STANDARD
ASBESTOS

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1 Purpose

This document describes the standards and procedures within Hunter Water Corporation (HWC) to manage the Asbestos and Asbestos Containing Materials (ACM) effectively. It represents the HWC Workplace Health and Safety (WHS) Management System's commitment to compliance with the NSW WHS Act and WHS Regulation and the Safe Work Australia model Codes of Practice for How to Manage and Control Asbestos in the Workplace and How to Remove Asbestos Safely.

2 Objectives

The objectives of this standard are to ensure that all areas, functions, and work processes that may have an asbestos risk are effectively managed to ensure the health and safety of Hunter Water people, contractors, and the general public.

3 Scope

This Standard applies to all Hunter Water Business Units. This standard covers the requirements associated with asbestos management within Hunter Water.

4 Lifesavers - Asbestos

The Hunter Water Lifesavers area a set of minimum behaviours related to high-risk activities.

I will always consider dust and other airborne contaminants related to the task.

// Treat suspected asbestos materials as such until confirmed otherwise

// Control silica dust from sources such as road base and concrete cutting by water suppression and respiratory PPE

// Use gas detector to check the Lower Explosive Limit (LEL) for any hot work near sewer installations / flammable chemical storage areas

// Always wear the required PPE including skin, eye and respiratory protection

5 Definitions, Acronyms and Abbreviations

Term	Definition
Bonded Asbestos	ACM contains a bonding compound reinforced with asbestos fibres, e.g., Asbestos cement pipes and flat or corrugated asbestos cement sheets.
Clearance Inspection	An inspection should be carried out by a competent person to verify that an asbestos work area is safe to be returned to regular use after work involving ACM disturbance has occurred.
Clearance Monitoring	Air monitoring using static or positional samples to measure the level of airborne asbestos fibres in an area following work on ACM.
Competent person	The WHS Regulations define a competent person as someone who has acquired knowledge and skills to carry out the task through training, qualification, or experience. This may mean that the qualified person who can identify asbestos is: ▪ trained to handle and take asbestos samples, have the knowledge and experience to identify suspected asbestos, and be able to determine risk and control measures. ▪ familiar with building and construction practices to determine where asbestos is likely to be present and ▪ Determined whether the material may be friable or non-friable asbestos and evaluate its condition. A person within the business may be competent to identify asbestos. If there is not, a qualified external person should be engaged. Persons who may be considered to be skilled in the identification of asbestos if they meet the criteria outlined above include: ▪ occupational hygienists who have experience with asbestos ▪ licensed asbestos assessors ▪ asbestos removal supervisors ▪ individuals who have a statement of attainment in the unit competency for asbestos assessors or ▪ a person working for an organisation accredited by NATA under AS/NZS ISO/IEC 17020:2013: Conformity assessment – Requirements for the operation of various types of bodies performing inspection. A ‘competent person’ for the purpose of clearance inspections for asbestos removal needs to have different skills and experience.
Control Monitoring	Air monitoring that measures the level of airborne asbestos fibres in an area during work on ACM.
Friable Asbestos	Asbestos-containing material which, when dry, may become crumbled, pulverised or reduced to powder by hand pressure.
Hazard	A situation that can harm a person and the environment and damage property.
Hierarchy of controls	Identify the risk control actions and responsibilities by identifying controls in the following specific order: ▪ Eliminate the hazard If elimination of the hazard is not reasonably practicable, minimise the risk so far as reasonably possible by: ▪ Substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk ▪ Isolating the hazard from any person exposed to it

