

2023



Critical Risk Training: Asbestos in Buildings

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Background

Naylor Love noticed an internal trend around asbestos related works.

We developed a Critical Risk Questionnaire which surveyed all our teams working in buildings constructed before the year 2000, asking whether they had an Asbestos Demolition/Refurbishment Survey, whether it covered the entire scope, and whether they had issued it to their demolition subcontractor.

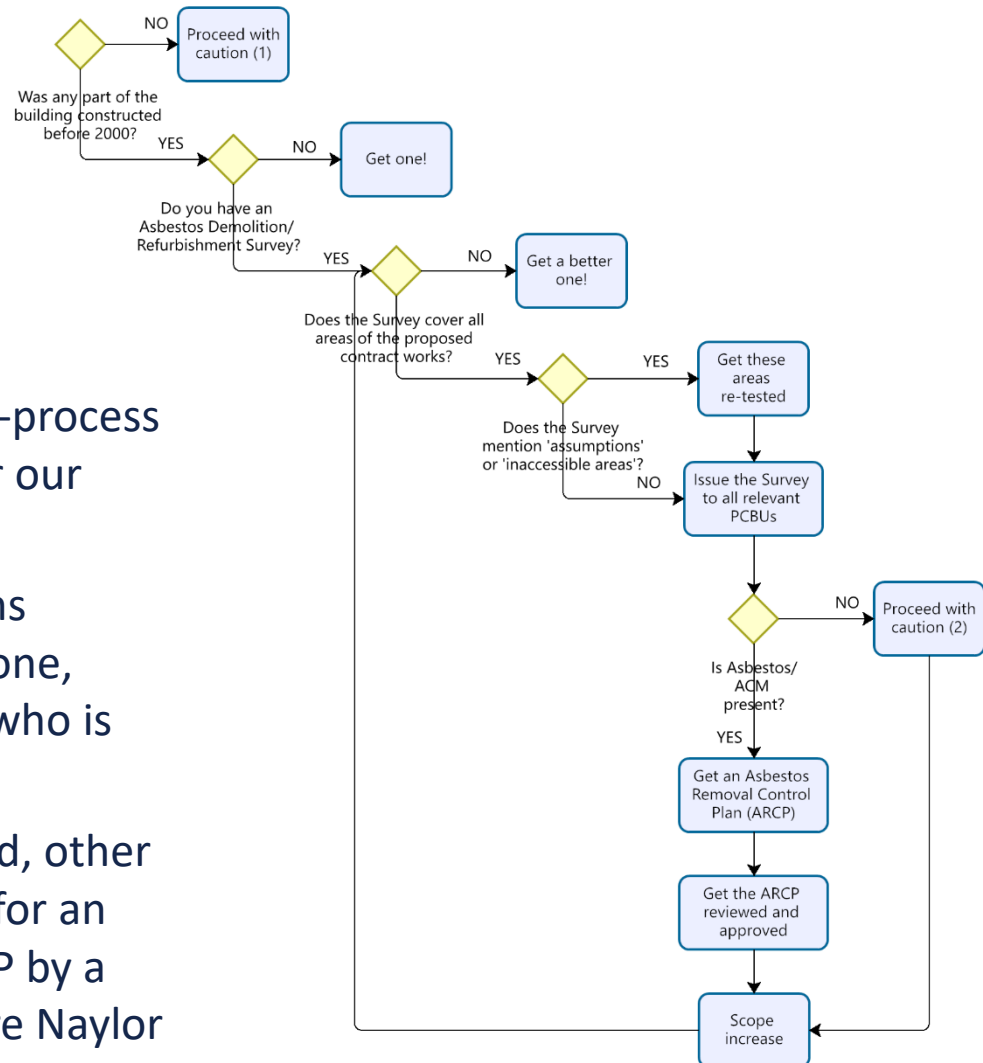
On jobs where we had asbestos that needed to be removed, we asked further questions about communication and the involvement of a licensed removalist, amongst several other questions.

