

Compliance Assessment Report

Report ID:
CAR_NRW0033635

This form will report compliance with your permit as determined by an NRW officer

Site	Tremorfa Melt Shop		Permit Ref	TP3639BH	
Operator/Permit holder	Celsa Manufacturing UK Ltd				
Regime	Installations				
Date of assessment	04/07/2018	Time in	10:30	Out	16:00
Assessment type	Audit				
Parts of the permit assessed	All				
Lead officer's name	Richards, Gareth (Rivers House)				
Accompanied by					
Recipient's name/position	Richard Lewis/ Environment Manager	Date issued	18/07/2018		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

Permit conditions and compliance summary	CCS Category	Condition(s) breached
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KEY: See Section 5 for breach categories, suspended scores will be indicated as such.

A = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,

O = Ongoing non-compliance, not scored.

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
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If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

Celsa Meltshop Inspection Report

An audit was carried out at the Celsa Meltshop on Wednesday 4th July 2018. Weather conditions at the time of the audit were initially dry with a light breeze, rain started to fall from 1300h onwards. The Operator was provided with an agenda prior to the audit. Richard Lewis (RL) was present for the duration of the audit, other Celsa personnel were involved as appropriate.

Review of previous CAR actions

CAR_NRW0033370; R(1) The recommendation had been adopted.

A(1) No changes to existing disposal routes were planned. **Complete.**

A(2) Water bowsers continue in use to avoid fugitive dust releases. **Complete.**

A(3) Celsa had submitted an Outline Planning application. **Complete.**

CAR_NRW0032291; Celsa had submitted a detailed response for A(1) to A(9) on 31st October 2017. It was noted that in respect of A(9) the plans remained parked, pending the availability of funding.

General update on Meltshop

The Meltshop Manager provided a general update on the business. The production target for 2018 was confirmed as 1Mt, in order to achieve this approx. 1.2Mt of scrap would need to be melted. This would be challenging especially if there are any unplanned operational issues that affect production. Detailed accounts of the work that had been completed during the summer shut down and the investigations that had been completed following the dedusting plant failure were provided. These are detailed under the respective sections below. Overall the Meltshop is currently considered to be in a good place and there has been significant investment over the past year. It was well understood that some plant components had met their expected lifetime and that considerable investment was necessary to try any ensure problem free operation. Where possible plant components were being replaced with higher quality materials that would have good durability under the rigorous demands in an EAF.

NRW had granted permission (CAR_NRW0033505) for lancing external to the Lancing Booth to be carried out. Celsa advised that further sessions were planned for 9-12th July and 17th July. The work would then be complete.

Celsa had completed work on the EFSOP which was now operational and providing valuable data. It was

intended that a project would be commenced to understand how the data could be used more effectively. This would involve remote monitoring by a company in Canada.

Summary of work completed during summer shutdown relevant to environmental performance

Celsa had completed a large amount of maintenance work during the summer shut down (7th to 20th May 2018). A lot of this was directly related to improving the environmental performance, specific aspects included:

- Replacing building cladding on north facing wall at high level
- T1 and T2 sections of water cooled furnace ducting replaced
- Four expansion joints replaced on furnace primary ducting
- New impellers on extraction fans
- Bishop's Hat replaced
- Internal cleaning of duct work to improve gas flow
- 12m section of external ducting and cross duct replaced
- Survey of all remaining ductwork
- Survey of canopy and damper operation

It was a significant achievement to complete all this work and it will have a significant beneficial affect upon the environmental performance of the plant, especially minimisation of fugitive dust and improved extraction.

At the current time there was no indication of existing leaks that necessitated repair.

The only remaining item of work was the installation of atomiser jets for the quench tower. These would improve the efficiency of the water cooling and the plan was to install them during the maintenance day this week.

Other aspects that are being investigated include the installation of variable speed drives on the dedusting plant. Engineering are assessing this as an option, primarily to effect energy savings.

A new water cooling system has also been installed. This is of modular design, has improved performance and is more efficient than the previous system.

Investigation following dedusting plant failure

Celsa provided a detailed description of the sequence of events leading up to the dedusting plant failure on 9th June 2018 and the subsequent response. Investigation of the incident was still in progress but based on the description provided significant factors were considered to be; recent servicing of the extraction system (hence it was operating very efficiently) had led to furnace off gases and burning particles being pulled through to the dedusting plant leading to bag damage, overheating of the furnace as the previous charge was primarily low density metal, and excessive combustible material in the basket charge leading to a larger than normal fireball.

