

## UON Key Risk Area: KRA 3.3

### Asbestos Management Procedure

#### 1. Purpose

To detail the process of identifying, assessing, appropriately controlling and documenting asbestos and asbestos containing materials.

#### 2. Scope

This document applies to all Faculties, Divisions, and organisational units of the University of Newcastle and its controlled entities.

#### 3. Definitions

In the context of this document, the following definitions apply:

- **Asbestos:** The fibrous form of those mineral silicates that belong to the serpentine and amphibole groups of rock-forming minerals and includes actinolite, amosite (brown asbestos), anthophyllite, crocidolite (blue asbestos), chrysotile (white asbestos), tremolite, or any material containing one or more of the mineral silicates belonging to the serpentine and amphibole groups.
- **Asbestos Work:** Work undertaken in connection with a construction process in which exposure to asbestos may occur and includes any work involving the removal or handling of asbestos or asbestos containing material.
- **Asbestos Containing Material (ACM):** Any material that contains asbestos.
- **Bonded Asbestos Material:** Any material that contains asbestos, other than friable asbestos material.
- **Friable Asbestos Material:** Any material that when dry, may be crumbled, pulverised or reduced to powder by hand pressure, or as a result of a work process becomes such that it may be crumbled, pulverised or reduced to powder by hand pressure.
- **Asbestos Removal Work:** Work in which asbestos material is removed, repaired or disturbed.

- **Senior Managers/Managers:** Heads of School, Directors, Associate Directors and Managers of organisational units, as well as equivalent roles to these positions.
- **Leaders/Supervisors:** Any member of the University who is responsible for supervising staff and/or undergraduate or postgraduate students and/or for leading research projects.
- **Workers:** As defined in the NSW Work Health & Safety Act 2011, workers include employees, conjoints, students on work experience, contractors, sub-contractors and their employees. Staff, conjoints, students on work experience, and contractors may be referred to collectively as workers, or separately as staff, conjoints, students, or contractors.

## 4. Responsibilities

### 4.1 The Vice Chancellor, University Executive Committee, and members of University Council

- Exercise due diligence by ensuring adequate resources are in place so that the requirements of this procedure are met.

### 4.2 Infrastructure and Facilities Services (IFS)

- Arrange for asbestos surveys to be conducted for UON buildings to identify where asbestos containing materials may be present;
- Maintain an asbestos register which is reviewed annually to ensure it remains current;
- Arrange for signage to be installed where ACM is identified as being present;
- Ensure that prior to construction or repair work being carried out that a risk assessment is conducted where ACM is suspected of being present;
- Ensure that contractors who are required to undertake work in an area where ACM is likely to be present are informed of the risk, and that they have the appropriate procedures and equipment to undertake the work;
- Ensure that only suitably qualified and competent contractors perform asbestos removal when required;
- Ensure that monitoring is performed when work is undertaken in an area where ACM is present to check for contamination of surfaces and air;
- Provide information to affected locations where construction or repair work is to take place where ACM is present.

### **4.3 Senior Managers/Managers**

- Inform Infrastructure and Facilities Services (IFS) if any construction or repair work is required in their area of responsibility so that contractors and staff can be appropriately briefed regarding the potential hazards of the work including the possible presence of asbestos or asbestos containing materials.
- Inform IFS if any asbestos removal is required so they can manage the process and the contractors who are required to undertake the work;
- Where the Faculty, School or Division is planning to undertake work that does not require the involvement of IFS the following actions will be taken:
  - Ensure that prior to construction or repair work being carried out that a risk assessment is conducted where ACM is suspected of being present;
  - Ensure that contractors who are required to undertake work in an area where ACM is likely to be present are informed of the risk, and that they have the appropriate procedures and equipment to undertake the work;
  - Ensure that monitoring is performed when work is undertaken in an area where ACM is present to check for contamination of surfaces and air;

### **4.4 Health and Safety Team**

- Provide professional input to UON's asbestos management activities when required.

## **5. Procedure**

The Asbestos Management Flowchart in Attachment 1 summarises the process for managing ACM when work has to be conducted in an area where ACM is present.

### **5.1 Identification and Assessment**

ACM may exist in a number of different forms across UON campuses. See Attachment 2 for a table of potential sources of ACM.

IFS will determine, as far as practicable, whether asbestos is present in UON buildings by arranging for asbestos surveys to be conducted.

The surveys will identify:

- Whether asbestos is present;
- The type of ACM;
- The location of ACM;
- Whether the ACM is friable or non-friable;

- The condition of the ACM.

When it has been determined that there is asbestos in the building, UON will ensure:

- That the presence and location of asbestos is clearly identified;
- Where practicable, the identification is by labelling.

Note that in accordance with the NSW Work Health and Safety Regulations 2011, Chapter 8, Asbestos, this only applies to buildings constructed before 31<sup>st</sup> December 2003.

## **5.2 Asbestos Register**

An Asbestos Register is maintained by IFS which includes information on all the locations where ACM has been identified, details of which include:

- Exact location e.g. campus, building, room;
- Type of asbestos e.g. chrysotile, crocidolite;
- Condition e.g. bonded, friable;
- Date of survey from which the information is derived and the service provider;
- Any changes to the condition of the asbestos over a period of time;
- Any changes as a result of removal or repair, or where asbestos is identified in an area previously thought to be clear.