We identified common themes relating to asbestos and:

- Added a **sub-process** for asbestos identification on our projects
- Updated our **Essential Checklist – Asbestos**
- Delivered this **training** in person to all our pre-construction and construction teams

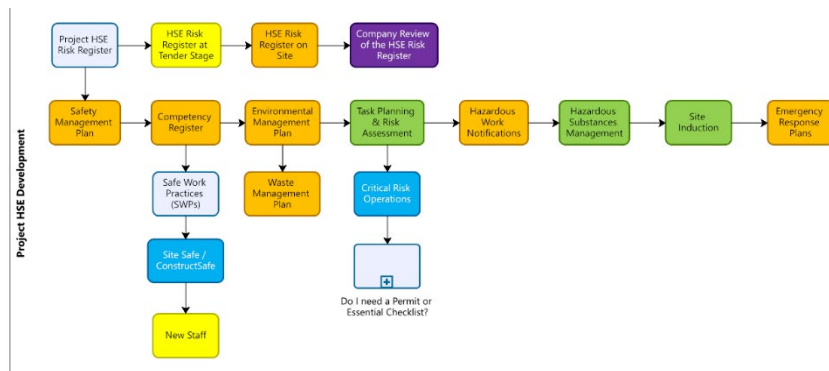
Asbestos in buildings sub-process

- Naylor Love implemented a sub-process to provide ongoing guidance for our teams.
- Each step of the process contains guidance on what need to be done, when it needs to be done, and who is responsible for doing it.
- Some of this is industry-standard, other parts (such as the requirement for an independent review of the ARCP by a licensed asbestos consultant) are Naylor Love-specific.



Critical risk management at Naylor Love

- Our Health, Safety & Environmental Process is heavily focussed on Critical Risks.
- Our Critical Risks are activities which have the potential to cause serious harm or worse. They require a higher level of pre-task planning and engagement.
- Each Critical Risk has either a Permit or Essential Checklist which must be completed prior to undertaking the task.



Essential Checklist - Asbestos

TA #:



ESSENTIAL CHECKLIST - ASBESTOS

This checklist must be completed when dealing with **any** asbestos or asbestos containing material (ACM).

NL SUPERVISOR TO COMPLETE	Y	REQUIRED PRECAUTION CHECKLIST
Site name:	<input type="checkbox"/>	Asbestos Demolition / Refurbishment Survey available and relates to the Project Scope of Works - sighted
Activity:	<input type="checkbox"/>	Licensed Asbestos Removalist has the appropriate licence (Class A / Class B) to carry out the work and is registered on the WorkSafe Asbestos License Holder Register - sighted
Asbestos/ACM: <input type="checkbox"/> Class A (friable) <input type="checkbox"/> Class B (non-friable)	<input type="checkbox"/>	Asbestos Removalist Supervisor registered under the Licensed Asbestos Removalist will be present on site - confirmed
Location of work:	<input type="checkbox"/>	Asbestos Removalist has provided an Asbestos Removal Control Plan (ARCP) which has been reviewed and approved by an Independent Asbestos Consultant - attached
Date: _____	<input type="checkbox"/>	Methodology includes compliant disposal (waste disposal receipts required) - confirmed
	<input type="checkbox"/>	Details of planned response to site emergencies – discussed
	<input type="checkbox"/>	Clearance Inspections conducted by Independent Licensed Asbestos Assessor - confirmed
	<input type="checkbox"/>	WorkSafe Particular Hazardous Work Notification completed – sighted
	<input type="checkbox"/>	Asbestos related work communicated to other workers/subcontractors (daily pre-start/last planner/ toolbox) and building occupants - confirmed
	Any change in the work activity will require a re-submission of this form to Naylor Love.	

Reviewed by: (NL Supervisor) _____ Signature: _____

Date: _____

Comments:

Critical Risk Training: Asbestos

This training covers:

- Types of asbestos and likely locations
- Types of asbestos survey and when they're required
- Determining the survey accuracy and alignment with our scope of works
- The Asbestos Assessor role and our expectations as the Main Contractor
- Consult, coordinate and cooperate (Main Contractor, Asbestos Assessor, Asbestos Removalist)
- Consult, coordinate and cooperate (Naylor Love, other Subcontractors and Key Stakeholders)
- Requirements for Class A and Class B licence holders

What is asbestos?

