

Procedure

Asbestos Management

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1 Purpose

The purpose of this Procedure is to define a systematic process to manage Health, Safety and Wellbeing (HSW) risks associated with asbestos and Asbestos Containing Materials (ACM) at Seqwater workplaces.

2 Scope

This Procedure applies to all Segwater workers, business groups and work activities.

The requirements of this Procedure apply to all Seqwater owned structures and leased premises where Seqwater is responsible for compliance with relevant legislation, codes or standards.

The requirements of this Procedure will only apply to Seqwater works performed on land that is not owned by Seqwater to the extent that any asbestos identified will be made safe, reported to the Incident Hotline and to the landowner. Responsibility for management or removal of asbestos located on land that is not owned by Seqwater will be determined on a case by case basis in collaboration with the land owner and any relevant legal obligations.

Specific responsibilities as they relate to asbestos at Seqwater sites may also depend on any contractual arrangements (for example, if a contractor is appointed as 'Principal Contractor' over a site or part of a site).

3 Critical Controls

#	Critical Controls	Objective			
1	Encapsulate friable Asbestos Containing Materials (ACM) to minimise inhalation exposure	To mitigate the impact of loss of containment of ACM on human life			
2	Personal protective equipment (PPE) - Respiratory Protective Equipment (RPE) - Chemical overalls / apron - Gloves - Eye goggles (Chemically rated) - Face Shield - Safety glasses - Chemical Resistant footwear	To mitigate the impact of loss of containment of hazardous substances on human life			

4 Procedure

4.1 What is asbestos?

Asbestos is the common term used to describe a naturally occurring fibrous mineral that was used extensively by Australian industry because of its durability, fire resistance and excellent thermal insulating properties. Asbestos was used in a wide range of products manufactured between the 1940s and the 1980s. Asbestos



fibres were an additive often mixed into another base compound (such as cement) to enhance physical properties of the material.

All forms of asbestos have been nationally banned from use since 31 December 2003. However, the ban does not mean that all asbestos installed prior to this date needs to be removed.

Although the ultimate goal of this prohibition is for all workplaces to be free of asbestos, it is only when these materials are being replaced or where the continued presence creates a health risk that non-asbestos alternatives must be used. Caution needs to be taken when working with buildings constructed prior to 1990 or newer buildings that may have used recycled materials and/or may have reinstated old plant containing ACM gaskets and/or linings.

4.1.1 What is Asbestos Containing Material (ACM)?

ACM refers to any material, object, product or debris that contains asbestos. ACM can take several physical forms, depending on its method of manufacture and application. The most common form is asbestos-cement sheet, which was manufactured in various profiles including flat, corrugated and profiled sheets. Other forms of ACM include adhesives, vinyl sheeting and tiles, loose fill insulation, membranes, mastics, woven textiles, sprayed coatings and moulded products.

Within the construction sector, ACM typically covers building materials such as low density fibre board (LDB), roof sheeting, guttering and downpipes, exterior wall cladding including fascias and eaves, internal wall sheeting, ceiling panels, fire doors and fireproof coatings, and floor coverings such as sheet vinyl flooring and vinyl tiles.

Within the water industry, ACM may be found in water main pipes, pipe coatings and fittings, stormwater pipes, service pits and lids, drainage traps / field gullies and electrical insulation boards.

ACM also refers to insulating materials incorporated into building services plant and equipment such as air conditioning heater-bank insulation, lagging on steam and generator exhaust pipes, as well as lining and gaskets in some types of machinery.

4.1.2 What is Naturally Occurring Asbestos (NOA)?

In the majority of workplaces, the asbestos that is encountered which may pose a risk to health and safety will be found in manufactured products. However, some workplaces may have to deal with asbestos in its natural state. NOA may be encountered in road building, site and construction work, and other excavation activities. Asbestos may also occur in veins within rock formations.

4.1.3 Health risks associated with exposure to airborne asbestos fibres

Asbestos is a carcinogen and the inhalation of asbestos fibres is known to cause the following medical conditions:

- malignant mesothelioma
- lung cancer
- asbestosis.

4.2 Managing risks associated with asbestos

4.2.1 What are the risks?

Asbestos fibres can be released into the air whenever ACM is poorly maintained or disturbed. The following activities are known to increase the risk of exposure to asbestos:

- any asbestos-related work, such as drilling, boring, cutting, filing, brushing, grinding, sanding, breaking, smashing or blowing with compressed air
- the inspection, removal or disposal of ACM from a workplace
- the maintenance or servicing of ACM from vehicles, plant, equipment or workplaces
- the renovation or demolition of buildings containing ACM.



Non-friable asbestos or ACM that has been subjected to extensive weathering or deterioration has a higher potential to release asbestos fibres into the air.

4.2.2 Asbestos management strategy

Seqwater practices a risk management-based strategy to manage ACM in order to safeguard people who occupy, service and visit Seqwater assets. The strategy involves the following key steps:

- identification and recording of all ACM
- assessment of the risk posed by any ACM identified
- removal of ACM where necessary or reasonably practicable
- where removal of ACM is not reasonably practicable, management of in-situ ACM based on its assessed level of risk
- development and maintenance of an effective consultation framework and awareness training programs

4.2.3 Asbestos exposure risk rating

An assessment must be made of all ACM in Seqwater buildings or structures to determine the potential for people to be exposed to asbestos fibres. This assessment will determine a risk rating that corresponds to the potential risk of exposure to workers posed by a specific piece of asbestos or ACM in the workplace (i.e. the assessment is specific to a particular piece of ACM and not all ACM at the site).

The following asbestos exposure risk ratings must be used for classifying asbestos at Seqwater workplaces:

- Very High/Extreme risk: friable (un-bonded) ACM that has deteriorated significantly. The material is readily accessible and prone to further disturbance, or unsealed friable asbestos material.
- Medium/High risk: minor deterioration of the ACM is evident, and/or the ACM is prone to mechanical disturbance due to routine building activity and/or maintenance.
- Low risk: ACM shows no signs or very minor signs of damage/deterioration. Regular access to the ACM is unlikely to cause significant deterioration if the material is adequately sealed.

THE TARGET RISK RATING FOR ASBESTOS AT SEQWATER IS LOW.

Asbestos exposure risk ratings must be used to guide the management of asbestos at Segwater workplaces.

Any asbestos identified as moderate, high or extreme must be identified for priority removal or additional controls urgently applied to the ACM to mitigate the exposure risks.

Asbestos exposure risk ratings must be reviewed in the following circumstances:

- where there is evidence that the risk assessment is no longer valid
- where there is evidence that control methods are not effective
- when a significant change is proposed for the workplace or work practices or procedures relevant to the risk assessment
- when there is a change in condition of the ACM
- when the ACM have been removed, enclosed or sealed
- every five years as part of the asbestos survey.

