

	EPR Compliance Assessment Report	Report ID: TP3639BH/0244490			
This form will report compliance with your permit as determined by an NRW officer					
Site	Tremorfa Melt Shop EA/EPR/TP3639BH/V002		Permit Ref	TP3639BH	
Operator/ Permit holder	Celsa Manufacturing UK Ltd				
Date	22/07/2015		Time in	09:30	Out 14:00
What parts of the permit were assessed	Scrap bay and Mineral Site inspection, audit of dedusting plant, scrap screening operations and CEMS maintenance				
Assessment	Audit	EPR Activity:	Installation: X	Waste Op:	Water Discharge:
Recipient's name/position	Richard Lewis				
Officer's name	Gareth Richards		Date issued	27/07/2015	

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). 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

Condition(s) breached

a) Permitted activities	1. Specified by permit	A	
b) Infrastructure	1. Engineering for prevention & control of pollution	N	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	N	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	N	
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	1. Air	C3	3.1.1;
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	2. Noise	N	
	3. Dust/fibres/particulates	C3	3.2.1;
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	N	
	2. Records of activity, site diary, journal & events	A	
	3. Maintenance records	A	
	4. Reporting & notification	N	
h) Resource efficiency	1. Efficient use of raw materials	N	
	2. Energy	N	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk),
A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable, O = Ongoing non-compliance – not scored

Number of breaches recorded	2	Total compliance score (see section 5 for scoring scheme)	8
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If the Total No Breaches is greater than zero, then please see Section 3 for details of 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 (e.g. 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 suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

An audit was carried out at the Celsa Meltshop on 22nd July 2015. The Operator had been provided with an agenda prior to the audit.

A summary description of the restructuring within NRW's SE operational area was provided.

Celsa Business Update

Celsa were still having to operate in a market place that is severely affected by the importation of large quantities of lower quality material from China. In addition energy costs remained high compared with those experienced in other EU countries. On the plus side in recent years some of Celsa's competitors had ceased operation and there were also positive signs for the Spanish economy. It was expected that production would reach approx. 1 million tonnes this financial year. The EAF was also now operating as the best in the Celsa Group in respect of energy efficiency. Recent additional improvements had included an increase in tap to tap time to 51 minutes to reduce the energy intensity of the melting process which has a beneficial impact on overall electrical consumption. The scrap screening was making a big contribution to energy savings and reducing the quantity of slag produced. Trials of incinerated scrap had been carried out using material from various sources, however, this was not currently considered to be a viable feedstock. Hot charging was in regular use, 12 carriages were available for the transport of hot billets and during June 30000t of metal was hot charged.

A planned outage had recently been completed during which a section of water cooled ducting had been replaced on the furnace gas outlet line. This has solved the problem of recurrent CO exceedances (see further details below).

A copy of the most recent Celsa Organogram was provided. There would be a change in Meltshop Manager at the end of July.

Review of CAR actions

8/10/2014

- Mobile screener had not been relocated to old melt shop building due to practical reasons. As long as fugitive dust issues were controlled this was not an issue
- Report on polymer trials had been provide and the adoption of this approved by NRW on a separate CAR form
- CO exceedances had ceased following work during recent outage
- Off site particulate monitoring data was being reported to NRW.

20/02/2015

- Scrap screening discard was now being removed from site
- Condition of Tide Fields Road fence line was reasonable (as confirmed by visual inspection).

Site Inspection

The site inspection was hosted by Richard Lewis and other staff with responsibility for the specific areas of interest (dedusting plant and scrap bay). The weather at the time was cloudy, dry with moderate breeze. There had been light rainfall earlier in the day.

The dedusting plant was inspected. While approaching the top of the access steps there was a very good view of activities on the Mineral Site approx. 150m distance. The Lancing Booth was in use and there was a large amount of fume being released through the open doorway and other parts of the plant. The release from the stack was also quite intense suggesting that the abatement system was not operating efficiently. The permit requires that releases from the stack are compliant with Ringlemann shade 1, in my opinion the stack releases were darker than shade 1 and the fugitive releases were unacceptable. The lancing operation and same level of fume release was ongoing 10 minutes later when the steps were descended.

Cat 3 non-compliance recorded with action points detailed on p5.

Maintenance work was in progress on one of the compartments in the dedusting plant. The lids for individual sections in the compartment were being lifted to check for evidence of bag leakage. This was done by removing internal pipework and looking for dust deposition on the underside. In the event of dust being present the bag below the relevant part of the pipe is replaced. This action is then recorded on the spreadsheet that details the age of each bag as a colour code and the date of replacement.

