

15th April 2016

Dr Gareth Richards
Pollution Prevention and Control Team
Natural Resources Wales
Rivers House
St Mellons Business Park
St Mellons
CARDIFF
CF3 0EY

Our Ref: W:\Environmental\IPPC\Environment Agency Reporting\Permit Reporting\New Melt Shop\Quarterly\2016\CO Breach Report\CO Breach Report April 2016.doc

Dear Dr Richards,

RE: Tremorfa Melt Shop EPR Permit TP3639BH CO Breach Report – Q1 2016

In accordance with the Tremorfa Melt Shop Environmental (EPR) Permit TP3639BH, please find below our formal response to Compliance Assessment Report (CAR) TP3639BH/NRW0000125. Under Section 4 of the CAR, an action was raised and it stated: "Provide justification to NRW of the proposed schedule for effecting repairs such that normal emission performance is reinstated."

1.0 Introduction

Tremorfa Melt Shop is regulated under section 12 of the Environmental Permitting (England and Wales) Regulations 2010 (as amended) to operate an installation which carries out activities as defined within Section 2.1 A(1)(b) '*Producing, melting or refining iron or steel or any ferrous alloy, including continuous casting*'. As such the company is permitted in accordance to the terms and conditions of EPR Permit TP3639BH.

Under Schedule 3 – emissions and monitoring of the permit the company is required to continuously monitor the carbon monoxide emissions from point source stack A1 against specified limits, as stated in Table S3.1. Any exceedances of the limit stated in Schedule 3 shall be notified to Natural Resources Wales as required under section 4.3 (Notifications) of the permit.

2.0 Background

In March 2016, continuous CO breaches were recorded prompting an investigation to identify the root cause. It was discovered that water leaks in the T1 and T2 ducting within the Quench Tower are preventing complete combustion, resulting in higher than normal off gas emissions. This increases the daily background CO levels which means when a process

spike arises (e.g. trim delay, carbon/phosphate refinement and roof locking delays), a breach occurs more frequently. Under normal operation, this background level is much lower and any process spike does not exceed the limit.

Following the results of the investigation, the Engineering and Production Managers began implementing control measures as detailed below.

3.0 Schedule of Control Measure Implementation

No.	Control Measure	Date	Working Time Duration
1	Discussion and investigation into daily CO breaches to ensure all possible control measures are in place	Daily (am)	-
2	Construct suitable access, deploy relevant personnel and safety measures to repair and weld ducting panels	Weekly during PPM	8-12 hours
3	Evaluating alternative access equipment to increase time available in which to repair ducting	07/04/2016	-
4	Significant welding and repairs during unplanned stoppage	08/04/2016	48 hours
5	Complete T1 & T2 ducting replacement	July (tbc)	5 – 10 Days

During daily production meetings with all key personnel at the Melt Shop, emissions to air breaches are discussed and tracked on the Melt Shop Key Performance Indicator (KPI) scorecard. These are then investigated by the Shift Manager and reported to the Environment Department at the earliest opportunity.

4.0 Justification of Control Measure Schedule

8-12 hour planned preventative maintenance shutdowns are undertaken weekly for routine inspections and maintenance activity. During these times, essential ducting welding and repairs are completed. Ingress and egress to the area is restricted and can only be accessed by erecting temporary scaffolding when the plant is not in operation. The use of alternative access equipment was investigated, such as Mobile Elevating Work Platforms (MEWPs), but this was found to be unsuccessful.

At any other possible opportunity, such as unplanned stoppages, the essential welding will take precedence on the maintenance plan. This will manage the effectiveness of the ducting prior to replacement. This was exemplified on 8th and 9th of April 2016 in which ducting repairs took priority over all other non-safety critical maintenance work.

The complete ducting replacement is to be completed in July during the scheduled annual shutdown. This was originally planned for mid May but due to the current difficult market

place, which has been well publicised showing the challenges faced by the UK Steel Industry, continued maximum production output is deemed integral for our survival.

This major work is expected to take between 5-10 days in total, including obtaining necessary equipment, appointing specialised contractors, removal of existing ducting, constructing suitable access, positioning and installation of new ducting. Therefore, significant planning time and financial investment is required. It is not feasible to complete the ducting replacement prior to the annual shutdown as this would mean a second considerable stop with the additional major maintenance work (not associated with ducting replacement) still being required to be undertaken in July. This would result in a loss of production for a total of 3 weeks which would incur extensive losses to the business, both in maintenance investment and loss of production, making the circumstances financially unviable. It could potentially be catastrophic for not only CELSA Manufacturing but also for our downstream fabricators.

5.0 Conclusions

CELSA are committed to ensure CO levels return below the permit limit but are constrained by the aforementioned current challenges in the UK steel market.

The root cause has been determined and the necessary corrective/preventative actions identified to ensure the current ducting is maintained prior to it's replacement in July.

We trust that this fulfils the requirements for the action identified in CAR NRW0000125 but if you require any further information or questions, please do not hesitate to contact me.

Yours sincerely,



Richard Lewis
Environmental Manager