The asbestos database and the asbestos register will record the outcome of this assessment. Refer to Appendix A for a sample asbestos register, highlighting the current asbestos exposure risk rating.

If a worker believes an amendment to an asbestos exposure risk rating is required, they should discuss this with their manager or coordinator, then email safety@seqwater.com.au to request a reassessment of the risk. Appendix C provides Asbestos risk control options that can be used as a reference guide.



4.3 Identifying asbestos or ACM

The identification and assessment of materials that contain, or potentially contain asbestos or ACM, is a critical step in the safe management of work at Seqwater workplaces.

Workers must confirm if a material they are working with contains asbestos before they commence work.

IF THERE IS ANY UNCERTAINTY THAT A MATERIAL INVOLVED OR USED IN A WORK ACTIVITY CONTAINS ASBESTOS - STOP, DO NOT TOUCH OR DISTURB THE MATERIAL - SEEK ASSISTANCE FROM THE HSW TEAM.

The following methods are used to identify ACM at Seqwater workplaces:

- asbestos surveys
- reviewing relevant information regarding a product or material
- taking samples of suspected ACM for analysis (by a qualified occupational hygienist).

Any buildings, structures, materials or products confirmed to contain ACM must be recorded in the Seqwater Asbestos Database, the asbestos register for the workplace and appropriate labels affixed to the location or item containing the ACM (refer section 4.4.2 for signage and labelling requirements).

Asbestos surveys

Asbestos surveys must be undertaken at all Segwater workplaces at a minimum of five yearly intervals. The Asset Information and Strategy Team is responsible for engaging a suitably qualified and experienced service provider to undertake this survey.

An asbestos risk assessment is to be completed each time an asbestos survey of Segwater buildings or structures is conducted. This assessment must consider:

- the condition of the ACM (e.g. whether it is friable or bonded and stable, and whether it is liable to damage or deterioration)
- the likelihood of exposure (considering accessible, condition)
- whether the nature or location of any work to be carried out is likely to disturb the ACM
- results from monitoring and/or samples taken.

Review of relevant information

Manufacturer and product information (for new and existing plant or materials) should be reviewed (where available) to confirm if a material or product contains ACM.

Analysis of samples

If materials of unknown composition, or materials suspected of containing asbestos, are encountered at a workplace and the materials are not documented in the existing asbestos register, follow Corporate Safety -Obtaining Asbestos Sampling and Analysis Work Instruction (PRO-02248).

UNDER NO CIRCUMSTANCES SHOULD A SEQWATER WORKER COLLECT AN ASBESTOS SAMPLE.

The results of all samples analysed (i.e. records of both positive and negative test results) for asbestos must be saved in REX and recorded in the Segwater Asbestos Database against the workplace from which the samples were taken.

WHEN IN DOUBT TREAT THE PRODUCT AS ACM UNTIL IDENTIFIED AS OTHERWISE.

In the event that additional asbestos is identified, a risk assessment shall then be conducted by a suitably qualified and experienced service provider to determine the risk rating of the asbestos and the preferred method to control the asbestos related risk.



4.3.1 Asbestos database

The Asset Information and Strategy Team must maintain an asbestos database to record and manage relevant information relating to asbestos and ACM across Seqwater workplaces. The asbestos database must record the following:

- all ACM identified at Seqwater workplaces
- ACM that has been removed from Segwater workplaces
- materials tested and were subsequently found to contain no asbestos
- Certificates of Analysis (COA) for all asbestos tests undertaken.

The asbestos database is utilised to generate Seqwater's asbestos registers.

4.3.2 Asbestos register

An asbestos register must be developed and maintained for all Seqwater workplaces where asbestos has been identified or is assumed to be in the workplace. These registers must be easily accessible to all workers entering or undertaking work at Seqwater workplaces.

Seqwater asbestos registers contain information relating to the ongoing management of ACM at sites (i.e. the registers contain information that would normally be contained in an Asbestos Management Plan).

See Appendix A for a sample Segwater asbestos register showing the information that is available.

Any items that are identified through testing as being asbestos-free must be identified in the asbestos register and the actual fibre or material type that was determined through analysis, must be stipulated.

Electronic asbestos registers for all Sequater sites are located in REX.

Where practicable, each workplace where asbestos is located must also have a hard copy of that workplace's asbestos register available near the sign-in facilities.

Monitoring and updating the asbestos register

All asbestos registers will be reviewed and, where necessary, updated every five years as part of the asbestos survey process.

In addition, an asbestos register for a workplace must be reviewed and where necessary revised in the following circumstances:

- additional ACM is identified
- any physical changes to ACM (i.e. damage, removal, sealed, etc.)
- any changes to the ACM exposure risks (i.e. changed risk controls)
- any changes to the physical environment or work practices in the area surrounding the ACM.

This review process will be facilitated by the Asset Information and Strategy Team (using a licenced service provider) through a visual inspection of identified ACM and will assess:

- that any asbestos removal has been appropriately recorded
- whether the risk levels continue to reflect the status of the ACM e.g. is there further deterioration or damage
- whether recommendations and controls currently identified for the management of the asbestos are still
 appropriate e.g. may need to remove, dispose, remove on next service, signs needed etc.

As a result of this review, the Asset Information and Strategy Team will update the asbestos database and associated asbestos registers.

If a worker believes an amendment to an asbestos register is required outside of the above review arrangements, the worker should discuss this with their manager or coordinator, then email the Asset Information and Strategy Team via asset.information@seqwater.com.au with details of the requested amendment.

Once the asbestos database has been updated, the Asset Information and Strategy Team will:

generate a new asbestos register for the workplace



- arrange for the new asbestos register to be stored in REX
- advise the coordinator responsible for the site of the changes to the register. The coordinator must then
 ensure that a hard copy is available on site (and dispose of the old register) and advise any workers
 located at the site of the changes to the asbestos register.

Pipeline assets

Information relating to ACM contained in or associated with trunk main assets is not generally located in an asbestos register, however information on the presence of asbestos for these assets can be accessed, where available, through the Seqwater Geographic Information System.

4.4 Management options for asbestos and ACM

There are three possible options to control the risk associated with asbestos:

- 1. Removal
- Encapsulation or sealing
- Enclosure

The preferred method of control is the removal of the ACM as this will eliminate the risk. Where this is not reasonably practicable, and the asbestos exposure risk rating is low, strategies to manage the asbestos in situ must be used.

4.4.1 Removal

Removal is the preferred risk control option for asbestos because it removes the hazard from the workplace. The asbestos removal process does however increase health risks for personnel engaged in the removal.

