

CH1435-D230313

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Re: PM10 and PM2.5 Monitoring September 2023 – Westmead Hospital

Compliance Health & Environmental Consulting (CHEC) were engaged by Kane Constructions Pty Ltd to undertake PM10 and PM2.5 dust monitoring during construction works at Westmead Hospital, Westmead.

Construction is being undertaken adjacent to the children's hospital and monitoring was necessary to ensure control measures were adequate to minimise dust generation.

Criteria and monitoring methods have been adopted from the National Environment Protection (Ambient Air Quality) Measure, 2021. The criteria are presented below:

Table 1 – 24hr and Annual Average Criteria for PM2.5 and PM10 Dust ($\mu\text{g}/\text{m}^3$)

	PM 2.5	PM10
24hr Average	25	50
Annual Average	8	25

Monitoring for the Site commenced on the 4th April 2023 when an Airmet DX-2 monitoring unit was installed adjacent to the air conditioning intake for the hospital, as shown on **Figure 1** – Monitoring Location. This monitor was Sited in accordance with AS/NZS 3580.1.1:2016, as required by NEPM, 2021.

During the month of September, the 24hr average criteria was not exceeded for PM10 or PM2.5. Several spikes of the one-hour average for PM2.5 were observed to exceed the 24 hour average criteria, with a maximum of $103 \mu\text{g}/\text{m}^3$ and one spike was observed to exceed the PM10 criteria, with concentration of $114 \mu\text{g}/\text{m}^3$.

The spikes were generally noted either be at the start of the work day, between 7am-9am or at the end of the day, between 4pm-5pm. Although the 24hr average criteria was not exceeded, the release of dust during these hours should be monitored to ensure that no exceedances occur.

The monitoring data for the month of September 2023 is considered compliant with relevant criteria. Refer to **Figure 2** – PM10 August Monitoring Data and **Figure 3** – PM2.5 August Monitoring Data.

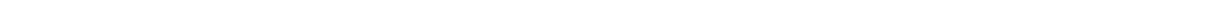
Regards,



Jayden Gross
Environmental Consultant
Compliance Health & Environmental Consulting Pty Ltd



Figure 1 – Site Layout





- Monitoring Location
- Construction Works Area



Title		Site Layout					
Site Address	Westmead Hospital, Westmead	Project No.	CH1435	Figure No.	1	Date	01/05/2023
Client	Kane Constructions Pty Ltd	Scale	NTS	Compiled	JG	Revision	Rev. 1



