

Background

Kronospan Ltd operates a wood panel manufacturing plant in Chirk. The site is regulated by Natural Resources Wales (NRW) under an Environmental Permit issued in accordance with the Environmental Permitting Regulations.

Amongst other requirements, the permit sets legally binding limits on emissions to air in accordance with industry standards to prevent and minimise environmental harm.

The permit requires Kronospan to monitor emissions from different parts of the factory and to report those results to NRW to confirm permit compliance.

K7 and K8 Legislative History

The Natural Resources Wales (NRW) Permit Consolidation in 2022 followed a Welsh Government Direction in 2018 requiring NRW to consolidate the previous Wrexham County Borough Council and Environment Agency Wales (now subsumed into NRW) permits into one.

Following this process, NRW became the single environmental regulator for the site

NRW are required to review permits to ensure that they reflect current legislation as well as changes in operating techniques.

As part of the 2022 permit consolidation, we conducted a full review of all permit conditions to ensure compliance with the

- Environmental Permitting Regulations (EPR),
- the Industrial Emissions Directive (IED) and
- ¹Best Available Techniques (BAT) for the wood-based panels sector.

NRW was aware that the K8 Biomass Boiler had been modernised following a rebuild in 2018 so we decided to review the operation of both K7 and K8 Biomass Boilers as part of our NRW-led statutory review against the relevant legislation / guidance.

The Kronospan site has one biomass co-incineration plant (K8) that falls directly within scope of the Waste Incineration ²BRef (Best Available Techniques Reference Document) and one biomass plant (K7) is regulated as an activity which is directly

associated with the permitted activities. Following a thorough assessment NRW made changes to the existing consolidated permit to introduce a higher level of protection. This saw the inclusion of revised emission limits onto the waste biomass co-incinerators known as K7 and K8. This change took place in June 2025.

Our approach to the review was consistent with permitted sites across Wales where waste biomass co-incineration formed part of their process.

Boiler K7 Emissions

Kronospan operates a biomass boiler known as 'Boiler K7' which supplies heat and steam to the manufacturing process. The boiler is authorised to burn waste wood such as bark, cork, sawdust and some wood-based manufacturing materials generated onsite.

Regulation of this part of the factory transferred from Wrexham County Borough Council to NRW in October 2022, at which point the permit introduced new emissions monitoring for the boiler. In June 2025, NRW completed a routine review of the permit against the relevant industry standards that led to additional monitoring being required.

The additional monitoring was carried out for the first time in November 2025 and the results were submitted to NRW in late December 2025. The results showed that some of the emission limits were exceeded and of particular concern were emissions of heavy metals, cadmium, thallium and dioxins / furans.

Parameter(s)	Carbon Monoxide	Particulate Matter	Total Organic Carbon (TOC)
Limit	150 mg/Nm ³	30 mg/Nm ³	30 mg/Nm ³
Measured value and uncertainty	1979.00 ± 264 mg/Nm ³	116.20 ± 9.5 mg/Nm ³	546.00 ± 80.3 mg/Nm ³
Date and time of monitoring	26/11/25	26/11/25	26/11/25
Parameter(s)	Cadmium & thallium and their compounds (total)	Heavy Metals and their Compounds (total)	Dioxins / furans (I-TEQ)
Limit	0.03 mg/Nm ³	0.45 mg/Nm ³	0.09 ng/Nm ³
Measured value and uncertainty	0.42 ± 0.079 mg/Nm ³	18.07 ± 3.8 mg/Nm ³	397.0 ± 68.40 ng/Nm ³
Date of monitoring	27/11/25	27/11/25	25/11/25

K7 monitoring results received by NRW on 30th December 2025

NRW Response

Following the receipt of the information from the operator on the 30th December 2025, NRW required further information to inform NRW's regulatory response and a notice for information was served on the 2nd January 2026 to obtain necessary detail.

Due to the risk of pollution, NRW issued a suspension notice on 8 January 2026 to prevent the boiler from being operated until Kronospan completes a -thorough investigation into the cause of the issues and retests emissions to demonstrate compliance. NRW may impose further requirements after that work is complete.

Emissions from the boiler are directed to a drying process that mixes with other exhaust gases that are collectively released to atmosphere from the tall banks of cyclones that are prominent to the south of the site. These cyclones have been monitored for dioxins and metals on an annual basis since 2023, and results to date have not indicated any cause for concern. Monitoring of the cyclones, however, was not undertaken at the same time as the testing carried out on Boiler K7 in November.

Whilst the operation of Boiler K7 is suspended, all other activities at the factory may continue to operate under the existing conditions of the Environmental Permit and will remain subject to NRW's routine regulatory oversight.

Who Are We Liaising With ?

NRW is liaising with partner organisations on this issue including:

- Public Health Wales

- Wrexham County Borough Council
- Health & Safety Executive
- Betsi Cadwaladr Health Board
- We have made Welsh Government aware
- We have met with partner Agencies and future meetings are being scheduled

How long has this been going on for?

NRW began regulating this part of the factory in October 2022, at which point the permit introduced new routine emissions monitoring for the boiler. In June 2025, NRW completed a routine review of the permit against the relevant industry standards, leading to additional monitoring being required.

November 2025 was the first time the additional monitoring was undertaken and therefore only one set of sample data are available. Therefore, it is not currently known if the monitoring data represents typical boiler emissions. This is subject to ongoing investigation. NRW has suspended the operation of the boiler until we can be confident that it can operate in accordance with the permit.

What are the impacts of emissions from the boiler?

The potential impacts are **not yet known**. Investigations are continuing, and the current evidence is insufficient to draw conclusions.

NRW has informed, and will continue to liaise closely with, partner agencies, including **Public Health Wales**, who provide independent specialist advice on matters that may have implications for public health. Information is being shared with them as it becomes available.

What NRW is doing now?

- **Site inspections:** NRW officers are carrying out inspections to ensure the boiler remains shut down while the suspension notice is in force. It is not yet possible to say if or when the notice will be lifted. NRW may allow the temporary operation of Boiler 7 to allow emissions monitoring to be undertaken.
- **Formal investigation:** NRW has opened a formal investigation into the emission limit exceedances. This investigation will take time and may lead to further enforcement action.
- **Multi- Agency liaison:** NRW will continue to work with partner organisations

- **Ongoing Liaison** NRW will keep the local community informed about regulatory activity and any changes to the situation through the Citizen Space page (link below) and via the Kronospan Liaison Committee .

We understand that members of the public may wish to access more detailed information and ask questions about this issue. However, **please note that due to the ongoing investigation there may be information that we are unable to provide in order not to prejudice our investigation.**

As a result, documentation may not be made available on the public register or shared more widely until our investigation has concluded.

Where can I find more information?

- Visit NRW's dedicated Kronospan page on the NRW website and sign up for the newsletter.

[How we are regulating Kronospan, Chirk - Natural Resources Wales Citizen Space - Citizen Space](#)

- The NRW permit, routine compliance information, inspection reports and monitoring data are published on the NRW public register.

[Public register - Customer Portal](#)

¹BAT stands for Best Available Techniques, which refers to the most effective and advanced methods of operation that prevent or minimise environmental pollution and impacts from industrial installations. These techniques are developed on a scale allowing implementation in the relevant industrial sector under economically and technically viable conditions, considering costs and advantages.

²BREF stands for Best Available Techniques Reference Document. These documents are the result of an information exchange process between EU Member States, industry, and environmental non-governmental organisations.