

Tata Steel UK – Port Talbot Steel Works

Document Reference: Additional information relating to a variation to Permit EPR/BL7108IM – relocation of scrap processing

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1. Description of activities

Scrap steel arising from operations at Tata Steel’s Port Talbot site was historically recovered through the former Basic Oxygen Steelmaking (BOS) plant after processing by a contractor in a ring-fenced site close to the plant. The BOS Plant ceased operation in September 2024 and during the transition period until a new electric arc furnace (EAF) has been commissioned at the site, scrap from continuing operations will instead be sent for external recovery. The material will need to be sorted and stored on-site prior to collection, with large pieces cut up using shears or oxy-propane torches to facilitate transport.

These activities will be relocated from their current position to minimise the distances travelled across the site and to avoid interference with construction of the EAF and other associated facilities. It is expected that once the arc furnace is operational, these activities will transfer to the main scrap handling area and the scrap will be recovered in the EAF.

It is also possible that small amounts of clean steel scrap from demolition of decommissioned assets at Port Talbot will be recovered through the same area, though there is very limited capacity to deal with anything beyond the arising scrap. No scrap will be brought onto the Tata Steel site for treatment through this process.

2. Site plans

The new location for the scrap handling and storage activity is to the south of Texturing Technology Limited, centred at National Grid Reference SS 78070 86060. The area is outlined in green on Figure 1 overleaf.



Figure 1: New location of scrap processing and storage activities

The location is also indicated on the site plan (taken from the current environmental permit) in Figure 2. The area is wholly within the existing Tata Steel permit boundary.

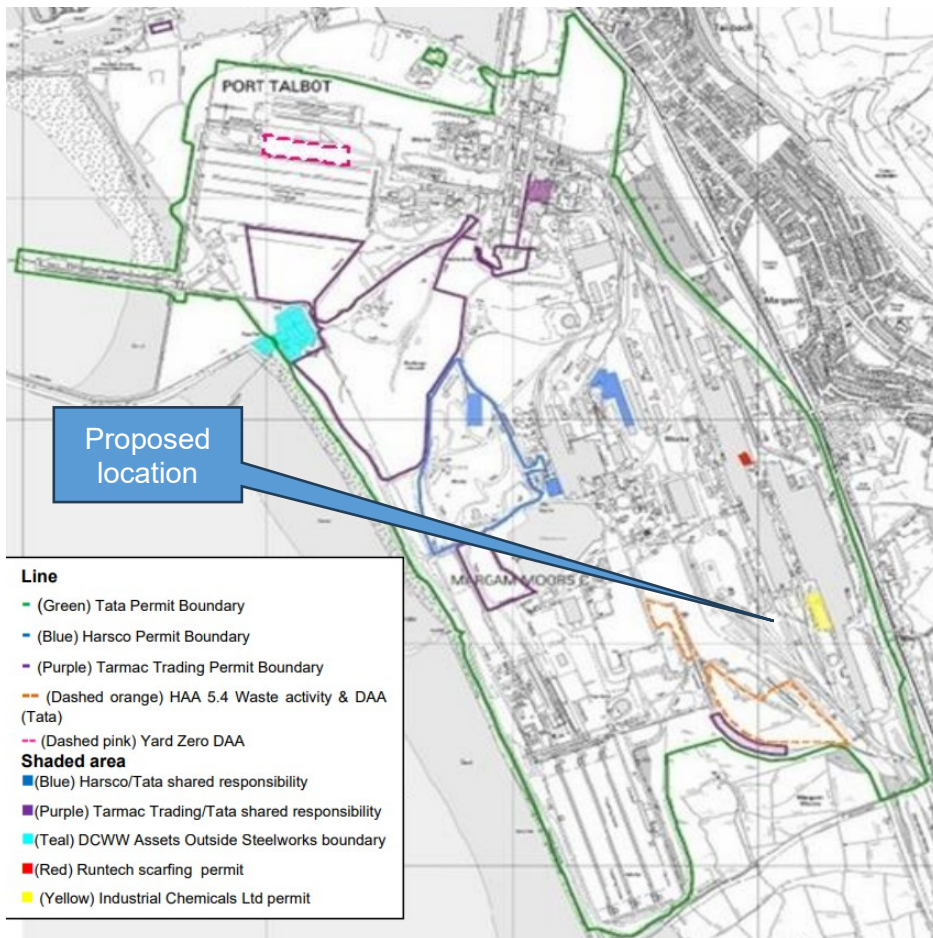


Figure 2: New location of scrap processing and storage activities

3. Form C3 Q1a (Activities to be added)

The proposed activities do not fall under any of the sections in Schedule 1 of the Environmental Permitting Regulations. Steel scrap, where not contaminated with other materials, is non-hazardous and Section 5.4 of Schedule 1 covers “Disposal, recovery of a mix of disposal and recovery of non-hazardous waste”. No disposal of waste will take place and the only types of recovery process falling under the regulations are biological treatment, pre-treatment for incineration, treatment of slags and ashes or treatment in shredders, none of which will be undertaken at the proposed location.