Asbestos is a **naturally occurring** fibrous silicate mineral which forms under the ground. The most commonly mined forms of asbestos are shown below:



Most common = **Chrysotile**
(white asbestos).



The other two main types: **Amosite** (brown
asbestos) and **Crocidolite** (blue asbestos).



What is asbestos?



Asbestos is very strong, highly resistant to heat, fire, and chemicals, is water resistant, and is a good electrical insulator.



Asbestos was widely used in New Zealand between the 1940s and 1980s.

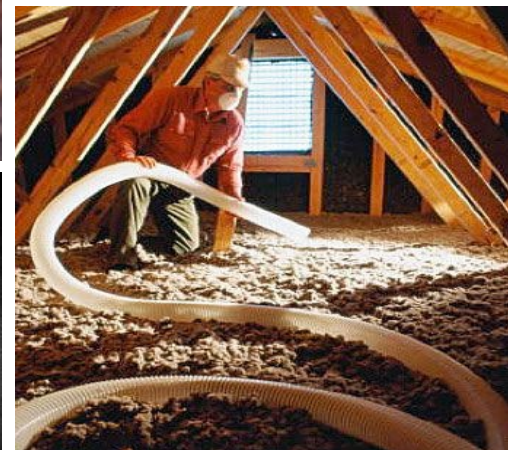
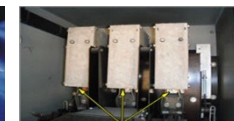


Common applications include cladding, roofing, flooring, electrical components and insulation material.



Any buildings and structures built before the year 2000 may have asbestos in them.

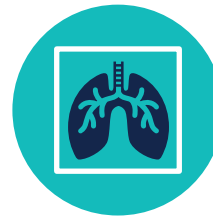
Asbestos in building materials



Why is it hazardous?



When asbestos containing material (ACM) is disturbed or damaged, it releases tiny fibres into the air.



These fibres can be inhaled and trapped in the nose or throat, or they can work their way into the lung or digestive tract.