Asbestos removal work at Seqwater workplaces must only be performed by a certified asbestos removalist who holds a licence for the type of ACM that is being removed.

Asbestos removal work must be conducted in accordance with all relevant legislation, codes and standards, including the *How to Safely Remove Asbestos Code of Practice* (Qld).

Specific instances where asbestos removal may be the optimum risk control measure include:

- asbestos lagging on pipes
- asbestos in plant (i.e. gaskets)
- Asbestos-Contaminated Dust (ACD)
- loose fibre insulation
- cracked or damaged fibreboard containing asbestos
- low density fibre board (LDB)
- floor tiles.

Additional detail on the requirements for the removal of asbestos at Seqwater workplaces in included in section 5.7 of this Procedure.

4.4.2 Management of insitu asbestos

WHERE IT IS NOT REASONABLY PRACTICABLE TO REMOVE THE ASBESTOS, THE ASBESTOS MUST BE MANAGED INSITU TO ENSURE THE HSW RISK RATING FOR THE ASBESTOS IS MAINTAINED AT LOW.

Encapsulation or sealing

Encapsulation refers to the coating of the outer surface of the ACM by the application of some form of sealant compound that usually penetrates to the substrate and hardens the material.

Sealing is the process of covering the surface of the material with a protective coating impermeable to asbestos.

Either of these options helps protects the asbestos from mechanical damage and is designed to reduce the risk of exposure by preventing the release of asbestos fibres into the airborne environment.



Encapsulation or sealing is not considered to be an acceptable alternative to repairing or removing severely damaged asbestos materials.

ACM that has been encapsulated or sealed must be clearly labelled.

Encapsulation or sealing of ACM is considered to be asbestos-related work and must not be undertaken by Seqwater workers, however Seqwater workers may maintain painting or sealing of ACM if it is undisturbed and there is no risk to the worker exposing themselves to asbestos fibres.

Enclosure

Enclosure involves installing a barrier between the ACM and adjacent areas. The barrier inhibits mechanical damage to the ACM and is appropriate for some friable ACM products if removal is not reasonably practical. Types of barriers may include plywood or sheet metal constructed as a cladding around the ACM.

Enclosure is a temporary measure that may be used pending removal of the ACM.

ACM that has been enclosed must be clearly labelled.

Enclosure of ACM is considered to be asbestos-related work and must only be undertaken by appropriately licenced and experienced contractors.

Asbestos warning signs and labels

Asbestos warning signs and labels must be installed to ensure that asbestos is not unknowingly disturbed without the appropriate precautions being taken. Managers and coordinators, in consultation with the HSW Team, are responsible for ensuring that appropriate asbestos warning signs and labels are displayed at workplaces within their area of responsibility.

The presence and location of ACM in the workplace must be communicated by installing asbestos warning signs at the following locations:

- all of the main entrances to workplaces where ACM is present
- any areas within a workplace which contain ACM.

In addition, where practicable, asbestos warning labels must be affixed to all ACM located at a workplace. The asbestos warning labels must be clearly visible to all workers. Where it is not practicable to affix labels to ACM, asbestos warning signs and labels must be prominently posted in the immediate vicinity.

All asbestos signs must comply with AS 1319 Safety signs for the occupational environment. Examples of approved asbestos warning signs and labels are provided in Appendix B of this document.

Asbestos warning signs and labels must be monitored to ensure that they are adequately warning workers of the presence of ACM.

4.5 Asbestos management plan

4.5.1 Systematic management of asbestos

Step 1 - Review asbestos survey results

Following completion of the asbestos survey results the Asset Information and Strategy Team will:

- 1. Review the results of the survey to identify whether there are any sites that have been identified that have an asbestos exposure risk rating of medium or extreme/high.
- 2. Arrange for any amended site asbestos registers to be reissued as per the process in section 4.3.2.

Step 2 – Escalation and management of asbestos exposure with a risk of medium or above

If any site is identified with an asbestos exposure risk rating of medium or above the following will occur:

- 1. The Asset Information and Strategy Team will raise the identified areas of asbestos in risk wizard as a hazard.
- 2. Follow the process in section 4.4 to make the asbestos safe.



 Once action has been taken to address the medium or above asbestos exposure risk the Asset Information and Strategy Team must be advised to enable the asbestos database and the site's asbestos register to be updated.

Step 3 – Management of low asbestos exposure risks

Active operational sites

Details of all operational sites with an asbestos exposure risk rating of low will be provided to the Asset Management Team who will:

- update Seqwater's asset management system to include the presence of asbestos
- develop/review the asbestos risk mitigate on plan for each site. The plan should include:
 - how the integrity of the asbestos will be maintained e.g. scheduled inspections, maintenance of encapsulation
 - forecast timeframe for the removal of the asbestos
- include the forecast removal of asbestos in Seqwater's renewal and refurbishment processes
- work with the Tactical Maintenance team to include activities to maintain the integrity of the asbestos in Seqwater's maintenance schedule.

Administrative sites, houses and decommissioned operational sites.

Details of all administrative sites and houses with an asbestos exposure risk rating of low will be provided to the facilities coordinator who will:

- develop/review the asbestos risk mitigation plan for the sites. This will include:
 - how the integrity of the asbestos will be maintained e.g. scheduled inspections, maintenance of encapsulation
 - forecast removal of asbestos into the annual facilities budgetary cycle
- develop/review a schedule of activities to maintain the integrity of the asbestos in building's managed by the Facilities Team.

4.5.2 Opportunistic management of asbestos

When planning for a construction project at a site where asbestos is currently being managed in-situ, the scope of the project must take into consideration the removal of this asbestos where reasonably practicable. The removal of this asbestos must be undertaken in accordance with the requirements of section 4.7.

