HS2

November 2022

Air Quality and Dust Monitoring Monthly Report – November 2022

London Borough of Brent

Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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A report prepared by EWCs and MWCCs 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 air quality and dust monitoring undertaken in the London Borough of Brent (LBB) during October 2022 and November 2022 respectively.

1.1.2 Figure 1 in Appendix A indicates the current worksites together with air quality monitoring locations.

1.1.3 This summary should be read in conjunction with the overview monitoring report 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 in August 2020 and is expected to be completed by 2025. The current worksites, as presented in Appendix A, Figure 1 include:

Canterbury Road Vent Shaft

- Concreting;
- Materials management; and
- Ventilation shaft lining.

1.1.5 Two (2) dust monitors are currently installed on the boundary of the Canterbury Road Vent Shaft worksite. This site returned a medium dust risk rating.

1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor in Figure 2. 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 PM_{10} concentrations of 190 µg/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 Date capture was below 90% for monitor AQ030 in November 2022 due to power loss to the monitor, which has subsequently been restored.

1.1.9 No (0) dust triggers alerts were recorded during the monitoring period (November 2022).

1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO_2) is undertaken at four (4) locations around highways within the LBB as part of the management of air quality where significant effects October occur as a result of the scheme.

1.1.11 Diffusion tube monitoring results are as provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.

1.1.12 NO_2 monitoring locations and results are presented in Appendix C, Table 2, together with the 2022 running mean.

1.1.13 There were no (0) complaints received during this reporting period.

Appendix A –Worksites and Monitoring Locations

Figure 1: Worksites and monitoring locations within the LBB

HS2-000020BNS

HS2-000020BNG

HS2-000020BN3

HS2-000020BPM

AQ030

AQ031

Camden
London Boro

Brent
London
Boro

Ealing
London
Boro

Hammersmith
and Fulham
London Boro

Kensington
and Chelsea
London Boro

City of
Westminster
London Boro

City of
Westminster
London Boro

Legend

- Diffusion Tube
- Worksite
- Dust Monitor
- District Borough Unitary Boundaries

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Map Number

Map Name

Worksite and Monitoring Locations In LBB

London Borough of Brent

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:10,000

0 100 200 300 400

Metres

Doc Number:

Date: 08/12/20

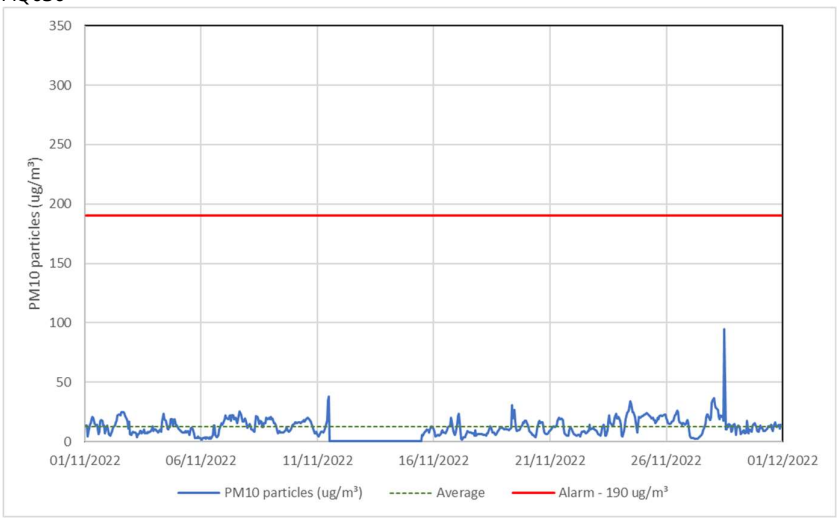
Appendix B – Dust Monitoring Results

Table 1: Dust monitoring location and November 2022 Results

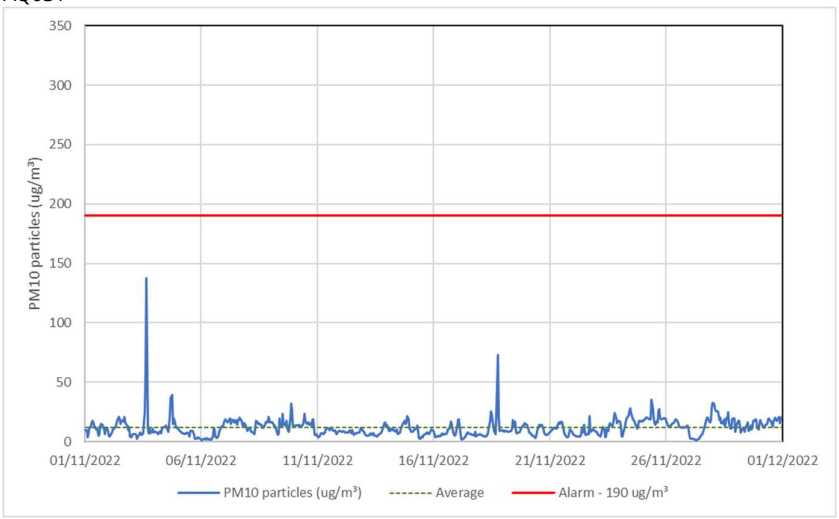
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM_{10} concentration ($\mu g/m^3$)	Minimum 1-hour PM_{10} concentration ($\mu g/m^3$)	Maximum 1-hour PM_{10} concentration ($\mu g/m^3$)	Number of 1-hour periods exceeding trigger level of 190 $\mu g/m^3$	Data capture (%)
AQ030	525093, 183264	Western Hoarding of Canterbury Road works site	M	Yes	Y	12.8	1.6	94.6	0	86.8
AQ031	525112 , 183320	Eastern Hoarding of Canterbury Road works site	M	N	Y	11.7	1.2	137.4	0	100.0

Figure 2: Construction dust 1-hour mean indicative PM_{10} concentration for dust monitors

AQ030



AQ031



Appendix C - Air Quality Monitoring Results

Table 2: NO_2 monitoring locations around highways, NO_2 concentrations and monthly monitoring results with running mean for 2022 (µg/m^3)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean[1]
HS2-000020BN3	Sign post on High Street Harlesden	522335, 182955	66	48	58	44	37	44	44	46	54	54			50
HS2-000020BNG	Lamp post on Donnington Road	523110, 184055	58	39	46	31	26	24	26	28	35	Tube Missing			35
HS2-000020BNS	Lamp post on Tower Road by Willesden Jewish Cemetery	522196, 184448	43	25	38	25	19	14	17	Tube Missing	24	25			26
HS2-000020BPM	Lamp post along Gorefield Place near block of flats	525222, 183309	46	27	36	24	Tube Missing	15	17	18	27	28			27

[1] *Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.*