



**Tata Steel UK Limited**

# **Electric Arc Furnace (EAF)**

**Environmental Statement (Volume 2)**

**RSK Project no. 664195**



**SEPTEMBER 2024**



# RSK GENERAL NOTES

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Environmental Statement (Volume 2)

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## EIA Quality Mark

This Environmental Statement, and the Environmental Impact Assessment (EIA) carried out to identify the significant environmental effects of the proposed development, was undertaken in line with the EIA Quality Mark Commitments.

The EIA Quality Mark is a voluntary scheme, operated by IEMA, through which EIA activity is independently reviewed, on an annual basis, to ensure it delivers excellence in the following areas:

- *EIA Management*
- *EIA Team Capabilities*
- *EIA Regulatory Compliance*
- *EIA Context & Influence*
- *EIA Content*
- *EIA Presentation*
- *Improving EIA practice*



To find out more about the EIA Quality Mark please visit: <http://www.iema.net/eia-quality-mark/>

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## **ES Volume 3: Appendices**

Each appendix presented separately and referenced as applicable in Volume 2.

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Each figure presented separately and referenced as applicable in Volume 2.

## ACRONYMS

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3D	Three dimension
A/HMWB	Artificial or heavily modified water bodies
AADT	Annual average daily traffic
AAWT	Average annual weekday traffic
AEP	Annual exceedance probability
AOD	Above ordnance datum
APIS	Air pollution information system
APS	Annual population survey
AQAL	Air quality assessment level
AQAP	Air quality action plan
AQMA	Air quality management area
AQO	Air quality objectives
AQS	Air quality standards
AQTs	Air quality thresholds
ASHE	Annual survey of hours and earnings
ASIDHOL	Assessments of the significance of the impact of the development on the historic landscape
AURN	Automatic urban and rural network
BAP	Biodiversity action plan
BAT	Best available techniques
BAT-AEL	Best available techniques – associated emissions level
BCBC	Bridgend county borough council
bgl	Below ground level
BGS	British geological survey
BOF	Basic oxygen furnace
BOS	Basic oxygen steelmaking
BPM	Best practicable means
BRES	Business register and employment survey
BS	British standard
CAPL	Continuous annealing process line
CCC	Carmarthenshire county council
CCTV	Closed circuit television
CCUS	Carbon capture, use and storage
CDM	Construction design and management
CEA	Cumulative effects assessment
CEMP	Construction environmental management plan
CERC	Cambridge environmental research consultants
CFA	Continuous flight auger

CIEEM	Chartered institute of ecology and environmental management
ClfA	Chartered institute for archaeologists'
CIRIA	Construction industry research and information association
CLP	Construction logistics plan
CMRA	Coal mining risk assessment
COD	Chemical oxygen demand
COMAH	Control of major accident hazard
CoPA	Control of pollution act
COSHH	Control of substances hazardous to health
CO <sub>2</sub> e	Carbon dioxide equivalent
CRoW	Countryside and rights of way
CRN	Calculation of Railway Noise
CRTN	Calculation of Road Traffic Noise
CSM	Conceptual site model
DAM	Development advice map
dB	Decibel
DCWW	Dŵr cymru welsh water
Defra	Department for environment, food & rural affairs
DIN	Dissolved inorganic nitrogen
DMP	Dust management plan
DMRB	Design manual for roads and bridges
DNS	Developments of national significance
DPFs	Diesel particulate filters
DRI	Direct reduced iron
DSM	Digital surface model
DSO	Daylight, sunlight and overshadowing
DTM	Digital terrain model
EAF	Electric arc furnace
EAL	Environmental assessment level
EAP	Employee assistance programme
EB	Established baseline
EclA	Ecological impact assessment
ECow	Ecological clerk of works
ECP	Environmental contingency plan
eDNA	Environmental DNA
EEP	Environmental emergency plan
EIA	Environmental impact assessment
EMP	Environmental management plan
EMS	Environmental management system

