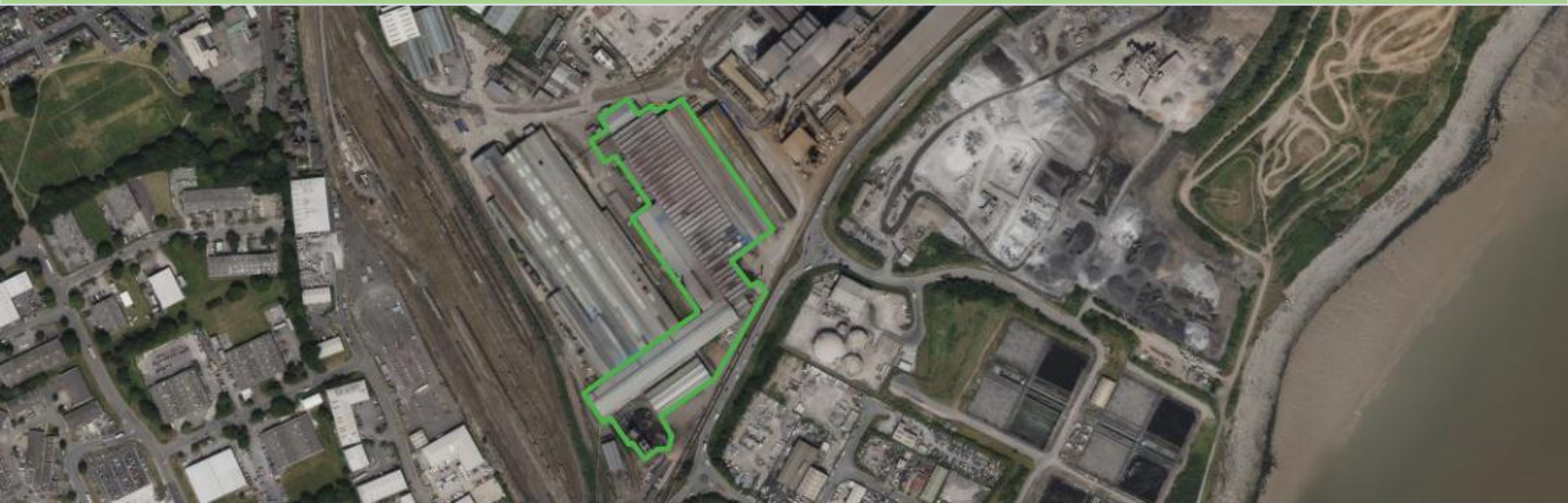
Environmental Permit (Variation)
Celsa Manufacturing (UK) Ltd, Cardiff Section Mill, Tremorfa Works, Seawall Road, Tremorfa, Cardiff, CF24 5TH

Non-Technical Summary (NTS) (Permit No. BV0767IT)

023-1973 | December 2024 | Revision 00



S01 Introduction

Introduction

This document has been prepared by Celsa Manufacturing (UK) Ltd ("Celsa") and its environmental consultant Earth & Marine Environmental Consultants Ltd ("EAME") in support of a permit variation as required under Regulation 20 of the *Environmental Permitting (England and Wales) Regulations 2016* concerning current activities and proposed activities to be undertaken at Celsa Manufacturing (UK) Ltd, Cardiff Section Mill, Tremorfa Works, Seawall Road, Tremorfa, Cardiff, CF24 5TH (Permit No. BV0767IT).

This application is to vary an existing environmental permit concerning operations and activities undertaken on the site (*Figure 1*). The document represents the Non-technical Summary submitted as part of the variation package to Natural Resources Wales (NRW) (EAME Project Ref. 023-1973).

Celsa Manufacturing (UK) Ltd

Celsa Steel UK is the largest producer of reinforcement in the United Kingdom and one of the largest manufacturers of other steel long products. From our facilities in Cardiff, we produce and deliver around 1.2 million tonnes of finished product each year.

Our facilities consist of a state-of-the-art melt shop built in 2006, and two production facilities: one for reinforcing products and wire rod, the other for merchant bar and light sections.

