
Permit Number:	EPR/EP3830GH
Company:	Liberty Steel Newport Limited
Permit Condition:	4.2.2 (a) A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales. The report shall include as a minimum: - A review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive view on data.

Overview

Of the main activities provided for within the Company's Environmental Permit, only the Hot Strip Mill (Activity RefA1) and its associated Reheating Furnace (Activity RefA2) were operated during the reporting period 2021.

Whilst capacity remained unchanged, activity levels were increased upon as the effects of the COVID19 pandemic on both the business and its supply chain were reduced. This provided for an increase in production tonnages, climbing from 98,570 mt's in 2020 to 133,804 mt's achieved for the year 2021.

The main activities were operated on a two-shift basis providing for two continuous runs of 96 hours/week for each four-week period. This step change in the operational pattern was implemented with a view to providing appropriate time and resources to both address issues of plant availability and provide for planned implementation periods for 'cap ex' initiatives. These initiatives in the main focused on opportunities to reduce energy input and included;

i.ABB

Reheat furnace control upgrade (optimise energy input and minimise scaling)

- ii. Energy Drive
- | | | | |
|---|--|------------------|--------|
| - | Cooling Tower Fans VSD | (optimise input) | energy |
| - | Cooling tower pumps VSD's x 2 | (optimise input) | energy |
| - | Reheat furnace injection air fan VSD | (optimise input) | energy |
| - | Reheat furnace injection air fan — auxiliary VSD | (optimise input) | energy |

- Reheat furnace hydraulic pumps VSD's x 2 (optimise energy input)

Employee headcount has been increased upon from 130 persons (January 21) to 134 persons (January 2022) this in the main has increased the number of appropriately trained engineering personnel required to assist in ongoing mill upgrades.

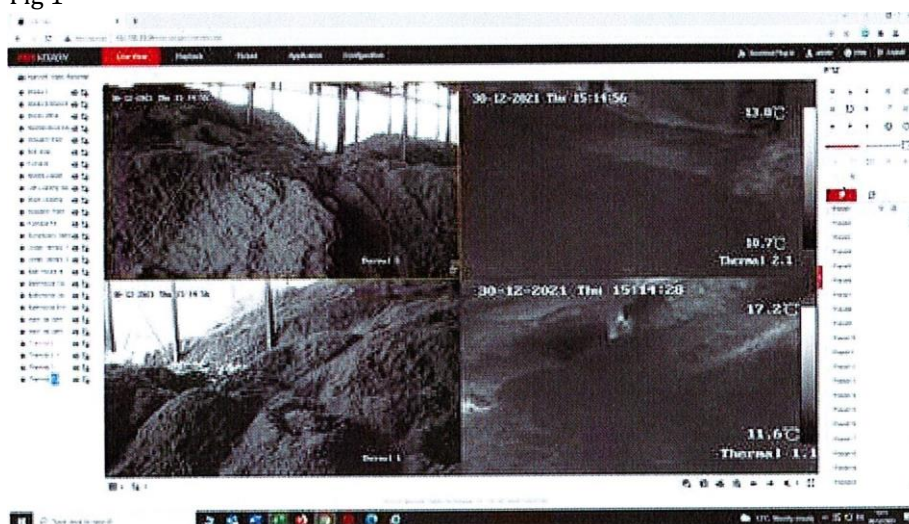
Agreement was reached for the third party Broad Environmental to trade in RDF to the conditions provided for within the site's environmental permit (Activity Ref AR14) the activity commencing in July 2019. Acceptance was ceased in July 2020 due to contractual breaches resulting in the business cancelling this contract and entering into litigation with a view to recovering monies in order to transfer the current stock of some 2,600 mt's to an appropriate waste facility.

Only 121mt's of RDF was removed during the reporting year with no further waste being transferred from March 2021.

