

Compliance Assessment Report CAR_NRW0041130

Permit being assessed: TP3639BH.

For: Tremorfa Melt Shop , held by Celsa Manufacturing UK Ltd

At: Tremorfa Works New Melt Shop Seawall Road , Tremorfa, Cardiff, South Wales, CF24 5TH.

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

On 31/12/2022.

Parts of permit assessed: Annual returns

NRW Lead Officer: Richard Taylor.

Report sent to: Hannah Powell, Environment Manager on 10/02/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E1 - Emissions - Air	Action only (X)	
E1 - Emissions - Air	C3 Minor	3.1.2
E1 - Emissions - Air	C3 Minor	1.1.1a
F3 - Amenity - Dust/fibres/particulates and litter	C3 Minor	1.1.1b
E1 - Emissions - Air	C3 Minor	3.1.2
B5 - Infrastructure - Plant and equipment	C4 No impact	3.7.1b
B5 - Infrastructure - Plant and equipment	C3 Minor	3.7.1.b

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

Total number of non-compliances recorded	Total non-compliance score
6	20.1

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
E1	A1 PM's limit breached on 5th Oct 2022 without uncertainty applied but within the limit when applied. Sched 5 notifications are required for these events.	Already completed
E1	Return to permit limits	Already completed
E1	Return to compliance	Already completed
F3	Comply to dust management and EM plans	31/03/2023
E1	Return to compliance limits	31/03/2023
B5	Already reinstalled - refer to recommendations made in OMA	31/03/2023

Criteria	Action needed	Complete by
	report	
B5	Return CEMS to compliance and instigate improvements identified	31/03/2023

Action 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.

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

Celsa Meltshop Annual Review reporting year 2022.

Permit TP3639BH

1.0 Annual Return Forms A2, E1, PI1, R1 and S1

Site received a permit variation V009 on 5th May 202 which included new reporting forms.

The forms were submitted before the reporting deadline on 31st Jan 2023.

Form A2 – This is a permit requirement to carry out a spot check once per year with limits places on Particulate matter (PM), NOx, Sox, PCDD/F, VOC's, Hg plus other substances as well as PMs from the sites A2 stack (not to be confused with the A2 form – site reports annual spot emissions from their A1 and A2 stacks on the A2 form).

The A1 pm limit of 5mg/m3 was breached with a return of 5.25mg/m3 for the annual spot sample 5th Oct 2022. However, there was an uncertainty figure of +/-8% meaning that the returned figure was inside the maximum figure when uncertainty is included (max 5.4mg/m3). Applying NRW CCS guidance on uncertainty factors results in no noncompliance score being applied.

Result – NRW apply a listed permit breach of the 5mg/m3 limit with a return of 5.25mg/m3 but do not apply a noncompliance score due to the mark being within the upper parameter of the +/-8% uncertainty figure 5.40.

At the same time A2 stack produced a comparative figure of 4.53mg/m3 against a limit of 10mg/m3. All other substances complied with the permit limits.

Form E2 - shows the energy use on site with the CO2 and CO2 per tonne of product for comparison with the last 5 reporting years. The trends for both metrics show a downward trend which is encouraging – roughly translated to a 40% reduction from 2018 figures.

Form PI1 – shows KPI; s for electricity, particulate matter and water with a comparison against figures from 2011 onwards. Electricity consumption shows a gradual reduction of over 10% from 2011 figures whilst

p.m.'s is on an upward trajectory. Imported water to site remains steady at between 0.5 m³/t and 0.7m³/t.

Form R1 – shows waste produced from site and its fate. No totals are included for tonnes sent offsite as special waste, tonnes sent for offsite disposal or tonnes sent off site for recovery or recycling. However, the figures of 28 waste streams are itemised and show the totals to be as follows

tonnes sent offsite as special waste	6.84
tonnes sent for offsite disposal	16,451.36
tonnes sent off site for recovery or recycling	142,835.72
Total disposed waste	16,458.2
% of total wastes disposed	11.52%

Recommendation – include the waste totals for future years reporting in the R1 return for easier auditing.

Form Sewer 1 – No limits were exceeded during the reporting period. All metals to S1 were slightly elevated over last year's figures but well within permit limits.

2PC 4.2.2. Annual Performance Report

The report met the permit condition and provided details of the annual performance review as well as annual production data. Natural gas use fell by 29.4% over 2021 figures and electricity dropped 8.78% which are encouraging. Per tonne of steel product figures also showed a drop in gas use whereas electricity was slightly higher. Site achieved these figures by employing energy saving measures such as optimising the burner use, using self-drying liners which do not require gas and maximising the performance of the furnace arc.

Discrepancy in complaint types during 2022

NRW have a discrepancy in the type of complaints recorded in the submitted form. The report stated that 7 complaints were received via NRW during 2022. 6 of these were attributed to dust. NRW systems also recorded 7 complaints, but the type of complaints was as follows. Flies were the subject of the complaints ref WIRS 2204061 and 2204062 made on 6th June 2022 (unsubstantiated). WIRS 2204784 was made on 4th July and reference flies, dust and noise which was also unsubstantiated. WIRS 2205314 on 21st July concerned noise (unsubstantiated). 3 complaints made between 17th/18th Jan 2022 referenced dust. This was during the same week that South Wales witnessed a Saharan dust storm event (16-18th Jan). Site readings at the time were within permit limits. The ambient monitor at Willows school showed a spike of 4.6mg/m³ for a 5-minute sample on 13th Jan, but this was too early for the complaint and the weather conditions between 13th and 17th Jan recorded rain and temperatures dropping to 0 deg C, meaning the complaints could not be substantiated. The Site reported a fugitive emission of dust from the plant on 23rd Jan which was later than the dust complaints and Saharan event which is evaluated below. All site complaints during 2022 could not be substantiated but should have been listed as.

