

Air Quality and Dust Monitoring Monthly Report – April 2020

Buckinghamshire Council



Department for Transport

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High Speed Two (HS2) Limited,
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

A report prepared by Align JV and Fusion on behalf of HS2 Ltd.

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Monthly Summary

- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of dust monitoring undertaken in the Buckinghamshire Council (BC) during April 2020.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for April 2020.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report monthly available from www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2, which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current phase of works that commenced within BC during February 2020 and is expected to be completed by the end of May 2021. The current worksites at the Chalfont St. Peter Compound and Chalfont St. Giles are presented in Appendix A, Figure 1 and 2. Activities in April included:
- Works at Chalfont St. Peter Compound, including bulk and fill of piling platform extension; ducting on storage platform; levelling of site roads and storage platform; and vegetation clearance and fence installation; and
 - Ongoing works at the access road along Bottom House Farm Lane in Chalfont St. Giles, which included earthworks, topsoil stripping, installation of ducting and drainage, and installation works for a temporary bridge.
- 1.1.5 Three (3) dust monitors are installed around the worksites, where earthworks, construction and trackout activities are underway. These sites returned a medium dust risk rating (for works currently active on site).
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 2, together with a line chart of monthly data from each dust monitor presented in Figures 3, 4 and 5. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.
- 1.1.7 The trigger level for PM₁₀ concentrations of 190 µg/m³, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (October 2018)*' has been applied.

- 1.1.8 There was one (1) dust trigger alert recorded at CHSP-AQMP1-CDC during the April 2020 monitoring period. Details of the trigger alert investigations and remediations are presented in Appendix B, Table 3. All other results were in line with expected ranges.
- 1.1.9 Data capture for CHSP-AQMP1-CDC was below 90% for the month of April 2020. This was due to loss of external battery power supplying the monitor. As a result, the monitor was offline and no data was captured between 01/04/20 and 07/04/20, and between 09/04/20 and 14/04/20. The battery was replaced on Tuesday 7th and Tuesday 14th April and the monitoring was resumed. Data capture for 3252Dust2 was below 90% for the month of April 2020, as a result of power interruptions to the monitoring equipment.
- 1.1.10 Table 1 provides a summary of the complaint information related to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1: Summary of complaints received during April 2020 in BC

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-20-20050-C	-	On 14/04/20 questions regarding dust monitoring and mitigation were reported.	A response was provided highlighting out the monitoring undertaken in the area as well as the mitigation measures in place across HS2 sites (as per the Code of Construction Practise).

Appendix A –Monitoring Locations

Figure 1: Worksites and Monitoring locations near Chalfont St. Peter during April 2020



Figure 2: Worksites and Monitoring locations near Chalfont St. Giles during April 2020



Appendix B – Dust Monitoring Results

Table 2: Dust monitoring locations and April 2020 Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
CHSP-AQMP1-CDC	500114, 193104	On the eastern boundary of the site with Chesham Lane	M	Yes	Yes	22.7	1.0	289.3	1	55
CHSP-AQMP2-CDC	499981, 193224	On the western boundary of the site	M	Yes	Yes	9.4	0.5	33.7	0	100
3252Dust2	498390, 195434	On the boundary with Elm Tree Cottage, Bottom House Farm Lane	M	Yes	No	11.2	1.1	46.2	0	73.3

Table 3: Summary of exceedances during period (April 2020)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
CHSP-AQMP1_CDC	21/04/2020 17:00 - 18:00: 289.3 µg/m ³	Roadbridge were undertaking work on a stockpile near the monitor at the time of the trigger alert.	Additional suppression in the area was put in place. Works are continuing to be monitored closely, and site operatives are continuing to dampen down stockpiles, especially when moving materials to minimise dust release.

Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for CHSP-AQMP1-CDC for April 2020

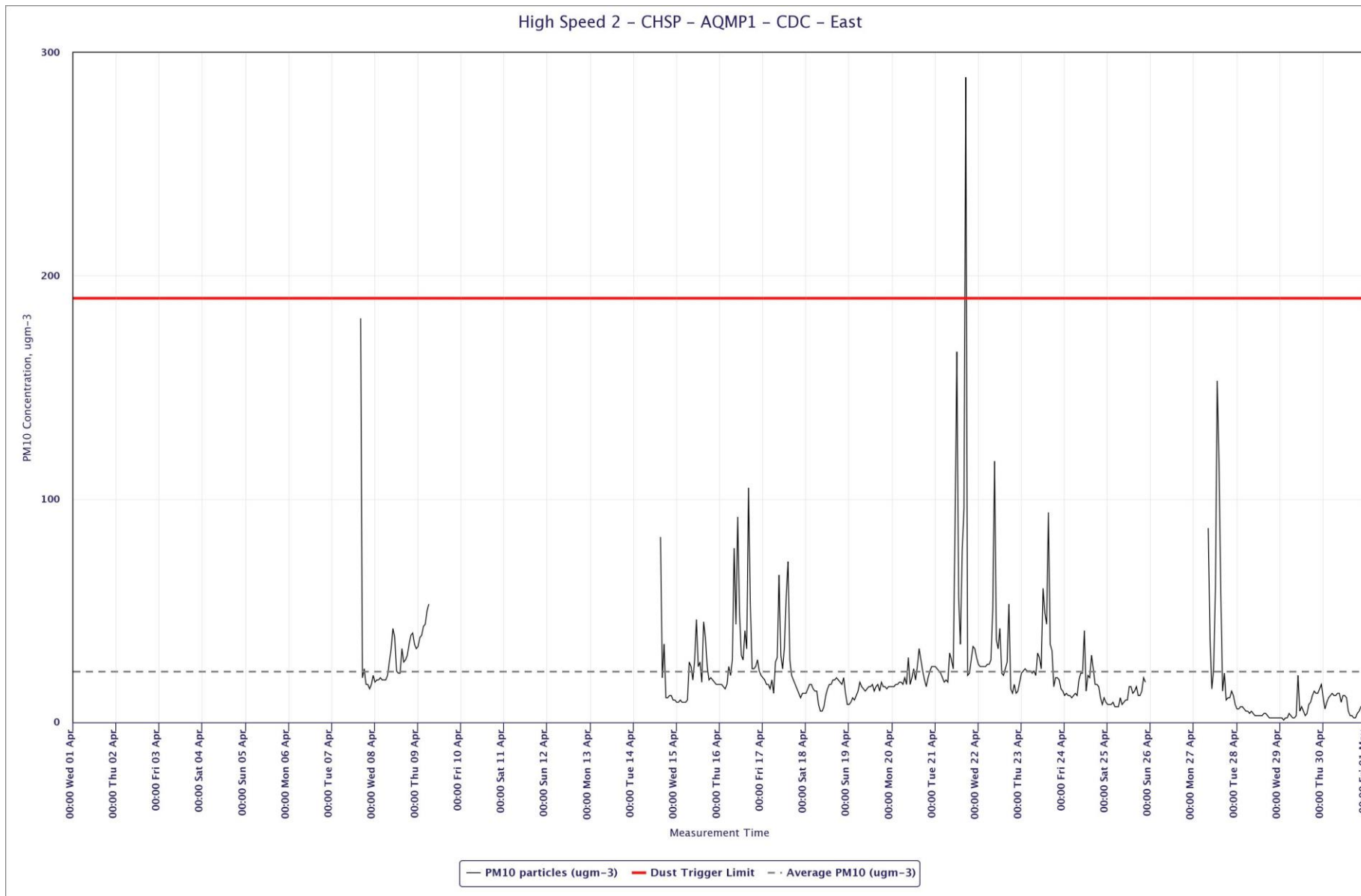


Figure 4: Continuous dust 1-hour mean indicative PM₁₀ concentration for CHSP-AQMP2-CDC for April 2020

