

Non-Compliance and Action Response Summary (CAR NRW0040855)

1. Non - compliance

Number	Non Compliance	NRW Stated Action	ROCKWOOL Response Summary
NC1	Inadequate management of ammonia accumulation in the process water system leading to fugitive releases of ammonia is a category 2 non-compliance.	Process water ammonia monitoring and control has been implemented. (Binder Plant responsibility).	Process water ammonia monitoring and control has been implemented. SOP issued to Binder Plant.
NC2	Failure to recognise the potential environmental compliance implications of allowing uncontrolled ammonia accumulation in the process water system is a management system failure and constitutes a further category 2 non-compliance.	Rockwool to review ammonia emissions control and abatement options across all relevant release points to reduce nutrient nitrogen and ammonia impacts on habitats and conservation sites within range, including the potential to reduce ammonia emissions below the lower end of the BAT AEL range. Confirm to NRW details of proposed improvements as additional information to the current sulphur dioxide abatement variation application.	See attached response "NC2 - Ammonia Emissions Control (1)" and "NC2 - Ammonia Emissions Control (2)".
NC3	The ammonia release from Line 1 Spinning Chamber is a category 2 non-compliance for actual ELV exceedance with potentially significant impact due to the ongoing high process contribution to	As above.	As above.

	exceedance of the nutrient nitrogen and acid deposition critical loads and the potential for the high emissions to have occurred for a prolonged period.		
NC4	The air quality impact of the fire in the filter of Line 3 Spinning Chamber couldn't have been worse than it was because there was effectively no management of the quantity of binder residue accumulating in the ducting between annual cleaning and the filter fire control system appears to be ineffective. Therefore, the non-compliance associated with inadequate management of filter fires and binder accumulation in ducting is a category 3 non-compliance.	Rockwool to implement a periodic review of the ducting deep clean down regime to minimise the amount of process residue in the plant ducting which can smoulder if hot melt impinges on it.	Factory Production Manager confirmed duct between fan and chimney will be cleaned during the Easter shutdown and chimney clean planned for summer shutdown. Every shutdown all filters will be changed and cleaning activities carried out on top section of filter and bowl.
NC5	A category 3 non-compliance for failing to notify NRW immediately following the initial fire incident and subsequent ducting smoulder will also be recorded.	Review and update Rockwool reporting procedures to ensure that all permit condition non-compliance, incidents, and events with potential for environmental impact or public complaint are notified to NRW without delay and immediately where possible. Implement any identified improvements and provide a copy of updated Environmental Work Instruction 15 ("NRW Notification of Environmental Incident / Breakdown or Breach of Limit") to NRW.	Work instruction 15 has been updated, copy attached "NC5 – Work Instruction 15".
NC6	The dust release from Line 1 Spinning Chamber is a category 3 non-	New set of filter cassettes purchased. No further action necessary.	No further action necessary.

	compliance for actual ELV exceedance with minor impact.		
NC7	Sulphur dioxide emissions from Line 2 cupola (A2) marginally exceeded the daily average ELV on 21 and 29/6/22. This is a category 3 non-compliance for an ELV exceedance with minor impact.	Process settings optimised (temperature controls). Recipe for 46004-7 amended to reduce blast furnace slag content. No further action necessary.	No further action necessary.
NC8	Sample integrity issues were raised during the Water Operator Monitoring Assessment (OMA) and have been assessed as a category 3 non-compliance due to the intermittent and infrequent discharge to surface water.	Rockwool to review surface water discharge monitoring approach to address the issues identified in the OMA report.	Water OMA report reviewed and issues investigated, please see attached "NC8 – Water OMA Actions" for further details.

2. Additional Actions

Number	NRW Action	ROCKWOOL Response Summary
Action 1	Rockwool to provide details of ammonium sulphate leak root cause investigation and impact on emissions.	Investigation captured on internal RockSHE system, reference NE-20220905-003
Action 2	Rockwool to confirm proposals for implementation of a management of change process for changes not captured within the scope of capital project change management.	Quality team impacted by the recruitment delay due economic downturn forecast. But initial meeting to develop the flow for Change Management has been held and further meetings planned to incorporate new team once onboarded.
Action 3	Rockwool to confirm details of sulphur dioxide abatement residue outlet or disposal route ahead of commissioning.	To be confirmed before use.
Action 4	Rockwool to provide quarterly updates on progress in reducing the slag (pit waste) stockpile.	Tracked by Utilities team on weekly basis. Update to be added to NRW quarterly waste return email.
Action 5	Rockwool to review the need for failure detection of critical dampers that could result in abatement bypass.	Update to be provided during 17 th April site meeting.
Action 6	Rockwool to review damper testing and maintenance regime, start-up procedures and controls to reduce the potential impact in future and provide an update at next compliance meeting.	Update to be provided during 17 th April site meeting.
Action 7	Rockwool to implement valid daily average reporting based on requirements of EN 17255 when new DAHS is commissioned.	DAHS under commissioning March 2023. EN 17255 conformity certificate attached "Action 7 – DAHS conformity".
Action 8	Rockwool to review reliability of CEMs following DAHS commissioning and provide an update at next compliance meeting.	DAHS commissioning ongoing into April 2023.

Action 9	Rockwool to submit nitrous oxide mass emissions calculation methodology and supporting evidence to NRW for review.	Group N2O methodology attached, "Action 9 – N2O Methodology".
Action 10	Rockwool to ensure future waste reporting addresses the above comments.	Waste reporting form now refers to "non-hazardous" waste in place of "controlled" waste. Submitted in Q4 returns and for future reporting.