4.6 Damaged or dumped ACM

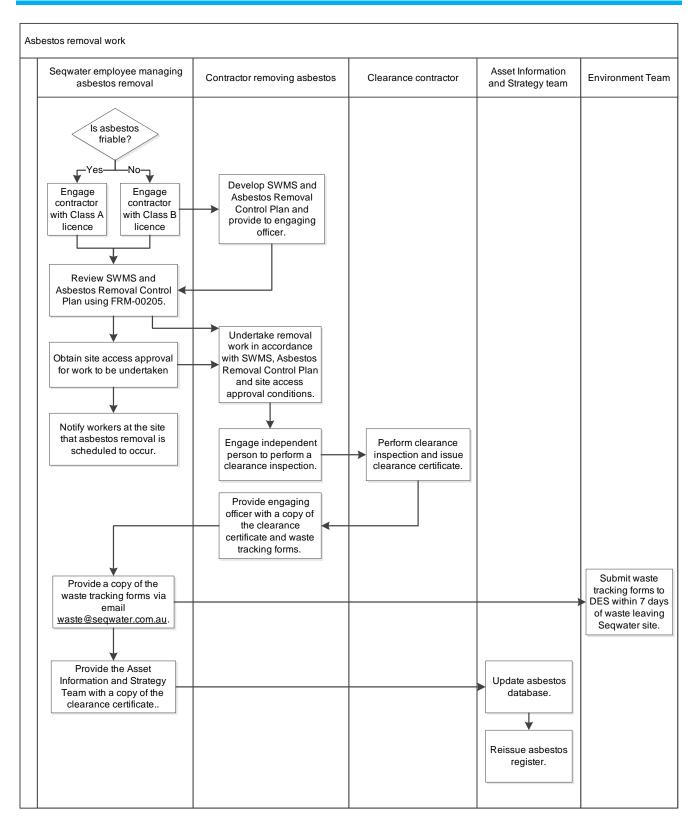
Damage to ACM may be caused by fire, storm, wear and tear or malicious damage. ACM may also be dumped on Seqwater sites by members of the public.

Any damage or dumped ACM must be immediately reported to the Seqwater Incident Hotline on (07) 3270 4040.

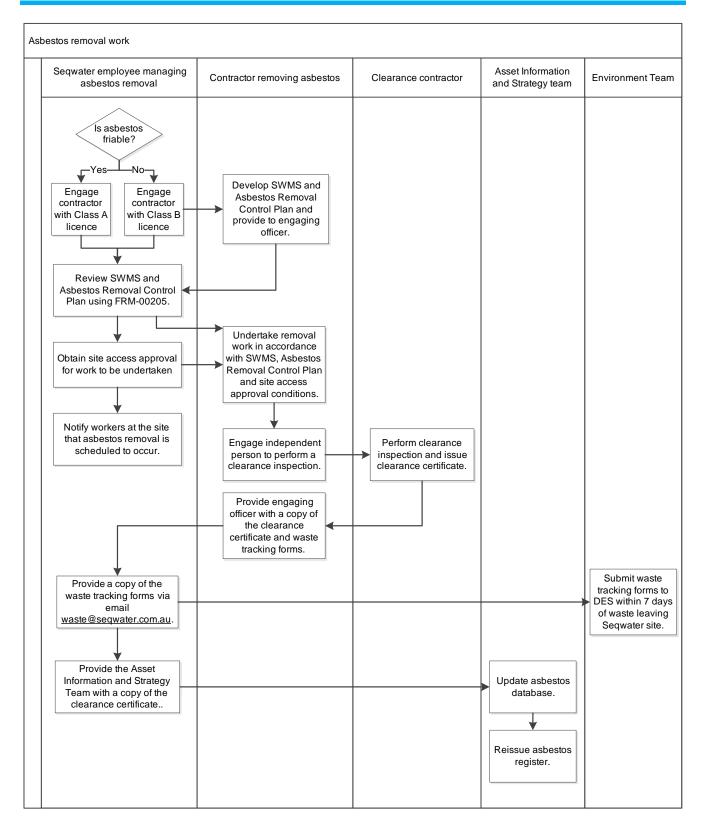
The process in the following flowchart must be followed where damaged or dumped ACM is identified:



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4.7 Asbestos removal and disposal

All asbestos removal and disposal work at Seqwater workplaces must be undertaken in accordance with all relevant legislation, codes or standards, including the *How to Safely Remove Asbestos Code of Practice* (Qld).



Only appropriately licenced and experienced contractors are permitted to undertake any asbestos removal or disposal work.

The following table defines the type of licence required for asbestos removal.

Type of licence	What asbestos can be removed?		
Class A	Can remove any amount or quantity of asbestos or ACM, including:		
	 any amount of friable asbestos or ACM (including LDB) any amount of ACD any amount of non-friable asbestos or ACM. 		
Class B	Can remove: any amount of non-friable asbestos or ACM ACD associated with the removal of non-friable asbestos or ACM.		
No licence required (Seqwater still requires this work to be completed by a suitably qualified and experience service provider)	 Can remove: up to 10 m² of non-friable asbestos or ACM ACD that is: associated with the removal of less than 10 m² of non-friable asbestos or ACM not associated with the removal of friable or non-friable asbestos and is only a minor contamination. 		

In the event that demolition or refurbishment works are to be carried out in areas previously not inspected for the presence of asbestos, such as inaccessible wall cavities or beneath floors, an inspection and risk assessment must be performed by an appropriately qualified person prior to the commencement of the planned demolition or refurbishment works.

Contractors engaged to remove ACM on Segwater workplaces must develop an Asbestos Removal Control Plan for the purposes of removing, waste storage and disposal of asbestos from Segwater workplaces and SWMS for the ACM removal work.

The contractor's Asbestos Removal Control Plan and SWMS must be reviewed by the Segwater engaging officer using the Contractor Asbestos Removal Control Plan Checklist (FRM-00205) before any asbestos removal work can commence. The HSW Team is available to provide support for this review if required.

Prior to asbestos removal work being commenced, the engaging officer must ensure that any workers or other persons who may access the workplace where the removal work is being performed are advised of the planned asbestos removal work.

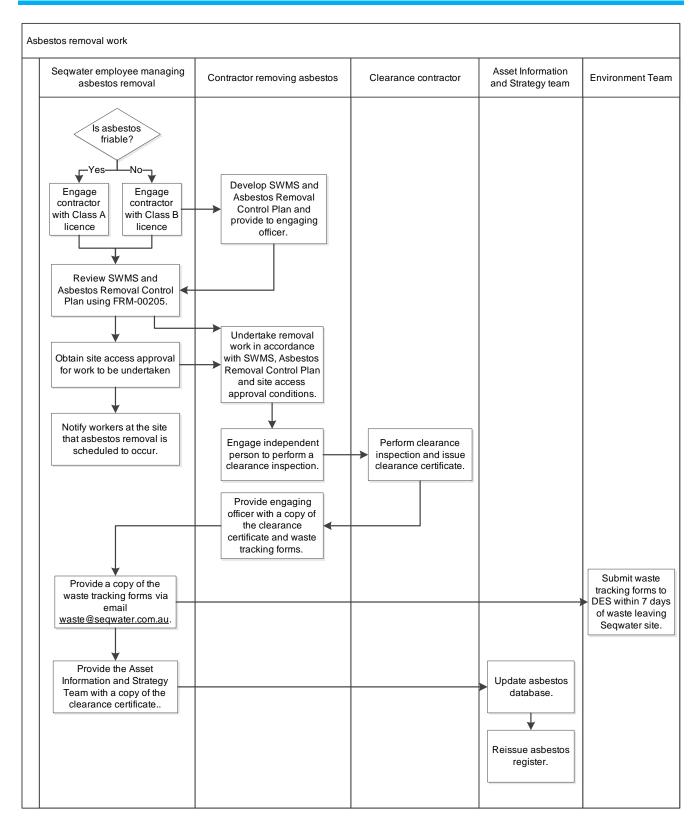
The person or organisation removing the asbestos must provide the engaging officer with:

- relevant licences and qualifications
- air monitoring results
- associated waste tracking forms
- a clearance certificate.

