Non-Technical Summary

Environmental Permit Variation and Consolidation Support

Feralco (UK) Ltd

Ditton Road, Widnes, Cheshire, WA8 0PH

Prepared by:

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Basis of Report

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1.0 Introduction

SLR Consulting Limited (SLR) has been instructed by Feralco (UK) Limited to prepare for a substantial Environmental Permit (EP) variation of the bespoke EP Ref. WP3630WV (ferric sulphate and ferrous sulphate production) for their manufacturing facility located at Ditton Road, Widnes, Cheshire, WA8 0PH (the site). The EP variation will be submitted to the Environment Agency (EA) for determination.

The site is currently permitted as a Part A (1) activity as described in the Environmental Permitting (England and Wales) Regulations (EPR) 2016 (as amended), for the following listed activity:

- Section 4.2 Part A(1)(a)(iv) – producing inorganic chemicals such as salts (for example ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate)

This EP variation will not alter any of the above activities carried out on site but will allow for increased production of ferric sulphate through site expansion and the installation of a second production line including additional reactor vessels, storage tanks and water scrubber abatement system.

The existing reactor vessel on ferric sulphate production line 1, RTK01, is being replaced as part of this variation. The reactor is made from polypropylene and is being replaced with a rubber lined carbon steel vessel of equivalent size. The existing 50m^3 hydrogen peroxide tank, T1200, serving ferric sulphate production line 1 is also being replaced for a larger capacity 100m^3 tank made of the same material (polyethylene).

The EP boundary is to be modified, as additional land is being added for the new production line. Additionally, two existing Part A(1) installation permits, BP3833LA (PlusPac production) and PP3733LX (aluminium sulphate production), are to be consolidated with EP WP3630WV and will be included in the new permit boundary.

The activity relating to EP BP3533LC is to be surrendered but the land associated with the EP is to be retained. This land will also form part of the new consolidated permit boundary.

This non-technical summary (NTS) provides an explanation of the proposed changes to the original EP application.

The EP variation application comprises the following elements:

- Non-Technical Summary;
- Application forms (Parts A, C2, C3 and F1);
- Best Available Techniques and Operating Techniques;
- Environmental Risk Assessment;
- Air Emissions Risk Assessment;
- Site Condition Report; and
- Drawings

1.1 The Site

The site is located at Feralco (UK) Ltd, Ditton Road, Widnes, Cheshire, WA8 0PH, approximately 1.3km southwest of Widnes, which is located approximately 17.1km to the southeast of Liverpool city centre. The site is centred on National Grid Reference SJ 49984 84814. The site is an installation facility which occupies approximately 2.5 hectares and

comprises of production facilities, maintenance facilities, warehousing and office space including laboratories.

The nearest residential properties are located approximately 500m northwest of the site and commercial properties lie in all directions for at least 600m.

Steward's Brook lies adjacent to the east of the site boundary which flows south to the River Mersey (approximately 720m south), open ground is located approximately 30m north and a railway line is located approximately 30m south.

The site location is shown in Drawing 001. The Proposed Site Layout, Permit Boundary & Emission Points is shown on Drawing 002, Drawing 005A illustrates the Local Receptors and Drawing 005B shows the Natural & Cultural Heritage.

1.2 Overview of Existing Permitted Operations

The site is currently permitted for the production of inorganic chemicals as a Part A(1) activity as described in the Environmental Permitting (England and Wales) Regulations (EPR) as amended:

- Section 4.2 Part A(1)(a)(iv) – producing inorganic chemicals such as salts (for example) ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate)

Directly associated activities (DAA) include:

- Air abatement – the use of wet scrubbing air abatement systems;
- Storage and handling of raw materials – offloading, storage and transfer on site of all process raw materials including hydrogen peroxide, sulphuric acid and magnetite and;
- Storage and handling of waste materials – handling and storage of wastes on site to removal off site including filter press waste and packaging waste.

The site manufacturers a range of products, aluminium and iron-based coagulants and milled alumina compounds, in dedicated batch plants. These products are used in the water treatment industry for the treatment of effluent and potable water. The site specifically manufacturers ferric sulphate, aluminium sulphate and PlusPac (poly aluminium hydroxychloride). There are no process discharges to controlled waters or sewer and the ferric sulphate process does not produce liquid effluent waste.