Celsa were requested to provide a copy of the investigation report as soon as possible. **Action (1): Celsa.** NRW indicated that they would provide a response to the incident on a separate CAR form. **Action (2): NRW.**

Progress with Fume Control System Improvements

Celsa provided an interim report to NRW, received 4th June 2018. This detailed progress with the agreed Action Plan with the objective of re-establishing compliance with the permit CO limits. Good progress has been made and overall the programme was on track. There was a dedicated team in place working on the plan and they meet on a weekly basis. There are also quarterly progress meetings with management. The view is that the changes made to date have had a beneficial impact on the CO levels. While exceedances were still being recorded they tended to be of shorter duration and lower CO levels. Celsa are due to

submit a further report to NRW by 1st September 2018. **Action (3) Celsa.**

Outcome of investigation following incident involving wet lime

A copy of the incident investigation, following the problems caused by the addition of a wet batch of lime to the EAF, was provided by Celsa. The report noted that; there had been no explicit instruction that wet lime should not be used for furnace additions; water had entered the lime material handling area, a sump pump had failed; there was no capability to measure the moisture content of the lime. While the incident had not reportedly led to any environmental impact, clearly appropriate controls needed to be put in place to avoid a repeat occurrence. This included the need for a Risk Assessment for bagging of recovered lime.

Progress with prospective plans for scrap sorting

Celsa had previously advised that they were considering development options for the previous SIMS site that in part overlaps with the Celsa Meltshop installation boundary. In order to progress this the best approach is likely to be an application for variation/consolidation. Celsa need to finalise the precise business requirements and then discuss these with NRW. **Action (4): Celsa.** An application for outline planning permission had been submitted to Cardiff City Council.

Site Inspection

Prior to the Site Inspection in view that a recent dust complaint had been received the activities were viewed from Tidefields Road. At that time there was a light easterly wind and it was dry. The wind sock was in good condition. The exact nature of the activity on the Mineral Site could not be determined but it was causing a slight fugitive release. There also appeared to be a slight fugitive release from the Meltshop roof just to the left of the caster vent. However, the source could not be identified. The location of the dust complaint on Seawall Road was viewed. There was no evidence of significant dust deposition on buildings or cars in the area.

Several areas of the site were inspected to assess the current operational standards. At the time of the inspection there was light rain. The slag bay area was in use and digging out from the slag pit was just finishing. It was noted that there was some fugitive dust being released from the hot slag yet the water sprays were not in use. Following further enquiry, it was noted that the practise was in accordance with the operational procedure. Water sprays are not used at this stage of the process due to the risk of reaction with hot slag. The sprays are used when the cooled slag is loaded into trucks for transfer to the Mineral Site. The new panelling installed at high level on the side of the Meltshop was clearly visible – this emphasised the dust that had accumulated on the original panels.

The furnace control room was visited. A melt was in mid cycle. EFSOP data was being accumulated but it was not clear how this was being used to the benefit of the process. The dust level in the building appeared to be reasonable, this was attributable to the maintenance work that had been completed on the extraction system. It was noted that control room staff still do not have access to real time monitoring data (CO and particulates). This had been discussed on previous occasions and Celsa had stated there was an intention to install a display in the control room.

The scrap bay area was busy with new scrap deliveries in progress, scrap sifting and basket loading. There were multiple grabs in use including the overhead grab. There was a lot of residual scrap, particularly tin cans, scattered around the whole area. The process followed for scrap receipt had been described in detail by the scrap yard manager (see comment below). This was comprehensive and designed to identify any items that would be dangerous to add to the furnace and/or the presence of unacceptable contamination levels. Overall there was no evidence of significant fugitive dust release from the activities.

Near the Dedusting plant there was a large quantity of bulk bags containing EAF dust. While these appeared in a good condition, were sealed, and cumulatively were unlikely to exceed the permitted

maximum on-site storage of 1000t, they hampered access to the Dedusting plant. Celsa were not aware that Cargo Services had recently been given permission to externally store some bagged EAF dust pending shipment, due to their current restricted warehouse capacity. Also they were expected to submit a variation application for external storage of EAF dust for the full period pending shipment. On this basis Cargo Services should be able to accept the bags. **Action (5): NRW and Celsa to liaise with Cargo Services.** The Dedusting plant raised platform, accessible by a fixed staircase that reached the point of entry to the inside of the Dedusting plant, was used as a viewing point to look across the Mineral Site and adjacent Meltshop. From this point the work that had been completed on the extraction system ductwork was highlighted, especially the duct sections that had been replaced. The large inventory of slag on site was also evident. The new cooling plant was evident adjacent to the old cooling towers. This would lead to energy savings and efficiency improvements.