The scrap processing and storage operations serve the hot mill, which is a Schedule 1 activity (Section 2.1 Part A(1)(c)), and the cold mill, which is a Directly Associated Activity. The proposed activities should be added to the Tata Steel permit number EPR/BL7108IM as a new Directly Associated Activity:

Steel scrap handling and storage

The following waste recovery operations (from Annex II of the Waste Framework Directive) will be undertaken:

R4: Recycling/reclamation of metals and metal compounds

R13: Storage of waste pending any of the operations numbered R1 to R12

4. Form C3 Q1b (Waste types to be accepted)

The wastes to be accepted into this area are shown below:

Waste code	Description of waste
17 04 05	Iron and steel wastes from construction and demolition
19 12 02	Ferrous metal from mechanical treatment of waste

4.1. Application of waste hierarchy

Some generation of scrap steel at the mills is inevitable, but represents a significant loss of revenue and so is minimised, with targets and monitoring in place to ensure that waste is **prevented** as much as possible. In the hot mill it is necessary to crop the irregular ends of slabs to avoid issues such as cobbling as the slabs are rolled. Careful matching of slab sizes to final customer specifications minimises waste at this stage. In the cold mill the ends of each coil are cropped so that they can be welded to the previous coil to allow continuous processing through the pickle line and the mill. The welds then need to be cut out to create individual coils again to meet customer specifications. The edges of the strip will also be trimmed to achieve a consistent width. All of these processes create steel scrap.

The steel scrap is irregularly sized and cannot be **reused** directly and so the next step in the waste hierarchy is to **recycle** the material. Formerly, this type of material was recycled within the Port Talbot site through the Basic Oxygen Steelmaking plant, where it was melted to add to the molten iron produced by the blast furnaces. The BOS Plant ceased operation in September 2024. When an electric arc furnace (EAF) has been commissioned, the steel scrap generated at the mills will be added to the scrap bought from external sites and melted to produce new steel. In the current transition period, however, the material cannot be recycled at the Port Talbot site, and it will not be practicable to store all the scrap arising in the interim period in anticipation of the EAF starting operation, and so sending the scrap for recycling at external facilities represents the best alternative within the waste hierarchy.

4.2. Amount of waste to be processed and stored

Steel scrap produced at the mills will be transferred to the proposed storage location regularly throughout the day and night as there is limited capacity to store any scrap at the mills themselves. The amount will vary, but is expected to total around 100 to 150 tonnes per day. On arrival at the storage location, most of the scrap will be immediately segregated into different fractions in a series of marked bays as shown in Figure 3 to facilitate efficient recycling. Larger pieces will be set aside for cutting up during the day shift.



Figure 3: Prospective layout of scrap storage and processing

Scrap will accumulate in the area before being loaded into lorries when there is enough material to make full loads (maintaining the segregation into different fractions when sent off-site for recovery). It is expected that the maximum amount of material that might accumulate, including over the weekend when no scrap will be removed, would be less than 1,000 tonnes.

5. Emissions and environmental risk assessment

5.1. Air emissions

Emissions to air from oxy-propane cutting are minimal (see example in Figure 4). Oxygen lancing, which was used by the previous contractor for cutting up large pieces of scrap, will not be undertaken at the new location.



Figure 4: Oxy-propane cutting in progress (at previous processing location)

Fugitive dust emissions from vehicle movements in the area will be controlled by sweeping and bowsering as appropriate. The site-wide Air Quality Management Plan procedures will identify any additional measures required in the event of high dust levels in the local community.

5.2. Odour

The scrap to be stored at this location will be clean scrap arising from operations at the mills, rather than post-consumer scrap which may have become contaminated with other materials. NRW's guidance document "How to comply with your environmental permit" lists (page 46) a number of activities for which odour is a key issue, and for which an odour management plan is mandatory, but steel scrap storage is not included on that list. There are no records of odour complaints from the storage and processing of this type of scrap at the former location near the BOS plant. It is not expected that odour will be an issue for the operations proposed here.