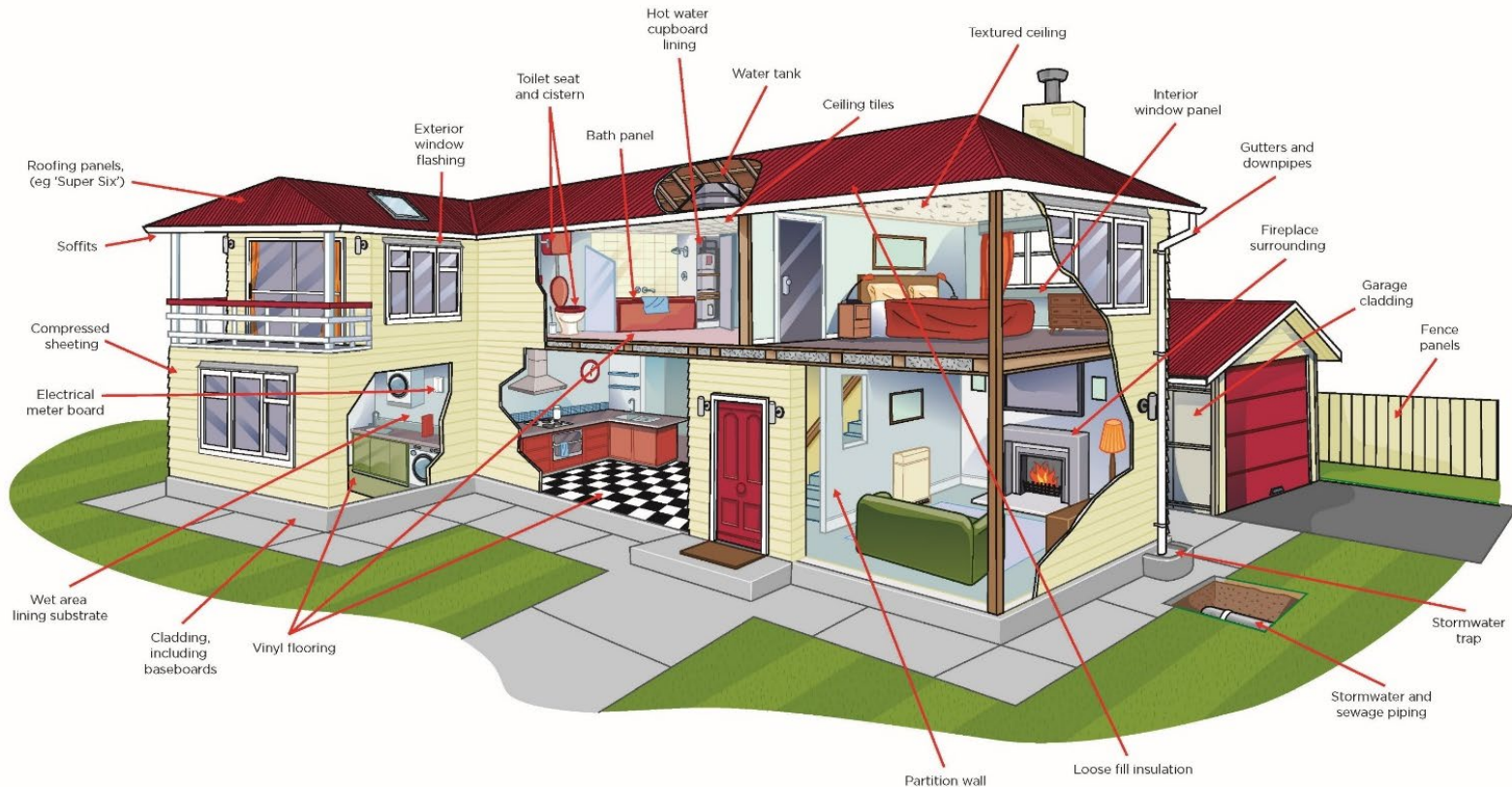


Once the fibres enter the body, they can start to cause health problems.



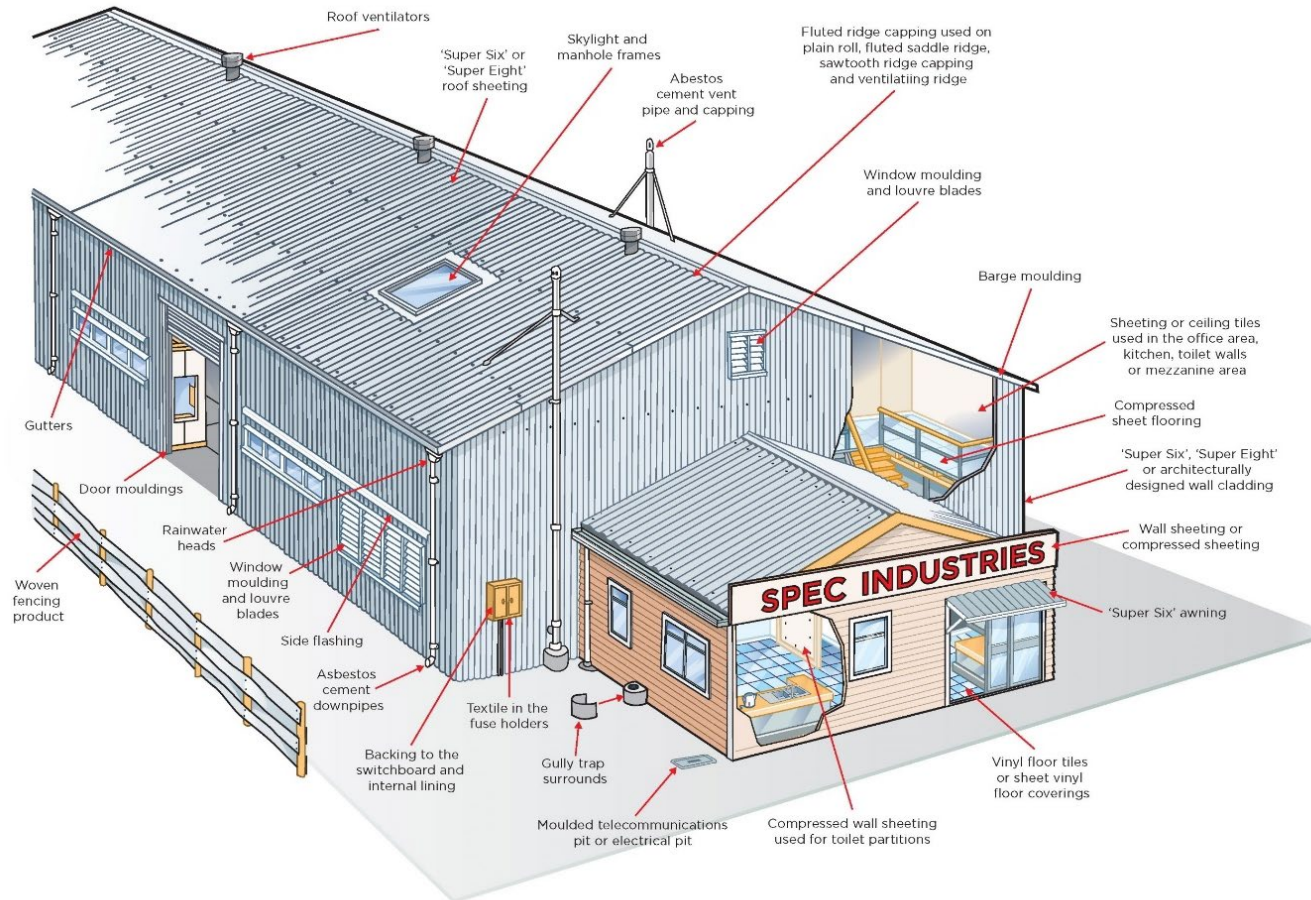
Asbestos exposure is New Zealand's number one workplace killer (WorkSafe 2022 Fact sheet)