Term	Definition
	▪ Implementing engineering controls ▪ Administrative controls ▪ Personal protective equipment (PPE) The aim should be to apply controls as far up the hierarchy as practicable, recognising that the residual risk rating should be reduced to as low as reasonably practicable or to a tolerable level for work to proceed. Multiple controls should be considered, offering several layers of defence. Whenever there is a firm reliance on administrative and PPE over higher-order controls, there should be increased levels of supervision.
Incident	An event or circumstance that could have or did lead to unintended and unnecessary harm to a person and loss or damage or adverse consequences. This definition of an incident includes near misses.
Line Leader	A Line Leader is a person with day-to-day supervisory responsibilities for workers within a functional area of the business. A Line Leader includes, but is not limited to, Supervisors, Gangers, Work Group Leaders. A Line Leader is also considered a worker but has additional responsibilities for implementing the WHS Management System as identified in the WHS Management System and position description.
High-Risk Work Permit	A permit is developed to lower the risk of activities by controlling when and how the high-risk activity is undertaken.
Naturally Occurring Asbestos (NOA)	The natural geological occurrence of asbestos minerals is associated with geological deposits, including rock, sediment, or soil.
Manager	A person is responsible for managing a functional area of the business, including the workers within the relevant functional area. This includes, but is not limited to, Group Managers, Business Unit Managers, Department Managers, and Project Managers. A manager is also considered a worker. However, managers may have additional responsibilities for implementing the WHS Management System and any additional responsibilities as an officer of the business.
Notifiable Incident	A ‘notifiable incident’ as outlined in the WHS Act is: ▪ Death of a person ▪ ‘Serious injury or illness’, or ▪ ‘Dangerous incident’
Personal Protective Equipment (PPE)	Any clothing, equipment, or substance designed to protect a person from risks of injury or illness.
PCBU	A 'person conducting a business or undertaking' (PCBU) is a legal term under WHS laws for individuals, businesses or organisations conducting business. A person who performs work for a PCBU is considered a worker.
Reasonably practicable	The following criteria must be applied in determining what is reasonably practicable: ▪ What the person knows or ought to reasonably know about the hazard and ways of eliminating or minimising the hazard ▪ Availability and suitability of ways of eliminating or minimising the hazard The cost associated with the availability and suitability of eliminating or minimising the hazard, considering the cost if it is grossly disproportionate to the risk.
Risk	Risk is the likelihood and consequence of injury or harm when exposed to a hazard.

Term	Definition
Risk Control	This means acting to eliminate health and safety risks so far as is reasonably practicable, and if that is not possible, minimizing the risks so far as is reasonably practicable. Eliminating a hazard will also eliminate any risks associated with that hazard.
Structure	Includes but is not limited to: ▪ A building, construction, wall, mast, tower, pylon, structural cable or telecommunications structure ▪ Underground works (including shafts and tunnels), pipe, pipeline, river works, earthworks or earth retaining construction, or other construction designed to preserve or alter a natural feature ▪ A road or highway, footpath or driveway, railway line or siding, tramway line, dock or harbour, water storage or supply system (including a constructed lagoon), sewerage or drainage system, electricity or gas generation facility, transmission or distribution facility ▪ Gasholder, park, or recreation ground (including, for example, a playing field or swimming pool) ▪ Production, storage, or distribution facilities for heavy industries ▪ Fixed plant

6 Roles and Responsibilities

Roles and Responsibilities can be located in the WHSMA Manual.

Individual guidance booklets are in the Responsibility, Accountability and Authority Manual (HW2021-534).

7 General Requirements

7.1 What is Asbestos?

Asbestos is the common term used to describe a naturally occurring fibrous mineral used extensively by the Australian industry because of its durability, fire resistance, and excellent thermal insulating properties. Asbestos was used in various 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 since 31 December 2003. However, the ban does not mean that all asbestos installed before this date must 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 must be taken when working with buildings constructed before 1990 or newer buildings that may have used recycled materials and have reinstated old plants containing ACM gaskets and linings.

It is recognised that HWC as a water and sewer service provider has a legacy of using Asbestos Cement (AC) pipes and other ACM throughout its infrastructure and assets. The identified asbestos and ACM are recorded in the HWC Asbestos Register and HWC Asbestos Management Plan.

7.2 What is Asbestos Containing Material (ACM)?

Asbestos-containing material (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 an asbestos-cement sheet 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 roof sheeting, guttering, and downpipes, exterior wall cladding including fascia and eaves, internal wall sheeting, ceiling panels, fire doors and fireproof coatings, and floor coverings such as sheet vinyl flooring and vinyl tiles.

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, and lining and gaskets in some machinery.

7.3 What is Naturally Occurring Asbestos (NOA)?

In most workplaces, the asbestos encountered and poses 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.

