

Llanwern Annual Waste Report 2021

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).”

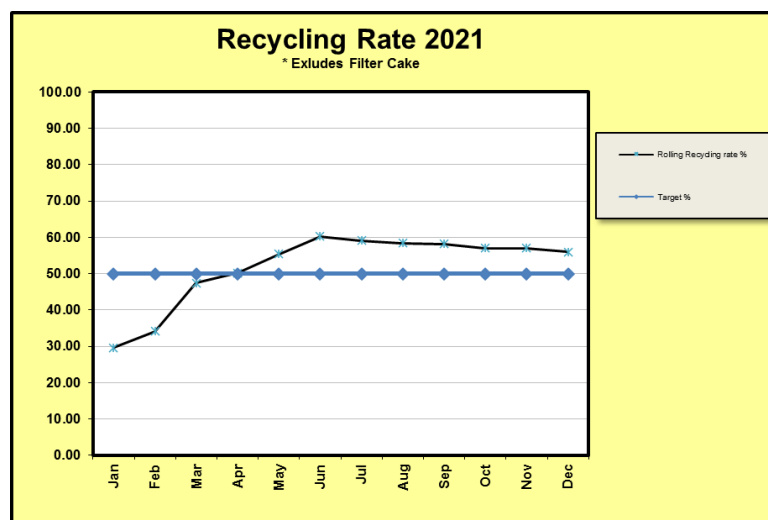
Site Waste Management

The site waste management contract has been in operation for the ninth year. Continuity of the same site waste management Company has enabled us to optimise recycling rates and disposal routes, in-line with the established waste management hierarchy. The working relationship with site Waste Management Service provider remains positive. Production outputs and number of people on site has fluctuated over the last 2 years with the management of the covid pandemic.

We have seen a minimal increase in general waste and sustained recycling rates for 2021. General waste can vary year to year dependant on maintenance and improvement activities across the site.

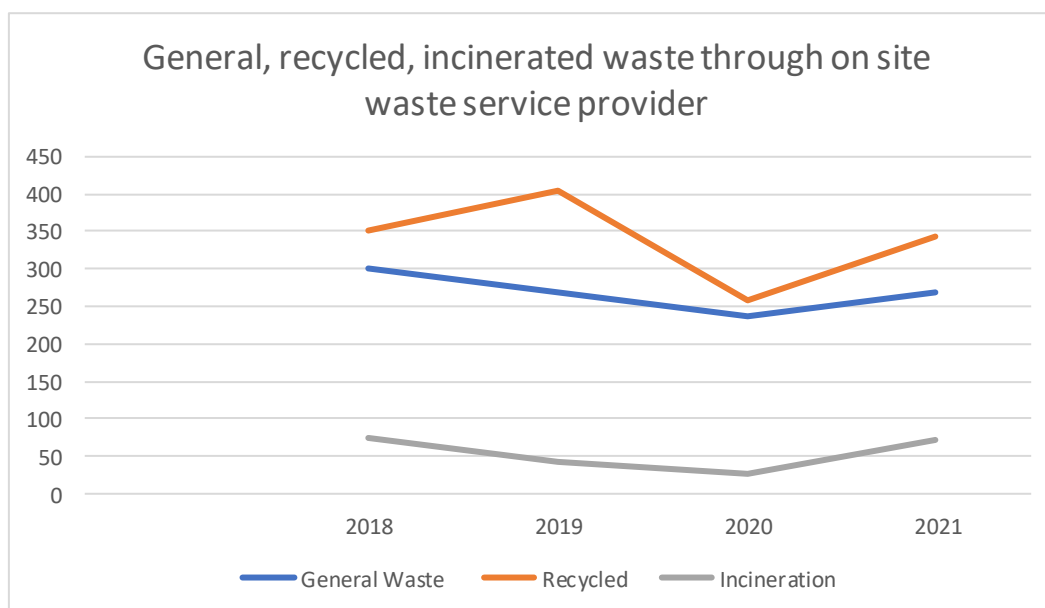
The annual (non-steel) waste recycling target was set at 50%, our annual performance resulted in 57% being recycled for 2021, an increase in 5% from previous year. General waste is diverted to an energy recovery process or sorting station.

The working relationship with site Waste Management Service provider remains positive. Regular meetings with Waste Management Contractor to discuss performance and opportunities.



Title: Llanwern Annual Waste Report 2020

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Process Waste Streams

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

Liquid Waste Oil [Recycle]

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 or for re-use in Port Talbot coke ovens.

Ferrous Hydroxide Filter Cake [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. Despite it having a high Fe content, the recycling options are limited due to presence of small concentrations of Cl, which negates the option to recycle into steelmaking via the Sinter Plant process. As there are no other viable treatment options, the material is dispatched for Non-Hazardous landfill currently. Tata have progressed with trials to reduce the chloride content in the filter cake for re-use at Port Talbot sinter plant with the intent to divert this waste stream 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.

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]

Cr 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.

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.