CAPITAL ENVIRONMENTAL SERVICES

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Air Monitoring for Asbestos Removal Processes

Interpreting Sample Results:

The sample results for air monitoring reported should be read in conjunction with the Work Safe ACOP Management and Removal of Asbestos Table 13: Class A asbestos removal air monitoring action levels.

ACTION LEVEL	CONTROL	ACTION
< 0.01 fibres/ml (trace level)	No new control measures are necessary	Continue with existing control measures
≥ 0.01 fibres/ml but < 0.02 fibres/ml	Investigate	Investigate the cause
	Implement	Put controls in place to prevent exposure
	Prevent	Prevent further fibre release
≥ 0.02 fibres/ml	Stop	Stop Class A asbestos removal work
	Notify	Notify WorkSafe as soon as possible as a notifiable incident. Include the results of the air monitoring.
	Investigate	Conduct a thorough visual inspection of the enclosure (if used) and associated equipment in consultation with all asbestos workers. Review controls.
	Put controls in place to prevent exposure and further asbestos fibre release	Extend the isolated/barricaded area around the work area/enclosure so far as reasonably practicable (until fibre levels are at or below 0.01 fibres/ml) Wet-wipe and vacuum the surrounding area, seal any identified leaks (e.g. with expandable foam or tape) 3 Smoke test the enclosure until it is satisfactorily sealed
	5. Conduct further air monitoring	Do not re-start until fibre levels are at or below 0.01 fibres/ml
	6. Retain records for five years	

Class B Asbestos Removal:

Air monitoring is not required, but it may be carried out by a licensed asbestos assessor or competent person to check if the asbestos removalist is complying with the duty to eliminate or minimise exposure to airborne asbestos, and to make sure they do not exceed the airborne contamination standard for asbestos. Class B Air Monitoring requirements will vary depending on for example; if the asbestos removal work is being done in, or next to a public or occupied location, if the person or people working on the asbestos is or are in an enclosure, the type of asbestos, and whether the work is inside or outside.

Air Monitoring and Quality Control Monitoring:

There is a difference between air monitoring and quality control monitoring for asbestos removal or encapsulation work. Both relate to safeguarding the health of individuals, but quality control monitoring places an emphasis on confirming that the job has been completed to a satisfactory standard.

Air Monitoring means measuring airborne asbestos fibres by sampling and analysing them in accordance with a method based on a membrane filter method (in air).

Control Monitoring means monitoring controls to make sure the controls continue to eliminate or minimise airborne asbestos as much as reasonably practicable.

Trace Level (0.01 f/ml) means an average concentration over any eight-hour period of less than 0.01 asbestos fibres per millilitre of air. Trace level when applied to asbestos removal work means the limit on the amount of respirable asbestos fibres in the air that is permitted.

Airborne Contamination Standard (0.1 f/ml) means for asbestos is an average concentration over any eight-hour period of 0.1 asbestos fibres per millilitre of air. This standard sets a level of respirable asbestos fibres in air that cannot be exceeded at any workplace, unless it is inside an asbestos removal enclosure using negative pressure. It does not set an acceptable limit for personal exposure. People who are at risk of exposure to airborne asbestos above TRACE LEVEL must wear suitable personal protective equipment.

What is Clearance Monitoring?

When an asbestos removal specialist carries out any asbestos removal at a house, or commercial or industrial premise, they should be carrying it out in accordance with legislation and codes of practices which aim to protect people and ensure the site is free from asbestos after the removal is complete. Clearance monitoring is asbestos air monitoring carried out at the removal site after the job has been completed and the removal specialist has cleaned the area. In many cases it is a four stage process involving inspection and testing even before the removal has started.

Background and Reassurance Monitoring

Background monitoring and *Leak monitoring* can also be carried out during and throughout the removal process. Leak air monitoring occurs outside the 'enclosed removal area' to determine whether the area is secure and that no asbestos fibres are escaping during the removal process. Background monitoring occurs in the vicinity of the removal site.

Reassurance monitoring occurs in buildings and locations where asbestos is present but there has been no removal works carried out and the area or workplace remains occupied. Air monitoring in such areas can help to reassure occupants of the air quality.

What is a fibre count?

When carrying out air monitoring air pumps draw a known quantity of air over a known period of time over a membrane or SEM filter. The sampling time can be high volume for less than an hour or 4 and 8 hours sampling periods. The filter traps fibres, which can then be counted under a microscope. The number of fibres on the filter is an indication of whether the air in the tested enclosure or area is satisfactory or not.