

Compliance Assessment Report CAR_NRW0039593

Permit being assessed: PP3238LX.

For: Barry Thermosets Plant EA/EPR/PP3238LX/V002, held by Hexion UK Limited

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

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 22/03/2022.

Parts of permit assessed: Routine monitoring submissions, annual data and performance and previous CAR1 actions

NRW Lead Officer: Andi Kemp.

Report sent to: Ian Beatty, EHS Manager on 22/03/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
C1 - General Management - Staff competency/training	Assessed (A)	
C2 - General Management - Management system and operating procedures	Assessed (A)	
E1 - Emissions - Air	Assessed (A)	
E3 - Emissions - Surface water	Assessed (A)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Assessed (A)	

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

Total number of non-compliances recorded	Total non-compliance score
0	0

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?

No action required.

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.

At this time, we do not intend to take any further action.

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

Compliance Assessment Report: Bakerlite, Barry Thermoset Plant – PP3238LX; 22nd March 2022

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Purpose Of Compliance Assessment

This compliance assessment report covers the following aspects covered by the environmental permit PP3238LX:

- Actions from previous CAR1 reports
- Permit variations – part of an action
- Routine and annual monitoring and reporting submissions

Previous Actions

CAR1 dated and issued on 6th May 2021 contained 4 actions due by 31st July 2021. CAR1 dated 15th April 2021 contained two actions due by 30th September 2021 – this CAR1 report covered the hazardous waste audit.

The response to the 4 actions from the May 2021 CAR1 report was received on 30th July 2021.

Action 1 Hexion 6th May 2021: *Operator to provide the calculations used to derive the variable analytical method uncertainty for the COD analysis. The uncertainty varies considerably, although the concentrations measured do not. Is this something to do with the measurement technique range?*

The response to this action contained data for COD results at the sealine W1 and E1 over two quarters, with peak, average and the range given. The standard deviation is worked out and this is divided by the square root of the number of samples, then multiplied by 2. This figure of 2 is assumed to be what is known as a coverage factor (k) for expanded uncertainty measurements. This is a typical value. This uncertainty calculation appears to be sound and will be explored further during the OMA in May 2022. The uncertainty is larger with a large range within the data set – again this makes sense. **Action closed.**

The operator asserts that they will be conducting a comparison of COD analysis with another lab – this is welcomed.

Action 2 Hexion 6th May 2021: *Operator to provide an update on the current outstanding actions and whether they are somehow ranked or otherwise prioritised, i.e. were any of the outstanding actions relating to anything considered time critical?*

The internal audit programme continues to be developed as well as the handling of audit actions. There is a small backlog of actions, none of which are considered critical. Several procedures are due a review and this is being dealt with via a different route. The only action relating to environmental activities is to decide how to link the life cycle of resins to environmental aspects.

The regulator accepts this response. **Action closed.**

The annual report, including environmental audits and performance parameters are assessed further on.

Action 3 Hexion 6th May 2021: *Operator to provide an update on when this testing will be undertaken.*

Background: Dye testing – this is used to demonstrate continued diffuser operation and show if there are any leaks in the effluent line. This is done every 5 years but has been delayed due to works on the Cadoxton tidal flap.

Response: Dye testing to be planned for the Spring tides in September this year.

The operator confirmed by email their intention to carry dye testing out in October (pushed back from September 2021, due to dye availability) and sent the dye MSDS. Having checked the environmental hazards, this dye is suitable. The regulator has sought confirmation on whether / when the dye testing took place. **Awaiting confirmation, but will close the action.**

Action 4 Hexion 6th May 2021: *Operator to provide an update on variation application. The determination times are currently extended and there are likely to be delays. However, if an application has been duly made to NRW, this shouldn't prevent the commissioning and operation of these safety critical back-up generators.*

The operator's response to this was to declare that the installation of these back-up generators was being put back to September 2021. Since then progress has been made and the permit is currently being varied to account for the change in name from Hexion to Bakerlite UK Ltd. – this has been duly made.

In terms of the back-up generators, Bakerlite have said that the generators were installed (within permit boundary) at the end of September 2021. This is not ideal as the variation should have been made prior to commissioning. However, given the low risk from the existing boilers, these two 1.2 MW back-ups, which will run for less than 50 hrs per year, present at least an order of magnitude lower risk – although stack height has not been considered when making this statement.

There is evidence of the intention to apply for this variation, by way of emails between the regulator (NPS Rebecca Williams, AK cc'd) and the operator, where advice was given, especially about assessing the risk of emissions to determine the type of permit and whether detailed modelling is required. Therefore, the regulator will not raise any non-compliances for this minor oversight. **Action closed, variation pending.**

The response to the two actions raised in the hazardous waste audit CAR1 of April 2021 were received on the 25th May 2021 and 15th October 2021 – Action 1 within the deadline, Action 2 just beyond – no action to be taken for this.

Action 1 Hexion 15th April 2021: *The operator is to look through the comments in the paragraphs assessing individual consignment notes (e.g. incorrect SIC codes, carriers not appearing on PR, missing hazardous properties etc.) and provide a response to NRW.*

The response (including the CAR1 paragraphs needing addressing as mentioned above) is copied below (operator's comments in blue):

Response to Each Query:

1 - A consignment relating to distillate tank solids described on consignment note: CAC261/00007 (1st August 2019), uses code 080410 (see comments about Chapters 7 and 8 use) and is assessed as exhibiting HP11 Mutagenic (see Tradebe MAQ), but the hazardous property is missing off the consignment note. This

means people handling the waste may not know what hazard it presents and how best to handle the waste. Further, described in more detail below, NRW cannot verify how the waste was assessed for HP11 and other properties discounted – see comments below about procedure for classification.

