

Air Quality and Dust Monitoring Monthly Report – March 2020

Three Rivers District Council



Department for Transport

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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 Three Rivers District Council (TRDC) during March 2020.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for March 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 commenced within TRDC during July 2017 and is expected to be completed by May 2020. The current worksite at the Chiltern Tunnel South Portal Compound is presented in Appendix A, Figure 1. Activities within March included:
- Ongoing works at the South Cutting, which include: soil nailing and associated earthworks, on-going grout block, general fill stockpiling at SP10 and subsoil stockpile at SP08, detailed excavation for the 5th lift of soil nails and cutting;
 - Ongoing works at the West Hyde Embankment, which include: trials compaction grouting; associated earthworks, the beginning of main works for compaction grouting, cutting and filling; and
 - Other works include capping layers/hardstandings at the Logistics platform and new KVJV compound, cutting at the Tunnel Precast Yard and Bp2-3 platform and filling at the Tunnel Precast Yard, Chalfont Lane Bund and the extension of the Induction Centre platform.
- 1.1.5 Two (2) dust monitors are installed around the worksite, 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 1, together with a line chart of monthly data from each dust monitor presented in Figures 2 and 3. 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 mitigations.

- 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 were two (2) dust trigger alerts recorded at SP-AQMP1_TRDC during the March 2020 monitoring period. No works were being undertaken in the vicinity of the monitor. Nearby works included auger boring using wet grout and movement of 4x4s along the haul road. Damping down increased in the area and good housekeeping measures continued on site, in line with the Code of Construction Practice. Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 There were no (0) complaints, relating to dust or air quality, received during the monitoring period (March 2020).

Appendix A –Monitoring Locations

Figure 1: Worksites and Monitoring locations during March 2020



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and March 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 (%)
SP-AQMP1_TRDC	502885, 191488	On the northern boundary of the site with Chalfont Lane	M	Yes	Yes	15.8	1.0	502.7	2	91
SP-AQMP2_TRDC	502872, 190833	On the southern boundary of the site with Denham Way	M	Yes	Yes	10.2	0.4	39.3	0	100

Table 2: Summary of exceedances during period (March 2020)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
SP-AQMP1_TRDC	<u>23/03/2020</u> : 12:00 - 13:00: 211.4 µg/m ³	No works were being undertaken in the vicinity of the monitor.	Good housekeeping measures to be continued on site, in line with the Code of Construction Practice.
SP-AQMP1_TRDC	<u>23/03/2020</u> : 13:00 - 14:00: 502.7 µg/m ³	Nearby works included auger boring using wet grout and movement of 4x4s along the haul road.	Damping down was increased in the area.

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP1_TRDC for March 2020

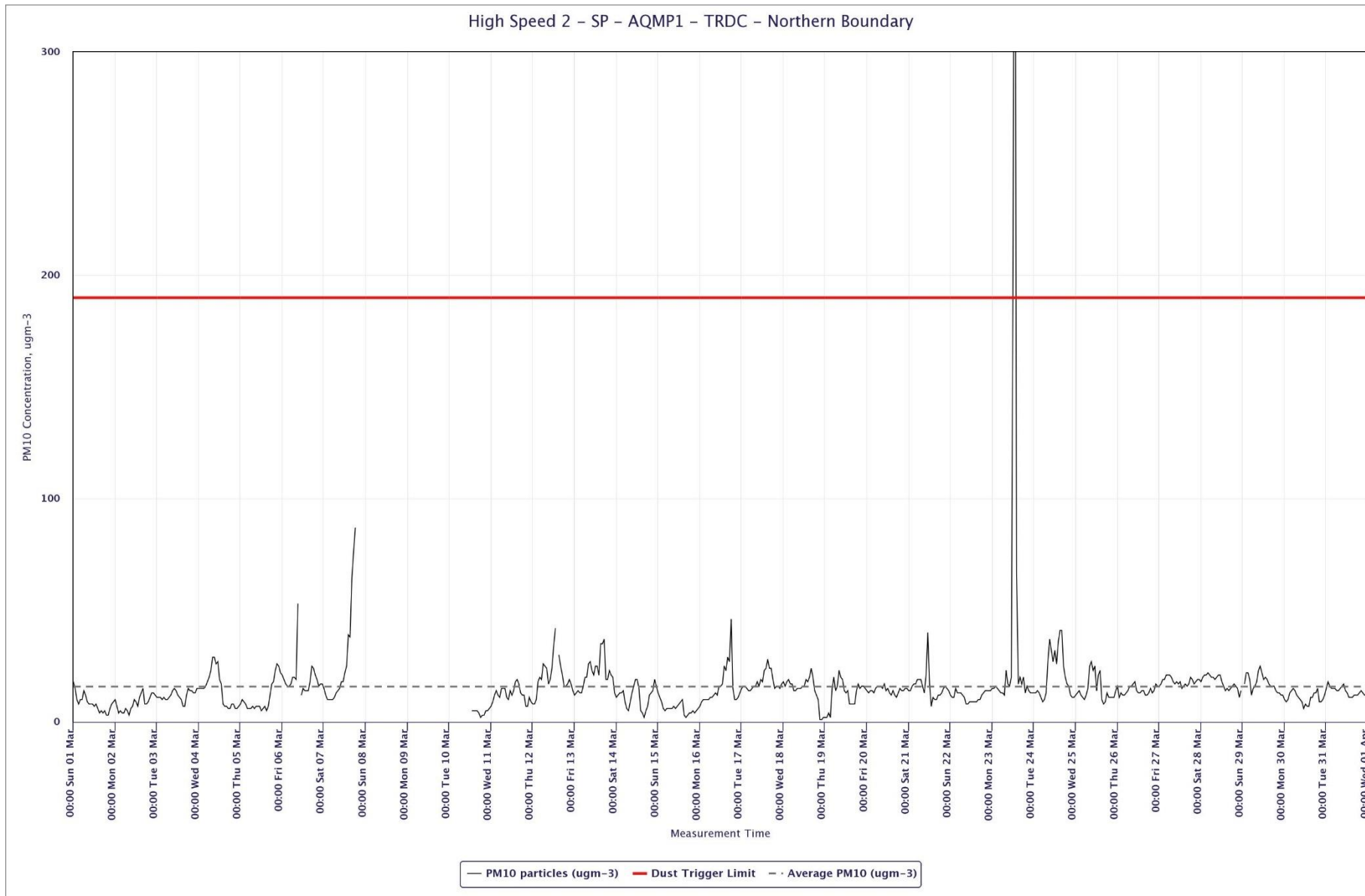


Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP2_TRDC for March 2020