7.4 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

8 Key Elements – Managing Risks Associated with Asbestos

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 asbestos exposure.

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 subjected to extensive weathering or deterioration also has a higher potential to release asbestos fibres into the air.

8.1 Asbestos Management Process

The HWC Risk Management Procedure must undertake a risk assessment process to identify and manage the risks associated with asbestos and ACM at HWC workplaces. This involves:

- Identifying all possible materials and locations of asbestos and ACM
- Recording the locations of all identified or assumed ACM in the Asbestos Register for the workplace
- Conducting a risk assessment for all identified or assumed ACM
- Establishing risk control measures to prevent worker exposure to airborne asbestos fibres (based on the outcome of the risk assessments conducted for the identified or assumed ACM)
- Developing an Asbestos Management Plan for HWC workplaces that outlines the measures to be implemented for the ongoing management of in-situ ACM

- Establishing safe methods and processes for working with ACM and removal of ACM at HWC workplaces
- Provide information and training to workers regarding the hazards and risk controls for working at workplaces containing ACM

8.2 Identifying Asbestos or ACM

Identifying and assessing materials that contain, or potentially contain, asbestos or ACM is a critical step in the safe management of work at HWC workplaces.

Workers must confirm if a material they are working with contains asbestos before they commence work. Before repairing or replacing water or sewer pipes, refer to the GIS map to check for asbestos. If materials that could be asbestos are found at any time during an excavation, the work must STOP, and a further risk assessment must be completed. The potentially contaminated material and earth must be removed using appropriate PPE and bagging methods.

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 YOUR SUPERVISOR AND SHW TEAM.

Materials and products in HWC workplaces that could potentially contain asbestos include, but are not limited to, the following:

- Thermal insulation (e.g., lagging, blankets or fire-door packing)
- Gland packing, gaskets, or expansion joints
- Brakes/clutches
- Galbestos sheeting (profiled steel sheeting with asbestos felt on both sides coated with bitumen, commonly used as roofing)
- Fibro boards and pipes (e.g., ac-sheeting in building products)
- Water and wastewater pipe and pipe protective coatings
- Electrical and telecommunications pits
- Floor tiles
- Switchboard components
- Materials, vehicles, and other rubbish dumped on HWC land (i.e. catchments, recreation areas, etc)

The following methods must be used to identify ACM at HWC workplaces:

- Asbestos surveys
- Reviewing relevant information regarding a product or material
- Samples of suspected ACM were taken for analysis

Asbestos surveys

The presence of asbestos must initially be determined visually, as no instrument is currently available to identify the presence of asbestos. Asbestos surveys must be undertaken at all HWC workplaces at least five yearly intervals. Asbestos surveys must be conducted by someone experienced in identifying and managing asbestos.

Review of relevant information

Manufacturer and product information should be reviewed (where available) to confirm if a material or product contains ACM. Materials or products confirmed to have ACM must be recorded in the HWC Asbestos Database, the asbestos register for the workplace, and appropriate labels affixed to the material containing the ACM (refer to the following for signage and labelling requirements). Workers should liaise with the SHW Team to ensure the correct asbestos signs and labels are used.

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, the SHW Team must be notified.

The SHW Team will arrange for a licenced service provider to collect and analyse material samples. Under no circumstances should a HWC 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 recorded in the HWC Asbestos Database against the workplace from which the samples were taken.

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

8.3 Asbestos Register

An asbestos register has been developed and maintained for all HWC 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 HWC workplaces.

Asbestos registers provide the following information on asbestos identified or assumed to be in the workplace and any items confirmed through testing asbestos-free.

The asbestos register is a document that lists all identified (or assumed) asbestos in a workplace. The asbestos register must:

- Record any asbestos or ACM identified or likely to be present at the workplace occasionally. This would include:
  - The date on which the asbestos or ACM was identified
  - The location, type, and condition of the asbestos; or
  - State that no asbestos or ACM is identified at the workplace if the person knows that no Asbestos or ACM is identified or is likely to be present occasionally.

