

Decision document variation

We have decided to grant the variation for Safran Landing Systems UK Ltd, Gloucester operated by Safran Landing Systems UK Ltd.

The variation number is EPR/AP3433BQ/V004.

The variation is for

- Replacement of a Cadmium plating line (Line V) with a Zinc/Nickel plating line (Line Z) at the same location;
- Reconfiguration of the plating shop basement, floor and bunding system as part of the installation of Line Z;
- Installation of a new in-line effluent treatment plant and effluent storage tanks as part of the Line Z installation;
- Installation of a new fume extraction and abatement system;
- Use of new raw materials;
- Updated emission point reference numbers A1 to A14 and monitoring requirements;
- Removal of emission limits relating to Total Particulates to air and Free Cyanide to sewer and associated monitoring and reporting requirements; and
- Removal of reporting requirement for Flow (m³/day) to sewer

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The comments and our responses are summarised in the [consultation responses](#) section.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- Food Standards Agency
- Local Authority – Planning
- Local Authority – Environmental Health
- Health & Safety Executive (HSE)
- Director of Public Health
- Public Health England (PHE)
- Natural England
- Sewerage Authority

The comments and our responses are summarised in the [consultation responses](#) section.

The regulated facility

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The site

The operator has provided a plan which we consider to be satisfactory.

The plan is included in this variation and has been updated from the original permit to include the latest installation boundary and site layout.

Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory for the variation application.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

Given the nature and mass of the substances emitted by the process, we consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment all emissions may be screened out as environmentally insignificant.

Discharges to air

The operator has gone straight to air dispersion modelling to assess the risk from the existing process and proposed new plating line at the installation. It has also included two releases points not currently regulated in the current permit.

The operator used the ADMS 5.2 modelling package to assess the process contribution (PC) for short term and long term impacts of cadmium, chromium, hexavalent chromium, nickel, zinc and particulate matter.

To screen out a PC for any substance so that you do not need to do any further assessment of it, the PC must meet both of the following criteria:

- the short-term PC is less than 10% of the short-term environmental standard
- the long-term PC is less than 1% of the long-term environmental standard

If you meet both of these criteria you do not need to do any further assessment of the substance.

The process contributions of the following substances were determined to be insignificant against the above criteria:

Chromium
Zinc (as zinc oxide)

The following substances are considered to be unlikely to have a significant impact on air quality and to require no further assessment on the basis of Environment Agency assessment criteria (i.e. the short term process contribution is less than 20% of the short term environmental standard less the corresponding background concentration and/or the long term predicted environmental concentration is less than 70% of the long term environmental standard):

Particulates

It was considered that the following substances required further more detailed assessment:

Cadmium
Nickel
Hexavalent Chromium

Nickel, cadmium and hexavalent chromium were assessed against Workplace Exposure Limits (on site), air quality standards (off site) and at the nearest impacted residential property (off site).

Against the Workplace Exposure Limits, in all cases the maximum on site process contribution is less than 1% of the limit.

At both the nearest commercial location and along the site's neighbouring footpath, maximum process contributions of cadmium, nickel and hexavalent chromium were considerably less than 10% of the corresponding short term environmental standard.

At the most affected residential location, for cadmium and nickel, the short term process contribution is less than 20% of the applicable short term standard less the background and the long term predicted environmental concentration is less than 70% of the long term ambient air directive limit.

The initial assessment for hexavalent chromium shows an exceedance of the long term environmental standard. This is likely an over estimation by the modelling of the worst case scenario, i.e. the long term annual mean process contributions assumes year round operation of the process.

The environmental standard is also based on the chromium content of the PM10 fraction of the exhaust emission. A proportion of chromium will be in the vapour phase.

Based on the assessments above, the process contributions of nickel, cadmium and hexavalent chromium are considered insignificant and no further assessment is warranted.

Discharges to water

There will be no change to the emissions to controlled waters and sewer from the change in operation.

Operating techniques

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Environmental management system

The new Zinc/Nickel Plating Line is subject to the same environmental management techniques and procedures as the existing production areas.

Operating techniques for emissions that screen out as insignificant.