EOT	Electric overhead traveling cranes
EPDs	Environmental product declarations
EPUK	Environmental protection UK
ERM	Enterprise risk management
ES	Environmental statement
ETS	Emissions trading scheme
FCA	Flood consequences assessment
FEP	Fume extraction plant
FES	Fume extraction system
FMfP	Flood map for planning
FRAW	Flood risk assessment Wales
FTE	Full-time equivalent
FWMA	Flood and water management act
GCS	Good chemical status
GCRE	Global centre of rail excellence
GEP	Good ecological potential
GES	Good ecological status
GGAT	Glamorgan-Gwent archaeological trust
GHG	Greenhouse gasses
GLVIA3	Guidelines for landscape and visual assessment, third edition
GVA	Gross value added
GWDTE	Groundwater dependant terrestrial ecosystems
GWP	Global warming potential
ha	Hectare
HAZID	Hazard identification studies
HAZOP	Hazard and operability studies
HBI	Hot briquetted iron
HCA	Homes and communities agency
HDD	Horizontal directional drilling
HDV	Heavy duty vehicles
HER	Historic environment record
HGVs	Heavy goods vehicles
HIA	Health impact assessment
HLC	Historic landscape characterisation
HRA	Habitats regulations assessment
HRP	Hot rolled products
HSC	Hazardous substances consent
HSE	Health and safety executive
HSI	Habitat suitability index

HSM	Hot strip mill
HUDU	Healthy urban development unit
IAQM	Institute of air quality management
IB	Interim baseline
IECS	Institute of estuarine and coastal studies
IEF	Important ecological features
IEMA	Institute of environmental management and assessment
IHBC	Institute of historic building conservation
ISO	International organisation for standardisation
IUCN	International union for conservation of nature
JSA	Jobseeker's allowance
km	Kilometre
l	Litres
LBAP	Local biodiversity action plan
LBC	Listed building consent
LBT	Legally binding target
LCA	Landscape character areas
LC:RM	Land contamination: risk management
LDP	Local development plan
LED	Light-emitting diode
LEMP	Landscape environmental management plan
LEP	Local emergency plan
LF	Ladle furnace
LFRMS	Local flood risk management strategy
LHH	Lee hecht harrison
LIA	Local impact area
LLFA	Lead local flood authorities
LNR	Local nature reserve
LPA	Local planning authority
LSOA	Lower layer super output areas
LURA	Levelling up and regeneration act
LVIA	Landscape and visual impact assessment
m	Metre
m <sup>2</sup>	Square metre
m <sup>3</sup>	Cubic metre
m AOD	Metres above ordnance datum
MCP	Medium combustion plant
MEP	Major emergency plan
MHS	Material handling system



MMP	Materials management plan
MSA	Mineral safeguarding area
NAEL	National atmospheric emissions inventory
NBB	Net biodiversity benefit
NCN	National cycle network
NERC	National environment and rural communities
NHS	National health service
NLCA	National landscape character areas
NMCA	National marine character areas
NMRW	National monuments record of Wales
NNR	National nature reserve
NPTC	Neath port talbot council
NPTLA	Neath port talbot landscape assessment
NRMM	Non-road mobile machinery
NRW	Natural resources Wales
NSIP	Nationally significant infrastructure project
NSR	Noise sensitive receptors
NTS	Non-technical summary
NVC	National vegetation classification
NVQ	National vocation qualification
NWP	Numerical weather prediction
ONS	Office of national statistics
ONVMP	Operational noise and vibration management plan
OS	Ordnance survey
OWSS	Oil water silt separator
PC	Process contribution
PCC	Precast concrete
PCF	Product carbon footprints
PIA	Personal injury accidents
PINS	Planning inspectorate for England
PM <sub>2.5</sub>	Particulate matter 2.5 micrometers or less in diameter
PM <sub>10</sub>	Particulate matter 10 micrometers or less in diameter
PMP	Peat management plan
PPV	Peak particle velocity
PPW	Planning policy Wales
PRA	Preliminary risk assessment
ProPG	Professional practice guidance
PRoW	Public right of way
PWMS	Precautionary working method statements

