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Requirements pertaining to asbestos clearance inspections and air monitoring on completion of asbestos work

By now it should be common knowledge that the Asbestos Abatement Regulations, 2020, requires that the approved inspection authority (AIA) appointed for an asbestos project must conduct a final clearance inspection and issue an asbestos clearance certificate on completion of all type 2 or type 3 Asbestos projects. We do often find that sites fail the clearance inspections resulting in delays in reoccupation and additional costs to the asbestos client as the AIA will have to re-visit the premises as to reinspect and conduct monitoring which could have been conducted during the 1st site visit should the premises have been properly prepared for clearance.

The purpose of this explanatory note is to:

a. Discuss and explain the legal requirements pertaining to asbestos clearances; and

b. Provide some guidelines to RACs on actions needed as to obtain clearance 1st time round.

1. Purpose of an asbestos clearance inspection and air monitoring

While asbestos work is being performed the contractor is required to establish a regulated asbestos area which due to the possible exposure to airborne regulated asbestos fibres may only be entered by properly trained asbestos workers. On completion of the asbestos work above mentioned regulated asbestos area is to be re-occupied by the client. Before re-occupation may take place, the contractor is required to ensure that an asbestos clearance certificate is issued. An asbestos clearance certificate may only be issued by the AIA appointed for this project and will only be issued after a visual inspection has shown that all asbestos containing material as per the approved asbestos plan of work was removed.

Additional to the visual inspection the AIA is also required to conduct clearance / reassurance air monitoring as to verify that airborne regulated asbestos concentrations have been reduced to acceptable levels and meet regulatory standards. By issuing an asbestos clearance certificate the AIA will effectively state that the work area can be re-occupied and the risk of subsequent exposure to residual regulated asbestos fibres are below the legally precribed clearance indicator (<0.01 f/ml of air).

2. Legal requirements pertaining to asbestos clearances

The following legal requirements may be important to consider when discussing asbestos clearances, viz.

1. Both Asbestos Abatement Regulations 13 titled "*Duties of approved inspection authorities for asbestos work*" and 22 titled "*Asbestos clearance certificate*" places a legal obligation on the AIA appointed for the project to conduct an asbestos clearance on completion of all type 2 and type 3 projects;

2. Asbestos Abatement Regulation 22 further defines what is meant by a clearance in that it states that the AIA must:
    a. Conduct a thorough visual inspection of the relevant work areas or building from which asbestos or asbestos containing material was removed;
    b. Conduct air sampling as to check compliance with the clearance indicator;
    c. Ensure that all asbestos waste has been removed from site; and

3. Asbestos Abatement Regulation 22 further states that on completion of above-mentioned activities a written asbestos clearance certificate must be issued. The Asbestos Abatement Regulations, 2020, defines an "asbestos clearance certificate" *means a written document verifying that the regulated asbestos fibre concentration in the air meets the clearance indicator.*

3. Actions to be performed by AIA during clearance

As per above mentioned regulations a clearance will consist of:

1. A paper verification audit as to check if all asbestos containing material as detailed in the approved asbestos plan of work has been removed and properly disposed of;

2. On completion of above-mentioned verification, the surveyor will conduct a visual inspection of the premises where asbestos work was performed. During the visual inspection the surveyor will typically inspect the:

    a. Inside of the building from which asbestos containing material was removed as to check for any dust which may have entered the building through light or other openings in the ceiling. As per the requirement contained in HSG 248 as explained below a failed clearance should be issued should any dust be observed. The dust observed may not contain asbestos but will surely be perceived to be asbestos containing by occupants on their return to the building. Based on above it may be advisable for the RAC to prior to clearance inspect the inside of the building and clean areas where necessary;

b. In buildings not fitted with ceilings the RAC should have, prior to the start of the asbestos work project have removed all items from this part of the building where asbestos work was performed or should have covered all items with plastic sheets. In such cases the plastic sheeting should have been removed and the area properly cleaned prior to the clearance inspection; and

c. During the clearance inspection the surveyor will also check for any damage which may have been caused to the ceilings installed.