Typical locations: residential



[WorkSafe NZ: Where asbestos can be found](#) is a useful resource which is available from the WorkSafe NZ website.

Typical locations: industrial



[WorkSafe NZ: Where asbestos can be found](#) is a useful resource which is available from the WorkSafe NZ website.

**Q: How do you know if
asbestos is present on your
project?**

A: Asbestos surveys

Asbestos surveys

- The primary means of identifying asbestos is to have a survey carried out by an **Asbestos Surveyor**.
- There are two types of asbestos survey:

Asbestos Management Survey

- Required for day-to-day occupation and maintenance

Asbestos Demolition/ Refurbishment Survey

- Required if you're planning a demolition or refurbishment under the Health and Safety at Work (Asbestos) Regulations 2016

Considerations for asbestos surveying:

- Request a copy of the client's asbestos survey. If a Refurbishment / Demolition Survey has not been completed, get one done.
- Engage with the client / client representative to confirm that no asbestos-related works have been undertaken since the survey was conducted.
- The survey(s) should cover **all** areas which may be accessed or disturbed by the prescribed scope of work. For example, if refurbishing level 7 of an existing building, consider which other areas you may need to access - e.g. the ground floor switchboard.
- **A Management Survey is never acceptable for refurbishment or demolition work.**

Who gets a copy of the survey and what do they do with it?

1. Main Contractor:

The Main Contractor needs to receive, read and understand the asbestos type, extent and risk on their project. This allows the Main Contractor to communicate and discuss methodologies with the Client, Asbestos Removalist, Asbestos Assessor and other workers.

2. Asbestos Removalist:

The Asbestos Removalist needs the survey report(s) to accurately scope the removal works and develop methodologies and controls with consideration to the Client and Main Contractor's requirements. They incorporate this into an Asbestos Removal Control Plan (ARCP).

3. Other Contractors:

Communicate the Survey to other Contractors working on the project to inform them of the potential risk of asbestos and the areas they are unable to access due to the presence of asbestos.

4. Other Stakeholders:

Communicate the Survey to other key stakeholders - the Client, the Consultants, and if working in an existing building, consider the Building Manager.

Watch out for...

Categories of **non-sampled** asbestos types in survey reports:

Sampled as

Inaccessible/
Presumed

Strongly
Presumed

It's important to be aware of survey reports specifying presumptions and inaccessibility.

Additional surveying must be conducted before demolition or refurbishment works commence.

