

## Non-Technical Summary

This non-technical summary has been produced to support Safran Landing Systems Services UK Ltd (SLSS) with a variation application to Environmental Permit (EPR/BL0138IP) at Meteor Business Park in Gloucester.

SLSS operates an aircraft landing gear refurbishment facility at Meteor Business Park in Gloucester. The company is applying to vary its existing Environmental Permit to accommodate a new zinc-nickel electroplating line.

### Summary of Changes

The new Zinc-Nickel plating line provides protective coating for aircraft landing gear components. This is a fully automated process proposed to operate 24/7. The new line is located at Hangar 5 on site.

The new line includes seven main stages including degreasing, grit blasting, water break testing, plating preparation, Zinc-Nickel plating, passivation and de-embrittlement.

Permit changes requested are as the following:

1. New Zinc-Nickel plating added to permit activities on site
2. New emission point A3 added to permit for Zinc-Nickel extraction stack
3. Site boundary extension to include Hangar 5 facility
4. Updated emission limits for zinc and nickel from new process
5. Bi-annual monitoring requirements for new emission point
6. Final effluent storage facility at Hangar 5

### Environmental Impacts

#### Air Emissions Impact Assessment

New emission point (A3) will release zinc and nickel from the Zinc-Nickel plating line extraction system. Detailed air quality modelling was undertaken for nearest residential and ecological receptors.

All predicted concentrations were predicted to be well below regulatory limits at:

- Residential properties
- Ecological sites: Prior's Grove Local Wildlife Site, Cotswold Beechwoods Special Area of Conservation

Both pollutant concentrations and deposition rates meet all relevant Environmental Assessment Levels. Therefore, impacts considered acceptable with no significant effect on local air quality

#### Noise Impact Assessment

An environmental noise impact assessment was undertaken to evaluate the potential noise impacts from the new Zinc-Nickel plating line.

The assessment indicates that new plant noise levels was predicted to be below existing background sound at all nearest receptors and can be classified as **Low Impact** at all noise sensitive receptors. Noise impact from daytime and night-time operations were both predicted to fall below Lowest Observed Adverse Effect Level (LOAEL)

Therefore, the proposed new Zinc-Nickel plating line will not increase existing site noise levels in any significant manner, and no mitigation measures are required.

Operational vibration impacts were scoped out due to low vibration levels and separation distances.

## Emission to Water

There is no direct discharge to water bodies. All process wastewaters are managed through closed-loop treatment and the final effluent are stored in a tank for licensed off-site disposal.

## Site Condition Report

A Site Condition Report has been prepared in accordance with Environment Agency guidance to establish a baseline record of land condition at the time of permit variation, enabling future comparison at permit surrender. The site, constructed circa 1947 as part of Gloucestershire Airport infrastructure, has been used for aerospace engineering with no recorded environmental incidents, though continual industrial use has likely elevated trace element levels in soils; Hangar 5 joined the SLSS site in 2021, previously occupied by Dowty Propellers. While no formal baseline exists, periodic groundwater testing (2002-2017) detected three volatile organic compounds (1,1,1-Trichloroethane, 1,1-Dichloroethane, and 1,1-Dichloroethene), with secondary borehole testing completed in 2025 including Hangar 5. The baseline conditions established will enable SLSS to demonstrate at permit surrender that land has been returned to a satisfactory state relative to the condition documented at this permit variation.

## Best Available Techniques (BAT) Compliance

The new facility has been assessed against:

- EU STM BRef (Reference Document on Best Available Techniques for Surface Treatment of Metals and Plastics)
- EA Guidance EPR 2.07 (Surface Treatment of Metals and Plastics by Electrolytic and Chemical Processes)

The BAT assessment has concluded that the proposed Zinc-Nickel plating is compliant with BAT with the following key features:

- Closed-loop water recycling minimising water consumption
- Vacuum evaporation reducing waste volumes and allowing condensate feedback
- Cascade rinsing for water efficiency
- Automated process controls ensuring consistent quality and reduced chemical use
- Enhanced emission abatement on extraction systems
- Drag-out reduction through optimised draining times

## Resource Efficiency

**Energy:** Gas and electricity consumption at the site are monitored and reported to the Environment Agency every year. The estimated additional electricity is 2,346 MWh/year (no additional natural gas) for the new Zinc-Nickel plating line.

**Water:** The new Zinc-Nickel plating line a closed-loop water treatment system to minimise water use.

**Raw Materials:** The new Zinc-Nickel plating line utilises BAT where applicable to optimise the raw material consumptions.

## Environmental Management System and Emergency Response

The Environmental Management System and Major Accident Prevention Plan have been updated to cover the proposed operations on site.

## Conclusion

All environmental assessments demonstrate impacts well within acceptable limits, with no significant effects predicted on air quality, noise levels, or water resources at sensitive receptors. The new proposed Zinc-Nickel plating line is compliant with Best Available Techniques (BAT) as defined in the EU BRef and EA Guidance EPR 2.07, incorporating closed-loop water treatment, vacuum evaporation technology and automated process controls.