A copy of these forms must be provided to the Asset Information and Strategy Team to update the asbestos database and associated asbestos registers by emailing asset.information@segwater.com.au.

The following flow chart outlines the process for managing the removal and disposal of ACM.





4.7.1 Waste tracking forms

Where the Waste Transporter without Agent Agreement with Seqwater - Waste transport certificate to be emailed to EHLUP at waste@seqwater.com.au within 7 days of transport, however if the Waste Transporter with an Agent Agreement with Seqwater the Waste Transporter is responsible for submitting all information to



DES. For further guidance on Seqwater's responsibility regarding waste tracking requirements can be found in Table 1-1 of the Corporate - Regulated and Trackable Waste Management Procedure (PRO-01496).

4.7.2 Clearance certificates

Before clearance is granted for an asbestos work area to be re-occupied there must be a thorough clearance inspection. Ensure a clearance inspection of the asbestos removal work area is carried out at the completion of the licensed asbestos removal work by an independent competent person (for class B asbestos removal) or an independent licensed asbestos assessor (for class A asbestos removal) and a clearance certificate is issued. The clearance inspection must be conducted by a competent person who is independent from the person responsible for the removal work. This does not have to be a separate company, but rather a competent person who was not involved in the removal work.

Where friable asbestos removal occurs, this must be accompanied by monitoring results that establish that fibre levels are <0.01 fibres/ml. These records are to be to be saved in REX, with a copy provided to the HSW Team for inclusion in the asbestos database.

Where the inspection confirms that the asbestos removal area and the area immediately surrounding it are free from visible asbestos contamination they will issue a clearance certificate.

4.8 Asbestos-related work

Where asbestos that is being managed insitu will be disturbed as a result of work being undertaken, and where a decision has been made that it is not reasonably practicable to remove the asbestos, the work activity must be managed as asbestos-related work.

Only appropriately licenced and experienced contractors are permitted to undertake asbestos-related work at Segwater workplaces.

Any contractor engaged to undertake asbestos-related work at a Seqwater workplace must be provided with a copy of the site asbestos register.

The contractor must also develop and submit a Safe Work Method Statement (SWMS) to the engaging officer for review before any asbestos-related work can commence. This review is to confirm that the engaging officer is satisfied that appropriate controls are in place to ensure that:

- workers are aware of the presence of asbestos
- workers will not expose themselves, or others nearby, to airborne asbestos.

The HSW Team is available to provide support with reviewing SWMS if required.

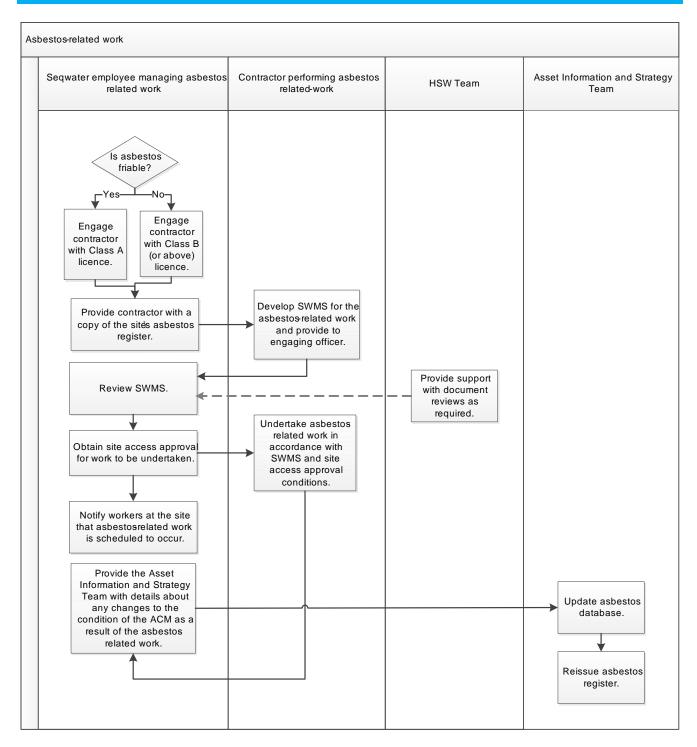
Exposure monitoring of the work area must be undertaken if there is any uncertainty that the asbestos-related work will result in exposure standards identified in section 4.11 being exceeded. Exposure monitoring must be undertaken by an appropriately trained and gualified occupational hygienist.

Prior to asbestos-related work being commenced, the engaging officer must ensure that any workers or other persons who may access the workplace are advised of the planned asbestos-related work.

The Asset Information and Strategy Team must be advised by emailing <u>asset.information@seqwater.com.au</u> of any changes to the ACM to enable the asbestos database and associated asbestos registers to be updated.

The following flow chart outlines the process for undertaking asbestos-related work:





Where asbestos-related work is one part of a larger scope of work the following must occur:

- planning must be undertaken to:
 - determine the scope of work that will involve asbestos-related work
 - how the work will be undertaken to ensure no one will be exposed to asbestos fibres for the duration of the work
 - ensure that all stakeholders are made aware of the work (including landowners where the asbestos-related work is being performed adjacent to a property boundary).



- during the completion of the work, once the asbestos-related work commences only appropriately licenced and experienced contractors are permitted to undertake the asbestos-related work in accordance with their SWMS
- once the asbestos-related work has been completed, the contractor must provide confirmation that there is
 no longer a risk of workers being exposed to asbestos fibres prior to the rest of the work continuing.

In the event of an emergency which requires demolition of a building, plant or structure, a process must be developed that will, so far as reasonably practicable, reduce the risk of exposure to workers and other persons.

Further information on safe work practices for asbestos is available in the *How to Manage and Control Asbestos* in the *Workplace Code of Practice* (Qld).

4.8.1 Maintenance and service work on LDB

Only appropriately licenced and experienced contractors are permitted to undertake asbestos-related work at Segwater workplaces.

LDB Removal Work

As stated above, any removal of LDB must be performed by a Class A asbestos removal licence holder under friable asbestos removal conditions.