Until additional surveying is done, **inaccessible and presumed areas / items must be considered asbestos containing.**

Common areas identified as omitted from asbestos survey reports as **inaccessible**:

Roof voids

Sub-floors

Cavities

Plant/
Services

Surveyor vs Assessor

Surveyor

Surveys structure and materials

Takes samples for analysis

Develops Demolition/
Refurbishment Surveys

It can be beneficial to engage the Surveyor as the independent Assessor to maintain consistency throughout the project and to minimise the potential for incidents and miscommunication. Knowledge of an existing building, gained over a time period, is also useful.

Assessor

Assists with and reviews methodology (ARCP)

Air monitoring

Clearance inspections & certificates

Scope of Works

Has your scope of works changed?

- Has the client asked for a building to be demolished that wasn't originally in the scope?
- Has a roof void or sub-floor been added as part of refurbishment works?
- Do we need to refurbish plant outside the original scope?

Check to see if the survey report covers any additional areas.

- If it doesn't, get it surveyed again!

Pre-2000 building:

Asbestos Survey

- Have we requested it?

Is it appropriate?

- Asbestos Demolition / Refurbishment Survey?
- Does it cover the entire scope of works?

Is it robust?

- Does the report identify inaccessible areas / presumed asbestos?

Friable vs non-friable asbestos



Asbestos is most dangerous when it is airborne.



Non-friable (Class B) asbestos products are typically solid, rigid and cannot be crumbled or pulverised to a powder by hand pressure..



Friable (Class A) asbestos can be crumbled, pulverised or reduced to a powder by hand pressure. It is more likely to release harmful fibres into the air.



Non-friable asbestos can become friable if damaged or old.

Note: The intention of this section is to discuss the typical differences between Class A and Class B Products. Always refer to the asbestos survey to determine the classification of asbestos. Some Class B products may be deemed Class A due to the current condition of the product.

Friable vs non-friable asbestos

Which is friable and which is non-friable?



Sprayed insulation / Limpet



Corrugated cement

Note: The intention of this section is to discuss the typical differences between Class A and Class B Products. Always refer to the asbestos survey to determine the classification of asbestos. Some Class B products may be deemed Class A due to the current condition of the product.

Friable vs non-friable asbestos

Which is friable and which is non-friable?



Fuse board backing



Rope

Note: The intention of this section is to discuss the typical differences between Class A and Class B Products. Always refer to the asbestos survey to determine the classification of asbestos. Some Class B products may be deemed Class A due to the current condition of the product.

Friable vs non-friable asbestos

Which is friable and which is non-friable?



Thermoplastic floor tile



Vinyl sheeting with paper backing

Note: The intention of this section is to discuss the typical differences between Class A and Class B Products. Always refer to the asbestos survey to determine the classification of asbestos. Some Class B products may be deemed Class A due to the current condition of the product.

Friable vs non-friable asbestos

Which is friable and which is non-friable?



Cement sheeting



Insulation board

Note: The intention of this section is to discuss the typical differences between Class A and Class B Products. Always refer to the asbestos survey to determine the classification of asbestos. Some Class B products may be deemed Class A due to the current condition of the product.

Removal: Class A vs Class B



The Asbestos Demolition/Refurbishment Survey will determine what class of license and removal is required.



An **Asbestos Assessor** must be engaged to inspect the works and provide clearance – they also need to be licenced.