Celsa directly employs over 750 staff and several hundred sub-contractors in South Wales. Additional information can be obtained from https://www.celsauk.com/

Figure 1: *Site Location - Ordnance Survey Map Extract (1:25,000)*
Ordnance Survey 1: 25,000 scale map with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright Earth and Marine Environmental Consultants Ltd, Licence No. 100050755

S02 Proposed Change

Introduction

This environmental permit application (variation) relates to the following changes, as outlined below.

Installation of a new 140 MT/h reheat furnace with low NOx burners and future hydrogen-ready capacity. The unit will also include a new 60-metre-high stack, water treatment plant and electrical control building. The new furnace will maintain and utilise the existing pump house.

Removal of the existing furnace and associated plant and equipment. The units will be decommissioned and removed once the new gas-fired furnace is commissioned.

Removal of existing diesel fuel storage tank (within the permitted boundary)

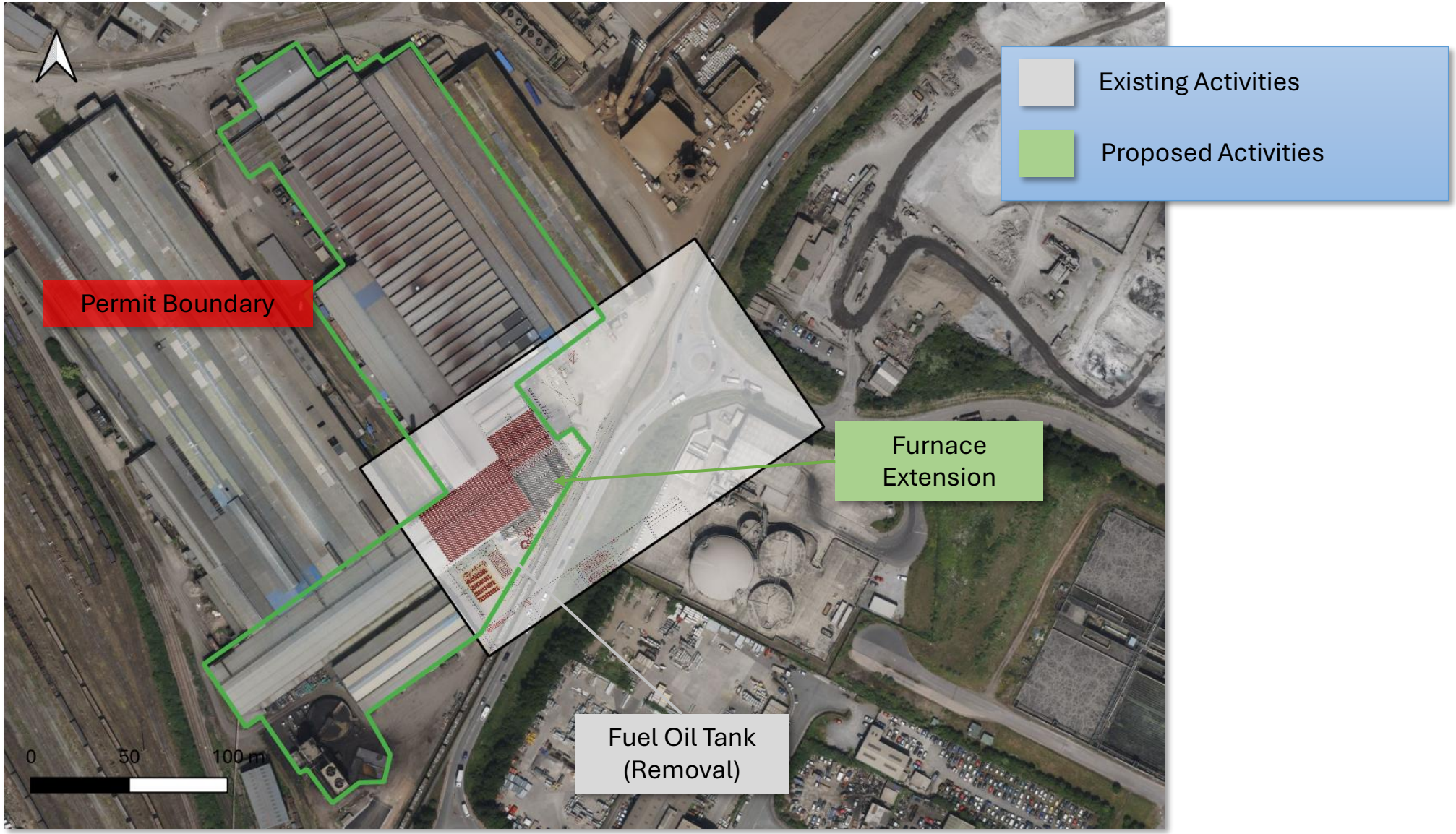
Photograph 1: Replacement furnace (Source: https://www.fivesgroup.com/)