LDB Maintenance and Service Works

Workers may not undertake maintenance or service work involving LDB unless the following two requirements are met:

- it falls within one of the following five categories of work approved by Workplace Health and Safety Queensland (WHSQ) being:
 - minor repairs and minor damage to low density asbestos fibre board;
 - painting undamaged low density asbestos fibre board;
 - drilling holes up to 30mm in diameter into LDB;
 - temporarily moving a LDB ceiling tile; or
 - installing or removing fixtures or fittings to LDB.

(the LDB Maintenance and Service Work)

AND

the worker completing the work is familiar with the LDB approved method statements published by WHSQ for that type of LDB Maintenance and Service Work and deemed competent to perform that type of LDB Maintenance and Service Work.

For a worker to be deemed competent to perform LDB Maintenance and Service Work pursuant to WHSQ's approved method statements, they must have, prior to commencement of the work:

- received training in relation to LDB Maintenance and Service Work including:
 - identifying LDB;
 - donning and removing personal protective equipment;
 - decontaminating equipment and the work environment and personal contamination; and
 - transporting and disposing of asbestos work.



AND

 be deemed as competent in each of the training elements identified in the LDB approved method training record as published by WHSQ.¹

When performing the LDB Maintenance and Service Work, the worker must comply with the applicable approved method statement released by WHSQ for that category of LDB Maintenance and Service Work.

Workers must complete LDB training every five years.

4.9 Safe Work Method Statements (SWMS)

Any contractor engaged to undertake asbestos-related work at a Seqwater workplace must develop and submit a SWMS to their engaging officer for review prior to undertaking work. Where a contractor is undertaking asbestos removal and disposal work an Asbestos Removal Control Plan must be develop in addition to the SWMS.

In addition to the regulatory content required in a SWMS, all SWMS used for asbestos-related work at Seqwater sites must include:

- the name, address, Asbestos Licence Number if removing asbestos and ABN of the contractor doing the work
- the specific control measures proposed to be used to undertake the task
- the way the contractor proposes to perform the activity, including how the control measures are to be implemented
- how the effectiveness of the control measures will be monitored and reviewed
- training that will be provided to workers on the SWMS, and communication of the activity to any Seqwater workers
- provisions for supervision by a competent person where friable asbestos is to be removed.

4.10 Prohibited work practices

The following work practices are prohibited at Seqwater workplaces due to the risks of asbestos exposure:

- work practices in the vicinity of ACM that may disturb or damage the material, cladding, enclosure, sealant or containment barrier
- workers using a high-pressure water process to clean an asbestos product or to clean up debris from an asbestos product
- workers using compressed air to clean an asbestos product or a surface where debris from an asbestos product is present.

4.11 Asbestos exposure monitoring

Asbestos exposure monitoring measures the levels of respirable fibres in the breathing zone of the worker while the work activity is being undertaken. Asbestos exposure monitoring must be carried out by an appropriately trained and qualified occupational hygienist with experience in asbestos exposure monitoring.

The Asbestos National Exposure Standard (NES) of 0.01 fibres/mL must never be exceeded at an Seqwater workplace. Whenever air monitoring indicates the control level of 0.01 fibres/mL has been reached the risk control measures in place must be reassessed.

Where exposure monitoring determines that the exposure standard has been exceeded, Seqwater must warn workers and any other persons who were in the area at the time about possible exposure to respirable asbestos fibres. Exposure monitoring results must be made available to all relevant workers and persons potentially exposed to respirable asbestos fibres.

¹ PN12663 LDB approved method training record.



Other forms of exposure monitoring that are relevant to asbestos-related work are discussed in more detail in the *How to Safely Remove Asbestos Code of Practice* (Qld). These include:

- control monitoring for ensuring that an enclosure or other controls used during asbestos removal are
 effective at preventing fibres from being found outside the work area
- clearance monitoring to ensure that the work area is free of asbestos fibres prior to being certified for reoccupation.

Where a worker is at risk of exposure to asbestos due to work other than licensed asbestos removal, health monitoring must be undertaken.

Workers that have been exposed, or potentially exposed, to asbestos fibres must undergo health monitoring which includes a medical examination to provide an initial baseline medical assessment. Health monitoring must be undertaken in accordance with the Health Monitoring and Immunisations Procedure (PRO-00020).

4.12 Communication and consultation

4.12.1 Internal communication and consultation

Line supervisors must consult with workers who undertake work at workplaces that contain asbestos to identify asbestos-related hazards, assess risks and identify risk control measures.

The use of a consultative process will ensure that a range of knowledge and experience is incorporated into the risk assessment process, and that any site-specific hazards or risk controls are included in the development of specific asbestos management processes.

Where a contractor is engaged to carry out work on a Seqwater workplace that contains asbestos, Seqwater must provide the contractor with:

- details of all known or suspected asbestos located at the site (i.e. a copy of Asbestos Register must be provided to the contractor).
- Seqwater's expectations around undertaking work with ACM.

The following avenues of communication will also be made available for information regarding ACM:

- workplace inductions will provide an overview of Seqwater's requirements regarding ACM, including the presence of an asbestos register and any specific conditions regarding the ACM
- when conditions of ACM change, personnel working at the workplaces will be notified of the changed conditions
- when asbestos-related work, or asbestos removal is occurring, workers will be notified of the timing and conditions to minimise exposure to asbestos fibres
- where Seqwater property is to be leased, the asbestos register must be provided to the lessee and be maintained in accordance with the requirements of this Procedure.

4.12.2 External communication and consultation

The Corporate and Community Relations Team must be notified prior to the commencement of any ACM removal or asbestos-related work performed at a Seqwater site where the work is being performed adjacent to a property boundary.

4.13 Incidents

Where ACM has been damaged or inadvertently disturbed an incident should be raised by calling the Seqwater Incident Hotline on (07) 3270 4040 and notifying your line supervisor.

As soon as practical after damage to ACM, Seqwater personnel working at the affected workplace must also be notified of the damage and any risk controls implemented to minimise exposure.



4.14 Management of Naturally Occurring Asbestos (NOA)

Due to the difficulties in fully describing the location and extent of a NOA deposit in an asbestos register, there is no requirement for NOA be listed in asbestos registers.

Training on the hazards and risks associated with NOA must be provided to workers who undertake work where NOA is found.