5.3. Discharge to water

The area to be used for scrap processing and storage is already hard-surfaced and any surface run-off from rainfall or bowsering will be captured in the existing drainage system. Because the scrap originates in the on-site mills, it will not be grossly contaminated with oil or other non-ferrous materials. No data on the composition of the run-off from this activity in the current location are available as the area is not hard-surfaced. An analytical result from a similar operation at another steel company showed total suspended solids at 28 mg/l, hydrocarbons (C₆ to C₄₀) at 0.2 mg/l, iron at 1.5 mg/l, zinc at 1.6 mg/l and all other metals no greater than 0.2 mg/l each. However, this was a single result and so there is no certainty that this is representative of the discharges from the other scrapyard, or whether it will be representative of the run-off from the relocated operations at Tata Steel's Port Talbot site.

All the run-off from the proposed scrap processing and storage area will flow via the road drains to the on-site Deep Drain sump, where skimmers will remove any oil contamination. The water will then be pumped, along with effluents from other areas of the site, to internal Sump 2 and discharged via the main Long Sea Outfall (W1). If the effluent in Sump 2 contains high levels of suspended solids, an additional settlement process (Nautilus) may be used to reduce the levels before the final discharge to the environment.

Emission limits for the Long Sea Outfall are already included in the existing environmental permit for the following relevant species:

- Suspended solids (150 mg/l)
- Total hydrocarbons (5 mg/l)
- Iron (5 mg/l)
- Zinc (2 mg/l)
- Nickel (0.5 mg/l)
- Chromium (0.5 mg/l)
- Lead (0.5 mg/l)

There will be no storage of bulk liquids within the scrap processing and storage area.

5.4. Releases to land

The area to be used is hard-surfaced to prevent contamination of the underlying ground. As described above, any run-off of rainfall will eventually be discharged via the Long Sea Outfall (W1) after removal of oil and potentially suspended solids and so will not lead to any ground contamination. There will be no storage of bulk liquids within the scrap processing and storage area.

5.5. Waste

Because the scrap originates in the on-site mills, it is expected that it will all be suitable for recovery and will be despatched with appropriate waste transfer notes. Any non-ferrous materials that might have been accidentally mixed with the scrap will be separated out and quarantined pending subsequent removal for appropriate recovery or disposal.

5.6. Noise

The most significant environmental impact from the scrap handling and storage operation is likely to be noise arising from scrap being delivered to the area, from moving and cutting up of large pieces of scrap and from loading the scrap into lorries to be taken off-site for recovery. Accordingly, a noise assessment has been undertaken and this is detailed in Appendix 1.

Initial observations determined that loading scrap into lorries using a magnet crane, generated the highest noise levels. Noise measurements were undertaken to determine the sound power level at different frequencies whilst loading five different types of scrap and the potential impact at the closest residential receptors was then estimated.

The sound pressure levels attributable to loading of scrap are expected to be at least 9 dB below the ambient levels previously measured at the closest receptors. It would not be expected that any impact would be perceptible, even at night-time.

6. Form C3 Q3a Technical Standards

6.1. 'How to comply'

Section 1 of the NRW document 'How to comply with your environmental permit' details general requirements that all permit holders must meet and these will be complied with through the existing site-wide Environmental Management System, which has been certified as meeting the requirements of international standard ISO14001 (2015). The certification was most recently reauthorised in October 2023 and the current certificate is included as Appendix 2.

Section 2 of the NRW document 'How to comply with your environmental permit' details specific requirements for waste operations. Many of these are also covered by the existing site-wide Environmental Management System. Other requirements, where relevant, have been described in other sections of the current document.

6.2. Fire prevention

Section 2 of NRW's guidance note 16 on 'Fire prevention and mitigation plan guidance – waste management' includes scrap metal as a potentially combustible waste. However, this is more of a risk with post-consumer scrap, such as end-of-life vehicles, which may have become contaminated with oil, plastics or other combustible materials. In the case of the activities proposed here, the scrap originates directly from the on-site mills and is not contaminated in this way. Although some residual rolling oils could be present on the surface, large pieces of scrap are routinely cut up using oxy-propane torches without causing fires and so it is judged that the type of scrap to be stored and processed is not combustible.

No bulk fuels or other combustible liquids will be stored on the site.

7. Form C3 Appendix 5

Appendix 5 of Form C3 includes a series of questions specific to waste recovery and disposal, referencing Sector Guidance Note 5.06. Section 1.3 of SGN 5.06 states that it covers installations listed in sections 5.3 and 5.4 of Schedule 1 of the Environmental Permitting Regulations. The activities to which this application relates do not fall into any of those categories.

Question 4 refers to a layout plan (see Section 2 of this document) and to infrastructure for separately storing different types of waste (see Figure 3) and the capacity of waste storage (see Section 4.2).