RBMP	River basin management plan
RCAHWW	Royal commission on the ancient and historical monuments of Wales
RH	Ruhrstahl heraeus
RIGS	Regionally important geodiversity sites
RS	Remediation strategy
RVAA	Residential visual amenity assessment
SAB	Suds approving body
SAC	Special area of conservation
SAF	Sustainable aviation fuel
SAFFA	Salmon and freshwater fisheries act 1975
SC	Swansea council
SCA	Seascape character assessment
SG	Specified generator
SI	Site investigation
SINC	Site of importance for nature conservation
SLA	Special landscape areas
SMP	Soil management plan
SMP2	Lavernock point to St. Ann's shoreline management plan 2
SNH	Scottish national heritage
SPA	Special protection area
SPG	Supplementary planning guidance
SPZ	Source protection zone
SRIA	Sub-regional impact area
SSSI	Site of special scientific interest
SuDS	Sustainable drainage systems
SWL	Safe working load
SWLRF	South Wales local resilience forum
t	Tonnes
TAN	Technical advice note
TCFD	Taskforce on climate related financial disclosures
TG22	Technical guidance 2022
TOG	Total organic carbon
TSS	Total suspended solids
TSUK	Tata steel UK limited
TWA	Time-weighted average
UK-AIR	United Kingdom air information resource
UKCP18	UK climate projections 2018
UKIA	UK impact area
UKSE	UK steel enterprise limited

UKSPF	UK shared prosperity fund
UXO	Unexploded ordnance
W&CA	Wildlife and countryside act
WFD	Water framework directive
WHIASU	Wales health impact assessment support unit
WHO	World health organisation
WIA	Wider impact area
WIMD	Welsh index of multiple deprivation
WLMP	Water level management plan
WSI	Written scheme of investigation
Zol	Zone of influence
ZTV	Zone of theoretical visibility

# 1 INTRODUCTION

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## FIGURES

Presented in Volume 4 of this Environmental Statement:

Figure 1.1 Site location plan

## 1.1 Background

- 1.1.1 To secure the long-term sustainability of its UK operations, Tata Steel UK Limited (hereafter 'Tata Steel' or 'the Applicant') is proposing the construction and operation of a new electric arc furnace (EAF) based steel production facility (hereafter 'the Proposed Development') located inside the existing Port Talbot Steelworks at Margam in South Wales. The location of the Red Line Boundary (hereafter referred to as 'the Site') is provided in **Figure 1.1**.
- 1.1.2 The Applicant is seeking to secure planning permission for the Proposed Development by way of a hybrid EIA development planning application to Neath Port Talbot Council (NPTC) under the Town and Country Planning Act 1990 (as amended). Planning permission is being sought for the following description of the Proposed Development:
- *'Hybrid planning application: full planning permission for the demolition of existing buildings and structures, partial infill of the BOS lagoon, and construction of a new electric arc furnace-based steel production facility (1 no. arc furnace, 2 no. ladle furnaces). The development includes an upgraded slag processing facility, chemical/material storage and transfer infrastructure and pipework and cabling (above and below ground), buildings, fume and dust treatment plant, water treatment facility and material handling systems. Electrical control rooms and power infrastructure. Offices and ancillary facilities together with new and amended transport infrastructure, landscaping and green infrastructure, and associated engineering operations.*
  - *Outline planning permission (with all matters reserved except for access and landscaping) for demolition and the construction of a scrap metal handling facility and associated scrap yards, scrap processing facility, underground and overground electrical infrastructure, and new and amended transport infrastructure, landscape and green infrastructure, drainage and associated engineering operations'.*

## 1.2 Environmental Impact Assessment (EIA)

### Aim of EIA

- 1.2.1 Government guidance<sup>1</sup> sets out that the aim of EIA is to protect the environment by ensuring that a local planning authority, when deciding whether to grant planning permission for a project which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects and takes this into account in the decision making process. The EIA Regulations set out a procedure for identifying those projects which should be subject to statutory EIA, and for assessing, consulting and coming to a decision on those projects which are likely to have significant environmental effects. The guidance sets out that an additional aim of EIA is to ensure that the public are given early and effective opportunities to participate in the decision making procedures.

