

Llanwern Annual Waste Report 2023

**EPR Permit Ref: BS3905IP. Tata Steel Strip Products UK, Llanwern Works
Re: PPC Permit Condition 9.7 – “The Operator shall conduct a waste minimisation audit that analyses the use of raw materials, assess the opportunities for the reduction in generation of wastes and provides an action plan for achieving the identified improvements. The review shall assess the current disposal techniques to ensure that the disposal of wastes meets the requirements of the Landfill Directive. A report shall be provided to the Agency. Timescales shall be agreed with the Agency (Natural Resources Wales).”**

Site Waste Management

The site waste management contract has been in operation for several years. Continuity of the same site waste management company has enabled us to optimise disposal routes, in-line with the established waste management hierarchy. The working relationship with a leading Waste Management Service provider remains positive. Regular meetings are held with contractor to discuss performance and opportunities. The waste contract has been extended to other Tata Steel UK sites in 2023, enabling a more wide spread sharing and learning opportunity with common goals.

The non-steel recycling is managed by our Waste Management service provider and can either take a direct route to recyclers or to a transfer facility for sorting.

Process Waste Streams

This section details the specific process waste streams, and outlines the disposal/recycling/recovery route of each

Liquid Waste Oil [Disposal]

Waste oil arisings come from a number of sources, either directly from processes, or indirectly from oil separators & interceptors. Such arisings undergo a variety of processing, including: gravity separation, chemical & thermal treatment, centrifuge, magnetic separation etc. in order to achieve an oil specification that can be sold to a third party for re-use as lubrication oil following further off-site re-processing, incineration or for re-use in Port Talbot coke ovens. In addition, removal of oil from non-operational transformers was performed in 2023. Disposal route is governed on volume, quality and commercial market conditions.

Ferrous Hydroxide Filter Cake [Recycle]

During the Pickling process, the rinse waters used in the final stages of the process are collected & treated by a dedicated effluent treatment plant. The product of this process is a FeOH Ferrous Hydroxide filter cake. The high Fe and low chloride content, have enabled us to recycle into steelmaking via the Sinter Plant process and divert from landfill.

Zinc Dross [Recycle]

In the Zodiac galvanisation process, Zinc dross is skimmed from the surface of the molten zinc-coating bath, and is then bulked-up into an adequate quantity for dispatch to a metal re-processor based elsewhere in the EU for recycling – Trans frontier Shipment of Waste protocols therefore apply. The process of removing dross from the bath was performed manually up until June 2023 where investment saw dross robots installed.

Hotani Sludge [Recycle]

The Hotani cleaning section in the Zodiac galvanisation process produces a sludge which is recycled at Port Talbot.

Primecoat Passivation [Recycle & Disposal]

Chrome free passivation Zodiac galvanization plant. The Primecoat rinse waters are disposed off-site to a treatment process. This process is an acid / alkali treatment process which produces a non-hazardous press cake. The process involves mixing liquid acid wastes with an alkali lime slurry mix in a reaction vessel. Once the mix has become neutral it is passed through a hydraulic press, the filtrate produced is either discharged or recycled to produce more lime slurry, the press cake is sent to a non-hazardous landfill.

Corex [Recycle]

Corex is a corrugated plastic used in the packaging of steel coils. Material that cannot be re-used in process is baled for disposal. This product does a full life cycle, and is recovered by manufacturers to process back into prime corex material.

Wood [Recycle]

Incoming pallets that are in good form are re-used on site. Damaged pallets and offcuts are removed off site through the waste contract to a wood recycling company.

Improvement Plan

Aside from routine activities that endeavour to achieve improvements, the setting of specific project objectives & targets is integrated into the site ISO14001 management system. Focus has been on the upcoming change in legislation in Wales from April 6th 2024 for separated waste collections for workplaces. Mixed recyclable materials are currently taken off site and segregated at a sorting station. To be compliant additional waste receptacles are required to segregate further at source. We are working with our waste management providers to ensure we maintain compliance and also drive zero to landfill.