Pentre Agrochemicals Plant

Permit Variation Application – Non-Technical Summary

FMC Agro Limited

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Basis of Report

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Acronyms and Abbreviations

AERA	Air Emissions Risk Assessment
BATOT	Best Available Techniques and Operating Techniques document
EMS	Environmental Management System
EP	Environmental Permit
NRW	Natural Resources Wales
NTS	Non-Technical Summary

1.0 Introduction

SLR has been instructed by FMC Agro Limited (FMC) to prepare an application for a minor technical variation of the bespoke Environmental Permit (EP), reference EPR/FP3031CW/V004 for the Pentre Agrochemicals Plant facility (the site) located at Pentre, Flintshire, CH5 2DH, for submission to Natural Resources Wales (NRW).

The site currently holds an EP to operate a Section 4.2, Part A(1)(a)(iv) activity for the production of inorganic chemicals such as salts, in accordance with the Environmental Permitting (England and Wales) Regulations 2016 (as amended).

This EP variation application does not alter any of the existing activities carried out on site, but relates solely to the replacement of an existing nitric acid storage tank with a new bunded tank, and the replacement of an existing water scrubber with a new water scrubber unit for the abatement of potential nitric acid fume within air displaced from the bulk storage tank and nitrogen dioxide extracted from Mixer 3 plant. No other changes are proposed at the site.

This Non-Technical Summary (NTS) provides an explanation of the proposed activities which are being applied for and a summary of the key technical standards and control measures that will be implemented on site.

The EP variation application comprises of the following elements:

- Application forms (Parts A, C2, C3 and F1);
- Non-Technical Summary (NTS);
- Best Available Techniques and Operating Techniques (BATOT) document; and
- Air Emissions Risk Assessment (AERA).

The following drawing accompanies the EP variation application:

- Drawing 001 – Installation Boundary and Emission Points.

1.1 The Site

The Pentre Agrochemicals Plant installation is located on Rectors Lane, Pentre, Deeside. The site is approximately 600m from the centre of Sandycroft village to the south east. Light industrial units border the site to the west and south, while the Chester to Holyhead railway line runs along the north eastern boundary of the site. The River Dee is approximately 500 metres beyond the railway line.

1.2 Overview of Existing Permitted Operations

The site currently holds an EP to operate the following Part A(1) activity as defined in Schedule 1, Part 2 of the Environmental Permitting (England and Wales) Regulations (EPR) 2016 (as amended):

- Section 4.2 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).

The EP also includes the following directly associated activities:

- surface water disposal.

The site consists of a manufacturing and filling plant, together with formulation development facilities and a quality control laboratory. The production of the following products:

- Jett 200;
- Jett 235;
- Century;
- Seamac Gold;
- Zinc Liquid;
- Zinc Nitrate Solution; and
- Emperor

generate emissions to air in the form of dust and nitric acid fume from the addition and mixing of raw materials. A water scrubber system is used for the abatement of nitric acid fume.

Surface water arising on site is discharged to controlled waters. The surface water discharge is comprised of clean, uncontaminated rainwater run-off. There are no emission to sewer from the permitted processes.

2.0 Environmental Permit Variation Application

The following changes are proposed at the site which NRW has advised require a minor technical variation to the current bespoke EP:

- replacement of the existing double skinned plastic storage tank used for storage of nitric acid with a bespoke stainless steel tank;
- relocation of the stainless steel nitric acid storage tank and construction of a CIRIA compliant concrete secondary containment bund;
- installation of a new water scrubber abatement system for the nitric acid storage tank vent; and
- relocation of the water scrubber vent emission point.

The maximum capacity for the installation remains at 18,000 tonnes per year.

The proposed permit variation will not change the current permitted operational and production hours at the Installation.

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:

- How to Comply with your Environmental Permit, V8 October 2014;
- How to Comply with your environmental permit. Additional guidance for the inorganic chemicals sector (EPR 4.03), March 2009;
- Reference Document on Best Available Techniques for the Production of Speciality Inorganic Chemicals (August 2007); and

- Best Available Techniques (BAT) Reference Document for Common Waste Gas Management and Treatment Systems in the Chemical Sector (January 2023).

2.1.1 Environmental Management System

FMC has an Environmental Management System (EMS) which is certified to Green Dragon Level 4. The EMS has been certified since 2013 and is regularly audited by a suitably accredited third-party organisation, Groundworks Wales.

The EMS includes the policies, management principles, organisational structure, responsibilities, standards/procedures, process controls and resources required to manage environmental protection across all aspects of the business.

The EMS has been reviewed by NRW.

2.2 Environmental Risk Assessment

An Environmental Risk Assessment (ERA) has not been undertaken as the Air Emissions, document reference 410.065838.00001_AERA, has concluded that there is no impact on either human health of the environment from the proposed changes on site and all other risks remain the same as per the previous ERA.