Figure 2 – PM10 September Monitoring Data

PM10 Monitoring Data-September

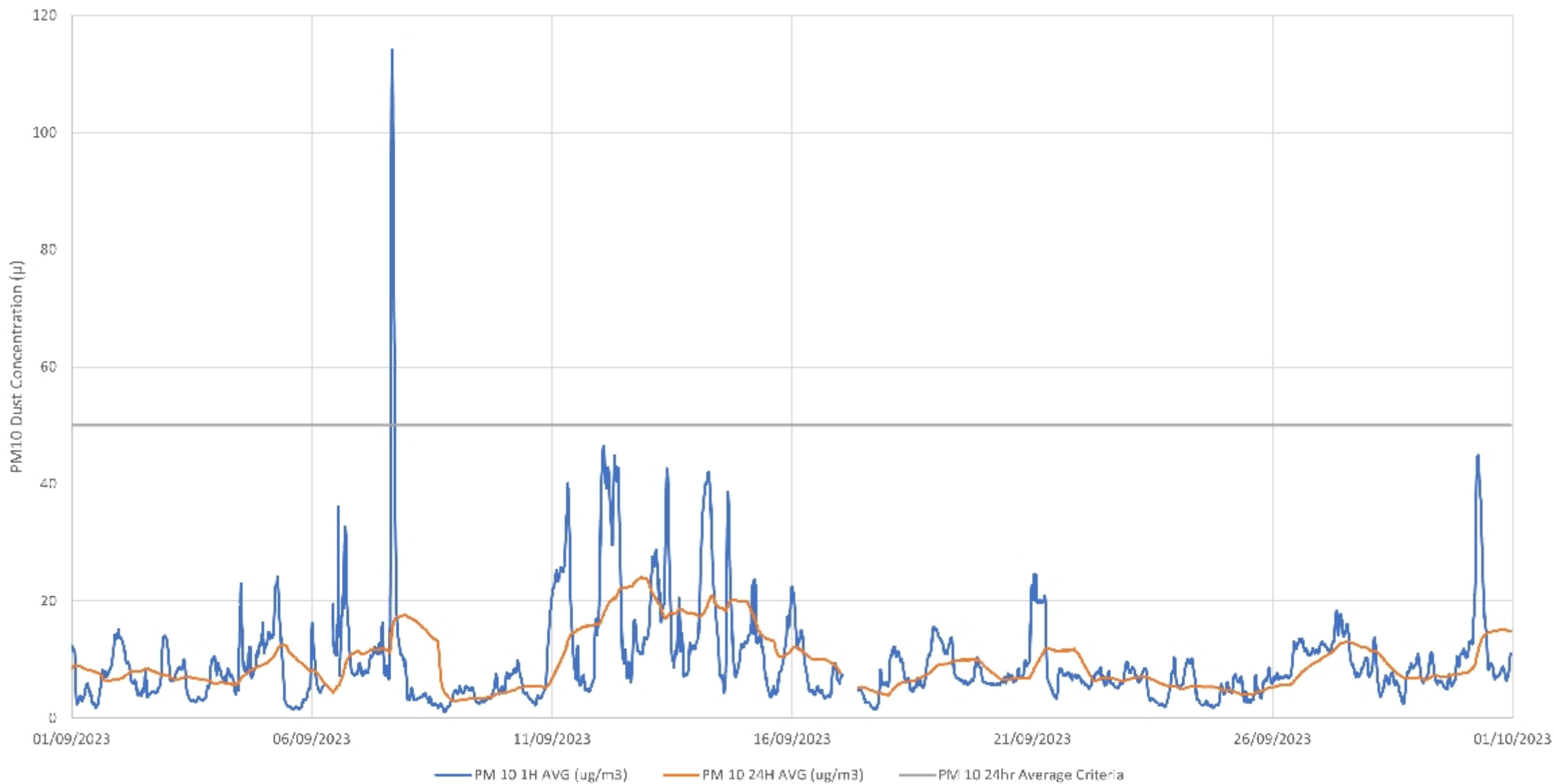
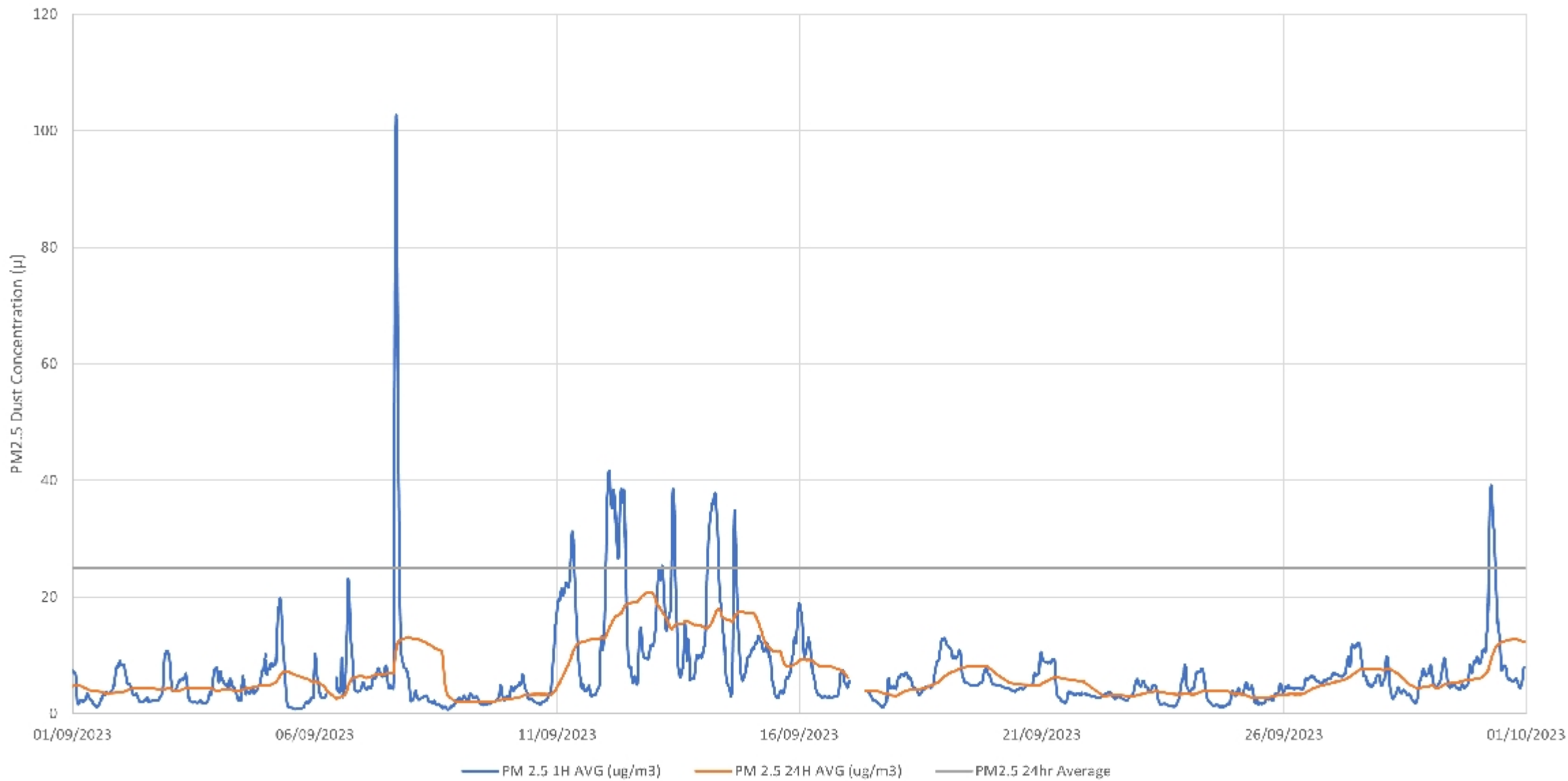