5 Definitions

Term	Definitions	
Asbestos	The fibrous form of mineral silicates belonging to the serpentine and amphibole groups of rock-forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos), tremolite, or any mixture containing one or more of the mineral silicates belonging to the serpentine and amphibole groups.	
Asbestos Contaminated Dust (ACD)	ACD is dust or debris that has settled within a workplace and it is, or assumed to be, contaminated with asbestos.	
Asbestos Containing Materials (ACM)	Any material, object, product or debris that contains asbestos.	
Asbestos-related work	Work involving asbestos other than asbestos removal work. For example, where a work activity will disturb insitu ACM.	
Asbestos removalist	A licensed person who performs asbestos removal work.	
Asbestos Removal Control Plan	A document which identifies the control measures which must be implemented to ensure workers and other persons are not at risk when asbestos removal work is being conducted.	
Bonded asbestos	ACM containing a bonding compound reinforced with asbestos fibres e.g. Asbestos cement pipes and flat or corrugated asbestos cement sheets	
Clearance inspection	An inspection, carried out by a competent person, to verify that an asbestos work area is safe to be returned to normal use after work involving the disturbance of ACM has taken place.	
Clearance monitoring	Air monitoring using static or positional samples to measure the level of airborne asbestos fibres in an area following work on ACM.	
Engaging officer	A Seqwater employee who engages another employee or contractor to perform a service or work activity at an Seqwater workplace.	
Friable asbestos	Asbestos-containing material which, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure. LDB is a type of friable asbestos.	
Low Density Fibre Board (LDB)	LDB is a form of asbestos containing material (ACM) that is softer than asbestos cement sheeting and can break up more easily when disturbed, potentially increasing the likelihood of release of airborne asbestos fibres. LDB is lightly compressed board containing up to 70 per cent by volume of asbestos fibres that is a friable asbestos containing material.	
Naturally Occurring Asbestos (NOA)	The natural geological occurrence of asbestos minerals found in association with geological deposits including rock, sediment or soil.	



Term	Definitions
Non-friable asbestos	Non-friable asbestos products are made from a bonding compound (such as cement) mixed with a small proportion (usually less than 15%) of asbestos. Bonded asbestos products are solid, rigid and non-friable, and cannot be crumbled, pulverised or reduced to powder by hand pressure. The asbestos fibers are tightly bound in the product and are not normally released into the air. Common names for bonded asbestos products are 'fibro', 'asbestos cement' and 'AC sheeting'.
Waste Tracking Form	A Waste Tracking Form identifies the trackable wastes disposal from origin to waste facility receivership. Under Queensland's waste management legislation, waste handlers are required to submit waste tracking information to the Department of Environment and Heritage Protection (EHP) as part of the system for tracking waste types.

6 Roles and Responsibilities

Role	Responsibility
Managers and coordinators	Maintain a current asbestos register for each Seqwater workplace within their area of responsibility, with the support of the HSW team.
	Communicate, consult and ensure a process or system is in place to supervise workers involved in activities where they may be exposed to any risks associated with asbestos or ACM.
	Regularly monitor and review the effectiveness of controls for managing asbestos and ACM related risks within their area of responsibility and implement corrective actions and treatment plans where required.
Engaging Officers (including project managers)	Provide this Procedure to all contractors as part of the Scope of Work (SOW) package at tender stage.
	Provide relevant workplace asbestos registers to all contractors as part of the SOW package at tender stage as a guide to known asbestos at sites.
	Communicate to the contractor Seqwater's expectations:
	 to have a SWMS that demonstrates management of asbestos that complies with this Procedure as a minimum requirement.
	 to monitor the work/site for materials that may contain asbestos while conducting activities at site
	 to stop work and delineate the affected area if there is any uncertainty that any material contains asbestos at the work site and/or involved or used in a work activity.
	 to not touch or disturb the material and advise Seqwater immediately for assistance where required from the HSW or Environment Team
	 to seek professional assessment of the materials and remedy the situation if directed.
	Coordinate the removal of any asbestos in accordance with the requirements of section 5.7.



Role	Responsibility
	Provide information to update the asbestos registers to the <u>asset.information@seqwater.com.au</u> where there is a change to asbestos as a result of work there are responsible for.
HSW Team	Work with managers, coordinators and engaging officers to:
	 Establish a systematic process to identify asbestos and ACM at Seqwater workplaces.
	 Provide guidance for sampling and analysis of suspected asbestos or ACM at Seqwater workplaces.
	 Undertake assurance activities to verify that hazard identification and risk management processes are being implemented for ACM management and removal activities.
Asset Information and Strategy	 Establish a systematic process to identify asbestos and ACM at Seqwater workplaces.
	 Maintain a database of asbestos and ACM identified at Seqwater workplaces.
	Develop and manage asbestos registers for individual workplaces in consultation with the relevant manager or coordinator.
	 Facilitate asbestos surveys/and or reviews as required by section 5.3 of this Procedure.
Learning and Organisational Development (LOD) Unit	Develop and implement a training schedule for asbestos and ACM management in accordance with the requirements of this Procedure.
Regional Environmental	Maintain a database for waste tracking documentation
Coordinators	 Provide advice on the correct disposal and management of environmental risks associated with asbestos-related work.
Asset Management Team	Develop an asbestos risk mitigation plan for each operational site within their area of responsibility.
	 Include the forecast removal of asbestos in Seqwater's renewal and refurbishment processes.
	 Include the removal of asbestos as part of the development of all project scopes and supporting business case for structures where asbestos is present and where the removal is either necessary or reasonably practicable.
Tactical Maintenance Team	 Include activities to manage the integrity of asbestos located at operational sites in Seqwater's maintenance schedule.
Facilities Team	Develop an asbestos risk mitigation plan for each site managed by facilities.
	 Include the forecast removal of asbestos in the annual facilities budgetary cycle.
	Maintain and manage a schedule of activities to maintain the integrity of the asbestos at sites managed by facilities.
Asset Planning Team	 Include the removal of asbestos as part of the development of all project scopes and supporting business case for structures where asbestos is present where the removal is reasonably practicable.
Asbestos Removalist	Maintain required licences for the type of asbestos removal work being undertaken.
	Comply with the requirements of this Procedure.



Role	Responsibility
Workers	 Review the relevant workplace asbestos register to identify any material that contains asbestos prior to undertaking any work at the workplace to avoid unintentionally disturbing asbestos or ACM.
	 If there is any uncertainty that a material involved or used in a work activity contains asbestos, stop the work, do not touch or disturb the material and seek assistance where required from the HSW Team.
	 Report any incidents related to asbestos and ACM to the Seqwater Incident Hotline (07) 3270 4040.

7 Training requirements

Training will be provided in accordance with the Training and Competency Management Procedure (PRO-01574).

This will include:

- Asbestos awareness training any workers who may undertake work at sites that include asbestos will
 receive general awareness training on asbestos. This will include information on the types, uses and likely
 presence of asbestos, the health risks of asbestos, the hazards and risk associated with NOA, Seqwater's
 expectations should asbestos be located that is not currently included in the asbestos register and what to
 do if asbestos is disturbed.
- Contractors performing ACM work at Seqwater workplaces must:
 - provide evidence of training in their respective management processes and procedures including CPCCDE3014 Removal of non-friable asbestos and CPCCDE3015 Removal of friable asbestos;
 - provide evidence of their licences including Class A and Class B licenses.