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<sup>1</sup> <https://www.gov.uk/guidance/environmental-impact-assessment#the-purpose-of-environmental-impact-assessment>

### **Statutory context**

- 1.2.2 The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 (hereafter 'the EIA Regulations') set out the statutory requirements and apply where planning consent is being sought for developments under the Town and Country Planning Act 1990 in Wales.
- 1.2.3 Schedule 1 to the EIA Regulations sets out the types of development that are subject to mandatory EIA. Schedule 2 sets out descriptions of development and applicable thresholds for other types of development that require EIA if they are likely to have significant effects. Further schedules also specify the criteria for determining the need for EIA and the information to be included within the resultant Environmental Statement (ES).
- 1.2.4 The Proposed Development does not fall under Schedule 1, Part 4 (a) or (b) of the EIA Regulations on the basis that:
- It does not constitute an integrated works or the initial smelting process. It uses scrap metal and steel; and
  - It is not for the production of non-ferrous crude metals. The facility involves ferrous metals.
- 1.2.5 The Proposed Development does not match the description of any other developments described in Schedule 1. Hence, it is concluded that the Proposed Development is not a Schedule 1 development and the requirement for mandatory EIA does not apply.
- 1.2.6 The Proposed Development falls under the 'production and processing of metals' in Column 1, Part 4 of Schedule 2 of the EIA Regulations, meaning it is subject to the requirement for 'discretionary' EIA. The Proposed Development will comprise over 1,000 square metres (m<sup>2</sup>) of new floorspace and exceeds the thresholds within Column 2.
- 1.2.7 The Applicant has elected to undertake EIA without prior screening and to submit an ES with the planning application. This is in recognition of the elevated public profile of the Proposed Development and anticipated high levels of interest in respect of its environmental performance.

### **Environmental statement**

- 1.2.8 Regulation 17(1) of the EIA Regulations requires an EIA application to be accompanied by an ES.
- 1.2.9 In accordance with the EIA Regulations an ES is a statement which includes:
- a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development;
  - b) a description of the likely significant effects of the proposed development on the environment;
  - c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;
  - d) a description of the reasonable alternatives studied by the applicant or appellant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the significant effects of the development on the environment;
  - e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and

- f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.

1.2.10 This ES accompanies the planning application and reports the formal process and outcomes of the EIA undertaken for the Proposed Development. The key purpose of the ES is to provide the local planning authority (Neath Port Talbot Council), statutory consultees, interested bodies and the general public with sufficient information on the likely significant effects of the Proposed Development on the environment, together with any mitigation measures proposed.

## 1.3 Structure of Environmental Statement

1.3.1 This ES is presented in four volumes:

- **Volume 1:** Non-Technical Summary (NTS);
- **Volume 2:** Environmental Statement (ES);
- **Volume 3:** Appendices; and
- **Volume 4:** Figures

### Volume 1

1.3.2 **Volume 1** comprises a Non-Technical Summary (NTS) of the ES, which has been prepared as a separate document, in accordance with the requirements of the EIA Regulations.

### Volume 2

1.3.3 **Volume 2** comprises the main text of the ES. This consists of 16 chapters, which are structured as follows:

- **Chapter 1 Introduction** introduces the Proposed Development and explains the underlying objectives of the proposals; describes the statutory basis for the EIA; outlines the structure of the ES; and identifies the team of competent experts responsible for undertaking and reporting the EIA.
- **Chapter 2 Proposed Development** establishes the need for the Proposed Development; provides a detailed description of the key design components and characteristics of the Proposed Development and associated land take; and outlines the planned timescales for construction and implementation.
- **Chapter 3 Environmental Context and Alternatives** provides a description of the receiving environment in respect of existing landform, topography, settlement and transportation patterns, land use, hydrology, and environmental designations associated with land on, and in proximity to, where the Proposed Development will be located; summarises the reasonable alternatives that have been considered in the evolution of the Proposed Development.
- **Chapter 4 Environmental Assessment Methodology** summarises the EIA process, scope of the EIA, the overall EIA process methodology and format of the ES chapters.
- **Chapters 5 to 14 Technical Assessments** report the findings of multi-disciplinary impact assessment, and report on the proposed mitigation measures and residual likely significant effects on the environment as a result of implementation of the Proposed Development.