A comprehensive asbestos register may also include:

- Details of any asbestos assumed to be in the workplace
- Results of any analysis that confirms a material at the workplace is or is not asbestos
- Dates when the identification was carried out
- Details of inaccessible areas

It may also be helpful to attach photographs or drawings to visually show the location of the asbestos or ACM in the workplace.

8.4 Asbestos Register Review

A person with management or control of a workplace must ensure an asbestos register is reviewed and, where necessary, revised by a competent person if:

- Following a planned review of the asbestos management plan
- Further asbestos or ACM is identified at the workplace or
- Asbestos is removed from, disturbed, sealed or enclosed at the workplace

The register should be reviewed at least once every five years to keep it current.

Whenever asbestos is removed or a section amount reduced, i.e., sections of AC pipe have been replaced, the supervisor will email the HWC Property and Services team and arrange for the asbestos register to be updated.

8.5 Asbestos Management Plan

An asbestos management plan must be developed, implemented, and monitored by the HWC Facilities and Services Team / SHW Team to ensure that ACM at HWC workplaces is effectively managed. The asbestos management plan must be developed, implemented, and monitored with relevant operational, maintenance, and project delivery stakeholders. The asbestos management plan details:

- The targeted level of asbestos ACM at HWC workplaces
- Decisions relating to management options for ACM at the workplaces (i.e., what ACM will be removed, encapsulated, etc.)
- A timeline for the performance of the works
- A budget for the works
- Specific contractor requirements / safe work methods required / exposure monitoring requirements
- Work monitoring arrangements
- Responsibilities for all workers involved in asbestos management at the workplace
- Any training arrangements for workers, including training for workers who may be exposed to NOA
- Process for reviewing and updating the asbestos database, registers, and management plan.

The person with management or control of the workplace must ensure the asbestos management plan is reviewed and, if necessary, revised at least once every five years or when:

- There is a review of the asbestos register or a control measure
- Asbestos is removed from or disturbed, sealed, or enclosed at the workplace
- The plan is no longer adequate for managing asbestos or ACM at the workplace
- A health and safety representative request a review if they reasonably believe that any of the matters listed in the above points affect or may affect the health and safety of a member of their work group and the asbestos management plan was not adequately reviewed.

8.6 Asbestos Warning Signs and Labels

Where practicable, asbestos warning signs and labels must be installed to ensure that asbestos is not unknowingly disturbed without the appropriate precautions being taken. Managers, in consultation with the SHW Team, are responsible for ensuring that proper 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 confirmed 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 ACMs located at a workplace. The asbestos warning labels must be visible to all workers. Where it is not practicable to attach 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 illustrated below.

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

When asbestos is wrapped for disposal, each package must be labelled with **‘Caution Asbestos – Do not open or damage bag. Do not inhale dust.**

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 main entrances to the work areas where asbestos is present.

Examples of warning signs are shown below:

Labels

Labels should be used to identify individual materials as asbestos-containing correctly. All friable asbestos-containing materials should be labelled. Labelling is not required for every piece of bonded asbestos-containing material if other control measures are in place and followed correctly.

Labels should be placed as close as possible to the ACM location recorded in the ACM register.

Examples of labels are shown below:

8.7 Controlling Asbestos and ACM Risks

The identification of asbestos does not automatically necessitate its immediate removal. Asbestos that is in a stable matrix, or effectively encapsulated or sealed, and remains in a sound condition while left undisturbed represents a low health risk.

When choosing the most appropriate risk control measure to eliminate or minimise the risk of people being exposed to asbestos fibres, the following hierarchy of controls must be used:

- Eliminating the risk (i.e., removing the asbestos)
- Substituting the risk, isolating the risk, or applying engineering controls (i.e., enclosing, encapsulation, or sealing)
- Using administrative controls (i.e. signage)

The following guiding principles should be used when determining the correct risk control method for managing ACM:

- If the ACM is friable and not in a stable condition, and there is a health risk, the ACM must be removed by a certified asbestos removalist as soon as practicable. Interim controls should be considered, i.e.,
- Barricade area and prevent access / further disturbance.
- Conduct a risk assessment and determine a control plan.
- Depending on the nature of the asbestos and proximity to people/public, consider conducting background air sampling.
- If the ACM is friable but is in a stable condition and is accessible by workers, consideration should be given to its removal. If removal is not immediately practicable, short-term control measures, such as sealing and enclosure, may be used until removal is possible.
- If the ACM is not friable and is in a good, stable condition, minimising disturbance and encapsulation may be appropriate controls.
- If the ACM will be disturbed by demolition, partial demolition, renovation, or refurbishment works, the ACM must be removed by a certified asbestos remover.