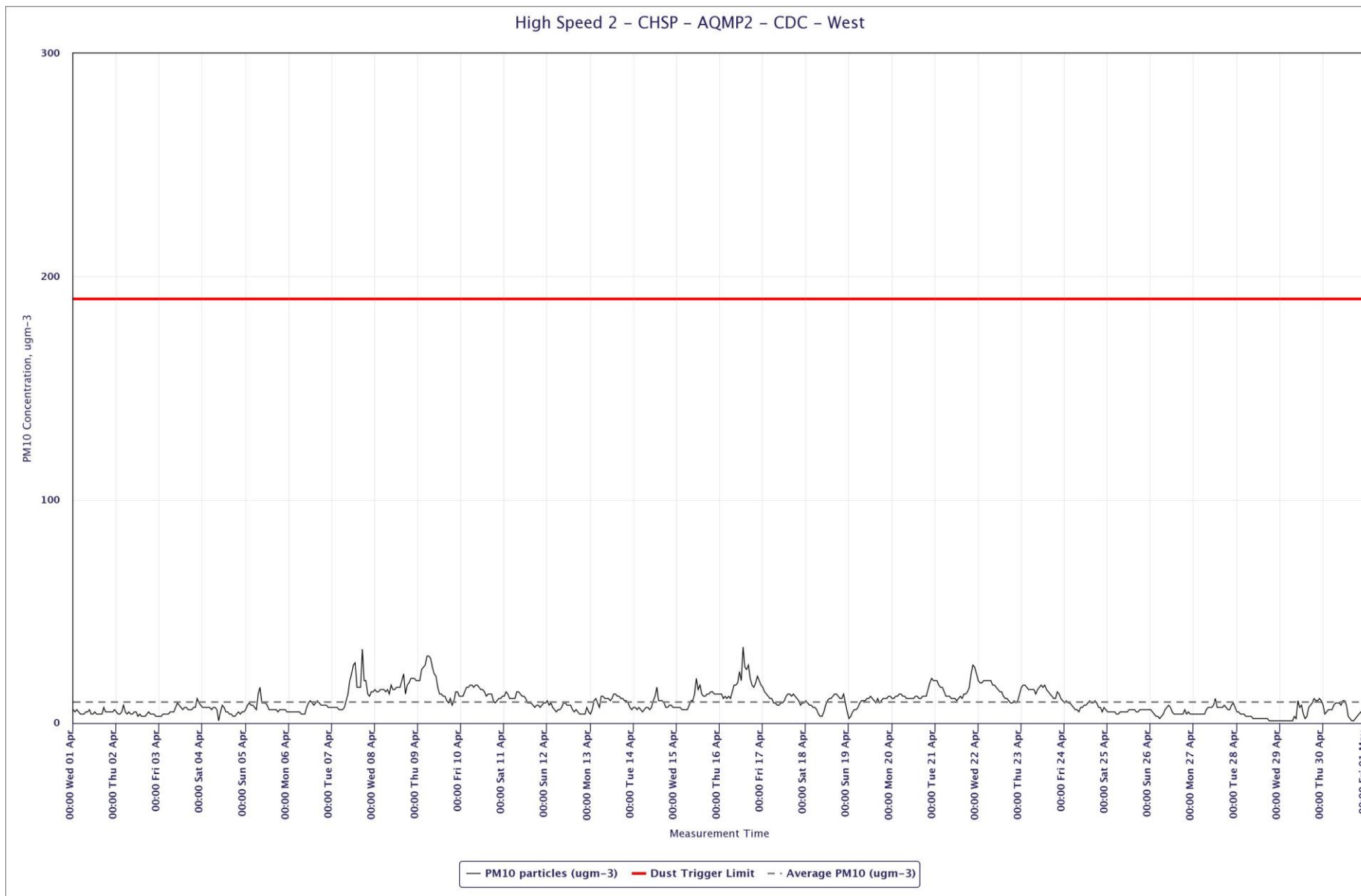


Figure 5: Continuous dust 1-hour mean indicative PM₁₀ concentration for 3252Dust2 for April 2020