The litigation process has resulted in Broad Environmental entering into liquidation with effect from 3rd February 2022. At the time of writing this report the business is advised that the appointed liquidator will contact the business and advise further on funds available to assist with disposal costs. The business is committed to share information with Natural Resources Wales once this dialogue has taken place

To ensure safe storage in the interim, the business has now taken on additional resources and invested in thermal imaging cameras to guarantee safe storage until this point. This is shown in Fig 1 below, the footage being viewed directly in the business's security lodge (which is manned 24/7) or off site by appropriately authorised personnel.

Fig 1



Other activities relating to the importing and storage of wastes and the recycling and reclamation of metals and metal compounds (Activity Ref AR15) have not been affected during the reporting year and there are no plans to introduce these activities in the short term

Of the aspects identified above, those likely to have an adverse impact on the environment remain;

/The Process

The purpose of the process is to convert steel slabs into Hot Rolled Coils via a 300mt/hr natural gas fired reheat furnace and six stand finishing mill. A review of slab procurement has resulted in contracts being placed with British Steel Scunthorpe. The slabs are delivered to site via the network rail infrastructure and so the need to import via sea from locations such as Russia, Turkey, Brazil etc has reduced significantly and in turn this has contributed in the reduction of the businesses carbon footprint.

Of the 48 production weeks available the activity operated for 20 weeks an increase on 5 operational weeks on the previous year. Given this current significant 'non-operational' period of 28 weeks it remains that the potential for any adverse impact on the environment, particularly through the release of fugitive emissions, has been greatly reduced.

Investments in energy reduction projects peaked at over £1.2m during the reporting year and were targeted in particular to the Reheat Furnace/Natural Gas input and the installation of VSD's on appropriate motors as outlined previously.

The environmental benefits of these initiatives are reflected in annual energy consumption data which has delivered the following;

Natural Gas 789 kWh/mt (910kWh/mt for the year 2020)

Electricity 130kWh/mt (163 kWh/mt for the year 2020)

Liberty Steel Newport Ltd (LSN) remains committed to monitoring environmental performance by recording a number of Key Performance Indicators and comparing these with previous years. (See Appendix 1) Additionally LSN has, as part of its Environmental Management System, identified certain parameters with a view to targeting reductions of 10% on the previous year (See Appendix 2)

Having recovered from a temporary cessation in activities since production resumed in October 2015 the business continues affected by external issues such as BREXIT, the global COVID19 pandemic and increases in energy prices due to global instability. Each has impacted to a degree on process utilisation and so the benefits of comparison against previous year data is again limited. That said it remains appropriate to continue this comparison as a useful method of benchmarking going forward.

//Raw Materials Handling

Raw materials are limited in the main to steel slabs which are transported via rail directly to the plant. Whilst the opportunity to import directly across LSN's private berth on the R Usk remains, it is envisaged that this will be a fallback requirement which will significantly reduce the requirement to operate diesel fuelled mobile plant. The Port Facility remains in a state of readiness to operate, having secured approval to operate under post BREXIT conditions and will do so in accordance with LSN's Port Facility Waste Management Plan. This plan is approved by the Maritime & Coastguard Agency and makes provision for each vessel visiting the berth to advise upon wastes likely to be disposed and in turn feedback on the suitability of facilities provided.

Additionally all dunnage used in the packaging of delivered product is appropriately debarked, heat treated, and marked prior to receipt in compliance with ISPM15 standards. All stored dunnage continues to be spot checked by Forestry Commission representatives on an ad hoc basis. There have been no issues arising during the reporting year.