3. On completion of a successful inspection, the surveyor will if required, conduct air monitoring on the inside to the building from which asbestos containing material was removed. The purpose of this air monitoring is to prove that the airborne concentration of regulated asbestos fibres on the inside of the building does not exceed the prescribed clearance indicator, effectively meaning that persons entering the building will not be exposed to airborne concentrations of regulated asbestos fibres, above the clearance indicator.

4. Why do clearances fail and what can RACs do to prevent a failed clearance

By far the most failed clearances are due to the following reasons:

1. All asbestos containing material as detailed in the approved asbestos plan of work not having been removed from the respective workplaces / structurers. During the clearance inspection, the surveyor is required to compare the types and quantities of asbestos containing material removed to the quantities contained in the approved asbestos plan of work. Should it be found that all ACM as detailed in the approved plan of work not having been removed no clearance inspection will be possible.

   In most cases an agreement has been reached with the asbestos client that less or more asbestos containing material than that stated in the approved asbestos plan of work is to be removed. In the event and prior to more asbestos containing material be removed the AIA is to be informed as to ensure that the current approved plan of work could be amended accordingly and as a curtesy be re-submitted to the office of the Department of Employment and Labour. The removal of less asbestos containing material than that stated in the approved plan of work will merely require a letter or e-mail from the asbestos client in which they indicate their acceptance to this agreement. On receipt of a copy of such e-mail or letter there should be no reason for clearance inspections to be delayed.

2. Asbestos containing waste observed inside regulated asbestos area established during removal. Probably the most common reason for failed clearance inspections is due to RAC staff not having cleaning the regulated asbestos areas and roof spaces properly resulting in small pieces of asbestos waste being found inside the regulated asbestos area. Unfortunately, some waste generated during removal will fall onto the insulation

material installed in roof spaces or on top of the ceiling in the absence of any insulation material. Please see photos below which shows poorly cleaned roof spaces for which failed clearance certificates will be issued as well as properly cleaned roof spaces.

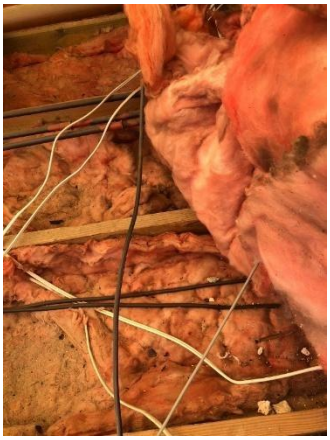
PHOTOLOG

These photos show poorly cleaned roof spaces















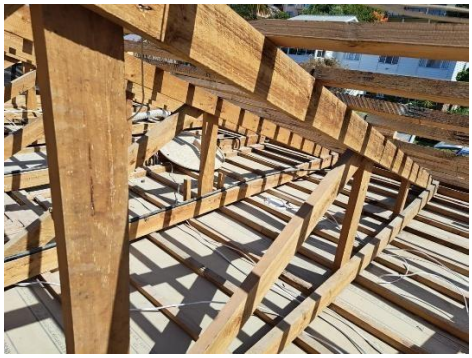


The photos show properly cleaned roof spaces for which clearance was issued













As the asbestos client pays for the removal of specific asbestos containing material any waste generated during removal of this material will surely be regarded as part of the services offered. As the bulk of the asbestos containing material to be removed are roof coverings such as roof sheets or slate tiles the RAC will also be required to clean the roof space. A clean roof space can only be obtained by:

a. Rolling up, remove and dispose of all insulation material installed as asbestos waste;

b. On completion of the removal of the insulation the top of the ceilings must be vacuumed with the use of a vacuum suitable for asbestos work as to remove all dust or pieces of material which may contain asbestos. See photos above which shows roof spaces properly cleaned;

c. Even should ceilings have been installed some dust may have entered the workplaces below and for this reason all areas are to be inspected and be cleaned from visible dust.

The same rule pertaining to cleaning and vacuuming would apply to areas inside a building not fitted with ceilings from which asbestos containing material is to be removed.