The scrap bay was well stocked and there was a queue of vehicles waiting to delivery further scrap. Merchant scrap is now subject to a crude sifting process to remove non-ferrous material prior to acceptance as a feedstock. This involves grabbers picking up then dropping the scrap. The poorer quality material tends to fall to the bottom, this is then recovered and used in the scrap screeners. There are currently two mobile screeners and one permanent screener in use. The general area was being reasonably managed, bowzers are used to minimise fugitive dust and during dry conditions the scrap piles are dowsed. No significant fugitive dust was being generated by the activities although there was a slight odour similar to a general municipal waste odour in the air. This was not considered strong enough to have any off site impact. There was a pile of the discard material from the screening process in the scrap bay area, this is transferred to the Mineral Site for further processing.

The Mineral site was visited at 1320h to view the discard screening activities. Weather conditions were dry, with sunny periods and a strong breeze. Lancing Booth was not in use during the inspection. There was a large inventory of discard that was being sorted in to five different streams. This operation was being carried out by a sub-contractor, Triple R. The general area was not being managed to an appropriate standard. The access ways between the separate piles were covered with a large amount of dust, there was no evidence of any water dowsing to minimise fugitive dust despite a bowser operating on the other part of the Mineral Site. It was suggested that the Harsco operations may not include the provision of water dowsing to Triple R. The wind was lifting large amounts of dust to such an extent that an off site impact was possible. The separation between the individual piles of screened material was poor and it was advised that the inventories should be reduced to minimise potential for fugitive releases. Due to the large amount of wind generated dust a Cat 3 non-compliance was recorded, actions points are detailed on p5 of this report.

While in the vicinity of the screening operation it was noted at 1328h that there was a significant fume release from the Meltshop building at a high level, behind the point where the main duct leaves the building. It appeared that a high level access door had been left open and significant fume was leaving the building at a particular point in the melt cycle. Richard Lewis telephoned the plant to advise this problem and it was noted that the door would be shut as soon as possible. **Action (1) Celsa:** Provide evidence of the work procedures for anybody who uses this high level door and consider the addition of an automatic closure mechanism to avoid the possibility that it is left open. Report back to NRW by 31st August 2015. At one point for a short period (~5-10 seconds) in addition to the fume from the open door there was an intense release of dust which seemed to originate from a point at the end of the short vertical ductwork before it diverges to a sharp inverted 'V'. This appeared to be separate from the release through the open door and may be indicative of a problem with the duct work. **Action (2) Celsa:** Complete an inspection of the integrity of the ductwork between the point where it exits the Meltshop and the inverted 'V' to confirm integrity and report finding to NRW by 31st August 2015.

General topics

Permit – comments on draft permit had been provided to NRW. Following a recent UK Steel meeting it was proposed that it may be possible to remove the sewer limits. Celsa were requested to provide information on their discharge consent limits, if these reflected the BAT limits then the sewer limits should be able to be removed which would reduce the sampling, monitoring and reporting requirements for the sewer release points. **Action (3) Celsa.**

Progress with IC1- Celsa had been working with a contractor to acquire the necessary information. They were on track to provide an update by the due date of 31st July 2015. It was also noted that there is the prospect of using lids on the caster bay ladles that will reduce lift off and improve energy efficiency.

Polymer addition – this is now being used on a routine basis, approx. 200kg are added to the furnace each melt replacing coal. The most recent dioxin result was provided (0.019ng/m3), this is well within the revised limit of 0.1ng/m3 that will come into force during 2016.

Compliance with CO limits – work completed during the recent outage was described. This had involved the replacement of furnace off gas ducting that had become damaged as a result of normal operation at a cost of £500 000. It was noted that the ducting was designed with an operational life of typically 3 years however, Celsa had managed to extend this to ~5 years. The ducting is water cooled, however, over time water leaks occur internally and this has the effect of reducing the efficiency of CO oxidation (there is also comment in the annual inspection report for the dedusting plant that 'the excessive presence of humidity in the primary that increase the chemical erosion in all structures'. This may indicate that a delay in replacing failing water cooled duct work is contributing to additional infrastructure problems). For at least 18 months prior to the outage Celsa had provided Schedule 5 Notifications to NRW due to regular CO exceedances. The stated cause of these was a wide range of process related issues e.g. poor scrap quality, trimming delays, caster delays, high carbon in melt, crane breakdown. It is now apparent that Celsa were aware that the root cause of CO exceedances was most likely the poor condition of the ductwork, yet at no time was this stated on the Schedule 5 Notifications. In addition neither was there any reference to the impact of the ducting condition in the detailed report on CO breaches entitled 'CO Breach Report Q1 2015' dated 20th March 2015, that was produced in response to NRW's concerns about the repeated exceedances as requested on CAR form TP3639BH/022822.

