

## **Introduction**

TRW Automotive Ltd (TRW Automotive) manufacture braking systems for the automotive sector and currently operates two in house surface treatments process lines for the treatment of braking components (e.g. zinc Anodise and anodising.). As such the site was originally issued an authorisation permit by the Environment Agency for a Part A(1) Process under the Pollution Prevention and Control (England and Wales) Regulations 2000. This permit was issued for the surface treatment of metal parts located within the TRW Automotive facility at New Road, New Inn, Pontypool, Gwent, NP4 OTL.

The site activities warranted a permit under the above regulations by virtue of section 2.3 (surface treating metals and plastic materials) of Schedule 1 of the Regulations, which requires any activity involving surface treating of metals and plastic materials using an electrolyte or chemical process where the aggregated volume of the treatment vats is more than 30m<sup>3</sup>, to obtain a permit to operate. The aggregated volume of existing treatment tanks at TRW Automotive is 82m<sup>3</sup>.

This variation is required as the result of an additional Anodise process and an associated trade effluent plant being installed at the site to order to meet customer product requirements. This has resulted in new emissions points and therefore requires a variation in line with Environmental Permitting (England and Wales) Regulations 2010 (EPR) and Environment Agency (EA) guidance.

This document represents a non-technical summary of all of the information provided in the variation application submission and site condition report.

## **About the Installation**

The existing surface treatments process lines for the treatment of braking components (e.g. zinc Anodise and anodising.) were originally permitted, DP3430LX, in 2006 under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, (the PPC Regulations”) to operate an installation carrying out activities covered by the description in Section 2.3 Part A(1) (a) in Part I to Schedule I of the PPC Regulations.

A variation application EPR/DP3430LX/V002 - TRW Automotive Ltd was granted in December 2013 to add the operate a zinc nickel Anodise process to the permit, increasing the aggregated volume of treatment tanks at TRW Automotive, Pontypool to 250m<sup>3</sup>.

A further variation is required to include a new Anodise process at the Pontypool site. The new Anodise process has been designed to be implemented in 2015/2016. The process will provide the capability to produce up to 2 million plated parts per year depending upon customer requirements. The aggregated volume of new treatment tanks for Anodise plant is 12m<sup>3</sup>. The addition of the Anodise process will therefore increase the aggregated volume of treatment tanks at TRW Automotive, Pontypool to approximately 262m<sup>3</sup>.

## **Type of Variation**

It has been established that this variation should be a “substantial variation” to reflect the installation of the new Anodise process and associated emission points. There will be changes to the listed activities or installation boundary.

## **In-Process Controls**

The changes proposed as part of this variation to the existing installation at TRW Automotive are listed below:

- Installation of a new Anodise process to include:
  - A single stacked air emission point, reference A9

## **Emissions Control and Abatement**

### ***Point Source Emissions to Air***

This variation introduces one additional emission point to the installation.

A single stacked emission point will be installed to provide lip extraction to both the caustic and acid treatment tanks within the Anodise process. This new emission point is referenced as A9.

Based on data from the existing Anodise process along with the concentrations of the process solutions it is not expected that there will be an increase in emissions to air due to this variation. Accordingly, there is no requirement for any abatement equipment for the purposes of emissions control.

### ***Fugitive Emissions to Air***

Lip extraction will be installed alongside the process tanks of the new Anodise process and therefore, as a result, it is not anticipated that there will be an increased risk of fugitive emissions from the installation as a result of this variation.

### ***Point Source Emissions to Surface Water and Sewer***

As a result of this variation, the new anodise process will utilise the existing onsite effluent process which means that there will not be a new point source emission to sewer following treatment of process rinse water by an onsite effluent process. This existing emission point is referenced as S1.

The treated water will be discharged to the existing foul sewer, under a trade effluent discharge consent issued by Welsh Water, where the liquor will join other trade and domestic effluent for subsequent treatment at Dwr Cymru Welsh Water, Ponthir Sewage Treatment Works at Newport.

This variation will result in an increase in the quantity of waste water being released to sewer. However, the operating limits of the plant are such that it is not expected to release heavy metals above current BREF benchmark limits.

### ***Point Source Emissions to Groundwater***

There are no direct or indirect discharges of wastewater or chemicals to groundwater at the installation.

### ***Fugitive Emissions to Surface Water, Sewer and Groundwater***

Potential fugitive emissions to surface water, sewer and groundwater, to include accidental spillages are considered to be unlikely. The Anodise process has been installed within a bunded area which will be sealed with a chemical resistant epoxy coating and all tanks and associated pipe work are located above ground over hard standing areas.

