

Kensington Aldridge Academy

Reassurance Monitoring (Air Quality and Asbestos-in-air)

## Non-Technical Summary (Interim)



**MLM.**

Group

## Notice

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## Document History

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# 1 Introduction

## 1.1 Instruction

MLM Consulting Engineers Ltd (henceforth referred as 'MLM') has been commissioned by Kensington Aldridge Academy (henceforth referred as 'KAA') to undertake reassurance dust, air quality and asbestos in air monitoring at the school located at 1 Silchester Rd, London W10 6EX.

The monitoring has started on 24 August 2018 and this report summarises the results until 20 December 2018.

## 1.2 Background

The school is located at the foot of the Grenfell Tower and had been relocated to another site since the fire accident at the Tower on 14 June 2017. The school site on Silchester Road was prepared for reoccupation from September 2018 but particular concerns were raised regarding likely exposure to emissions to air (dust, metals and asbestos) during various activities at the adjacent Site. Sampling has been undertaken by MLM on-behalf-of KAA to provide reassurance and complement the monitoring already being undertaken on-behalf-of Public Health England (henceforth referred as 'PHE').

## 1.3 On-going monitoring by PHE

PHE commissioned monitoring for particulate matter, asbestos, dioxins and polycyclic aromatic hydrocarbons (PAHs) started in June/July of 2017.

The air quality monitoring strategy has been regularly reviewed based on activities around the site. During summer 2018, activity on the site was reduced and the tower is now fully covered.

Monitoring for particulate matter and asbestos continues to provide a baseline level, and to assess any impacts on air quality as and when any further activity takes place on the site.

## 1.4 Reassurance Monitoring

Monitoring of particulate matter and asbestos has been undertaken by MLM to complement the monitoring undertaken by PHE. The locations with details of parameters monitored are shown in Table 1. MLM monitoring locations along with the closest PHE monitoring locations are illustrated in Figure 1.

Table 1 Monitoring Locations and Pollutants Monitored

Location ID	Pollutants Monitored	Monitoring Frequency
<b>Osiris 1</b>	Particulate Matter	Continuous
<b>Osiris 2</b>	Particulate Matter	
<b>Frisbee 1</b>	Depositional Dust, Metals and Asbestos	Continuous (with Fortnightly sample changeovers)
<b>Frisbee 2</b>	Depositional Dust, Metals and Asbestos	
<b>Frisbee 3</b>	Depositional Dust, Metals and Asbestos	
<b>AiA1-AiA14</b>	Asbestos in Air reassurance testing	Two occasions (24 <sup>th</sup> Aug & 20 <sup>th</sup> Dec 2018)
Notes: Metals included in the analysis were Arsenic, Cadmium, Chromium, Copper, Mercury, Nickel, Lead and Selenium		