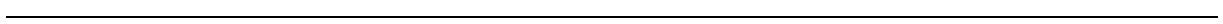
Figure 3 – PM2.5 September Monitoring Data

PM2.5 Monitoring Data - September





Attachment 1 – PM10 and PM2.5 Daily 24hr Averages



Date	Sample No.	Location of Sample	Time on	Time off	PM 10 24H AVG (ug/m3)	PM 2.5 24H AVG (ug/m3)
1/09/2023	1	Plant Room	12:00:00 AM	11:59:59 PM	6.7	3.7
2/09/2023	2	Plant Room	12:00:00 AM	11:59:59 PM	7.3	4.3
3/09/2023	3	Plant Room	12:00:00 AM	11:59:59 PM	6.0	3.9
4/09/2023	4	Plant Room	12:00:00 AM	11:59:59 PM	9.2	4.8
5/09/2023	5	Plant Room	12:00:00 AM	11:59:59 PM	8.2	5.5
6/09/2023	6	Plant Room	12:00:00 AM	11:59:59 PM	11.2	6.3
7/09/2023	7	Plant Room	12:00:00 AM	11:59:59 PM	17.3	13.0
8/09/2023	8	Plant Room	12:00:00 AM	11:59:59 PM	3.0	2.0
9/09/2023	9	Plant Room	12:00:00 AM	11:59:59 PM	4.3	2.5
10/09/2023	10	Plant Room	12:00:00 AM	11:59:59 PM	6.7	4.6
11/09/2023	11	Plant Room	12:00:00 AM	11:59:59 PM	16.3	13.2
12/09/2023	12	Plant Room	12:00:00 AM	11:59:59 PM	23.4	20.3
13/09/2023	13	Plant Room	12:00:00 AM	11:59:59 PM	17.8	15.0
14/09/2023	14	Plant Room	12:00:00 AM	11:59:59 PM	20.0	17.3
15/09/2023	15	Plant Room	12:00:00 AM	11:59:59 PM	11.8	9.1
16/09/2023	16	Plant Room	12:00:00 AM	11:59:59 PM	7.8	6.2
17/09/2023	17	Plant Room	12:00:00 AM	11:59:59 PM	3.9	3.0
18/09/2023	18	Plant Room	12:00:00 AM	11:59:59 PM	8.9	6.4
19/09/2023	19	Plant Room	12:00:00 AM	11:59:59 PM	9.0	7.3
20/09/2023	20	Plant Room	12:00:00 AM	11:59:59 PM	7.8	5.2
21/09/2023	21	Plant Room	12:00:00 AM	11:59:59 PM	10.4	4.7
22/09/2023	22	Plant Room	12:00:00 AM	11:59:59 PM	6.6	3.2
23/09/2023	23	Plant Room	12:00:00 AM	11:59:59 PM	5.4	3.4
24/09/2023	24	Plant Room	12:00:00 AM	11:59:59 PM	4.8	3.4
25/09/2023	25	Plant Room	12:00:00 AM	11:59:59 PM	5.3	3.3
26/09/2023	26	Plant Room	12:00:00 AM	11:59:59 PM	10.1	5.3
27/09/2023	27	Plant Room	12:00:00 AM	11:59:59 PM	11.8	7.6
28/09/2023	28	Plant Room	12:00:00 AM	11:59:59 PM	6.9	4.7
29/09/2023	29	Plant Room	12:00:00 AM	11:59:59 PM	7.7	6.0
30/09/2023	30	Plant Room	12:00:00 AM	11:59:59 PM	14.9	12.4