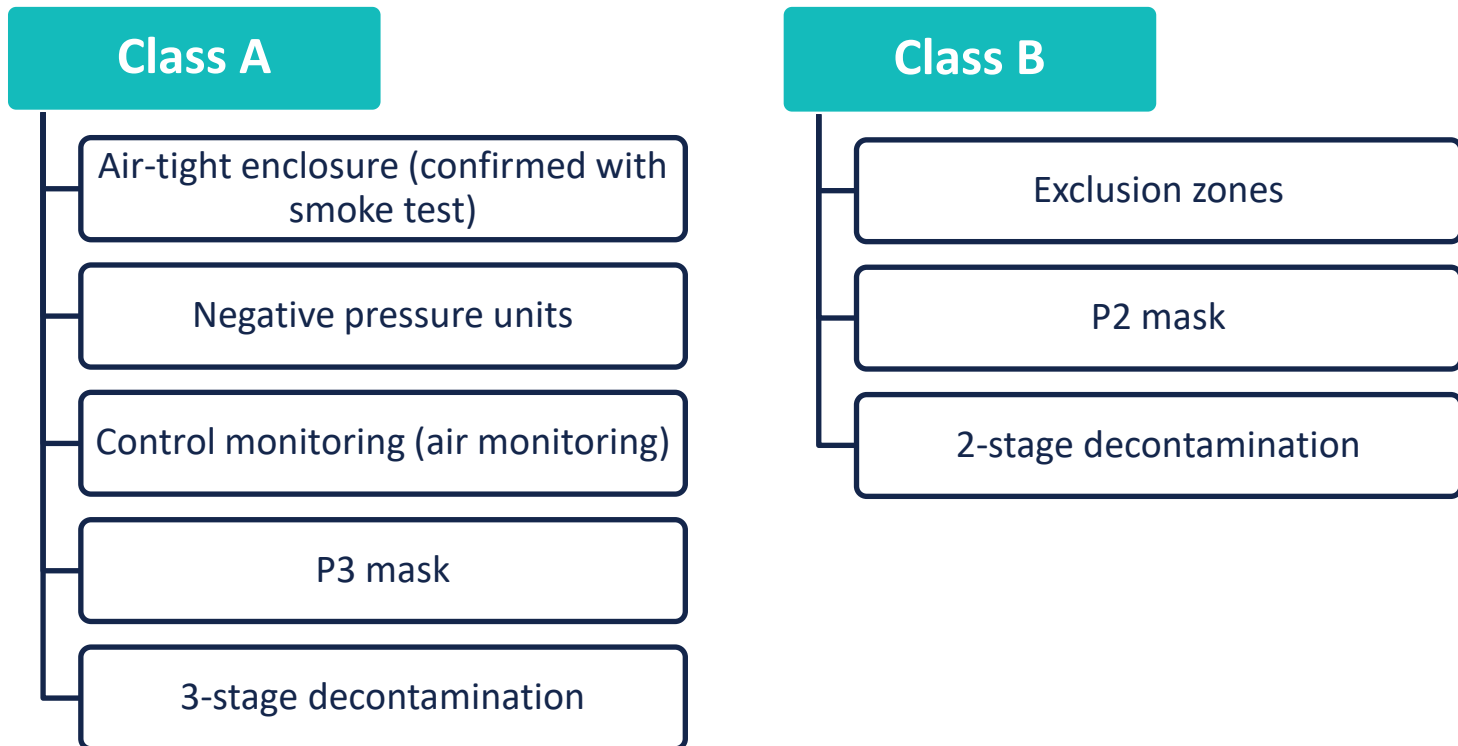


The **Asbestos Removalist** must be licenced to carry out the removal work – some only hold a Class B licence.



You can find licence holders in the [WorkSafe: Asbestos license holder register](#)