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
- Floor tiles

The Safe Work Australia Code of Practice – How to Safely Remove Asbestos provides detailed guidance on appropriate work methods and additional controls for the removal of asbestos.

If ACM material is removed, the HWC asbestos register must be updated.

Encapsulation or sealing

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

Sealing is the process of covering the material's surface with a protective coating impervious to asbestos.

Either of these options helps protect 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 an acceptable alternative to repairing or removing severely damaged asbestos materials

ACM that has been encapsulated or sealed must be clearly labelled by the applicable section of this standard.

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 impractical. The type of barriers may include plywood or sheet metal constructed as boxing cladding around the ACM. The enclosed ACM must be clearly labelled by section 5.6 of this standard.

ACM enclosure is considered asbestos-related work and must only be undertaken by appropriately licensed and experienced contractors.

8.8 Asbestos Related Work

HWC Civil and EMM workers are routinely required to repair or replace AC water and sewer pipes and occasionally return electrical switchboards. PPE must be worn at all times when working with asbestos. PPE includes clothing, such as disposable coveralls, gloves, gumboots, and RPE. The appropriate PPE can be determined by conducting a risk assessment. Personal protective clothing should be made from materials that protect against fibre penetration and not wool or other materials that attract fibrous dusts. Disposable coveralls, gloves, and RPE should be disposed of after a single use. They are to be removed as the last step in asbestos work, double bagged and labelled, and taken with the asbestos waste for disposal.

The HWC Risk Management Standard should complete work, and work should include, as a minimum:

- Pre-Task Risk Assessment
- Reference to HWC Safe Work Method Statement – Asbestos
- Asbestos Specific Work Instruction – 015 Removal and Disposal of Asbestos Water and Sewer Pipes
- Reference to general Work Instructions 001, 002, 003 Working on water and sewer mains
- Workers should be trained and competent in the SWMS and Work Instructions and have completed the HWC Asbestos Awareness Training course.

Any asbestos or ACM work considered beyond the scope of what is considered routine in HWC or exceeds the 10m2 threshold is regarded as high-risk work and should be referred to a licensed asbestos contractor.

8.9 Asbestos Removal and Disposal

Asbestos that HWC removes should be wrapped, labelled, and stored in the designated asbestos storage location at the Civil Maintenance Tarro and North Lambton depots before disposal at an approved waste management facility.

Supplementary to the routine work mentioned above, a PCBU who commissions the removal of asbestos at the workplace must ensure asbestos removal work is carried out only by a licensed asbestos removalist who is appropriately licensed to carry out the work unless specified in the WHS Regulations that a license is not required.

There are two types of licenses: Class A and Class B. The license type required will depend on the type and quantity of asbestos or ACM removed at a workplace.

If 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 a competent person before the commencement of the planned demolition or refurbishment works.

The following table defines the type of license 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 ▪ Any amount of ACD (asbestos-contaminated dust or debris) ▪ Any amount of non-friable asbestos or ACM
Class B	Can remove: ▪ Any amount of non-friable asbestos or ACM **Note:** A Class B license is required to remove more than 10 m2 (square meters) of non-friable asbestos or ACM, but the license holder can also remove up to 10 m^2 of non-friable asbestos or ACM. ▪ ACD associated with the removal of nonfriable asbestos or ACM **Note:** A Class B license is required for the removal of ACD associated with the removal of more than 10 m2 of non-friable asbestos or ACM, but the license holder can also remove ACD associated with the removal of up to 10 m^2 of non-friable asbestos or ACM.
No Licence required	Can remove: ▪ Up to 10 m^2 of non-friable asbestos or ACM ▪ ACD that is: ▪ associated with the removal of less than 10 m^2 of non-friable asbestos or ACM ▪ Not associated with the removal of friable or non-friable asbestos and is only a minor contamination

Licensed contractors engaged in removing ACM in HWC workplaces must develop an Asbestos Removal Control Plan and SWMS for removing the ACM. Refer to the NSW Safe Work Code of Practice – How to Manage and Control Asbestos in the Workplace.