- **Chapter 15 Cumulative Effects** reports any significant cumulative and combined environmental effects of the Proposed Development arising from various factors of the environment and various committed developments on individual receptors.
- **Chapter 16 Summary** provides a summary of the residual effects and commitments set out in the ES.

1.3.4 References to other documents considered or relied upon in the undertaking of EIA are provided at the end of each assessment chapter, where relevant.

### **Volume 3**

1.3.5 **Volume 3** comprises appendices (to the main text presented in **Volume 2**) containing detailed technical reports of the individual environmental assessments and other relevant supporting documentation.

### **Volume 4**

1.3.6 **Volume 4** comprises the plans, figures and photographs referenced in **Volume 2**.

1.3.7 Where figures and appendices are presented in **Volumes 3** and **4**, these are referred to in the main text of **Volume 2**. For ease of reference, separate images are also presented where relevant in the main text of **Volume 2**.

1.3.8 The following documents form part of the planning application and should be read in conjunction with the ES:

- Design and Access Statement;
- Green Infrastructure Statement (GIS);
- Planning Statement; and
- Habitats Regulations Appropriate Assessment Screening Report.

## **1.4 EIA team**

1.4.1 RSK Environment Ltd (RSK) has undertaken coordination of the EIA and preparation of this ES on behalf of the Applicant, with specialist environmental, design and planning input from a range of competent experts in their field. The relevant expertise and qualifications declared by the lead experts involved in the preparation of this ES are detailed in Error! Reference source not found. below.

1.4.2 This ES has been prepared under the supervision of, and reviewed by, persons having sufficient expertise. Amongst other considerations, 'sufficient expertise' is defined herein as relevant experience working on EIA projects and suitable professional standing as recognised by relevant professional membership or academic qualifications.



**Table 1.1 EIA Team Responsibilities**

Name	Qualifications	Company	Role and expertise
<b>EIA project management team</b>			
Dr Liz Young	PhD, BSc, MSc, MIEMA, CEnv	RSK Environment	EIA coordination
Rob Edwards	BSc, MSc, CEnv, MIEMA, MEnvSc, MIAQM	RSK Environment	EIA coordination
Mark Cope	BSc, MSc, MIEMA, CEnv, REIA, FGS	RSK Environment	EIA coordination and human health
<b>EIA technical specialists</b>			
Dan Leaver	CMLI	Stephenson Halliday	Landscape and Visual
Simon Butler	BSc, MSc, MIEMA, CEnv	Temple Group	Air Quality and Odour
Xiangyu (Sian) Sheng	BSc, BEng, MSc, MPhil, PhD, FRMets, CEng, CPhys, CSci, CEnv, MEnvSc, MIAQM		
Daniel Clare	MIOA	RSK Acoustics	Noise and Vibration
Alex West	BA (Hons), PgDip, MIOA		
Alex Ellis	MCIEEM	RSK Biocensus	Biodiversity
Faye Tomalin	MCIWEM, C.WEM	JBA Consulting	Surface Water, Flood Risk and Drainage
John Panesar	BEng (Hons), CEng MICE		
Mike Owens	BSc, MSc, CEnv, MEnvSc, SiLC, SQP	RSK Geosciences	Land, Soil and Groundwater
Catherine Isherwood	MSc CGeol FGS MIMMM	WRc	Peat
Kit Byrom	ACIfA	Headland Archaeology	Cultural Heritage
Peter Todd	MCIHT	SCP	Transport and Access
Craig Thomson	BSc (Hons)		
James Blake	BSc (Hons), MSc, MIEMA, CEnv	Turley	Climate Change

Name	Qualifications	Company	Role and expertise
Richard Laming	BA (Hons) DipTP, MRTPI	Turley	Socioeconomics

## 1.5 References

The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017, Available [online] at:

<https://www.legislation.gov.uk/wsi/2017/567/contents/made> [Last accessed 15 May 2024]

Town and Country Planning Act 1990. Available [online] at:

<https://www.legislation.gov.uk/ukpga/1990/8/contents> [Last accessed 15 May 2024]