

Compliance Assessment Report CAR_NRW0042520

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: 21/09/2023.

Parts of permit assessed: Improvement Condition IC39 Odour Management Plan.

NRW Lead Officer: Ian Oakes.

Report sent to: Chris Emery, Director, on 27/09/2023.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2E - Operations - Improvement programme	C3 Minor	Condition 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.

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
IR2E	Refer to details section.	31/12/2023

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

IC39 Odour Management Plan (OMP) submission

1. Improvement condition IC39

IC39 "The Operator shall update and submit the written Odour Management Plan describing the operating techniques employed. The odour management plan shall be structured in line with "How to Comply with Your Environmental Permit: H4 Odour Management" and shall also address the delivery of all relevant Production of Wood-based Panels BAT Conclusions.

The written report will be incorporated into Table S1.2 of this permit as existing operating techniques."

2. Subject to BW9999IG permit conditions (but not exclusively)

"2.3 Operating techniques

2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.

(b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales."

3. Best Available Techniques conclusions (BATc) Directive 2010/75/EU for Production of Wood – based Panels (for OMP but not exclusively).

"BAT 1 *In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the following features (listed as I – XIV, with XIII being the OMP).*

BAT 2 *In order to minimise the environmental impact of the production process, BAT is to apply good housekeeping principles using all of the techniques given below.*

Techniques listed as a – e and include e. g. careful selection of control of chemicals and additives, careful handling and storage of raw materials and waste and regular maintenance and cleaning of equipment, transport routes and raw material storage areas.

BAT 9 *In order to prevent, or where that is not practicable, to reduce odour from the installation, BAT is to set up, implement and regularly review an odour management plan, as part of the EMS (see BAT 10), that includes all of the following elements:*

- I. A protocol containing actions and timelines;*
- II. A protocol for conducting odour monitoring;*
- III. A protocol for response to identified odour events;*
- IV. An odour prevention and reduction programme designed to identify the source(s); to measure/estimate odour exposure; to characterise the contributions of the sources; and to implement and/or reduction measures.*

Applicability: The applicability is restricted to cases where odour nuisance in residential or other sensitive areas (e. g. recreational areas) can be expected and/or has been reported.

BAT 10 *In order to prevent and reduce odour, BAT is to treat waste gas from the dryer and the press according to BAT17 and BAT 19.*

BAT 17 *In order to prevent or reduce emissions to air from the dryer, BAT is to achieve and manage a balanced operation of the drying process and to use one or a combination of the techniques given below:*

Techniques listed as a – h and include e. g. bag filter, wet scrubber / electrostatic precipitator and chemical degradation or capture of formaldehyde with chemicals in combination with a wet scrubbing system.

BAT19 *In order to prevent or reduce emissions to air from the press, BAT is to use in-duct quenching of collected press waste gas and an appropriate combination of the techniques given below:*

Techniques listed as a – f and include e. g. select resins with low formaldehyde content, wet scrubbing of collected press waste gases using Venturi scrubbers or hydrocyclones, wet electrostatic precipitator and post – combustion as the last treatment step after application

of a wet scrubber.

4. Odour Management Plan submission

The response to IC39 comprises a new Odour Management Plan (OMP) Revision 1 dated 03/04/2023 produced by Fichtner Consulting Engineers Limited (on behalf of Kronospan Ltd).

The OMP is cited as being in accordance with Natural Resources Wales (NRW) “*How to Comply with Your Environment Permit: H4 Odour Management*” as well as addressing the delivery of all relevant Production of Wood – based Panels BAT Conclusions.

The report structure is cited as being broadly in line with the template OMP guidance provided by the Environment Agency, taken as “Control and monitor emissions for your environmental permit” available via GOV.UK website.

The submission provides a review of (in brief):

- Introduction (s1) “*The purpose of the OMP is to demonstrate that the control of odour has been taken into account in the operation of the Facility*”,
- Site location and description (s2.1 – s2.3),
- Sources (s3.1 / 2, Table 1) 12 potential e. g. wood, wet scrubbers / electrostatic precipitators, pipe rupture, chemical release, press abatement and dryers, board stuck in press, steam release with entrained heat transfer oil, charging formaldehyde, from 7 of 11 departments with “*No specific odorous sources identified*” elsewhere,
- Pathway (s3.3) as releases to air influenced by meteorological conditions (s3.3.1) with wind roses (Figure 2, Appendix A), with the wind predominantly from the SW,
- Two WCBC ambient air quality monitoring sites Chirk Green and Chirk Hospital <https://www.airqweb.co.uk>
- Receptors (s3.4, Table 2), with no specific distance in H4 guidance a common buffer distance of 500m was used. A representative set of 14 was identified from residential, hospital, farm, school, care home etc., with the closest to the east along the B5070. No environmental receptors SSSIs etc., within 1km,
- Responsibility (s4.1) of senior management, environment, health and safety (EHS) and departmental managers. Competence assessment and training on the EMS,
- Control of odour (s4.2) requires breaking the source – pathway – receptor (SPR) link, Should measures fail operations are to cease and NRW notified,
- Permit requirements (s4.2.1) - Only condition 3.2 and “Pollution” definition provided,
- Control of odour involves breaking the SPR for the 12 sources identified (s4.2.2 Tables 3 Particleboard to Table 6 Resin and s4.2.3 Table 7 General measures),
- General measures (s4.2.3, Table 7) cite for preventative and remedial measures ‘various’ fire procedures and regular preventative maintenance, and using spill kits & cleaning equipment respectively,
- OMP is part of an ISO accredited EMS (s5.1) and is updated accordingly,
- Olfactory ‘sniff testing’ monitoring (s5.2) is undertaken at strategic locations (s5.2.2, Figure 4 Appendix A) on a regular basis. Departmental managers undertake inspections daily though not formally recorded (with weekly audits and checklists).
- More than one trained competent assessor (s5.2.1) is always available on site for repeatability and to cover illness effecting olfactory senses. Monitoring frequency (s5.2.3) is cited as regular and at random to generate a detailed data set; also

