

4. Monitoring

Anodise Process Monitoring

Question: Describe the proposed measures for monitoring emissions, including any environmental monitoring, and the frequency, measurement methodology and evaluation procedure proposed.

Monitoring will be carried out of releases to the environment and process variables. These are identified below:

4.1. Emissions Monitoring

4.1.1 Monitoring and reporting of emissions to water courses and sewer

The current effluent discharge to foul sewer from the effluent treatment plant is sampled and tested regularly to demonstrate compliance with the conditions in the trade effluent discharge consent issued by Welsh Water. The frequency of monitoring and reporting is summarised below.

Parameter	Sampling Frequency	Test procedure
Flow rate	Continuous measurement and daily recording	Treated effluent from the ETP flows into the 'V' notch tank where the flow rate to sewer is measured by a digital flow meter.
pH	Continuous measurement and daily recording Monthly compliance measurement and recording	Continuous ETP in-line process pH monitoring using pH electrodes. The meter displays are situated in the main effluent control room and is monitored regularly to check that the system is operating correctly. An alarm on the meter will alert any faults in the system or any process parameters are beyond the required control limits. 24hr composite samples are taken by Welsh Water and analysed for permit compliance
Metals <ul style="list-style-type: none"> • Chromium • Copper • Nickel • Zinc 	Monthly compliance measurement and recording	24hr composite samples are taken by Welsh Water and analysed for permit compliance
Chemical Oxygen Demand (COD)	Monthly compliance measurement and recording	24hr composite samples are taken by Welsh Water and analysed for permit compliance
Suspended Solids Turbidity	Monthly compliance measurement and recording Daily visual inspection	24hr composite samples are taken by Welsh Water and analysed for permit compliance Visual inspection of liquor from 'v' notch tank into sewer.

This monitoring process will remain unchanged by the introduction of the new anodise process.

4.1.2. Monitoring and reporting of emissions to water air

Following the installation of the proposed Anodise process, TRW will carry out independent emissions monitoring, within the first six months of full production, to measure and assess the emissions to air. These tests will include sampling both the release point and the ambient air (for occupational purposes) for the process line. Based on the results of the monitoring, TRW will develop an on-going monitoring program for the zinc-nickel plating process.

The release point for the plant extraction will be an emission stack located on the roof of the factory which will be provided with appropriate sampling ports. Appropriate access requirements for sampling purposes will be determined by a risk assessment following installation of the extraction stack and will be based on the requirements set out in Technical Guidance Note M1.

4.1.3. Monitoring and reporting of waste management

All waste produced and disposed of by TRW is monitored and tracked using a waste spreadsheet. Waste arising from daily site operations is segregated for separate collection and disposal. Data on the quantities of waste collected is grouped into four classifications and recorded as part of the site's ISO14001 EMS record keeping and documentation procedures. The four classifications are:

- Hazardous wastes (liquid and solids)
- Recycled Wastes (liquid and solids)
- General Refuse
- Office Waste

Waste data is reviewed on a regular basis to assess performance and identify areas for improvement.

4.1.4. Environmental Monitoring (Beyond the installation)

No environmental monitoring (beyond the installation) is anticipated relating to the emissions arising from the installation.

The main sources of noise from TRW do not represent a significant environmental impact and are masked by noise arising from the adjacent roadways and industrial processes. There is no history of noise complaints regarding TRW activities.

There are no olfactory issues associated with odour arising from any aspect of the installation.

On the whole, it is considered unlikely that the emissions and discharges from the installation will have any significant impact on the surrounding environment. Given this and the nature and scale of operations at the installation, it is felt that off-site monitoring and sampling is not necessary.