Justification

The original mill was commissioned in 1964 and updated in 1985 to produce a range of medium steel section products, including angles, flats and channels in a range of sizes and lengths up to 15.5 metres.

The installation of a new replacement furnace will improve efficiency, reduce emissions and also allow the unit to be fired using hydrogen as a fuel source (reducing associated greenhouse gas emissions).

S03 Site Layout (Areas Subject to Variation)



S04 Overall Process Management

Management Systems

Celsa Manufacturing (UK) Ltd has implemented and maintains an Environmental Management System (EMS) that is certified to ISO14001:2015 (Certificate No. ES113432).

The management system meets all the BAT 1 requirements outlined within the General BAT conclusions for the ferrous metals processing industry (European Commission, 2022).

The EMS continues to be maintained and is externally audited (by Bureau Veritas) whilst delivering all indicative Best Available Technique (BAT) requirements for an effective management system. The current management systems will be updated to include the revised plant and equipment.

Celsa Manufacturing (UK) Ltd also operates a certified ISO 45001:2018 Occupational health and safety management system and a certified ISO9001:2015 quality management system. These systems will also be applied to the revised processes.

Unplanned and Emergency Events

The site has established and maintains an Accident Management Plan which is subject to regular review and update and is controlled via the EMS. The plan details site drainage, site services, location of hazardous materials (e.g. fuels and oils), emergency response equipment, pollution control points etc. Where required the emergency plan will be revised to consider any identified deficiencies.

Appropriate spill kits and absorbents will be available throughout the site. These will be subject to regular inspection to ensure stock levels are maintained. All operatives will be trained in their use.

Point Source Emissions

The proposed change from CHP to steam boilers will remove the existing emission point A1 and add a new furnace stack A12.

Human Health Receptors

The results demonstrate that the maximum predicted environmental concentrations (PECs) of all pollutants are less than the respective assessment levels. This is the case even at the point of maximum impact anywhere across the modelled grid. Accounting for the worst-case assumptions adopted within this assessment, there is a negligible risk that emissions from the installation will cause an exceedance of any assessment level and, consequently, impacts are assessed as **not significant**.

Designated Ecological Sites

The results demonstrate that nutrient nitrogen deposition exceeds the critical load at Cardiff Beech Woods Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI), Glamorgan Canal / Long Wood SSSI, Cwm Cydfin SSSI, Barry Woodlands SSSI, Cog Moors SSSI and Cefn Onn SSSI. In addition, acid nitrogen deposition exceeds the critical load at Cardiff Beech Woods SAC and SSSI. PECs at all other locations and of all other pollutants are less than the respective assessment levels. At all locations where the PEC is exceeded, the Process Contribution (PC) remains below 1% of the Air Quality Standard (AQS) and is, therefore, considered insignificant. Accounting for the worst-case assumptions adopted within this assessment, impacts are assessed as **not significant**.

Figure 2: *Contour Plot of 24-hour Mean NOx PC – Natural Gas*

S06 Emissions to Water

Surface Water

There are no direct point source discharges to surface water associated with the installation or associated with this variation.

Sewer

There is a single point source discharge to the sewer associated with the installation or associated with this variation. The discharge is already consented by Welsh Water and no changes are required to enable this variation.

Groundwater

There are no point source emissions to groundwater associated with the installation or associated with this variation.

Fugitive Discharges to Ground

There are no discharges to groundwater (via infiltration) associated with the installation or associated with this variation.

S07 Noise and Vibration

Introduction

An assessment has been undertaken for the potential impacts attributable to the sound emitted from the proposed building extension at Celsa Manufacturing (UK) Ltd, Cardiff, Section Mill, Tremorfa Works, Seawall, Road, Tremorfa, Cardiff, CF24 5TH.