The potential for fugitive emissions arising in this area is limited to activities where mobile plant is utilised. LSN has now rationalised mobile plant used on site which continues to be subject to a maintenance programme outsourced to a third party.

iii. Reheat Furnace

Stack monitoring continues to be undertaken at appropriate quarterly intervals (Permit Condition S4.1). Processes relating to emission points A1 and A2 have remained offline during the reporting year and hence no monitoring has been undertaken. Therefore, all monitoring of emissions to air relate to emission point A5. Permit requirements remain;

Parameter	Reporting Period	Limit
Oxides of Nitrogen	3 Monthly	400 mg/m ³

Due to a premature cessation in production in Q4 2021 it was not possible to carry out quarterly monitoring exercise however LSN can report that the maximum measurements obtained during all other quarterly monitoring regimes remain below 200 mg/m³ and well within reporting parameters (Max 400 mg/m³) A quarterly trend of the previous five reporting periods is provided in graphical form (Appendix 3) illustrating this continued improvement in performance. Performance for the year 2021 produced the following result;

Oxides of Nitrogen 0.222 kg/mt (0.301 kg/mt for the year 2020)

For the purpose of benchmarking releases to air, monitoring has been extended to include metals deemed to be appropriate to the current process. These are identified as KPI's within the Company's EMS and are compared annually with those of the previous year (Appendix 1) with results against targeted reductions being favourable for the reporting period.

iv. Roughing Mill/ and Finishing Mill/s

VOC's may be generated as a result of transient hydraulic and lubricating oils lost to process water during scale removal (Activity Ref All) The main area presenting a risk of oils entering the closed water system is at the 12 back up roll oil seals. A robust maintenance programme is in operation to reduce the risk of seal failure and in turn contamination of process water. A programme for the replacement of oil carrying pipework for the six finishing mill stands was completed during the reporting year and at the same time the opportunity was also taken to replace process water pipework carrying water for direct cooling to each stand. Where oil is lost to these closed water systems, this is recovered and recycled for further use. The effectiveness of such a programme can be demonstrated in the oil usage levels recorded annually which again are targeted in the company's EMS (Appendix 2)

v. Cooling Section and Cooling System,

During normal operations cooling water is retained in two closed water systems each of 60,000m³ which can be operated in separation or in tandem. Losses from these systems are limited to evaporation and depending on seasonal variations can be as high as 5,000m³ per operational day

Recognising the need to use resources efficiently, LSN remains committed to establishing a reliable source of grey water. Arrangements with 'Dwr Cymru' to receive grey water directly from 'Nash' Water Treatment Complex remain in place. We should however advise that during the reporting year whilst cooling water consumption reduced overall by some 20,000m³ partly as an effect of replacing pipework, we have been unable to use grey water due to water-cooled compressor configurations. We are pleased to advise we have now replaced these water-cooled compressors with high efficiency air cooled compressors which will further reduce water consumption. Going forward we would expect mains water to be used primarily for welfare purposes (Appendix 1)

LSN continues to operate a water treatment programme in full compliance with HSG 274 Parts 1 — 3. There have been no issues with compliance during the reporting year.

vi. Surface Water

Analysis of site run off water continues to be undertaken at monthly intervals by means of spot sampling at the appropriate discharge point (Permit Condition S3.2) and reported on a quarterly basis to the Regulator. A twelve-monthly review of results is provided in graphic form (Appendix 4) There have been three incidents of reporting levels being breached in during the reporting period these relating to PH and Suspended Solids

- 16th March 2021 PH 11.3 - Maximum 10.0
- 19th October 2021 PH 10.7 - Maximum 10
- 10th October 2021 Suspended Solids 50mg/l — Maximum 20 mg/l

In all cases the 95% ile over a rolling 6-month period remains within reporting thresholds.

Mass releases to water per kg of product are calculated at year end. These are identified as KPI's within the Company's EMS and are compared annually with those of the previous year (Appendix 1) targeted reductions being favourable for the reporting period.

vii Process Related Waste

The potential for fugitive emissions arising from the storage of wastes on site has reduced relative to the number of personnel on site and the level of activity. This is reflected in the report on annual KPI's (Appendix 1) Disposal streams are in place to manage waste in an appropriate manner. These are also reported annually via the Pollution Release and Transfer Register (PRTR) and National Atmospheric Emission Inventory (NAEI) reporting system.

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