Example Controls: Class A vs Class B



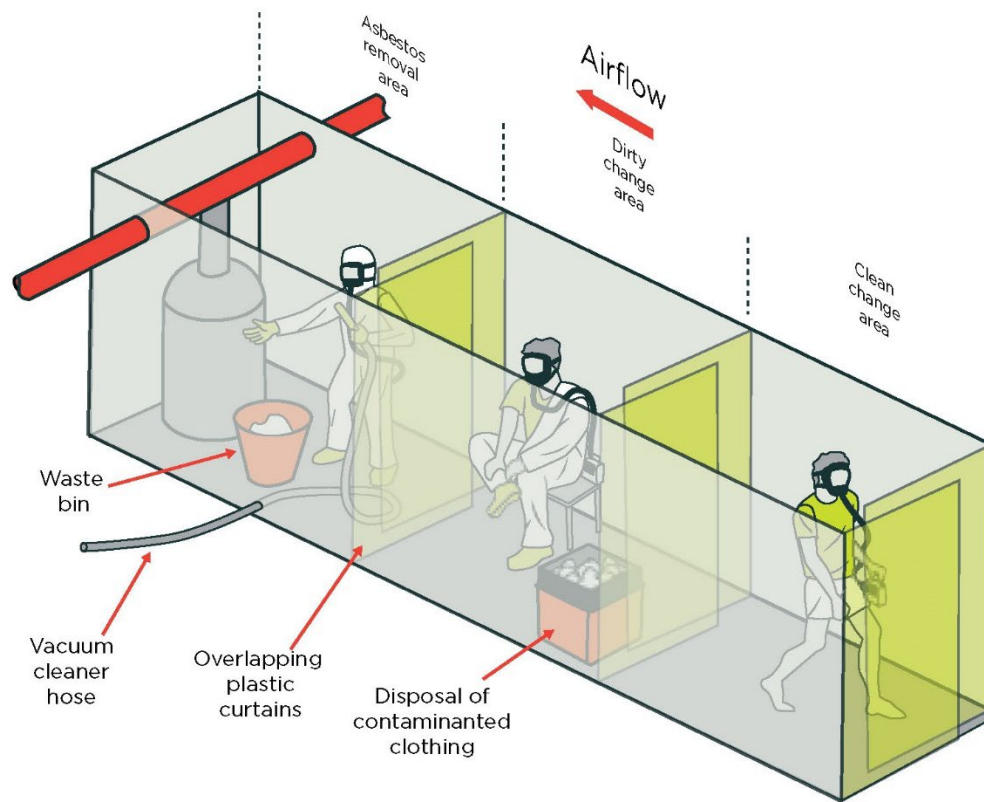
[WorkSafe NZ: Information Sheet 5 Personal Protective Equipment to use when working with asbestos.](#)

Note: The intention of this section is to discuss the typical controls for Class A and Class B Products. Work alongside your asbestos assessor and asbestos removalists to ensure the controls implemented are sufficient for the classification of asbestos.

Example Controls: Class A



Example Controls: Class A



Q: Who prepares the Asbestos Removal Control Plan (ARCP)?

A: The Asbestos Removalist

Who gets a copy of the ARCP and what do they do with it?

1. PCBU (Main Contractor) who instructed the work:

The Main Contractor needs to receive, read and understand the asbestos type, extent and risk on their project. This allows them to communicate and discuss methodologies with the Client and Asbestos Removalist.

2. Asbestos Assessor (independent):

Issue the ARCP to the independent Asbestos Assessor (not working for the company who wrote the ARCP) for review and comment. They can then provide feedback to both the Main Contractor and the Asbestos Removalist as experts in their field.

Asbestos removal:

Assessor

- Has the Main Contractor or Client engaged an independent Asbestos Assessor
- Is the Assessor licensed for the work? (Class A or B)

Removalist

- Is the Removalist licensed for the work? (Class A or Class B)

Review

- Has the ARCP prepared by the Removalist been reviewed by independent Assessor?

Q: Who inspects and certifies the asbestos removal?

A: The Asbestos Assessor

Clearance documents

What?

- Clearance Inspections and Clearance Certificates are required after asbestos removal.
- They must be completed before any demolition or refurbishment works commence.

Who?

- The independent Assessor completes the Clearance Inspection and prepares the Clearance Certificate.

Then

- The independent Assessor distributes the Clearance Certificate to the Asbestos Removalist and Main Contractor.
- The area can then be re-occupied under normal (non-asbestos) conditions, demolition/refurbishment works can start.

Key takeaways:

1. An Asbestos Demolition/Refurbishment Survey is required for all work in buildings constructed pre-2000:
 - Make sure the survey covers the anticipated scope of work
 - Re-assessment required for any variation to the scope of work
2. An Asbestos Assessor (aka Asbestos Consultant or Licensed Asbestos Assessor) must be engaged (by the client or Naylor Love) and be independent to the Removalist
3. The Asbestos Assessor is preferably the Surveyor who provided the Asbestos Demolition / Refurbishment Survey
4. The Asbestos Removalist (aka Asbestos Removal Contractor) must hold the appropriate licence
5. The Asbestos Removal Control Plan (ARCP) must be reviewed by the Asbestos Assessor
6. The Essential Checklist – Asbestos is non-negotiable
7. Communicate, communicate, communicate:
 - Subcontractors, Stakeholders, Assessor, Removalist, etc. - keep everyone informed