3. In accordance with the Asbestos Abatement Regulations, 2020, AIAs are required to conduct clearance inspection and monitoring according to the British HSG 248 Standard. The standard requires that certain conditions be met prior to AIAs being allowed to conduct clearances inspection and monitoring. If below listed requirements are found not complied with the AIA may legally not perform clearance:

   a. **Remaining asbestos containing material must be intact and should not release asbestos fibres which will substantially affect the clearance air monitoring results** – asbestos clients have the right to decide when and what asbestos containing material they wish to remove. Should the remaining asbestos or asbestos containing material due to the type or condition have an effect of airborne regulated fibre concentrations measured during clearance the AIA could advise the asbestos client that clearance will not be possible unless the material in question be removed. It is unlikely that asbestos cement material will pose such a problem and for this reason this provision mainly applies to raw asbestos installations such as rope lagging on steam pipes;

   b. **All equipment used by RAC must be removed from the area to be cleared** – the principal is that equipment may be asbestos contaminated and should therefore be cleaned and be removed from site as to prevent any negative effect on monitoring results for monitoring conducted during clearance;

   c. **All ACM waste has been removed from area to be surveyed** – The temporary waste storage area used during removal is part of the regulated asbestos area and would therefore form part of the area inspected for clearance. As the intention with clearance is to determine if all asbestos or asbestos waste

generated during the project has been removed from site and safety disposed of any waste still found stored in the temporary storage area will immediately result in a failed clearance;

d. **All mechanical ventilation systems are switched off and will remain switched off until clearance has been granted by the AIA** – This provision is normally a concern when doing type 3 asbestos work, but obviously ventilation systems installed inside a building could result in airborne regulated asbestos fibres being extracted to other areas. This will not only result in the mechanical ventilation system and ducting being contaminated, but could also affect other areas linked to the same ventilation system;

e. **All ventilation openings must be sealed / enclosed** – as with the mechanical ventilation system mentioned above leaving any vent openings uncovered during removal could lead to contamination and the spread of asbestos fibres;

f. **Area to be surveyed must be enclosed** – as per the legislation all asbestos work must be performed inside a regulated asbestos area which should be properly enclosed, demarcated and be marked as a regulated asbestos area with signs being posted. Until clearance has been granted by the AIA the regulated asbestos area should remain a regulated asbestos area which is only to be entered by asbestos workers who wear the prescribed PPE;

g. **Interior surfaces must be free from debris and settled dust** – as an AIA we understand that it would be impossible to get areas totally dust free, but as mentioned above any dust which originated from the asbestos removal work may contain asbestos. Even should it be asbestos free it would be presumed to contain asbestos by our customers and we could surely expect complaints should we clear areas where dust is clearly visible. For this reason, cleaning of roof spaces and others is required prior to clearance being possible;

h. **Surfaces (walls and floors) must be dry** – we find that some RACs would prior to clearance wet surfaces with the hope that the water will prevent asbestos fibres which settled on these surfaces from becoming airborne. This plan will work, but only until the surfaces dry sufficiently for the fibres to again become airborne. For this reason, AIA are prohibited from doing clearance air monitoring in areas where surfaces are wet due to it being purposefully sprayed with water prior to the AIAs arrival;

i. **Floor of area to be surveyed must be uncovered** – as with the water mentioned above placing plastic sheeting on a surface will have the same affect. The purpose of clearance is to establish if the area can be re-occupied. Occupants as a norm don't place plastic sheeting on their floors and for this reason the floors should be uncovered at the time of clearance. The only exception to this rule would be for plastic

sheeting used to cover mechanical ventilation ducting and openings leading to adjacent areas where the removal prior to clearance could resulting in adjacent areas becoming contaminated;

j. **No evidence of lock down sprays may be visible** – similar to the water asbestos encapsulation liquids such as TSW or similar could be used. Surfaces should however be dry at the time of clearance;

k. **Ladders / scaffolding needed for inspection must be available** – we assume this requirement is self-explanatory; and

l. **Area must be sufficiently lit** - as to enable the surveyor to properly inspect all areas.

4. Asbestos removal work having been completed and the regulated asbestos area properly cleaned but the waste generated during removal is yet to be removed from site for safe disposal. In most cases the waste would be found stored in waste skips or stacked and wrapped in plastic in the temporary waste storage area established. As previously mentioned, the presence of this waste will result in an automatic failed clearance.

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Should you require any further assistance, you are welcome to contact Thabied Davids – 073 657 0293 or Dylan Prange 081 047 9957