Licensed Asbestos Removal work must include:

- The Asbestos Removal Control Plan and SWMS - these must be reviewed by the Project Manager / Supervisor and a member of the SHW Team before any asbestos-related work can commence
- Notification to Safe Work NSW 5 working days before Work Commencing
- Limiting access to the asbestos removal work area
- Decontamination facilities to decontaminate the asbestos removal work area, any plant used in that area, workers carrying out the asbestos removal work, and other persons who have access to the asbestos removal area because they are associated with the asbestos removal work.
- Waste containment and disposal methods to ensure that asbestos waste is contained and labelled by the GHS before it is removed from the asbestos removal area.
- A clearance certificate issued by:
    - An independent licensed asbestos assessor for work that must be carried out by a Class A licensed asbestos removalist (for example, if the removal work involves friable asbestos)

- An independent competent person for asbestos work that is not required to be carried out by a Class A licensed asbestos removalist (for example, if removal work involves more than ten m² of non-friable asbestos).

Note: A person commissioning licensed asbestos removal work must ensure that, once the job has been completed, a clearance inspection is carried out and a clearance certificate is issued before the workplace can be re-occupied.

8.10 Prohibited Work Practices

Tools and equipment that generate dust must not be used on asbestos. These include:

- High-speed abrasive power and pneumatic tools, for example, angle grinders, quick-cut saws, sanders, circular saws, and high-speed drills
- Brooms and brushes (unless brushes are used for sealing)
- High-pressure water spray, jets, power or similar tools and instruments on asbestos in the workplace
- Compressed air

The use of tools and equipment that cause the release of asbestos, including power tools and brooms, may be used on asbestos if the equipment is enclosed and designed to capture or suppress asbestos fibres and the equipment is used in a way that is intended to capture or stop asbestos fibres safely, for example:

- Enclosing the tool or instrument
- Engineering controls such as extraction ventilation
- Using the tools and instruments within an enclosed removal area (for example, full enclosure or small enclosure)

Controls are assumed to be effective if exposure monitoring results are less than 0.05 f/ml or control monitoring results are less than 0.01 f/ml.

If new methods, tools, or equipment are proposed, the resulting exposure limits must be considered as part of the assessment process.

9 Asbestos Health Monitoring

Health monitoring should occur where a worker is at risk of exposure to asbestos due to work other than licensed asbestos removal; health monitoring must also be undertaken. Examples of work with a risk of exposure include ongoing unlicensed removal work, regular maintenance work on ACM as part of another job (for instance, electricians or building maintenance staff in older buildings), and carrying out asbestos-related work. The need for health monitoring for these workers should be determined based on the following:

- The potential for exposure
- The frequency of potential exposure
- The duration of the work being undertaken

If a worker is carrying out licensed asbestos removal work, the health monitoring must be conducted before the worker commences. Health monitoring should also be provided to the worker regularly after starting the asbestos-related work but at least once every two years.

Health monitoring must be carried out under the supervision of a registered medical practitioner with the relevant competencies prior to deciding who the registered medical practitioner consultation should be with the worker's WHS representatives.

9.1 Asbestos Air Monitoring

The exposure standard for asbestos is a respirable fibre level of 0.1 fibers/ml of air measured in a person's breathing zone and expressed as a time-weighted average fiber concentration calculated over an eight-hour working day and measured over a minimum period of four hours by:

- The Membrane Filter Method
- A method determined by the relevant regulator

An Asbestos Removal Plan (usually managed by a licensed contractor) may include air sampling requirements.

9.2 Obtaining Samples for Analysis

Suppose previously un-identified potential asbestos or ACM is identified. In that case, Supervisor with support from the WHS Team may arrange for a sample of material at the workplace to be analysed for the presence of asbestos or ACM.

