

## Compliance Assessment Report CAR\_NRW0050787

**Permit being assessed:** PP3238LX.

**For:** Barry Thermosets Plant EA/EPR/PP3238LX/V002, **held by:** Bakelite Synthetics UK Ltd

**At:** Barry Thermosets Plant Sully Moors Road , Penarth, Vale of Glamorgan, CF64 5YU.

**Type of assessment:** Report/Data Review,

**Reason:** Routine.

**On:** 31/12/2025 between 09:00 and 17:00.

**Parts of permit assessed:** Management, monitoring and emissions.

**NRW Lead Officer:** Antony Leakey, accompanied by Andi Kemp.

**Report sent to:** n/a, EHS Manager, on 20/02/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR4B - Installations - Information - Reporting	C3 Minor	4.2.2(a)
IR1A - Installations - Management - General Management	C3 Minor	1.1.1(a)
IR1A - Installations - Management - General Management	C3 Minor	1.1.1(a)
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	Assessed (A)	
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	Assessed (A)	
IR3E - Installations - Emissions and monitoring - Monitoring	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
3	12

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
IR4B	Bakelite to confirm and demonstrate implementation of corrective actions at next compliance inspection.	Already completed
IR1A	Bakelite to confirm and demonstrate implementation of corrective actions at next compliance inspection.	Already completed
IR1A	Bakelite to confirm and demonstrate implementation of corrective actions at next compliance inspection.	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.**

**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

### **Bakelite Synthetics - environmental permit PP3238LX**

#### **Incidents, emissions, monitoring and reporting review – 31 December 2025**

##### Site inspection

An inspection took place on 27 January 2025 covering basic requirements for environmental permit compliance and reporting. A site walkover did not identify any issues.

##### Flow Measurement

Bakelite reported a period of data loss for the daily average flow rate monitoring through the effluent sea main line from 12-23 December 2025. The historic data suggest that Bakelite is unlikely to have operated above the permit limit during this period.

An investigation into the data loss found that the project to upgrade the process control system had failed to identify that it would affect environmentally critical equipment and manual checks were not put in place. The issue was not identified by the project management of change process (MOC).

The flow meter continued to operate but was unable to transmit the reading to the control system. Daily readings are usually manually recorded from the DCS system. The DCS data historian was also unable to capture the flow rate for the same reason.

Bakelite has identified the following corrective actions:

- To update the MOC check list to ensure that the impact of any changes to environmentally critical equipment is captured early in the project.
- Daily readings will be taken directly from the meter in the field and recorded manually.

Flow rate data reporting has not been undertaken in accordance with the permit requirements as specified by permit condition 4.2.2(a).

The MOC failing is a further non-compliance with permit condition 1.1.1(a).

The loss of flow data has not resulted in potential for a significant environmental impact and therefore the non-compliances are considered to be minor category 3 level.

**ACTION: Bakelite to confirm and demonstrate implementation of corrective actions at next compliance inspection.**

#### Resin loss of containment

On 17 July 2025 Bakelite reported loss of approximately 14 tonnes of resin to a site roadway through the drain line of a product loading filter the previous week. The roadway was within the contained drainage system at the installation.

The loss of containment was caused when an override was incorrectly applied to a purge valve on the drain line from a product loading filter. The filter drain valve failed to close and an interlock should have prevented the loading process from starting the pump however this interlock was overridden. The resin was lost through the filter drain during tanker loading.

Some of the resin was contained at the plant and collected in IBCs and a containment tank. A quantity of resin was discharged into the effluent treatment plant. There was an increase in COD results, but this was managed by the effluent treatment process and there was no non-compliance with emission limits.

Bakelite report that improvements have been implemented to interlock override management.

Interlock override procedures should be treated with the same rigour as hazardous inventory isolations and this management failing is a further non-compliance with permit condition 1.1.1(a).

The loss of containment has not resulted in potential for a significant environmental or health impact due to the proactive management of effluent treatment and relatively high flash point/low volatility of the resin. Therefore the non-compliance is considered to be minor category 3 level. Note, however, this is the second resin spill in recent years and management of interlock overrides failure could have potential for a more serious outcome elsewhere on the installation. Failure to fully address these aspects may result in escalation of enforcement.

**ACTION: Bakelite to confirm and demonstrate implementation of corrective actions at**

**next compliance inspection.**Phenol and formaldehyde emissions to water

A potential permit ELV exceedance for phenol, due in part to small losses of containment at the plant, was reported in Q1 2025.

Phenol mass emissions for the year remained low relative to historical trends and significantly below the permit limit. The concentration of the discharge was within the analytical uncertainty budget and only around 10% above the 10 mg/l ELV and therefore is not considered to have exceeded the ELV beyond all reasonable doubt. The elevated concentration would not have a significant impact on the Bristol Channel due to the high dilution available.

Bakelite have taken the following actions to prevent future potential exceedance of the ELV:

- Implementation of a limit on the maximum phenol concentration in the ETP influent. A procedure is in place which prevents effluent from the plant (A10/A30 pits) being transferred to the ETP.
- Immediate data logging of ETP results at time of testing to facilitate tracking of the concentration of phenol within the effluent system and allow mitigation to be taken more quickly.

The Q1 2025 results also indicate elevated formaldehyde emissions, which although within the ELV, have potential to cause ETP performance degradation if significantly elevated in the incoming effluent from the plant.

**ACTION: Bakelite to confirm and demonstrate implementation of corrective actions, including consideration of the need for an ETP formaldehyde feed limitation at next compliance inspection.**

Monitoring

In house phenol analysis was interrupted during Q1 2025 due to equipment failure. Bakelite was able to continue obtaining analytical testing through an external ISO 17025 accredited laboratory.

It is important to ensure that monitoring capability is maintained with adequate maintenance and back up arrangements. In this case the sample preservation, storage and transit times will need to be carefully managed to ensure integrity.

Emissions review

Monitoring data and annual performance indicators for 2025 and the annual report for 2025 (condition 4.2.1 compliance) have been reviewed and no breach of permit conditions was identified other than those already discussed above.

END

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](mailto: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](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.