2.0 Environmental Permit Variation Application

Feralco (UK) Ltd are proposing to install a new production line, including additional reactor vessels and storage tanks, to allow for increased production of ferric sulphate. An additional water scrubber abatement system is also to be installed to treat gaseous emissions from the reactor.

As part of the EP variation application, two other existing Part A installation EPs (EP BP3833LA for PlusPac production and EP PP3733LX for aluminium sulphate production) will be consolidated with WP3630WV to create one modern style EP. Nothing has changed regarding the processes falling under permits BP3833LA and PP3733LX. Changes to the permit boundaries are illustrated in Drawing 003.

Feralco also wish to surrender the activity associated with EP BP3533LC for the production of polyaluminium silicate sulphate (PASS). This product has not been manufactured onsite since 2015 and all associated process equipment has been decommissioned and removed. Feralco wish to retain the land associated with this EP, which is part of a warehouse building, and use the area for production of alumina products involving non-permittable activities of milling and

mixing. The area associated with the EP, will form part of the overall consolidated permit boundary.

2.1 Operating Techniques

The proposed changes at the site will not impact upon operations and will operate in accordance with the relevant sections of the following key guidance documents:

- Environment Agency – How to comply with your environmental permit (April 2018)
- Environment Agency – A1 installation: environmental permits (July 2019);
- Environment Agency – Legal operator and competence requirements: environmental permits (June 2019)
- Environment Agency – Develop a management system: environmental permits (January 2019)
- Environment Agency – Risk assessments for your environmental permit (October 2019);
- Environment Agency – Control and monitor emissions for your environmental permit (November 2018)
- Environment Agency – Energy efficiency standards for industrial plants to get environmental permits (July 2019)

2.2 Environmental Management System

Feralco (UK) Ltd operate the site using management systems for health & safety, environment and quality, all of which are certified to ISO 45001, ISO 14001 and ISO 9001 respectively. The certification body is BSI who undertake audits twice a year for each standard.

The Environmental Management System (EMS) will ensure that:

- the risks that the activities pose to the environment are identified;
- the measures that are required to minimise the risks are identified;
- the activities that are managed in accordance with the management system;
- performance against the management system is audited at regular intervals; and
- the EP is complied with.

The management system will be reviewed at least once every four years or in response to significant changes to the activities, accidents or non-compliance.

2.3 Environmental Risk Assessment

An Environmental Risk Assessment (ERA) has been undertaken as part of this EP variation application and is provided in Section 4 of this application. It includes detailed assessments of the significant risks including emissions to air and noise, fugitive emissions, releases to water, litter, and potential for accidents and incidents associated with the new ferric sulphate production line. The assessment concludes that with the implementation of the risk management measures described, potential hazards from the proposed variation are not likely to be significant.

2.4 Best Available Techniques and Operating Techniques

The Best Available Techniques and Operating Techniques (BATOT) document describes how the site has been designed and will be operated in accordance with Best Available Techniques

(BAT) as described in EA guidance and the relevant BAT Reference (Bref) notes. The document includes an overview of the technical, operational and management measures that will be implemented at the site.

The BATOT is enclosed as Section 3 of this application.

2.5 Emissions to Water

There is no trade effluent produced on site and there are no foul sewers on site.

Uncontaminated rainwater from non-operational areas of the site is discharged to Steward's Brook via surface grids.

2.6 Emission to Land

There are no emissions to land due to the impermeable concrete surfacing at the site.

