

Air Quality and Dust Monitoring Monthly Report – November 2019

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 November 2019.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for November 2019.
- 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 January 2020. The current worksite at the Chiltern Tunnel South Portal Compound is presented in Appendix A, Figure 1. Activities within November included:
- Ongoing construction of compounds and reinforced concrete structures for the Tunnel boring machine power supply. Worksite located both North and South of Chalfont Lane alongside the M25;
 - Ongoing operation and maintenance of site haul road along the western and northern boundaries of site;
 - Installation of perimeter security fencing around boundary of the South Portal field;
 - Ongoing top-soil strip and trial trenching for the purpose of archaeological investigations;
 - Ecology and geotechnical surveys across the field; and
 - Preconstruction works at the Chiltern Tunnel South Portal Compound including mobilisations, installation of platforms for grouting works, drilling and grouting, removal of topsoil stockpile, topsoil stripping and stockpiling for the temporary pond and amenities as well as subsoil stripping and stockpiling for the temporary pond.
- 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 of 190 $\mu\text{g}/\text{m}^3$, 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 during this monitoring period (November 2019). Dust trigger alert details are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 Data capture for AQMP1 and for AQMP2 was below 90% for the month of November 2019. This was because of interruptions to continuous power as a result of unfavourable weather conditions.
- 1.1.10 There were no complaints, relating to dust or air quality, received during the monitoring period (November 2019).

Appendix A –Monitoring Locations

Figure 1: Worksites and Monitoring locations during November 2019



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and November 2019 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 (%)
AQMP1	502885, 191488	On the northern boundary of the site with Chalfont Lane	M	Yes	Yes	12.9	1.6	106.9	0	84%
AQMP2	502872, 190833	On the southern boundary of the site with Denham Way	M	Yes	Yes	13.4	1.5	268.7	2	82%

Table 2: Summary of exceedances during period (November 2019)

Period exceeding trigger alert	Worksite reference	Monitoring Site ID	Complaint reference number (if applicable)	Reason	Resolution
27/11/19 at 07:00 - 08:00	n/a	AQMP2	n/a	Investigation into power loss due to heating inlet.	Functionality of heating inlet to be monitored and maintained.
27/11/19 at 08:00 - 09:00	n/a	AQMP2	n/a	Investigation into power loss due to heating inlet.	Functionality of heating inlet to be monitored and maintained.

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for AQMP1 for November 2019

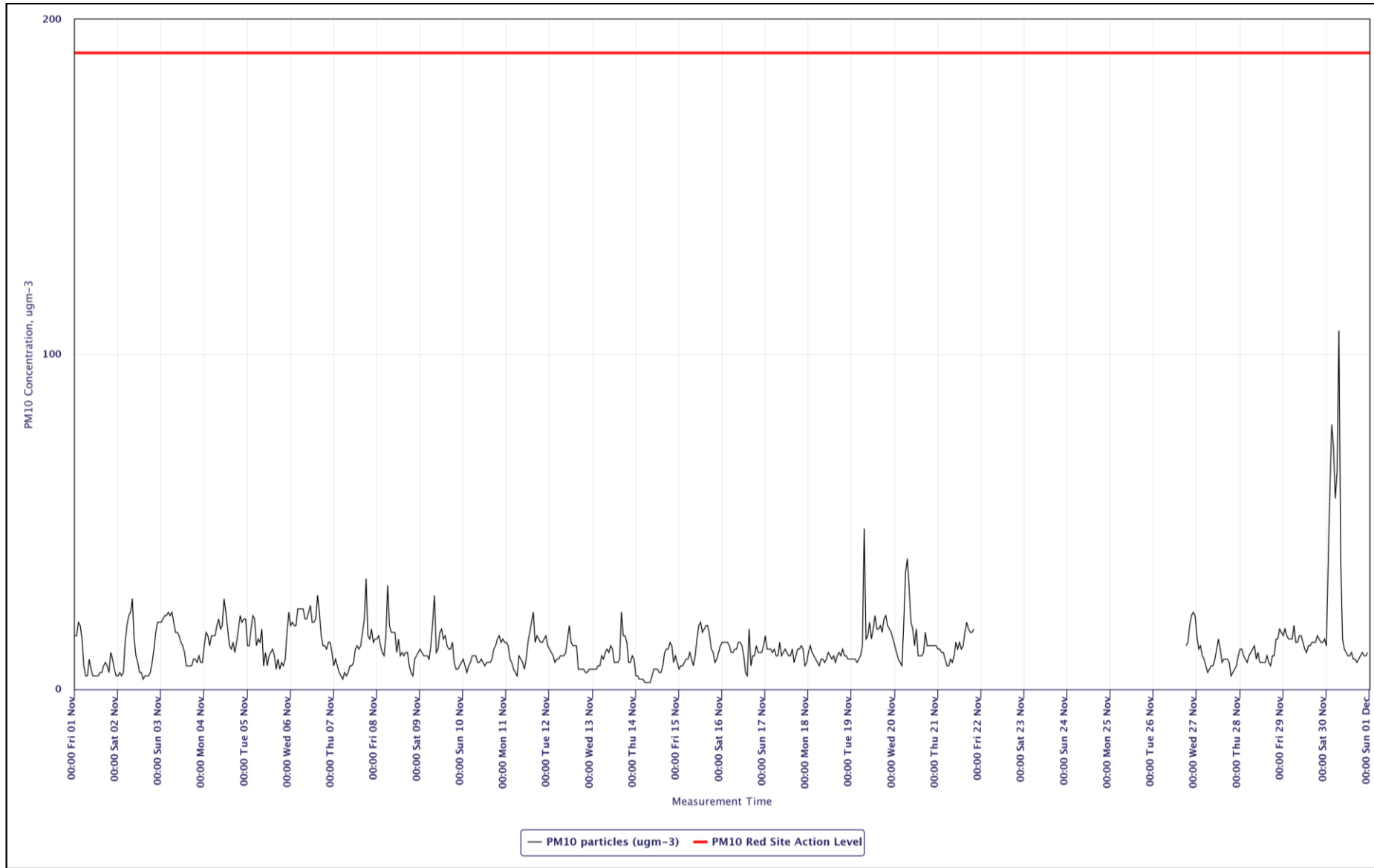


Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for AQMP2 for November 2019