The assessment has been undertaken in line with the British Standard BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound.

Noise Modelling

Information provided by the applicant has been used alongside available source assumptions to calculate specific and rating sound levels attributable to the proposed and existing activities at the nearest receptors.

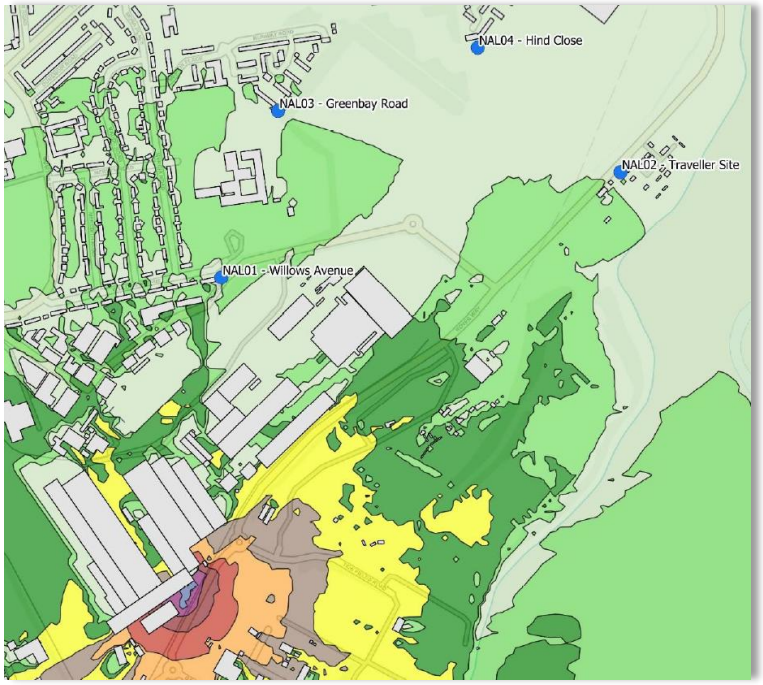
Noise emission levels from the Proposed Development have been calculated using predictive computer noise modelling. The noise modelling software (Cadna-A) uses algorithms based on ISO 9613 'Attenuation of sound during outdoor propagation' to predict noise levels generated at receiver locations by noise sources.

BAT Assessment

Based on the information presented within this assessment, the excess of the calculated rating over the background sound level indicates that there is a **low likelihood** of newly introduced adverse impacts due to the proposed new activities.

Consideration of the combined sound levels, inclusive of current on-site activities indicates that adverse impacts are unlikely at nearby residential receptors during operation of the consented on-site activities.

The assessment has been undertaken based on the information provided and the associated calculations as detailed within this report. The calculations indicate that additional significant impacts, over the current likely impacts due to existing on-site activities, are unlikely.



S08 Summary

Introduction

CELSA Group™ is the largest European producer of recycled steel. 97% of our final product is composed of recycled steel, and 100% of the products' steel we generate are recyclable. The recovered waste amounts to 95.1% for the production processes, excluding Circularity HUBs (and 89.2% considering the processes of recovery and transformation of ferrous scrap and other materials). Additionally, 85.9% of the total materials we use in the production process are recycled.

CELSA Group™ is a signatory to the United Nations Global Compact, the largest global sustainability initiative that involves adhering to its 10 principles on Human Rights, labour standards, environmental protection, and anti-corruption measures, as well as contributing to the UN Sustainable Development Goals.

Conclusions

The proposed installation of the new gas-fired furnace will enable the facility to remain competitive whilst meeting all current emission standards.

In addition, the design of the installation and associated equipment should also permit (when market conditions allow) a switch to hydrogen as a fuel source.

The Environment Agency has stated that hydrogen is a fuel that may be widely used in the future for the decarbonisation of industry as the UK moves towards its Net Zero goals (1). The impact is further reduced when green hydrogen (produced using electricity from renewable energy sources) is utilised.

The plant and associated infrastructure have been specifically designed to meet all current NRW BAT Standards.

(1) https://www.gov.uk/government/news/environment-agency-publishes-guidance-on-production-of-green-hydrogen

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