undertaken on receipt of an odour incident or when increased odour may occur.

- Data collection (s5.2.4) using a monitoring template (Appendix C). EHS department also maintains a daily plume dispersion log e. g. WESP 32 press abatement.
- To quantify odour (s5.2.4, Tables 8 & 9), the intensity (0 – 6, with 1 very faint odour) and offensiveness (1 – 4, with 1 no detectable odour) are assessed as well as persistence and source. If a score (s5.2.5) of 2 for either (faint odour and / or potentially offensive odour) are recorded a root cause investigation is carried out.
- Reporting and complaints (s6) have been updated for NRW Incident Communications Centre reporting and Kronospan response.
- Engagement with the community (s6.1) Quarterly Liaison Group with WCBC, NRW, Chirk Town Councillors and Unite the Union followed by a 'drop in' session.

5. NRW assessment

Having reviewed the OMP submission, NRW has identified issues and omissions that prevent IC39 being discharged. This constitutes a breach of permit condition 2.4.1 and attracts a non - compliance score of C3. You have been issued with a warning.

The primary reasons for this breach have been set out below, but please note this is not an exhaustive list.

- The permit requirements need to be expanded (reference 2. above),
- The BATc requirements need to be added (reference 3. above),
- A gap analysis is required to assess where Kronospan currently stands with respect to the application of the BATc particularly BAT 9, BAT 10 (BAT 17 and BAT 19),

Details required (but not limited to):

- Confirmation that all environmentally critical equipment for the prevention and minimisation of odour have been identified. Such plant should be recorded in a register and subject to planned preventative maintenance,
- Provide an inventory of odorous materials / chemicals including quantity, hedonic tone and concentration; and details of segregation, storage and control mechanisms in place to prevent release to atmosphere e. g. temperature, abatement techniques etc.,
- Explain the purpose and function of the Emission Control System for the formaldehyde plants,
- Provide options for chemical treatment of potentially odorous emissions in combination with wet scrubbers / electrostatic precipitators,
- Provide details of olfactory 'sniff testing' training and 'sensory calibration' reference M8 Monitoring Ambient Air Table 14.5 Odour Sensory testing 'Sniff Test' and H4,
- Provide results of the regular monitoring at the installation boundary and at the strategic locations around the installation boundary (Figure 4, Appendix A),
- Provide results of any process stack emissions grab samples dilution olfactometry exercises (Dynamic Dilution Olfactometry BS EN 13725: 2003),
- Provide results of any chemical monitoring of odour e. g. non-specific instruments

such as flame ionisation or electrochemical detectors.

- Details of procedures in place for the control of contractors in relation to odour management,

As a general point, it should be noted that the OMP forms part of your Environmental Management System (EMS) and should therefore be designed and written in a way that robustly ensures permit compliance. For example, broad, high level descriptions of physical and managerial controls should be avoided to ensure site personnel are clear as to the OMP requirements and to avoid incorrect interpretation. References to other relevant operating procedures should be included in the OMP, or where appropriate incorporated into the document itself.

It should also be noted that the review of the OMP is at a time when NRW continues to receive regular odour incident reports from residents in the vicinity of the installation. These emissions of odour as perceived by authorised officers of NRW, are at levels likely to cause pollution outside the site.

6. Site visit on 27 June 2023

The areas visited mainly constituted the external largely uncovered section of the site in relation to the dust management plan and has been reported separately. Though no specific odours beyond wood were identified deficiencies in the odour management plan submission were raised.

7. Permit variation EPR/BW9999IG/V010

It is acknowledged that variation EPR/BW9999IG/V010 contains a major odour reduction initiative in the combination at emission point A28 WESP 32 (operated as a wet scrubber) of emission points A5 & A6 Resin and Paper Impregnation Plants and A31 MDF1, MDF2 and Particleboard Press Abatement (refer Improvement Conditions IC54 'Commissioning plan WESP32' and IC55 'Commissioning report WESP 32').

8. Action

Kronospan is required to resubmit the Improvement Condition 39 OMP response, which must demonstrate the delivery of all relevant BAT conclusions with any proposed timescales for implementation (future strategy) included for consideration by 31 December 2023.

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.