
SUMMARY FUGITIVE DUST MONITORING REPORT

Summer 2014

Report for:
Galliford Try Building - Divisional Projects
A380 SDLR Site Office
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Devon
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Introduction

Galliford Try qualitatively monitor dust emissions on a daily basis during periods of dry weather. Results and controls are recorded in a Daily Dust log.

AAe supplement this through periodic quantitative monitoring of dust emissions at the downwind site boundary. This was completed during the summer months of 2014. No quantitative monitoring has been undertaken during the autumn and winter months.

AAe monitor at 5 locations which are considered sensitive to dust emissions. AAe only monitor in dry periods when fugitive dust is likely and assess against accepted action thresholds and human health exposure limits. It should be recognised that results record total dust levels, including those from other sources.

Method of monitoring

Particulate matter < PM₁₀ (respirable dusts)

AAe use a light scatter meter. This is a real time Occupation Health meter for measuring dust levels. The dust levels monitored are the respirable fraction.

This monitoring method is undertaken to determine the level of dust being emitted at any one time. Galliford Try use this tool to assist site management. They set a site action threshold based upon guidance from the Institute of Air Quality. The actions threshold is 0.25 mg m⁻³ based over a 15 minute period. If this threshold is exceeded, Galliford Try review their works in the area and assess whether they are the likely contributor and implement corrective actions as appropriate.

Laboratory assessment – inhalable dusts

AAe install meters that draw a steady volume of air across a filter. Dust gathers on the pre-weighed filter. At the end of the monitoring period, typically 4 hours, the filter is sent back to the laboratory for re-weighing. This is termed gravimetric analysis. AAe can then calculate the mass of dust against the volume of air drawn through the filter in the time period.

Galliford Try assess these results against Work Exposure Limits (WEL) which are time weighted averages. For inhalable dusts this is set at 10 mg m⁻³. If this is exceeded Galliford Try could be causing harm to our workforce and users of land downwind.

Results and Conclusion

Location	Light scatter respirable results mg m ⁻³		Laboratory inhalable results mg m ⁻³	
	Average levels over all readings	No of 15 minute exceedances of action threshold	4 hrs average	No of WEL exceedances
Addison Rd	0.060	0	0.44	0
Barn Owl Pub	0.068	1	1.05	0
Huxnor Rd	0.027	0	0.80	0
Maddacombe Rd	0.031	0	0.39	0
Ganders Caraven Park	0.041	0	0.20	0

The light scatter monitoring has only recorded 1 exceedance of our short term action threshold. This occurred at the Barn Owl Pub. The upwind activities were reviewed and the problem identified as the power screen. The dust misting system had failed and this was corrected. Subsequent readings showed compliance and levels reduced.

The dust levels being recorded during gravimetric monitoring are significantly below the Workplace Exposure Limit. Consequently the results indicate no need for Personal Protective Equipment and are not considered to pose a significant risk to health.

Monitoring will recommence in 2015.

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