

CM1 & 2 COMMISSIONING (ENVIRONMENTAL)

JUNE 2021

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1 Background

Cement mills 1 & 2 were mothballed at the end of Q1/19 once the installation of the vertical roller mill (Mill 5) was complete. The milling capacity mills 3 & 5 was sufficient to meet the sales demand for the works up to and during the pandemic. Since then, as businesses have reopened post pandemic, the cement demand of the UK has increased significantly. To meet this changing demand, the decision was taken to start mills 1 & 2 again.

This report is only to address the schedule 5 notification sent to NRW.

2 Re-commissioning

Filtration Medic were selected to re-commission the mill filters. Both mills are identical open circuit mills and have one emission point with an ELV of 10 mg/m³. The stacks are identified as A3 for mill 1 and A4 for mill 2. The filters were inspected from 19th to 21st May and remedial work executed as well. Details of work below:

Mill 1 - Old filter bags removed, manually cleaned and re mounted. Fluorescent dye test performed. Some minor leaks detected, and the clamping plates were further tightened in the affected areas. The doors seal needed replacing and the cleaning system was confirmed in good order. The filter cages were also confirmed to be in good order.

Mill 2 – One solenoid required changing along with one diaphragm. 19 new filter bags and cages installed. Old filter bags removed, manually cleaned and re mounted. Fluorescent dye test performed. Some minor leaks detected, and the clamping plates were further tightened in the affected areas. Additional sealant applied to central blanking plate.

Only one part A was submitted to NRW, during the commissioning however the table below shows the days that stack emissions were above ELV for the commissioning period:

| Date | Mill 1 | | | Mill 2 | | |
|------------|-------------------|---------|----------|-------------------|---------|----------|
| | mg/m ³ | runtime | mass (g) | mg/m ³ | runtime | mass (g) |
| 07/06/2021 | 12 | 1.1 | 32 | n/a | | |
| 09/06/2021 | n/a | | | 39 | 0.1 | 20 |
| 11/06/2021 | 25 | 6.1 | 388 | n/a | | |
| 14/06/2021 | 24 | 0.2 | 11 | n/a | | |
| 21/06/2021 | n/a | | | 38 | 0.1 | 20 |
| 25/06/2021 | n/a | | | 23 | 1.0 | 122 |

3 out of the 6 days (9th, 14th 21st) could probably be ruled out for reporting as the runtimes for the day are less than 15 minutes. However, as the daily average has been calculated by the software the results are shown. This report will be shared with NRW to show the days above ELV for the commissioning period.

Following the run of 11th June, mill 1 filter was inspected and confirmed to have high dp which caused the high dust reading. Only 3 out of 10 diaphragm valves were pulsing. The valves were replaced and no further issues. The daily average for 16th June was 2 mg/m³ which shows the correct action was taken.

For mill 2, similar action was required. 5 diaphragms were replaced following the run of the 25th June. The daily average for 2nd July, when the mill was next ran, was 1 mg/m³ again confirming correct action was taken.

The final task of the commissioning was to replace the clinker feed belts. This was done on 5th July 2021 and this marks the end of commissioning.

3 Environmental performance in production

Stack readings from the 6th of July have been reported as part of the quarterly reports to NRW. No breaches have occurred outside of the commissioning period.

4 Further work

Extractive testing was carried out on the stacks of mills 1 & 2 during w/c 6th December 21. The site is currently awaiting the report.

Further testing is scheduled for February 2022

5 Conclusion.

This report is specifically to address the stack emission breaches during the commissioning of mills 1 & 2. Other environmental factors associated with running the mills will be addressed separately.