Distillate in liquid form has HP11 as it contains 0.3% phenol. This is stated on the MAQ, however the distillate dig out is a cured material which contains 0% phenol and is therefore classified as non-hazardous. A hazardous consignment note was possibly used due to confusion caused by the MAQ.

2 - Consignment note 2020/462, for hazardous waste packaging (150110), 12th August 2019, does not contain the hazardous properties on the consignment note. A search for the receiving site (NCG-MDL UK, Manchester) on the EA Public Register brought up a registered waste operation and the carrier check revealed a current registered waste carrier. The SIC code is down as 20140 – is this correct?

With regard to the hazardous waste packaging and hazardous properties, we now use a standard range of HP codes, based on our operations, which is given to our current waste companies for packaging waste (Packcare and Schutz). These HP codes now appear on the consignment notes.

SIC Code 20140 is correct, all consignment notes now use this SIC Code.

3 - Consignment note CAC261/36553, 17th July 2019 shows an extant waste operation permitted facility and a waste installation permit. The registered waste carrier is also on the public register. The SIC given as 20130 refers to the manufacture of paints and varnishes etc. This is not correct and Hexion should seek a more accurate SIC.

SIC Code 20140 is correct, all consignment notes now use this SIC Code. Internal Audit flagged up the 20130 SIC code being incorrect and an action was set to inform all our waste carriers to update SIC Code to 20140. This is followed up by training of operators who sign consignment notes to check correct SIC Code. Evidence of training/action being successful is all consignment notes since the change in 2020 have contained the correct SIC code.

4 - Consignment note CAC261/00007, 1st August 2019, shows waste going to a permitted waste installation in Newport and transported by Hazrem Limited, however a public register search reveal no entry for Hazrem Ltd. and the carrier number given on the consignment note (CBDU5020 or 5070 – it isn't clear). The consignment is for mirror entry 080410, the non-hazardous code, so why has this been transported on a hazardous waste consignment note?

See #1 for comments on the same consignment note. Hazrem Ltd is on the public register under the registration number CBDU5070. A screen shot of the entry is shown below.

The screen shot shows CBDU 5070, Hazrem Environmental Ltd., NP11 3EH, company number 5064100, appearing as a registered waste carrier on the public register.

The regulator accepts these responses and notes where administrative errors have been made and where actions have been taken. Only consign hazardous waste on a consignment note. Other controlled wastes are recorded on a Duty of Care waste transfer note. The regulator is confident that the above and recommendations made in the audit will be evidenced when this topic is assessed again. **Action closed.**

Action 2 Hexion 15th April 2021: Hexion should build the application of WM3 into their waste assessment and classification written procedures and record how each waste stream (that is not an absolute non-hazardous waste) has been classified, then assessed for hazardous properties. The procedure should be robust enough that administration staff involved in consignment notes, know what waste code to use, the codes having been assigned by competent people (as per the procedure) carrying out classification and

assessment.

In response the operator submitted: BSP 1.06, October 2021 Rev. 5 Waste Disposal. The regulator accepts this response, especially if the training as indicated is provided (e.g. using WM3 to assess whether a hazardous property is exhibited or not) to the relevant staff. **Action closed.**

Note: WM3 is now version 1.3 October 2021.

Routine and Annual Monitoring and Reporting Submissions

The routine data required by the monitoring, reporting and emission limit permit conditions assessed here is: April 2021 – December 2021, plus annual parameters: environmental review, annual performance, energy, water and the annual round of air emissions monitoring for 2021.

The air emissions are compliant with permit requirements.

The quarterly W1 emissions from the ETP will be assessed next – the regulator won't provide any commentary of the E1 results from ETP into clean lagoon. It has been suggested this be scrutinized in the permit variation. The total mass released has been reported as required by Table S4.4. The flow and volume should be reported monitored daily – it looks like the data has been provided on a weekly basis.

Action 1 Bakerlite 22nd March 2022: *Operator to explain the above observation.* **Due: 30th April 2022.**

All other results are compliant and an OMA will take place in May 2022.

The annual water and energy use and use per tonne of product plus total production tonnage have been submitted. In an effort to pick up aspects of the duty put on NRW in pursuit of the sustainable management of natural resources (SMNR), the regulator intends to develop an audit pack around energy use, water use, energy recovered, waste minimisation and recovery. This then will be an audit in its own right and the annual figures and trends can be looked at then.

Lastly the Bakerlite annual environmental review will be assessed. The main points to pick up are permit compliance, increased production and retaining accreditation to ISO 14001. Even though the operator was comfortably within the ELV for phenol, the mass release has increased. The reason stated as a change to customer recipes – this is accepted. The review covers a summary of progress against improvements and projects. 19 internal audits were completed and 18 internal actions raised; 16 now closed. The exact nature of these is something to be explored in an audit of the site EMS. Energy and water use are declared as similar to previous years'.

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 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.