

NOTIFICATION AS REQUIRED BY CONDITION 4.3.1 of Permit BL4567IZ

SCHEDULE 5

Part A

Permit Number	BL4567IZ
Name of Operator:	Vale Europe Limited
Location of Facility	Clydach Refinery, Clydach, Swansea, SA6 5QR.
Time and date of the detection	17 th – 21 st October 2022 - Air Emissions Monitoring

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
To be notified Immediately	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a permit condition	
To be notified immediately	
Emission point reference/ source	A1 – Kiln Plant “Born” Heater A26 – Hydrogen Plant Vaporiser A28 – Hydrogen Plant Reformer Furnace and Flue Gas Heaters A78 – T123 Powder Plant Dust Extraction
Parameter(s)	Oxides of Nitrogen (NOx) , Carbon Monoxide (CO), Dust
Limit	Oxides of Nitrogen (NOx) – 100 mg/m ³ Carbon Monoxide (CO) – 15 mg/m ³ Dust – 5 mg/m ³
Measured value and uncertainty	A1 – Oxides of Nitrogen (NOx) – 153.95 mg/m ³ A26 – Carbon Monoxide (CO) – 16.15 mg/m ³ A28 – Oxides of Nitrogen (NOx) – 133.93 mg/m ³ A78 – Dust – 80.62 mg/m ³
Date and time of monitoring	A1 – 18/10/22 – 13:25 – 14:25 A26 – 19/10/22 – 13:40 – 14:40 A28 – 19/10/22 – 12:05 – 13:05 A78 – 21/10/22 – 11:30 – 12:30
Measures taken, or intended to be taken, to stop the emission	Outlined in Part B

Time periods for notification following detection of a breach of a limit	
Parameter	Notification Period

Appendix 1 (Sep-22) Review Due: Sep-24

(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified immediately	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	A78 – Root Cause - Filter Failure on (Big Bag) revert hopper which led to dust in ducting pre-emission point.
Measures taken, or intended to be taken, to prevent a recurrence of the incident	Further investigation has identified the following measures planned to be implemented to prevent a recurrence of this incident in future:- A1 & A2 – Kiln Plant Born Heaters – These are identified in the production 5-year capital plan and programmed for an engineering project to undertake a design and scope for an upgraded burner system. The technical specification has been drafted for the design of the burner system and emission permit limits have been incorporated into the spec. There is also a review to understand whether these heaters are captured under the Medium Combustion Plant Directive (MCPD). A25 & A26 – Hydrogen Plant Vaporiser – Further investigation is required to identify whether improved methods or advanced technologies can be applied /retrofitted to improve the emission points performance. There is also a review to understand whether these heaters are captured under the Medium Combustion Plant Directive (MCPD). A27 & A28 - Hydrogen Plant Reformer Furnace and Flue Gas Heaters - Further investigation is required to identify whether improved methods or advanced technologies can be applied /retrofitted to improve the emission points performance. There is also a review to understand whether these heaters are captured under the Medium Combustion Plant Directive (MCPD). A78 – Maintenance plan deep dive required by Asset reliability engineering team to ensure a robust system is embedded to capture filter changes before end of life and improve visual inspection programme. Re-calibration of the dust probes and a review the bag failure pressure alarms at A78 Emissions Contractor will be visiting site to re-analyse A78 the emission point following the corrective action that has been implemented to confirm the action has been effective.

Appendix 1 (Sep-22) Review Due: Sep-24

Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	A78 - Ducting to be cleaned out and Filter to be changed
The dates of any unauthorised emissions from the facility in the preceding 24 months.	December 2020 relating to September monitoring July 2021 relating to March monitoring December 2021 relating to October monitoring April 2022 September 2022 A1.A26,A28,A31 - NOx & CO A18, A78 - CO & Dust A1,A28,A30,A46 - NOx & Dust W1 Temp W1 Total Nickel and Soluble Nickel
Name*	Richard De Filippo
Post	Sustainability Supervisor
Signature	<i>Richard De Filippo</i>
Date	02/12/2022

* authorised to sign on behalf of the operator