2.7 Monitoring

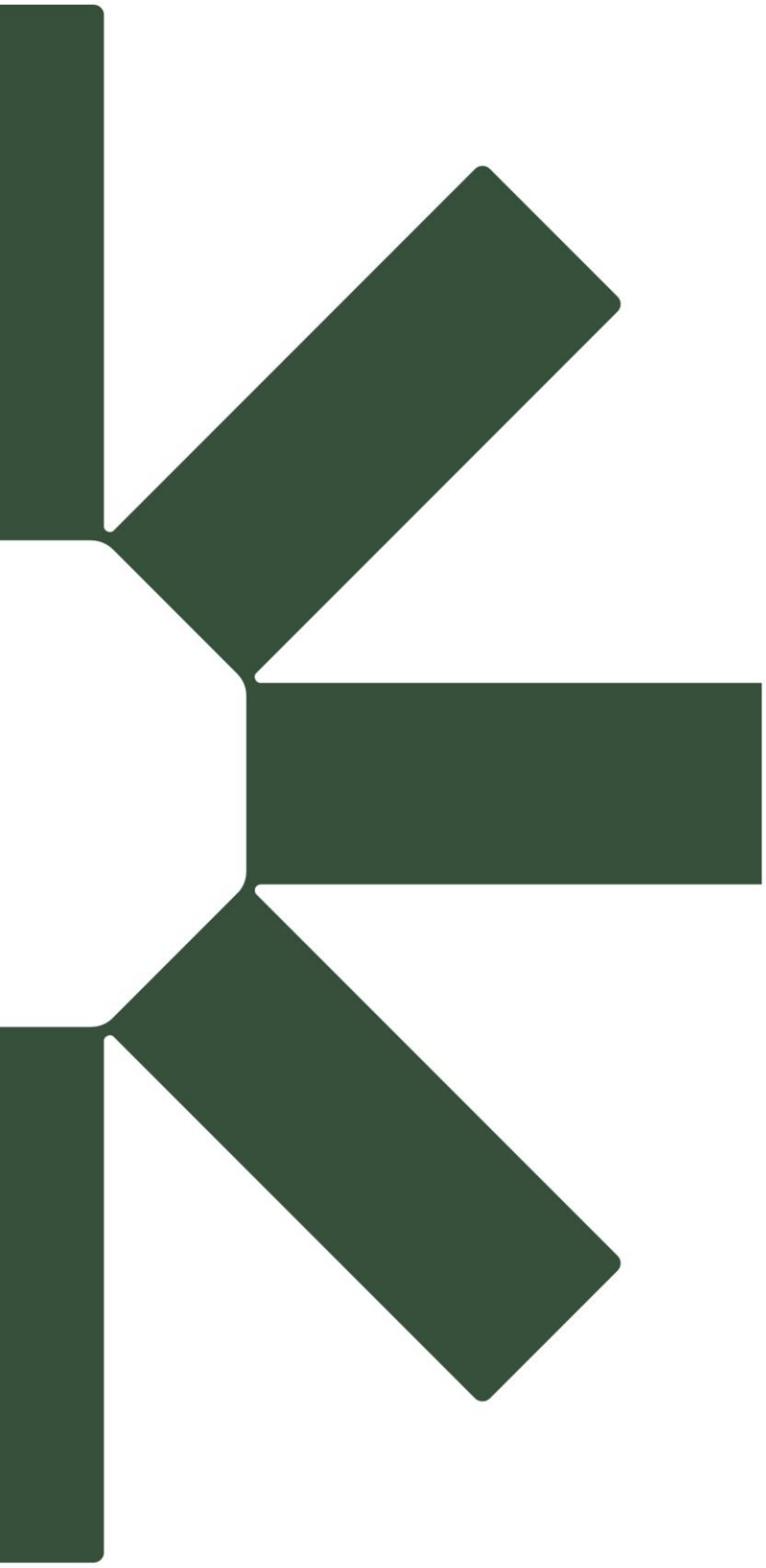
Monitoring is undertaken in compliance with recognised techniques or using 'standard' methods to ensure it does not give rise to unacceptable environmental impact and results are recorded and stored electronically. Current emissions to air at the site are monitored in accordance with the requirements of EP WP3630WV. A monitoring action plan will also be implemented in the event that the monitoring programme identified a potentially significant release.

2.7.1 Monitoring Facilities

The sample locations and associated monitoring facilities for the monitoring of the parameters identified in the existing EP fully comply with the Environment Agency Technical Guidance Note (TGN) M1 and have been verified by EA and do not change as a result of this EP variation.

3.0 Conclusion

The overall conclusion from the studies undertaken as part of this EP variation application is that there is unlikely to be a significant environmental impact as a result of the proposed additional ferric sulphate production line. Feralco (UK) Ltd are fully committed to ensuring the highest standards are met and will undertake its activities in a manner consistent with best industry practices.



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