## **Management Techniques**

Management of the installation is subject to ISO 14001 and ISO 9001. There are no planned changes to the management practices as a result of this variation. The procedures and instructions for operation and maintenance of the new Anodise process are in line with existing management techniques.

## **Raw Materials**

TRW uses a wide variety of materials in the production process, including alkaline cleaners, acid pickles, metals and passivates and stripping chemicals.

As TRW serves customers in the automotive sector the surface finish has to be completed in strict accordance with stringent technical performance specifications. These specifications determine the type of solution to be used, its concentration and various other operating parameters. Within these constraints, TRW has attempted to identify and use those materials that are less environmentally harmful, where the alternative exists.

## **Waste Handling and Waste Recovery and Disposal**

It is anticipated that the quantity of waste produced by the installation will not increase significantly as a result of the introduction of the new Anodise process.

There are no planned changes to the waste handling, recovery and disposal processes for this variation application, as the site already operates an effective waste management system.

## **Energy**

The company is part of a Climate Change Levy Agreement (CCLA) and therefore has made formal commitments to reduce energy usage. The site has had a number of energy management audits carried which have identified a number of opportunities for energy savings to be made. The site has identified these improvements as part of the site improvement programme.

As a result of this variation it is expected that the new Anodise process will also be subject to the Climate Change Levy Agreement.

## **Accidents and Their Consequences**

TRW Automotive has recognised the potential for accidents to occur and in particular in relation to potentially polluting materials such as acids, alkalis and other process chemicals. In the light of this the primary focus has been to locate all storage and handling activities within dedicated bunded areas.

In terms of emergency response provision, TRW Automotive has a site-wide emergency response programme which includes detailed response actions and reporting levels for various incidents. All incidents or near misses will be investigated and documented.

There have been no major or significant incidents at TRW Automotive in the past 10 years and it is thought highly unlikely that there will be any major or significant incidents at the installation in the future. The factory does not, in the company's opinion, pose a significant threat to the environment under either normal or abnormal and emergency operating conditions.

The site has an existing Accident Management Plan which will be reviewed to reflect the changes detailed in this variation. It is not expected that there will be any major changes required as a result of this variation.

## **Noise and Vibration**

There are no additional significant noise or vibration sources as a result of this variation application. One additional potential noise source is from the air extraction unit and stack fans associated with the plant. The design, operation and maintenance of this potential source are expected to effectively mitigate any potential noise or vibration impacts.

Residential properties are a significant distance from the site and there have not been any noise complaints regarding TRW Automotive in previous years. Therefore, TRW Automotive concludes that there is currently no potential for reasonable cause for annoyance from noise emissions. However, TRW Automotive will review the potential for reasonable annoyance from noise if there are any significant changes to site operations or local noise receptors.

## **Monitoring**

The effluent discharge to foul sewer from the effluent treatment plant is sampled and tested regularly by the regulator to monitor against the conditions in the trade effluent discharge consent.

Discharges to the Afon Lwyd are monitored periodically by the Environment Agency. Wastes, energy usage and water consumption are also monitored and recorded on a regular basis, so that trends can be identified and efficiencies adopted, where possible.

All monitoring is in accordance with standards and methods that represent industry standard practice and which are approved by the Environment Agency.

## **Site Closure**

There are no plans to close the site, but TRW is required to address arrangements for any possible future closure of the site in this IPPC application. TRW has therefore prepared a Site Closure Plan, which requires that the company, upon definitive cessation of activities at the facility, will remove all liquids either by passing them through the on-site effluent treatment plant or disposing directly via waste contractors where this is not feasible. Furthermore, the entire facility will be audited and all wastes will be identified and removed by licensed contractors. Any surface contamination will be cleaned up and the arisings disposed of and any ground or groundwater contamination associated with the facility will be remediated.

The existing site closure plan will be updated to reflect changes to the installation as a result of this variation application.

## **Installation Wide Issues**

TRW Automotive are the sole operator of the facility, hence these provisions are not relevant to this application.

## **Emission Benchmarks and Impact Assessment**

Emissions to air and the related environmental impacts have been assessed using the Environment Agency H1 database. The conclusion of the emissions assessment is that no air releases to the environment will have a significant environmental impact.

Comparison of the average composition of TRW Automotive's effluent in 2014/2015 with the trade effluent discharge consent limits, and also with the benchmark values for releases to sewer contained in Sector Guidance Note IPPC S2.07, *IPPC Interim Guidance for Surface Treatment of metal or plastic — by chemical or electrolytic means*, shows that for all substances the average effluent composition at TRW Automotive meets whichever is the lower of the consent limit or the benchmark value.