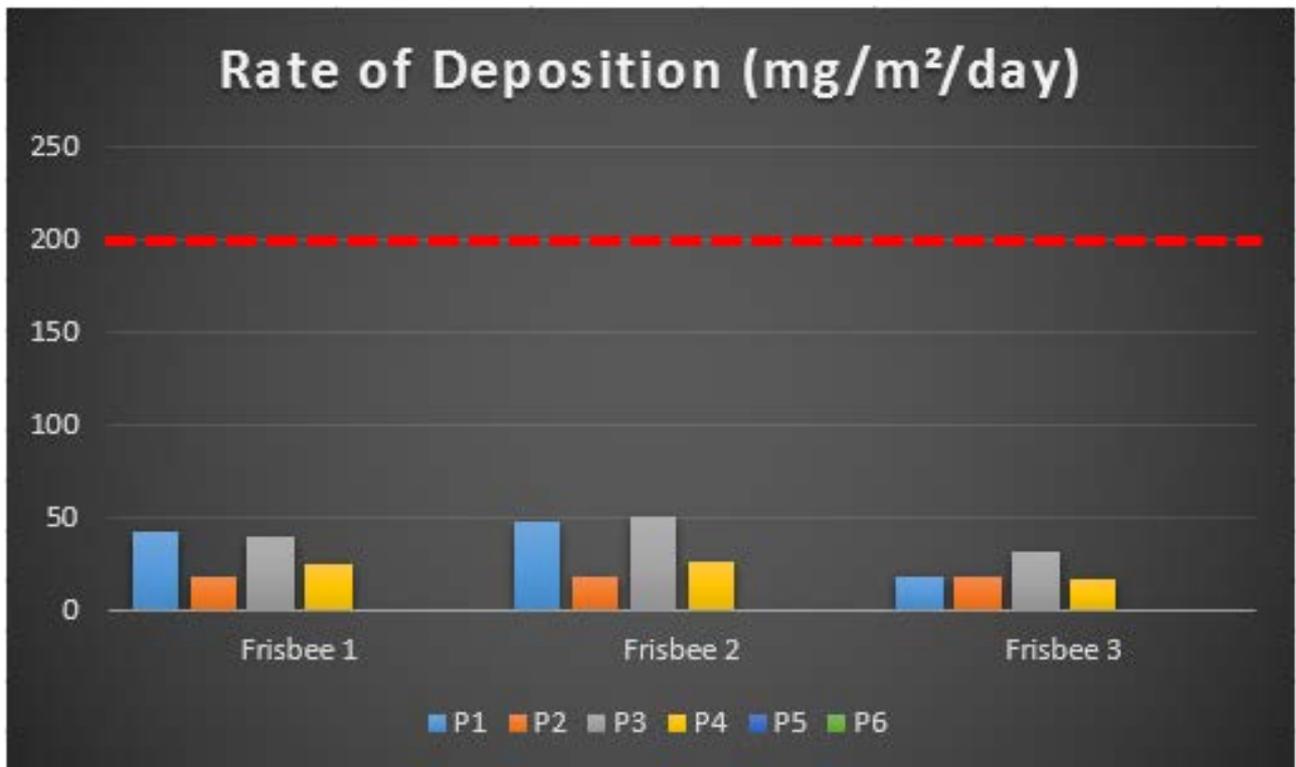
## 2 Monitoring Results

The results of the monitoring undertaken during the period covered by this report are shown in the below graphs. Comparison with PHE data and monitoring data from Defra has been included, where appropriate.

### 2.1 Depositional Dust, Metals and Asbestos

Rate of depositional dust over the six periods covered in this report are shown in Figure 2. The results show that the depositional dust levels were well below the level where complaints are possible for a Commercial town centre (of 200 mg/m<sup>2</sup>/day)<sup>1</sup>. During all monitoring periods, no asbestos fibres were detected in any samples and all metals were below the detection limit of 10µg.

Figure 2 – Rate of Deposition (mg/m<sup>2</sup>/day) Results



### 2.2 Asbestos in Air Sampling

Asbestos in air sampling has been undertaken by Riverside Environmental Services Ltd (MLM's partner laboratory who has UKAS accreditation<sup>2</sup>). The sampling has been undertaken in accordance with the laboratory's documented in house method for analysing airborne fibre concentrations which is accredited by UKAS and follows guidance in HSG 248<sup>3</sup>. The results are shown in Table 2 below.

<sup>1</sup> Suggested Guidelines for Deposited Ambient Dust, H. W. Vallack and D.E. Shillito, Published in Atmospheric Environment, Vol. 32, pp. 2737-2744

<sup>2</sup> UKAS is the UK's National Accreditation Body, responsible for determining, in the public interest, the technical competence and integrity of organisations such as those offering testing, calibration and certification services.

<sup>3</sup> UK Health and Safety Executive's Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Available at <http://www.hse.gov.uk/pubns/books/hsg248.htm>

Table 2 Monitoring Locations and Pollutants Monitored (fibres/ml)