A sample must only be analysed by:

- A NATA-accredited laboratory accredited for the relevant test method
- A laboratory approved by the regulator or
- A laboratory operated by the regular

It can be difficult to tell whether a material contains asbestos simply by looking at it, unless it is labelled. If a material has been imported from overseas, it may not be labelled as containing asbestos or it may only be marked if the materials contain more than 10% asbestos. Therefore, a sample should be taken and analysed unless the decision was made to assume it is asbestos. Only a competent person may take the samples for analysis because of the increased health risk of fibres being released during the process. If the sampling process is conducted incorrectly, it can be more hazardous than leaving the material alone. All asbestos samples must be analysed by a NATA-accredited laboratory or one approved or operated by the relevant regulator.

Any sample taken should be appropriately labelled and sealed within a container or 200 µm polythene bag. Once the sampling results are known, the person with management or control of the workplace must update the asbestos register to indicate that the material is asbestos or is assumed to be.

The Safe Work Australia Code of Practice – How to Manage and Control Asbestos in the Workplace details a Sampling Process Procedure.

10 Training

Hunter Water must provide awareness training for people working with asbestos and those arranging work that may involve asbestos.

This training should include the following topics:

- Purpose of the training
- An overview of this standard
- Health risks of asbestos
- Types of uses, and likely presence of asbestos in the workplace
- Persons conducting a business or undertaking and the worker's roles and responsibilities
- Under the asbestos management plan
- Where the asbestos register is located, how it can be accessed, and how to understand the information contained in it

- Processes and safe work procedures to be followed to prevent exposure, including exposure from any accidental release of airborne asbestos
- Where applicable, the correct use of PPE, including respiratory protective equipment (RPE)
- The implementation of control measures and safe work methods to eliminate or minimise the risks associated with asbestos to limit the exposure to workers and other persons
- Exposure standards and control levels for asbestos, and
- Purpose of any exposure monitoring or health monitoring that may occur.

This training is more general than a worker undertaking asbestos removal work would receive.

HWC will address the above requirement by combining general awareness training and specific training on SWMS and Work Instructions.

Workers undertaking licensed asbestos removal work must complete specific units of competency.

Further information on these specific training requirements is available in the Safe Work Australia Code of Practice - How to Remove Asbestos Safely.

Records of all training must be kept while the worker is carrying out the work, and for five years after the day, the worker stops carrying out the work. These records must also be available for inspection by the regulator.

11 Monitoring and Review

Monitoring processes for this topic include:

- High Risk Audits
- Critical Element Focussed Observations
- Safe Behaviour Observations
- Field Inspections

Review processes for this topic include:

- Review of applicable injury and incident reports
- Review of hazard reports in Protecht
- Review of this standard and associated documents, Risk Register, Bow Tie diagrams following a high potential incident
- Engagement with the Field Safety Committee and any relevant sub-committees.

12 Related Documents

Document ID	Document Title
Assessment	Pre-task Risk Assessment (PTRA)
SWMS	Safe Work Method Statement - Asbestos
WI	Work Instruction 015 – Removal and disposal of Asbestos Water Pipes
WI	Work Instruction 066 – Making Penetrations in Asbestos-Based Electrical Equipment Mounting Boards
WI	Work Instruction 001 – Working on potable water mains and fittings
WI	Work Instruction 002 – Working on gravity sewer mains and gravity fittings
WI	Work Instruction 003 – Working on rising sewer mains and recycled water sewer mains
Booklet	Hunter Water Lifesavers - Airborne Contaminants / Explosive Atmospheres
Standard	Consultation, Cooperation, Participation and Coordination
Manual	WHSMA Manual
Manual	Responsibility, Accountability, and Authority Manual (HW2021-534)

13 Associated Regulations and Standards

Document ID	Document Title
Act	NSW WHS Act 2011
Regulation	WHS Regulation 2017
Code of Practice	Safe Work Australia Code of Practice – How to Manage and Control Asbestos in the Workplace
Code of Practice	Safe Work Australia Code of Practice – How to Safely Remove Asbestos
Code of Practice	Code of Practice - How to manage work health and safety risks
Code of Practice	Code of Practice – Work Health and Safety Consultation, Cooperation and Coordination