

Compliance Assessment Report CAR_NRW0045001

Permit being assessed: TP3639BH.

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

At: Seawall Road, Tremorfa, Cardiff, South Wales, CF24 5TH.

Type of assessment: Report/Data Review,

Reason: Routine.

On: 19/08/2024.

Parts of permit assessed: EAF Dust Trial .

NRW Lead Officer: Dale Padfield.

Report sent to: -, Environmental Manager, on 19/08/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2A - Installations - Operations - Permitted activities	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
0	0

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?

No action required.

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 Manufacturing (UK) Limited

EPR/TP3639BH

The purpose of this compliance assessment report is to review a request to trial the development of an additional treatment process that separates an existing problematic waste stream into a finer high zinc and a larger sized low zinc fractions that enables both new streams to be returned into the circular economy.

Celsa made a request to undertake the trial detailed in document 'CELSA EAF DUST TRAIL SUBMISSION 2024' has been reviewed and the proposed trial has been assessed as exempt from EPR, as it meets the description and requirements of Schedule 1 Part 1, 3 (c) of the regulations in that this trial is for the development of a new additional process to improve the quality of the wastes produced from the EAF. The trial will however be subject the conditions listed within the 'Trial agreement conditions' section of this CAR form.

Summary of trial

Celsa Manufacturing (UK) limited have proposed to conduct a trial operation to assess the feasibility of developing and applying a physical separation technique to a particular problematic waste stream to enhance the potential recovery options of that waste stream. The waste material is best described as EAF dust, this particular fraction of EAF dust is extracted from the drop-out box (DOB) and quench tower (QT). Unlike the EAF dust captured within the bag filter plant, the fractions arising with the QT and DOB generally have lower zinc concentrations, which results in limited recovery options. The hazardous nature of the dust, due to the presence of zinc restricts the disposal options. As such, the waste is seen as particularly problematic.

The trial activity will consist of physical sorting using cyclonic separation, which takes advantage of the different properties of the materials within the dust, with the aim of addressing the following;

- Can a finer zinc rich feedstock be generated that would be of sufficiently high grade that it could be sold as a feedstock?
- Does the removal of zinc result in a larger sized residual fraction that could be suitable for use in steelmaking i.e., lower Zn and high iron?
- If the removal of Zn does not generate a larger sized residual material fraction that is suitable for use in steelmaking, are the hazardous properties of residual material reduced?

If successful, the process would result in multiple environmental benefits including reduced waste to landfill, increased resource efficiency and improvements in aspects of circular economy. The trial outlined by Celsa is relatively novel, especially with technology applied to this particular waste stream.

The trial is to be undertaken by a third-party, however, it will be undertaken on the Celsa site under Celsa's environmental permit (EPR/TP3636BH), and under Celsa's supervision, with Celsa having overarching control of the trial. Following completion of the trial, should Celsa wish to continue undertaking this operation, a permit variation will be required to incorporate the appropriate scheduled activity and operating techniques etc into the permit. As discussed, all outputs from the trial must be considered a waste, and consigned from site as such, to an appropriately permitted facility capable of accepting and handling the waste. Should Celsa wish to pursue to use of any future output as an aggregate, a full end of waste assessment will be required.

Trial agreement conditions

Conditions of commencing the trial Natural Resources Wales will allow the trial to commence with the following conditions:

- The treatment of the waste is carried out in accordance with the site-specific working plan submitted to Natural Resources Wales on 01/07/2024;
- Wastes to be treated are only those listed in the site-specific working plan sent to Natural Resources Wales on 01/07/2024;
- Completion of activities is in line with the criteria you have submitted in ‘CELSA EAF DUST TRIAL SUBMISSION 2024’ on 01/07/2024;
- You must notify Natural Resources Wales prior to commencement of the trial activity;
- The trial activity will last no longer than is necessary to establish the efficacy of the process and will in any event cease after 3 months from the date of commencement;
- Notwithstanding the time limit for the trial activity, the trial activity will in any event cease once 500 tonnes of EWC 10 02 07 has been treated;
- You must notify Natural Resources Wales upon cessation of the trial activity;
- Test data and results are provided to Natural Resources Wales at the conclusion of the trial where that is required to show that the completion criteria have been met.
- All outputs from the trial must be consigned as waste to an appropriate facility that is able to accept and handle the waste, as confirmed in the email received on 25/07/2024;
- In the event the trial gives rise to pollution or a negative environmental impact, the trial must be immediately stopped, and Natural Resources Wales notified.

	Information	Justification ?
1	Details explaining the proposed operation (including waste types and quantities), purpose and intended outcome of the trial. Details of on-site operation/activity including quantities of waste to be stored and processed, and the method of storage and processing. Intended environmental or commercial benefits, waste inputs and outputs – include details of any residual waste not recovered more efficiently. Any amendments needed to EMS and risk assessment.	Detailed in the Trial submission document

2	Is this procedure or process that you're requesting unique? Have you explored the uniqueness and whether there are existing methods capable of being used to achieve the objective – not just in the UK?	Yes, this is a unique approach for this waste stream
3	Actions that will be taken following completion of the trial, e.g. what permit will be needed for the proposed activity, will an application for a permit be made, removal of wastes/infrastructure, etc. The completion criteria should be clearly explained.	Explained in the CAR form
4	Period of trial – normally the activity should not exceed six months. You will have to justify any longer period.	Limited in the CAR form to 3 months
5	Whether a market already exists for the output you are proposing and, if so, how the trial will affect that market.	The two fractions the low zinc and the high zinc fractions already have markets that these wastes can be returned to which will improve the circular economy for these waste streams and it will not affect these existing markets.
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.