In view of the limited environmental impact of the CO breaches this issue will not be pursued any further, however, Celsa are strongly advised to provide all known relevant information to NRW when concerns are raised in respect of plant performance. If a pattern of CO breaches reoccurs following exceedance of the normal lifetime of the new ductwork we will expect a more timely solution to be effected so permit compliance is not compromised.

Complaint log – The Meltshop had not received any recent complaints from members of the public. Celsa continue to be involved in community engagement work primarily in association with Willows High School

Audit topics

CEMS maintenance – a copy of the CEMS service contract was provided. This is an annual contract that commenced April 2015. Four service/calibration visits are scheduled during the year. Following the recent issues concerning the CEMS software Celsa had now taken out a further separate contract with a different provider for two annual visits. Evidence of this was provided.

Monitoring data records for specific periods of interest were examined. It was confirmed that the number of hourly exceedances reported to NRW for individual days was in agreement with the monitoring records (accounting for the 95%ile that means one hour period in each day above the limit need not be reported).

Celsa were unable to provide the screenshots for monitoring data recorded on specific days. **Action (4) Celsa:** Provide screenshots of CEMS monitoring data showing CO values for 20th April 2015.

Dedusting plant maintenance – the maintenance programme for the dedusting plant was described. Copies of the annual internal inspection and quarterly inspection reports were provided. Maintenance requirements identified in these reports are

transferred to the normal maintenance schedules. Every shift there is a mechanical and electrical inspection that follows a proforma check sheet. These are included on the daily work order – evidence of this was provided.

For all the bags in the dedusting plant there is a record of the last replacement date and this is ranked using a red/amber/green system (Red >850 days, Amber 550 – 850 days, Green <550 days). The existing records indicated that ~20% of the bags are ranked red, the proportion in individual compartments varies as some compartments are subject to a higher dust loading. Some bags were approaching an age significantly above 850 days but they are only replaced when there is evidence of failure during the routine check of all 'red' bags (as witnessed during the site inspection). A sample of failed bags are sent for 'post mortem' to determine the exact cause of failure. Many failures are due to small burns.

Overall the maintenance programme in place for the dedusting plant appeared comprehensive and rigorous. In recent years there have not been any issues associated with particulate releases and the plant is operating well within the limits, however, these will half in 2016. It is necessary to ensure the dedusting plant is maintained in a good condition as it is a critical abatement system. One point of concern (as mentioned previously) is that the inspection reports make reference to the impact of high humidity and its contribution to increased chemical erosion.

Scrap screening and waste disposal – while this process is proving very effective in reducing furnace energy consumption NRW has concerns about the management control of the subsequent discard separation that produces five fractions for further recovery or disposal. Information was provided on the description of these five fractions, their waste coding and the quantities that had been removed from the installation. This amounted to ~13 000t in total since the screening process commenced, no fractions had been removed during 2014 based on PI data. Overall the fate of the discard fractions, the overall processing rate and the management of the process was unclear and in addition to the actions specified on p5 the following actions need to be completed.

Action (5) Celsa: Provide details on the fate of the separated fractions produced from the scrap screening discard, by 31st August 2015. This should detail the disposal/recovery route of the fractions.

It had previously been advised that Celsa had changed the site Waste Management contractor. NRW requested confirmation that the change did not compromise the availability of site records in respect of the waste management activities. It was noted that the permit condition 4.1.1 requires Celsa to retain all records required to be made by the permit to be retained for at least 6 years. Celsa need to ensure that any changes in contractors does not lead to the loss of relevant records. **Action (6)**

Celsa: Confirm with NRW that contractor change does not impact record availability by 31st August 2015.

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Operator/ Permit	Celsa Manufacturing UK Ltd	Date	22/07/2015

Section 3- Enforcement Response	Only one of the boxes below should be ticked
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.	
Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.	
In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.	X
We will now consider what enforcement action is appropriate and notify you, referencing this form.	

Section 4- Action(s)			
Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.			
Criteria Ref.	CCS Category	Action Required/Advised	Due Date
See Section 1 above			
E1	C3	Provide a copy of the written operating procedures, maintenance programme and maintenance records for the Lancing Booth dust abatement system	31st August 2015
F3	C3	Celsa must provide a copy of a written management plan for the discard screening activity that ensures sufficient measures are in place to minimise fugitive dust	31st August 2015

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 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 which 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 fulfill 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 (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 and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information 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 twenty 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 the officer's line managers. 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.