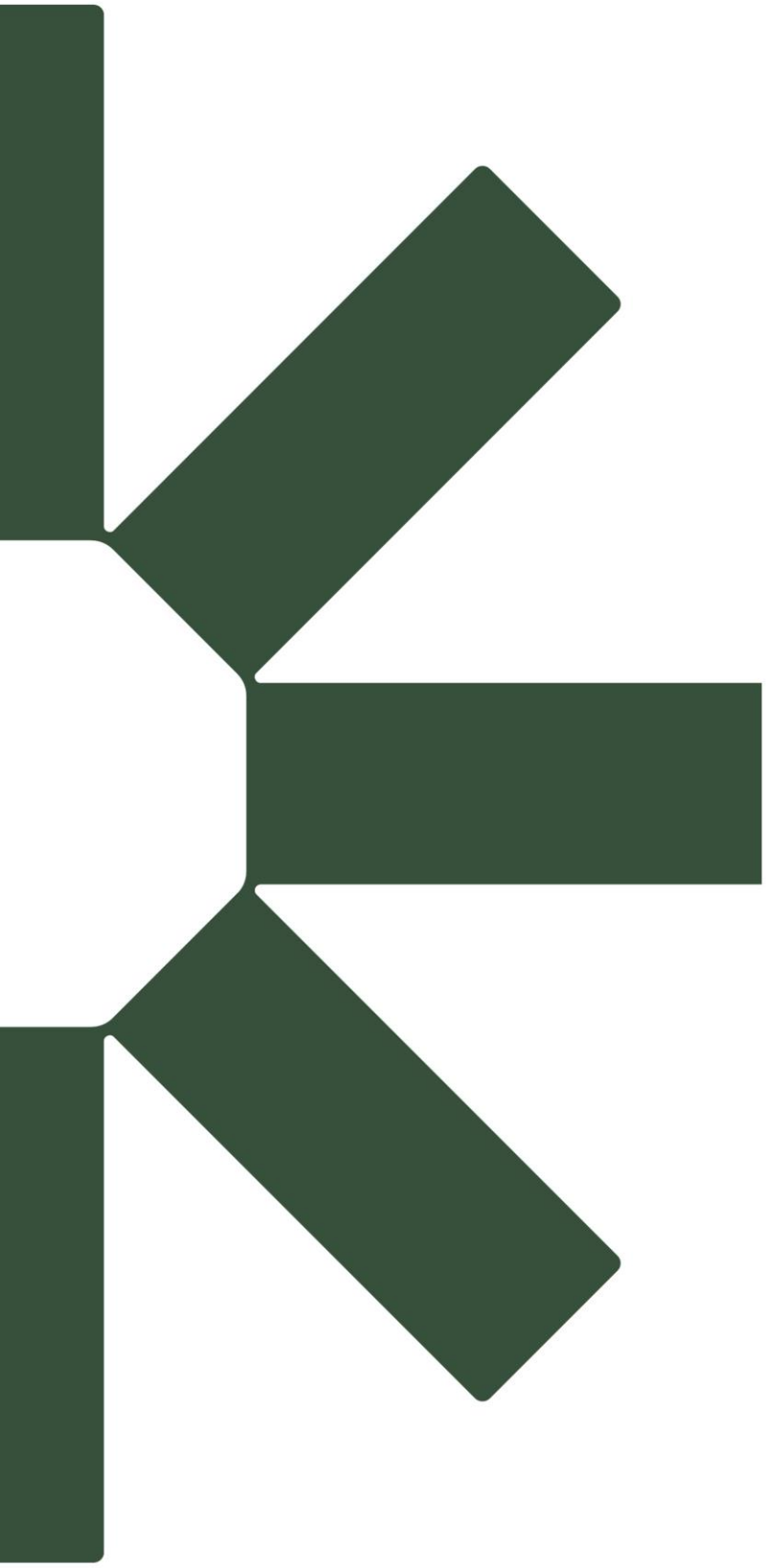
2.3 Key Technical Standards

The operational techniques that will be in place at the site to manage the activities associated with the proposed changes can be summarised as follows:

- equipment generating emissions will be operated efficiently and will be subject to regular maintenance to ensure optimal operation and to minimise emissions to air;
- Planned Preventative Maintenance (PPM) is managed through an asset management software package. The PPM system and associated procedures will be updated to include the requirements for the proposed changes;
- risks of pollution from fugitive emissions, odour, noise and accidents as a result of the proposed changes to the Installation are considered unlikely. Measures will be employed to minimise the risk of such emissions;
- the site has implemented environmental, energy and health & safety management systems; the EMS is certified to Green Dragon Level 4; and
- in accordance with the EMS, procedures will be in place for the regular inspection and maintenance of storage areas and associated infrastructure, including site surfacing, drainage systems and containment measures. Records will be maintained of inspection and maintenance activities, and of any accidents or incidents and the action taken to rectify these.

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 changes to the site. FMC is 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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