8 References

8.1 Legislation and other requirements

Description
Environmental Protection (Waste Management) Regulation 2000 (Qld)
How to Manage and Control Asbestos in the Workplace Code of Practice 2021 (Qld)
How to Manage Work Health and Safety Risks Code of Practice 2021 (Qld)
AS 4964 Method for the qualitative identification of asbestos in bulk materials
How to Safely Remove Asbestos Code of Practice 2021 (Qld)
AS 1319 Safety signs for the occupational environment
Work Health and Safety Act 2011 (Qld)
Work Health and Safety Regulation 2011 (Qld)



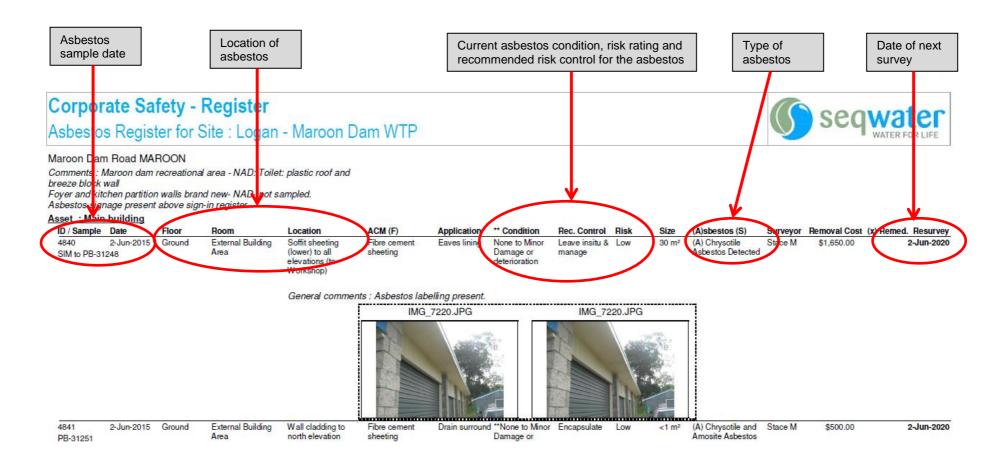
8.2 **Sequater supporting system documents**

HSW Procedures	HSW Other documents	Other Documents
PRO-00015 Prevention of Falls Procedure PRO-00020 Health Monitoring and Immunisation Procedure PRO-00657 Hazard Identification and Risk Management Procedure	Asbestos Database FRM-00205 Asbestos Removal Plan Checklist PRO-02248 Corporate Safety - Obtaining Asbestos Sampling and Analysis Work Instruction TEM-00013 SWMS Template	PRO-00002 Management System Audit and Assurance Procedure PRO-01496 Regulated and Trackable Waste Management Procedure PRO-01574 Training and Competency Management Procedure

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Appendix A – Sample asbestos risk register





Appendix B – Asbestos warning signs and labels

Warning signs

- Where practicable, areas of a workplace with asbestos-containing material (ACM), including plant, equipment and components, should be marked with warning signs to ensure that the asbestos is not unknowingly disturbed and the correct precautions are taken.
- These signs should be placed at all of the main entrances to the work areas where asbestos is present.
- Examples of warning signs are shown below:





Labels

- Labels should be used to correctly identify individual materials as asbestos containing. All friable asbestos
 containing materials should be labelled. Labelling is not required for every individual piece of bonded
 asbestos containing material if other control measures are in place and followed properly.
- Labels should be placed as close as possible to the ACM location recorded in the ACM register.
- The label most commonly used at Seqwater is below:





Appendix C – Asbestos risk control options

Method of control	Description	Appropriate when	Not appropriate when	Advantages	Disadvantages
Removal	Removal of asbestos must be performed under certain controlled conditions, depending on the type of ACM to be removed. Where demolition or refurbishment works are to occur, and this work is likely to impact on ACM, the ACM must be removed under controlled conditions prior to the commencement of any site works.	Surface friable or asbestos poorly bonded to substrata. Asbestos is severely damaged or liable to further damage or deterioration. Located in A/C duct. Airborne asbestos monitoring results exceed recommended exposure standard. Other control techniques inappropriate.	Located on complex or inaccessible areas. Removal extremely difficult & other techniques offer satisfactory alternative.	Hazard removed and no further action required. Cost-effective long-term option.	Increases immediate risk of exposure especially to removal workers. Creates major disturbance in building. Highest cost, most complex & time-consuming method. Removal may increase fire risk within building; substitute required. Possible contamination of structure and increase in airborne fibre levels in adjacent occupied areas if the removal program is not strictly controlled.
Encapsulate or Seal	Coating of the outer surface of the ACM by the application of some form of sealant compound that usually penetrates to the substrate and hardens the material making it impermeable to asbestos. Helps protect the ACM from mechanical damage, and is designed to reduce the risk of exposure by inhibiting the release of asbestos fibres into the airborne environment, and increase the length of serviceability of the material.	Removal difficult or not feasible. Firm bond to substrata. Damage unlikely. Short life structure. Readily visible for regular assessment.	Asbestos deteriorating. Application of sealant may cause damage to material. Water damage likely. Large areas of damaged asbestos.	Quick and economical for repairs to damaged areas. May be adequate technique to control release of asbestos dust.	Hazard remains. Cost for large areas may be near removal cost. Eventual removal may be more difficult and costly.
Enclosure	Enclosure involves installing a barrier between the ACM and adjacent areas where it is effective in inhibiting further mechanical damage to the asbestos. The type of barrier installed may include plywood or sheet metal products, constructed as a boxing around the asbestos.	Removal extremely difficult. Fibres can be completely contained within enclosure. Most of surface already inaccessible. Disturbance to or entry into enclosed area not likely.	Enclosure itself liable to damage. Water damage likely. Asbestos material cannot be fully enclosed.	May minimise disturbance to occupants. Provides an adequate method of control for some situations.	Hazard remains. Maintenance of enclosure. Need to remove enclosure before removal of ACM. Precautions for entry into enclosure.
Defer	The identification of ACM in a building does not automatically necessitate its immediate removal. Asbestos in a stable condition and not prone to mechanical damage can generally remain in situ. The ACM will need to be regularly monitored and inspected every 2 years as part of the review of the asbestos registers to ensure its integrity is maintained.	No risk of exposure. Asbestos inaccessible and fully contained. Asbestos stable and not liable to damage.	Possibility of deterioration or damage. Airborne asbestos monitoring results exceed recommended exposure standard.	No initial cost. Cost of removal deferred.	Hazard remains. Need for continuing assessment and management.

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