

Compliance Assessment Report CAR_NRW0052592

Permit being assessed: BW9999IG.

For: Chirk Particleboard Factory, **held by:** Kronospan Ltd

At: Chirk Particleboard Holyhead Road , Chirk, Wrexham, Clwyd, LL14 5NT.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 28/07/2026.

Parts of permit assessed: Improvement Programme.

NRW Lead Officer: Stuart Ross, accompanied by Rebecca Harwood.

Report sent to: Chris Emery, Operations Director, on 25/08/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2E - Installations - Operations - Improvement programme	C3 Minor	2.4.1
IR2E - Installations - Operations - Improvement programme	C3 Minor	2.4.1

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

Total non-compliances recorded	Total non-compliance score
2	8

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
IR2E	Action 1 - Kronospan must submit a revised response that fully addresses and satisfies the requirements of Improvement Condition 56 by 30/10/26.	30/10/2026
IR2E	Action 2 - Kronospan must submit a revised response that fully addresses and satisfies the requirements of Improvement Condition 57 by 30/10/26.	30/10/2026

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

This Compliance Assessment Report follows a review of Kronospan's response to Improvement Conditions (ICs) IC56 and IC57 as submitted to NRW by email on 10/06/26.

Improvement Condition 56

Following the rebuild of K8 the operator shall submit a written report to Natural Resources Wales describing the performance and optimisation of K8, specifically:

- *The lime injection system for minimisation of acid gas emissions for HCl and SO₂;*
- *The carbon injection system for minimisation of dioxin and heavy metal emissions;*
- *The Selective Non-Catalytic Reduction (SNCR) system;*
and
- *Combustion settings to minimise oxides of nitrogen (NO_x).*

The report shall include an assessment of the level of NO_x, N₂O and NH₃ emissions that can be achieved under optimum operating conditions.

NRW has reviewed Kronospan's response and has the following comments.

Lime Injection – Kronospan detail modifications made to the lime injection arrangements to prevent ash blockages in the boiler. The submission confirms that lime dosing is automated and responds to acid gas concentrations in the stack gas as measured by the CEMS. Acid gas emissions data presented (hydrogen chloride (HCl) and sulphur dioxide (SO₂)) are below the Emission Limit Values (ELVs).

Carbon Injection System – The dosing of activated carbon to the abatement plant uses the same system as for the lime injection using a combined product. The report references changes made to the sorbent in 2024, in so far that a new product, 'Sorbacal 4410', which does not contain any activated carbon was introduced. This is reportedly a 100% mineral based sorbent developed

primarily for flue gas treatment that eliminates the risk of spontaneous combustion in the filter bag.

However, the report does not evidence the optimisation of the dosing system for the minimisation of dioxin and heavy metal emissions. No emissions data trends have been presented to demonstrate the impact on emissions arising from the sorbent change. This must be addressed before the improvement condition can be deemed completed.

Selective Non-Catalytic Reduction – The system was subject to an overhaul during the May 2025 shutdown with faulty control valves and flow meters replaced and recalibrated.

Kronospan state that the system is fully integrated with the boiler control SCADA system, including process monitoring and alarms to alert operators of any faults. The system is also linked to the continuous emissions monitoring system (CEMS) for K8, allowing monitoring and adjustment of urea dosing levels to ensure adequate abatement of nitrogen oxides (NO_x) in line with environmental permit emission limit values.

It is not clear if the SNCR system reacts automatically in relation to CEMS data or whether manual intervention is required by the operator. This should be clarified in the resubmission of this improvement condition – if manual intervention is required, how is this managed to ensure NO_x and ammonia (NH₃) emissions are optimised.

The ammonia concentration in the stack gas has reduced between 2024 and 2026 and is consistently below 5 mg/Nm³.

Combustion Settings for NO_x – Work was undertaken in May 2025 to improve K8 and optimise combustion conditions. This included several modifications including walking floor repairs, combustion chamber cleaning, moving the fire to the mid-grate position, and balancing the ID fan. The report also addresses recent (March 2026) changes made to correct a defective air pre-heater in zone 1.

CEMS data trends for NO_x show a clear downward trajectory and are routinely compliant with the ELV.

However, the report does not describe the combustion settings for the optimisation of NO_x emissions or include an assessment of the level of NO_x, N₂O and NH₃ emissions that can be achieved under optimum operating conditions. This must be addressed before the improvement condition can be deemed complete.

The response to this improvement condition was received 6 months after the due date. The late submission of the improvement condition response has been scored in a previous Compliance Assessment Report.

Due to the requirements of the improvement condition not being fully met, this is a breach of permit condition 2.4.1 attracting a non-compliance score of C3.

Action 1 – Kronospan must submit a revised response that fully addresses and satisfies the requirements of Improvement Condition 56 by 30/10/26.

Improvement Condition 57

'The operator shall carry out a study to determine measures needed to monitor channelled emissions on K7 emission point A26 to meet the standards specified within BAT Conclusion 4 of the Waste Incineration BREF Document (EU 2019).

A written report of the study shall be submitted to Natural Resources Wales. The report shall include, but not be limited to: findings from the study, timescales for installing CEMS on A26 actions required to meet the BAT 4 standards and a timetable for implementation and reporting to NRW'.

BAT conclusion 4 requires continuous emissions monitoring of emissions for compliance assessment against emission limit values.

Kronospan's submission states that *'the K7 biomass boiler is equipped with continuous measurement of NO_x, CO, oxygen and temperature. None of the other parameters listed in BAT conclusion 4 are monitored continuously.'*

Kronospan also state that *'the monitoring equipment is supplied by Lamtec, a company providing sensor and systems for combustion engineering. Product information does not reference the generic EN standards for continuous measurements noted in the BREF (EN 15267-1, EN 15267-3 and EN 14181).'*

It must be noted that Lamtec do not have any MCERTS Certified Products for Continuous Emission Monitoring Systems (CEMS). Permit condition 3.6.3 requires that monitoring equipment shall have MCERTS certification.

Kronospan report that *'Indicative costs have been obtained for the installation of continuous monitoring equipment and filtration plant with lime injection. The overall timescale for implementation is an estimated 38 weeks – 16 weeks for internal approval processes, plus 22 weeks indicated lead time from supplier. It may therefore be possible to install continuous monitoring equipment on K7 by the end of March 2027.'*

Kronospan state that *'it is believed that ongoing optimisation [of Boiler K7] (including use of SNCR) will show effective control of emissions and enable justification for not needing to install CEMS (as detailed in BAT 4 for waste incineration), due to sole operation of K7 as a virgin wood biomass boiler.'*

NRW's position is that emissions control is not justification for not installing CEMS and the requirements of the improvement condition must be met.

The submission does not include the required study to determine the measures needed to install CEMS that will meet the requirements of BAT Conclusion 4 and MCERTS. It also does not provide a suitably detailed timetable for implementation.

NRW considers that Kronospan have failed to meet the requirements of Improvement Condition 57 which is a breach of permit condition 2.4.1 attracting a non-compliance score of C3.

Action 2 – Kronospan must submit a revised response that fully addresses and satisfies the

requirements of Improvement Condition 57 by 30/10/26.

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

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

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.