

Llanwern Annual Waste Report 2024

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 continued with the same site waste management company. Enabling 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 scope covers Tata Steel UK sites, enabling a more wide spread sharing and learning opportunity with common goals.

Process Waste Streams

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

Waste Oil [Disposal and Recovery]

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 etc. in order to achieve an oil specification that can be sold to a third party for re-use as lubrication oil. With the closure of Port Talbot coke ovens during 2024, oil ceased to be transferred via this route. In addition, removal of oil from non-operational transformers was performed in 2024. Disposal route is governed on volume, quality and commercial market conditions.

Ferrous Hydroxide Filter Cake [Recycle and Disposal]

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 at Port Talbot and divert from landfill up until the closure of the Sinter Plant in September 2024. Thereafter, the filter cake has been diverted to Port Talbot landfill.

Zinc Dross by-product [Recovery]

In the Zodiac galvanisation process, Zinc dross is skimmed from the surface of the molten zinc-coating bath, for strip product quality purposes. It is then bulked-up into an adequate quantity to a recovery based metals company in the UK.

Hotani Sludge [Recycle]

The Hotani cleaning section in the Zodiac galvanisation process produces a sludge which was recycled at Port Talbot. Movements of this type of waste is infrequent and we are currently exploring alternative disposal route since the closure of the heavy end steelmaking process in 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 and soft poly wrap [Recycle]

Corex is a corrugated plastic and soft poly wrapping used in the packaging of steel coils. Material that cannot be re-used in the process is baled for disposal. During 2024 both these products were recycled and saw a small rebate back into the business. Value and routes of this waste stream can fluctuate dependant on market conditions.

Wood [Recycle]

Incoming deliveries on pallets that are in good form are re-used on site. Damaged pallets and loose timbers are removed off site through the waste management 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.

We continue to work with our waste management providers to ensure we maintain compliance and also drive zero to landfill.

Focus has been on the change in legislation in Wales from April 6th 2024 for separated waste collections for workplaces, which saw ceasing of mixed recyclable materials at source. Additional waste receptacles were purchased and existing bins repurposed to create waste stations. An appreciable amount of time has been spent on internal communications and visual management, with over 250 bins placed across site buildings and the purchase of 77 food caddies for each welfare room. Realigning our 26 external waste collection points with our waste service provider, to mirror our internal waste segregation points and keeping our employees and cleaning contractors informed of the changes was a huge resource task to undertake. The benefits of this is clearly seen when comparing tonnages of mixed recycling from previous years, against each individual waste recycling stream in 2024. It is clear we are recycling more by segregating further at source and diverting waste away from the general waste wheelie/euro bin waste stream. 5.5 t of food has been segregated and diverted from general waste between April – December 2024.

With the closure of virgin steelmaking at Port Talbot, some of our waste streams that we recycled within the business ceased during 2024. We have been exploring other opportunities for alternative recycling and disposal routes. E.g. Oil, hotani sludge, filter cake, scale.

We have seen an increase in fly tipping on the perimeters/access gateways on land, off the main operational site, owned by Tata e.g. south side of Queensway adjacent to A4810 road. Additional signage has been erected, frequent security patrols. Dumped waste was risk assessed before being disposed of appropriately, at the expense of Tata. We continue to monitor to ascertain if more controls are needed.