Emissions of Cadmium, Chromium, Hexavalent chromium, Particulates and Zinc, have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

No limits were set for metals in the original permit. As the substances above remain screened out as insignificant, this continues with no limits set via this variation. Also see below regards particulates.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme which requires the operator to provide written notification to the Environment Agency of the date when commissioning of Line Z is complete (IP9), submit a report detailing the findings of the commissioning and to confirm whether there are any changes to the operating techniques provided in the application (IP10) and to carry out a monitoring exercise to determine the concentration and mass release of zinc and nickel emitted from the new Z line release point A3 (IP11).

Improvement condition IP12 has been set to review the use of hexavalent chromium. The air dispersion modelling showed, on a worst case scenario, that the level of hexavalent chromium at the most affected local residential property exceeded the long term environmental standard. This is considered an over estimation but a review to look at substituting or reducing the use and/or reducing emissions to air is considered warranted to further minimise impacts to the environment.

Emission limits

The following emission limits have been added, amended or deleted as a result of this variation.

Deleted: particulates to air, free cyanide and flow rate to sewer

An emission for zinc to air maybe set following submission of improvement condition IP11.

Based on the air dispersion modelling, substances are assessed to be insignificant so no limits have been set under this variation.

Monitoring

We have decided that monitoring should be added for the following parameters:

Zinc and **Nickel** is to be monitored from release point A3, this is set at every 3 months initially to obtain sufficient results to confirm the levels and help to decide on future monitoring requirements and frequencies. An initial monitoring exercise after commissioning has been set under improvement condition IP11.

No monitoring is required for release point A14 Nickel Coating Robot given the nature and size of the process, periodic operation with extraction from the small robot enclosure by way of local exhaust ventilation.

We have decided that monitoring should be removed for the following parameters:

Total Particulate Matter from all release points to air. **Free Cyanide** from releases to sewer.

In the permit determination in 2005, total particulate emissions were deemed to be significant when using the H1 assessment methodology.

An emission limit of 10mg/m³ was set with the requirement to monitor particulate on an annual basis. An improvement condition IP3 was also set to review and improve the dispersion from all the air emission release points.

Results from the annual monitoring exercises since 2005 have shown the average particulate emission level to be less than 10% of the original limit set in the permit. The modern air dispersion modelling used for the assessment of impacts for this variation indicate the particulate emissions to be insignificant.

On the basis of the above, the requirement to monitor for total particulate matter has been removed.

An emission limit for free cyanide was set in the permit at 0.2 mg/l. This was because although the Operator tended not to discharge cyanide to sewer, cyanide was periodically detected by their in-house monitoring prior to discharge. The limit ensured that the Operator remains vigilant and prevented any cyanide discharges to sewer.

The requirement to monitor and report the level of free cyanide in the discharge to sewer has been removed. Since the 2016 variation to the Severn Trent Water Ltd Discharge Consent to sewer, cyanide no longer has a limit and hence is no longer deemed a substance of concern. Also, Safran do not actively discharge it as a part of the process emissions. We consider that there is little risk to the environment from removing the requirement to monitor for the emissions of cyanide.

Reporting

We have added/removed reporting in the variation for the following parameters:

Emissions to air - Parameters as required by condition 2.2.13 (table 2.2.2) and condition 2.10.2 (table 2.10.1).

Emissions to water - Parameters as required by condition 2.2.2.8 (table 2.2.8).

The requirement to monitor for daily flow (m³/day) to release point S1 Sewer remains but the need to report this parameters has been removed.

Monitoring of the discharge flow/rate is on a continuous basis and is controlled by a limit in the operators Discharge Consent from Severn Trent Water Limited.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation Responses

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section:

Response received from Public Health England:

No significant concerns regarding the risk to the health of the local population from the installation.

Response received from Local Authority – Environmental Health:

There are no Notices on this premises outstanding or otherwise.

Response received from Natural England:

No comments to make on this application.

Response received from Sewerage Authority – Severn Trent Water Ltd:

No comments to make. We deem there is not a risk to Severn Trent Water surface water quality assets from the proposals.

No other consultation responses were received.