

**EPR Permit Ref: BS3905IP. Tata Steel Strip Products UK, Llanwern Works
Re: PPC Permit Condition 4.1.5 – “fugitive emissions shall be reviewed on an annual basis and a summary report on this review shall be sent to the Environment Agency (Natural Resources Wales) detailing such releases and the measures taken to reduce them”**

Introduction

This report serves to identify & assess the fugitive release potential associated with the Llanwern Steelworks operations, in line with the ‘Fugitive Emissions’ section of the Environment Agency Guidance document: ‘H1 Annex A – Amenity & Accident Risk From Installations and Waste Activities’. Where applicable an Aspect score is given, which is an indication of overall risk, as evaluated by the Llanwern site ISO14001 Aspects & Impacts evaluation process

31st January 2020

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
What is the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk. If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
[1] To Air						
Dust from roads	Local roads, community, adjacent on/off site business's	Wind blown dust	Provision of Road weepers and / or Water Suppression on unmade roads. Tarmac of commonly sed roads The LL complaints & investigation procedure would apply in event of an incident	LOW It is possible that dust may be mobilised by vehicles using unmade roads	LOW Nuisance, and potential harm from respirable dusts, however remoteness & quantities involved, mean this impact is considered minimal	LOW
Particulates from Slab Yards operation	Local roads, community, adjacent on/off site business's	Wind blown dust	Listed as Env Aspect within EMS and control procedure in place However, Aspect has been suspended due to mothballing	LOW At this stage, as the hot mill has been mothballed, the slab yard is not in use therefore no exposure	MED There is potential for appreciable dust release if not controlled.	LOW
Oil Mist from the Cold Rolling operation	The surrounding area, including, land & water	Atmospheric dispersion	An oil separator has been in use since 2006. The operation & associated controls are owned by the 'Continuous Mill & Further Process' dept	LOW The Cold Mill oil separator has a very basic principle of operation, and so it is very unlikely that a failure can occur	MED A release of oil to atmosphere could likely cause a noticeable level of contamination to immediate surroundings, including land and water	LOW Aspect Score 1.78 (Significant due to scoring criteria)

Acid (storage) vapour release	Persons & plant [in close proximity]	Vapour cloud arising from spillage, or tank filling (minimal release)	Sealed Tanks Scheduled [SAP] Maintenance Works area responsible: 'Pickle Lines'	LOW Exposure of any appreciable quantity would only occur in the event of a serious spillage type scenario i.e. not a likely occurrence. Also it would likely affect the local area only	LOW The consequence to persons is High, but in the context of Environmental Risk, this is considered to be Low	LOW
Acid (pickling) vapour release	Local community, adjacent on / off site business's, and nearby SSSI's	Atmospheric dispersion	Acid fume is collected via extraction system, and scrubbed prior to point source discharge Monitoring for HCl is conducted on a quarterly basis Works area responsible: 'Pickle Lines'	HIGH This item relates to a release from point source(s) outside of routine parameters. This has been an issue historically, but has been improved in recent years	MED Dispersion modelling has not identified a significant impact, however potential consequences are noted in the rating	HIGH Aspect Score 2.00 (Significant due to score & Risk Factors criteria)
Metallurgical fumes from Scalebreaking at Pickle Line	Nearby community, and general air quality	Atmospheric dispersion	Atmospheric dispersion Bag Filter plant installed in 2009, and the emissions monitored as per EPR requirements Works area responsible: 'Pickle Lines'	LOW No plant failure, or other compliance issues to date	LOW Prior to fitment of abatement plant, the dust impact was limited to immediate area only, and not of great significance	LOW Aspect Score 0.44 (non-significant)
Metallurgical fumes from Strip Welding – Cold Mill	Nearby community, and general air quality	Atmospheric dispersion	Bag Filter plant in operation, and the emissions monitored as per EPR requirements Works area responsible: 'Cold Mill'	MED No recent plant failure, or other compliance issues	LOW Similar to above, impact limited to immediate area only	LOW Aspect Score 1.33 (Significant due to being a Permitted release point)

Air Conditioning – inadvertent release of gas	Established as ODS, and GHG	Atmospheric dispersion	<p>Limited inventory of F' Gas systems Frequency leak checks & maintenance carried out by trained personnel as per documented requirements</p> <p>Site-wide units looked after by: 'Energy & Utilities'</p>	<p>HIGH</p> <p>Units are topped-up on occasion, indicating small losses can occur</p>	<p>LOW</p> <p>Overall impact is considered to be Low based on capacities of units in use</p>	<p>MED</p> <p>Aspect Score 1.33 (Significant due to Hazardous nature)</p>
[2] To Water						
Pollutants released to effluent system Numerous storage facilities of PPL (Potentially Polluting Liquids)	Severn Estuary via W1 consent point	Effluent & Drainage System	<ul style="list-style-type: none"> Environmental Contingency Plan in effect Storage facilities identified in ISO14001 system, including controls <p>Owned by respective works area</p>	<p>LOW</p> <p>Incidents of serious tank and / or bund failures, are not a frequent occurrence, but not unknown historically</p>	<p>HIGH</p> <p>Some chemicals (notably acids and oils) have the potential to cause appreciable harm to the environment</p>	<p>MED</p> <p>[PPL] Aspect Score 2.67 (Significant due to overall score, and impact potential)</p>
Pollutants (pH, oil & solids) released to effluent system From Process	Severn Estuary via W1 consent point	Effluent & Drainage System	<ul style="list-style-type: none"> Process effluents have local abatement systems Monitoring takes place on both continuous & daily basis Environmental Contingency Plan in effect <p>Classed as a 'General' site aspect, although the respective areas are responsible for local abatement systems</p>	<p>HIGH</p> <p>There have been a number of instances whereby out-of specification effluent samples have had to be notified</p>	<p>MED</p> <p>Impact considered to be limited due to nature of receiving waters, although oil (for example) could have a more serious impact</p>	<p>HIGH</p> <p>Aspect Score 4.00 (Significant due to overall score, and impact potential)</p>

[3] To Land

<p>Unauthorised Waste Deposition to Land</p>	<p>Land & Groundwater /Surface-Water contamination</p>	<p>N/A</p>	<ul style="list-style-type: none"> Control of wastes in accordance with Waste Management guidelines & procedures Works Protection function <p>Classed as a 'General site aspect</p>	<p>MED</p> <p>Instances of Fly-Tipping have been known, in & around Tata land – and have been investigated and / or reported to Local Authority as appropriate</p>	<p>MED</p> <p>Impact considered to be limited due to nature of receiving waters, although oil (for example) could have a more serious impact</p>	<p>MED</p> <p>Aspect Score 4.00 (Significant due to overall score, legislative considerations, and impact potential)</p>
<p>Theft / vandalism related releases e.g. draining of transformers to remove copper</p>	<p>Land & Groundwater / Surface-Water contamination</p>	<p>Direct discharge to ground, and associated ground / surface waters</p>	<p>Security arrangements are in effect for the site, with specific focus on reducing such occurrences</p>	<p>MED</p> <p>A number of incidents would suggest that another event could occur in the future</p>	<p>LOW</p> <p>Some transformer units are quite large, and can contain appreciable quantities of oil, however site waters have in built protection measures</p>	<p>LOW/MED</p>