Description of the process for scrap receipt at Celsa

Celsa were requested to detail the procedures that were in place for the receipt of scrap, with emphasis upon the measures in place for checking scrap quality. This was provided by the Scrap Bay Manager. Scrap deliveries are accepted within the period 0600-1800h. Each lorry passes over the weigh bridge and a load number is assigned. Working within the scrap bay are 'Inspectors' that have a PDA. Lorry drivers (who must remain within the cab) are instructed to tip either within the scrap bay (preferred) or other area as appropriate. A grab is used to 'clean' the scrap, while the inspector looks on. Any items that would cause issues e.g. sealed vessels, gas cylinders are removed. Inspectors can downgrade the scrap as appropriate and whole loads can be rejected. Photographs are taken. At this stage an assessment is also made of the proportion of dirt/non-ferrous material within the load. Once the load is accepted the lorry driver is permitted to leave. Individual suppliers can be fined when loads are deemed not to meet the required standard e.g. contain excessive non-ferrous material.

Complaints log

The only addition to the Complaints log since the previous inspections was the dust complaint from Seawall Road. Celsa had visited the complainant the previous day. The issue could not be confirmed as definitely related to fugitive emissions from the Meltshop. NRW had also spoken to the complainant and encourage them to report any repeat occurrences promptly and to use the NRW Incident Hotline number.

Review of Celsa's internal procedures

Celsa provided copies of internal procedures following the audit. These have been reviewed and comments are detailed below:

CP/B032 Emergency Operating Procedure v Oct 2016. This is orientated towards Health and Safety issues rather than process operational decisions. Individual roles and responsibilities are well defined.

Documented Emergency Action Plans also exist for specific incident types, these were not reviewed.

ECP34 Emergency Action Plans v Oct 2016. Flow charts exist for a good range of incident types. Not all of these make explicit reference of the likely need to submit a Sch 5 Notification if there is a permit non-compliance. This requirement applies for any permit condition. Consideration should be given to stating this under the '3.0 General Requirement' section. In EAP9 Radiation Action Plan an incorrect number is quoted for NRW. The correct number is 03000 653000.

CP/B033 EHS Communication (Internal and External) v June 2017. The procedure relates to all communications, not just those in response to emergency situations. Under the Environmental Permitting Regulations there is a deemed reporting requirement, such that where an Operator becomes aware of any issues that result in a permit non-compliance there is a need for NRW to be advised. This is detailed under Section 4.3 Notifications, in the permit. It would be appropriate under the External Communications

section that such reporting requirements are explicit.

Scrap Handling SOP v 23 Nov 2016. The described procedure is comprehensive and agrees with the verbal description provided by the Scrap Bay Manager (see above).

Management of Change v June 2018. Comprehensive document that details the process and procedures for change management together with the requirements for accurate documentation and sign off. This is an important process that needs to be followed rigorously to minimise the potential implications of unintended consequences from changes to the process. Celsa should ensure that the records are always accurate and available for scrutiny by NRW if appropriate as part of any incident investigation.

AOBs

Off site monitoring

Celsa had agreed to set up a further Topas monitor at Baden Powell School. This is beyond the requirement of the permit and it was noted by NRW that it would not be added to the permit monitoring requirements. However, in the event of failure of the Willows High School monitor the data would be accepted instead.

Four yearly reviews

Celsa were reminded that the four-yearly reviews for waste minimisation and water efficiency were overdue for the Section Mill and Rod and Bar Mill permits. These should be provided to NRW as soon as possible. **Action (6): Celsa.**

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0033635**

This form will report compliance with your permit as determined by an NRW officer

Site	Tremorfa Melt Shop	Permit Ref	TP3639BH
Operator/Permit holder	Celsa Manufacturing UK Ltd	Date	04/07/2018

Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	CCS Category	Action required/advised	Due Date
See Section 1 above			

Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

See our Enforcement and Civil Sanctions guidance for further information

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance that could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

Section 6 – General information

Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. 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 its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to enquiries@naturalresourceswales.gov.uk. If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.