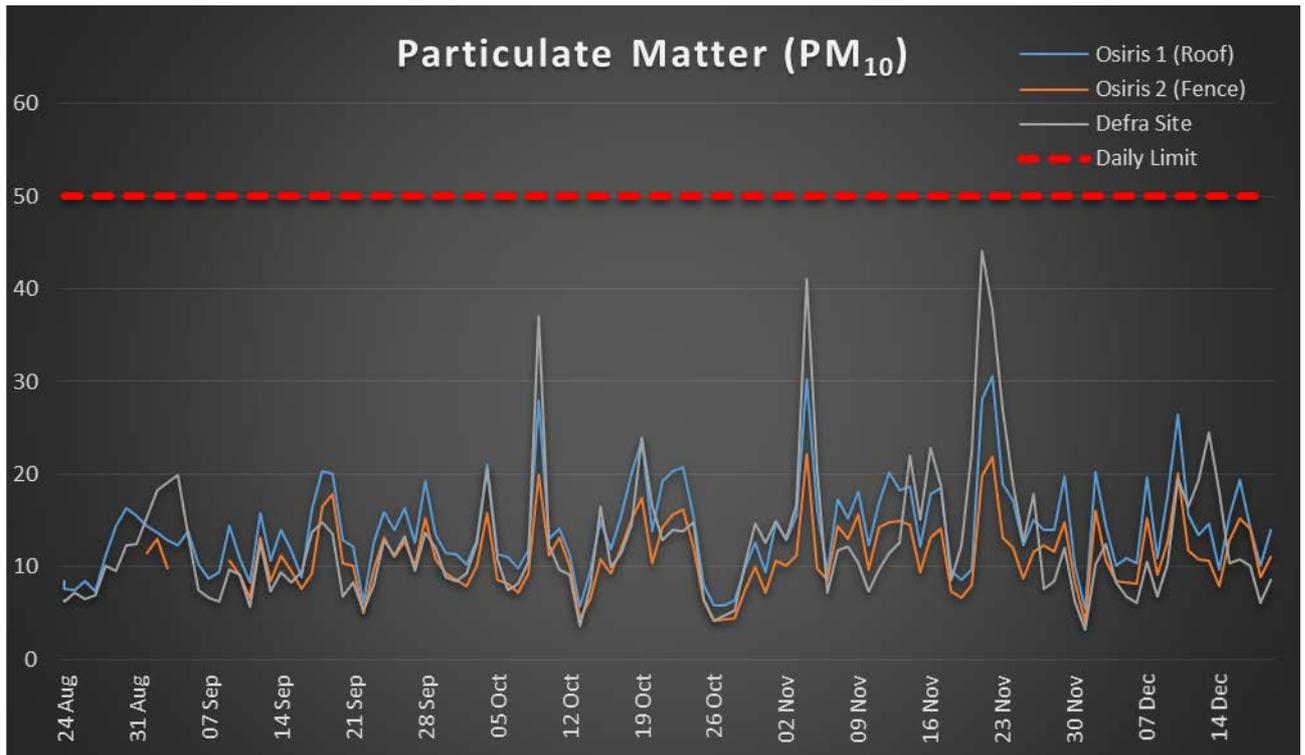
Sampling Visit	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
<b>Visit 1 (24 Aug)</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
<b>Visit 2 (20 Dec)</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	<0.01

### 2.3 Particulate Matter Monitoring

The particulate matter monitoring results show that the daily limits for PM<sub>10</sub> as set by UK’s Air Quality Strategy<sup>4</sup> have never exceeded. The results also show that the monitoring undertaken at the school using Osiris units have not exceeded the daily limit. Furthermore, the results were comparable with the monitoring undertaken by Defra at their AURN London N. Kensington Site<sup>5</sup>.

<sup>4</sup> Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf)

<sup>5</sup> Data available from [https://uk-air.defra.gov.uk/data/flat\\_files?site\\_id=KC1](https://uk-air.defra.gov.uk/data/flat_files?site_id=KC1)



## 2.4 Summary

The automatic and passive monitoring undertaken at KAA during the period between 24 August and 20 December 2018 indicates that ambient PM<sub>10</sub> concentrations were well below the daily and annual mean National Air Quality Objectives and comparable to concentrations measured by PHE on the roof and by Defra at the nearby AMS.

Dust deposition rates are not enough to be deemed possible to typically cause complaints. As such it is considered unlikely that the Tower has or would in the future, lead to an increase in PM<sub>10</sub> concentrations such that there would be a risk to human health provided it remains in its current state (ie. enclosed). Furthermore, there is no evidence to suggest that the ambient air or dust deposited on surfaces at monitoring locations at KAA contain significant quantities of potentially harmful contaminants.

Interpretation of interim monitoring results from both sources show that the users of the school are not exposed to unacceptable air quality from the potential emissions from the neighbouring Grenfell Tower site.



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