

JM Royston Site	EPR Application for PTZ Process	25 November 2019
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The PTZ process will be controlled as a process within Procat 1 under the Refining & Chemicals Europe (R&CE) Royston Site Environmental Management System (ISO14001 accredited).

1 INTRODUCTION

This application is being made under the Environmental Permitting Regulations 2016 to operate Platinum on Zeolite (PTZ) process.

The new plant will be located inside the existing Procat 1 building (See map in Appendix 3).

1.1 SUMMARY DESCRIPTION OF ACTIVITIES

The activity from Schedule 1 of the environmental permit BT7086IJ/V014 affected by this variation is:

Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity
S4.2 A1 (c) ¹	<p>Carried out in the manufacture of coatings for the autocatalyst (Fastcat) and catalytic soot filter (CSF) manufacture within the ECT business unit. Also for the manufacture of high purity inorganic chemicals mainly for laboratory use within the FCDP² production unit.</p> <p>Also carried out in the manufacturing of other materials (Zeocat) in Chemicals, Catalysts and Refining (CCR) business unit.</p>	From receipt of raw materials to despatch/use of finished product incorporating activities in Table S1.1.

¹ This proposal appears to be an addition of a new Part A1 activity to the site, A4.2 A1 (c), however this is not the case due to an admin error in the existing permit. Instead it is an addition to an existing Part A1 activity. Please refer to section 2, admin changes of this Permit for further details.

² FCDP typo corrected. Please refer to section, admin changes of this Permit for further details.

EPR Application for Substantial Variation to Permit No. BT7086IJ/V014	11	Pre Application Case Reference Number: EPR/BT7086IJ/V015
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JM Royston Site	EPR Application for PTZ Process	25 November 2019
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The process will involve simple impregnation of platinum onto an inert carrier using similar technology to that already used in Procat 1, [which represents no change to existing permitted activities](#). Following the impregnation step a drying and calcination step will reduce and fix the platinum onto the inert carrier. The drying and calcination step will emit nitric acid, oxides of nitrogen (NO_x) and nitrous oxide (N₂O) via existing wet scrubbing tower and existing stack A11. JM has authorisation to emit NO_x from stack A11 and authorisation to emit N₂O is sought as a part of this application.

As with existing processes within the Procat 1 building, the emission of nitric acid is negligible due to the low volatility of nitric acid and will be entirely removed from the process draught by the existing stack A11 scrubbing system and demister.

This plant will provide a model for a similar larger scale plant to be built at the Royston site, in late 2020.

EPR Application for Substantial Variation to Permit No. BT7086IJ/V014	12	Pre Application Case Reference Number: EPR/BT7086IJ/V015
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