Care should be taken by site in reporting the type of complaints in the annual returns. There were no substantiated complaints made against the site in 2022. But complaints were made against the site for Dust, Flies, and Noise.

Fugitive Emissions

Site have continued to implement measures to control and reduce the dust generation from site activities. During 2022 the outside skin of the meltshop was double cladded. This helps to plug gaps between the metal skins and reduce possible routes for dust to be emitted as well as providing more of a seal for the negative pressure extraction systems to function optimally.

Improvements have also been made to the timing of the bag house filter changes, scheduled preventative maintenance rather than reactive maintenance, replacement of seals, hoses, and pipework throughout. In the minerals yard, working pile faces have been employed, spraying water as a dust suppressant and timings in the movements of slag from the meltshop to the minerals yard. Plus, speed limits for vehicle movements.

2 new TOPAS monitors have been purchased to be installed at either end of the minerals site. The site produces dust in the process of making steel but conforms to BAT standards. However, some issues have occurred during the reporting period which resulted in the emission of dust or the possibility of emitting dust. These are listed below.

Site Notifications via Schedule 5 reports

This is a list of the Schedule 5 reports issued by the site to NRW during 2022. These have been evaluated and scores have been applied.

Notification	Root cause	Date	Pt A received	Pt B received	Non compliance?
A1 p.m.'s CEMS daily average exceedance 6.59 against a permit maximum 5.0mg/m3	Damaged bag filters	23 Jan 2022	24 Jan 2022	14 Feb 2022	Yes, pc 3.1.2
Meltshop EAF dust fugitive emission	Unsuitable melt material	10 Mar 2022	9 Mar 2022	25 Apr 2022	Yes, pc 1.1.1(a)
Mineral site furnace slag dust fugitive	Extra suppression required	30 Mar 2022	29 Mar 2022	21 Apr 2022	Yes, pc1.1.1(b)
Asphalt plant A5 p.m.'s hourly average exceedances.	Not identified	24 Feb 2022	8 Apr 2022	8 Apr 2022	Yes, pc 3.1.2
Willowbrook CEMS PM monitor failure	Stopped functioning.	17 May 2022	23 May 2022	23 Jun 2022	Yes, pc 3.7.1(b)
Meltshop A1 CEMS PM's data loss	Electrical trip	15 Jul 2022	18 Jul 2022	26 Aug 2022	Yes, pc 3.7.1(b)
Meltshop A1 PM's CEMS exceedances	Figures exceed permit limit but are inside when uncertainty factors applied.	5 Oct 2022	11 Nov 2022	11 Nov 2022	No. Within limit when uncertainty applied.

Scoring non-compliances for 2022.

1. Meltshop A1 stack particulate matter permit limit under condition 3.1.2 emitted on 23rd Jan 2022 with a daily average of 6.59mg/m³ against a permit limit of 5.0mg/m³ due to damaged filters. A Cat 3 non-compliance is issued for the potential to cause a minor environmental effect.

Cat 3 – 4 points

2. Meltshop EAF fugitive dust release 9th March 2022. This breached permit condition 1.1.1(a) through a failure to control pollution arising from operations which produced an uncontrolled emission of noise and fume with the potential to cause a minor environmental effect.

Cat 3 – 4 points

3. Fugitive dust slag dust emitted from minerals site on 29th March 2022 due to insufficient dust mitigation measures which had the potential to cause a minor environmental effect.

Cat 3 – 4 points

4. A5 Asphalt stack PM's hourly averages breaches against a 20mg/m³ hourly limit with the potential to cause a minor environmental effect breaching pc 3.1.2 on 24th Feb 2022.

Cat 3 – 4 points

5. TOPAS failure at Willows school with secondary TOPAS failure at Baden leaving a period of 10:30 mins unmeasured on 8th June 2022. This is a noncompliance to pc 3.7.1(b) without environmental effect.

Cat 4 – 0.1 points

6. A1 Stack CEM data loss 15th-18th July 2022 due to electrical fault. The data loss is a breach of pc 3.7.1(b) which could have the potential to cause a minor environmental effect.

Cat 3 – 4 points

Total for 2022 – 20.1 points

Band C

Site have subsequently made improvements in all the points listed above and continue to work towards a net zero target in 2030. No breaches of permit limits (ELV's) occurred during 2022 for emissions to air from the main meltshop stack A1, A2, A3, A4 or the minerals yard stack A5. No emission limits to surface water or sewer were breached.

Lead and TPH levels 18 monthly report review.

Site reported on 8th December 2022 the review of their TPH and Lead concentrations in screenings from heavy metal melting scrap. This report is required by NRW on an 18 monthly basis. 3 requirements are required. The report was delayed by Covid from 2020.

1. Ensure the levels of TPHs in the scrap screenings remain at a level that supports a non-hazardous classification.
2. Lead levels are assessed to ensure no significant deterioration.
3. Where high TPH levels are identified as associated with specific scrap suppliers' appropriate action

is taken.

NRW agreed previously to the classification of the waste as 19 12 12 (non-hazardous). Sampling of the heavy metal fractions took place in April 2022. TPH values have decreased since sampling started in 2016. It would be better if the number of samples matched previous years for a more direct comparison.

Note that ongoing work is occurring with metal shredder waste (MSN) which has previously been classified throughout the EU as non-hazardous. A decision on whether this material will be classified *as hazardous* is due to be taken by the Environment Agency imminently with NRW adopting the same approach as the EA and all UK regulatory bodies.

From the report the sample plan and findings are agreed. At present NRW support the next sampling plan to occur 18 months after the issue of the last report ~Oct 2023.

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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.