

Compliance Assessment Report CAR_NRW0046417

Permit being assessed: CB3593CX.

For: Nantgarw Enzyme Production Facility, **held by:** Biocatalysts Ltd

At: Cefn Coed, Parc Nantgarw, Cardiff, Cardiff, CF15 7QQ.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 31/12/2024.

Parts of permit assessed: 4.2.3 LII Annual Report.

NRW Lead Officer: Brigid Armstead.

Report sent to: Hannah Stansfield, Environment, Health and safety Officer, on 21/02/2025.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2C - Installations - Operations - Operating techniques	C3 Minor	2.3.1

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
IR2C	Please provide a root cause analysis for the 2024 breach of the hazardous waste criteria for a Low Impact Installation.	31/03/2025

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

Biocatalysts

EPR/CB3539CX

Permit condition 4.2.3 requires Biocatalyst Limited to conduct an annual review of the actual and anticipated operation of the installation against the low impact installation (LII) criteria, which is listed in the guidance for environmental permit application part B2 – Appendix 1.

During 2024, Biocatalyst have been visited twice by NRW, initially for a regulator handover visit in February 2024 and then for an EMS visit in August 2024. Two category 3 non compliances were given in [CAR_NRW0043877](#).

Review of Biocatalysts Limited operations against the LII criteria.

Aqueous Waste

Aqueous Waste Generation	Average - m3 / Day
2022	12.3
2023	22
2024	43

The aqueous waste generated by the facility was calculated as an average of 43m³ per day, this is below the threshold of the LII criteria of 50m³. Although the average is still within the threshold, there has been a significant increase when compared to 2022 and 2023,

Please ensure that appropriate measures are taken to ensure that raw materials and water are used efficiently in the activities as per permit condition 1.3.1.

Abatement systems / releases to air

No abatement systems/releases to air as described in the guidance. Abatement systems are installed but these are purely to prevent loss of product.

The only releases to air from the installation are combustion gases from the on-site boiler systems, the emissions from which screen out as insignificant.

Ground water regulations

All operations at the installation are conducted on an impermeable surface, with all liquids stored with secondary containment.

Containment non compliances were identified and scored in CAR_NRW0043877. Corrective actions have been evidenced by Biocatalyst to address these non compliances.

Waste production

The installation must not give rise to more than one tonne of directive waste or 10 kg of hazardous waste per day, averaged over a year, with not more than 20 tonnes of Directive waste or 200 kg of hazardous waste being released in any one day.

In 2024 the installation reported to have generated a total of 54.5 tonnes of directive waste and 14.8 tonnes of hazardous waste

This gives a daily average of 149.2kg of directive waste and 40.5kg of hazardous waste, averaged over a year.

The installation meets the criteria for directive waste, however a daily average of 40.5kg of hazardous waste is a breach of the Low Impact Installation limit of 10kg of hazardous waste, averaged over a year.

Biocatalysts currently has a Low Impact Installation Permit which requires the operator to comply with the requirement as laid out in Part b1 guidance.

A category 3 non-compliance is given due to the installation not operating in accordance with Low Impact Installation criteria in 2024. This is an operating techniques (IR2C) failure and a breach under condition 2.3.1 of the Permit.

A category 3 non-compliance was given in CAR_NRW0043877 due to the quantity of hazardous waste in 2023 resulting in a breach of condition 2.3.1.

The following Action was set in the above mentioned CAR:

Previous action (CAR_NRW0043877): Please provide a root cause analysis for this breach and program of measures taken to ensure that it does not happen again. If you do not feel that you will be able to meet this limit, or if significant management effort is required to ensure that the above-mentioned hazardous waste limit is not exceeded in future, you will be required to submit an application for a bespoke permit.

Response received:

Root Cause: A historic build-up of laboratory chemical waste has resulted in a higher-than-normal hazardous waste disposal. Additionally, during the scale up process there was a miscalculation on the amount of water that would remain within the waste produced. This resulted in more waste being produced at a lower concentration but not of a lower enough concentration for it to be classified as non-hazardous.

Corrective/Preventative/Investigative Actions: We will work on completing a bespoke permit application, as our hazardous waste disposal is predicted to exceed our current limits for the next year. Our project team is looking into replacing within a specific process, potentially replacing a hazardous chemical with a material that is suitable for regular disposal. We are implementing an updated waste disposal procedure, with clear responsibilities and guidelines in preparing hazardous

materials for disposal. This is to avoid a build-up as we have seen over the past few years

Action: Please provide a root cause analysis for the 2024 breach of the hazardous waste criteria for a Low Impact Installation. **Due 31st March 2025.**

Biocatalyst may be subject to restrictions imposed onto their permitted activities if the operator continues to breach the hazardous waste low impact installation criteria.

Energy consumption

The maximum combined incoming power to the installation is 1.7MW, this is 1.3MW below the LII threshold. Solar panels were installed 2024.

Accident prevention

The site operates a planned preventative maintenance scheme, with procedures in place to cover various aspects of the operations conducted. The installation conducts emergency planning to prevent incidents as part of their ISO management system and has chemical spillage procedures in place.

Noise

Biocatalysts utilise a noise risk assessment, recording the location of all noisy equipment and operations. External noise assessments are carried out. Noise control includes maintaining equipment, switching off items not in use and ensuring that workload and deliveries are managed to take place within day-time hours.

Emission of polluting substances

Biocatalyst have submitted a list of point source emissions to air water and land.

Action: Please confirm that where there have been changes to this list from the original application that there will be no likelihood of a release to the environment of any particular substance from the whole installation at a rate greater than that determined as insignificant as set out in our guidance note 'How to comply' and 'H1 Environmental Assessment'. **Due 31st March 2025.**

Odour

The operator has stated that no odours are emitted from outside the installation during the manufacturing process or when the process is not running and that there have been no odour complaints from neighbouring companies or residents to date.

Compliance history

None of the following enforcement actions have taken place; prosecution, formal caution, suspension notice or enforcement notice relating to an actual or potential environment incident.

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.

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.