, glass wool lagging and oil are to be reviewed for suitability for the application.

NB: Luwa 2 will be taken out of service when the AED Plant is fully operational.

The incident is considered a breach of Permit Condition 2.3 Management with respect to maintenance and cleaning schedules and a non-compliance score of CCS 3 is considered appropriate. Actions completed.

Condition 2.3 Management, 2.3.5 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.

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.

What are suspended scores?

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 and Waste action criteria (used in section 1 and 2):**A: Permitted activities**

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance 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 20 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 – 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.