The Register is reviewed annually and updated according to changes which may have taken place over the previous 12 months.

The Register will be made available to contractors, who will be briefed before starting work in an area where ACM is present, to ensure that they have the appropriate work procedures and equipment.

## **5.3 Asbestos Management Plan**

An Asbestos Management Plan will be developed based on the results from the asbestos surveys. The Plan will address the actions required to prevent exposure to asbestos fibres in the workplace and priorities for action will depend on the condition of the ACM and the likelihood of exposure.

The Plan will include the following information:

- Timetable for removal where this is considered to be appropriate;
- Timetable for ACM sealing activities where appropriate;
- Frequency of education/awareness program for staff, students, contractors and others who work in areas where ACM is present;

- Frequency of the inspection program;
- Control measures to prevent exposure e.g. Standard Operating Procedures, Safe Work Method Statements;
- Procedures for dealing with incidents and potential exposures to ACM fibres;
- Management review dates, including review of the Asbestos Register.

#### **5.4 Remediation and Removal of Asbestos**

ACM will not be remediated or removed by UON staff. Suitably qualified and competent contractors will be engaged by IFS to handle, remove and dispose of ACM in accordance with the NSW Work Health and Safety Regulations 2011, Chapter 8, Asbestos.

#### **5.5 Work in an area containing Asbestos**

Where contractors are required to work in an area where ACM is present the following actions will be taken:

- Wherever possible arrangements will be made for the work to be undertaken out of hours;
- The occupants in the area will be informed in advance of the work so that, if appropriate, arrangements can be made for them to relocate out of the area while the work is conducted;
- The contractors will be given access to the Asbestos Register and the exact location of the ACM will be shown to them;
- IFS will ensure that the contractors have the appropriate licences, procedures and equipment to conduct the work;
- A specific Safe Work Procedure (SOP) will be developed for the work, signed off by all personnel involved, which will be adhered to during the process. See Attachment 3 for an example of a SOP for work in an area where ACM is present;
- The area where work is to be conducted will be isolated and barricaded to prevent unauthorised entry;
- Every effort shall be made to prevent disturbing the ACM if practicable;
- Where ACM is likely to be disturbed during the work the contractors will adhere to all the requirements in the SOP;
- Following the work monitoring will be undertaken by a qualified Occupational Hygienist to check for airborne contamination and contamination of the work surfaces and building components e.g. window ledges, blinds, furniture. See Section 5.6 for more information on workplace monitoring;

- When results of the monitoring have been received, and contamination has been confirmed, the work area will be thoroughly cleaned by specialist cleaners. All waste products from the work (including discarded Personal Protective Equipment) and the cleaning will be treated as asbestos waste in accordance with NSW Work Health and Safety Regulations 2011, Chapter 8, Asbestos.

## **5.6 Workplace Monitoring**

Monitoring for contamination of the workplace with ACM fibres will be undertaken by appropriately qualified occupational hygiene consultants selected by IFS. The following requirements will be met:

- Approved by the National Association of Testing Authorities (NATA) for identification of asbestos fibres;
- Able to provide report to UON with details of the monitoring results;
- Able to issue a clearance certificate to confirm that there is no evidence of asbestos fibres following the monitoring, or that all traces of asbestos fibres have been removed following cleaning.

## **5.7 Accidental Discovery and/or Release of Asbestos Fibres**

In the event that material is identified during demolition, construction or repair work which is suspected of containing asbestos the following actions will be taken:

- All work will cease;
- The area will be isolated;
- The IFS contact will be notified immediately and a hazard report will be entered into the UON online incident reporting system;
- IFS will engage an appropriately qualified occupational hygienist to take samples of the material for analysis and to provide a report with details of the results;
- According to the analysis of the material, the work will either continue as planned if no asbestos is identified, or asbestos management procedures will be implemented as described in Section 5.5 if the presence of ACM is confirmed;
- The area will not be re-entered until a clearance certificate has been issued by the occupational hygienist to confirm there is no ACM fibre contamination of the workplace following cleaning;
- The location of the ACM and details of the type and condition will be entered into the UON Asbestos Register and future management of the material will be added to the Asbestos Management Plan.

## 5.8 Health Surveillance

If there are any concerns that staff or students have been accidentally exposed to ACM fibres, they should be referred to the UON Health Service for a base line medical and reassurance. The surveillance will include:

- Discussion about the exposure;
- Basic medical history with a focus on respiratory symptoms;
- Lung function tests;
- A chest X-ray.

## 5.9 Awareness and Communication

Where staff and students work in areas where ACM is present the following actions will be taken to ensure that they are aware of its presence and understand that as long as it is not disturbed there is no risk to their health:

- General awareness and communication sessions through team meetings, Health and Safety Committee meetings;
- Specific communication prior to any work taking place in the area to explain about relocation during the work, monitoring of the workplace following the work and cleaning to ensure the workplace is free of ACM fibres prior to being permitted to return.

## 6. References

[UON H&S Management System Framework](#)

[UON HSP 4.1 H&S Risk Management](#)

## 7. Attachments

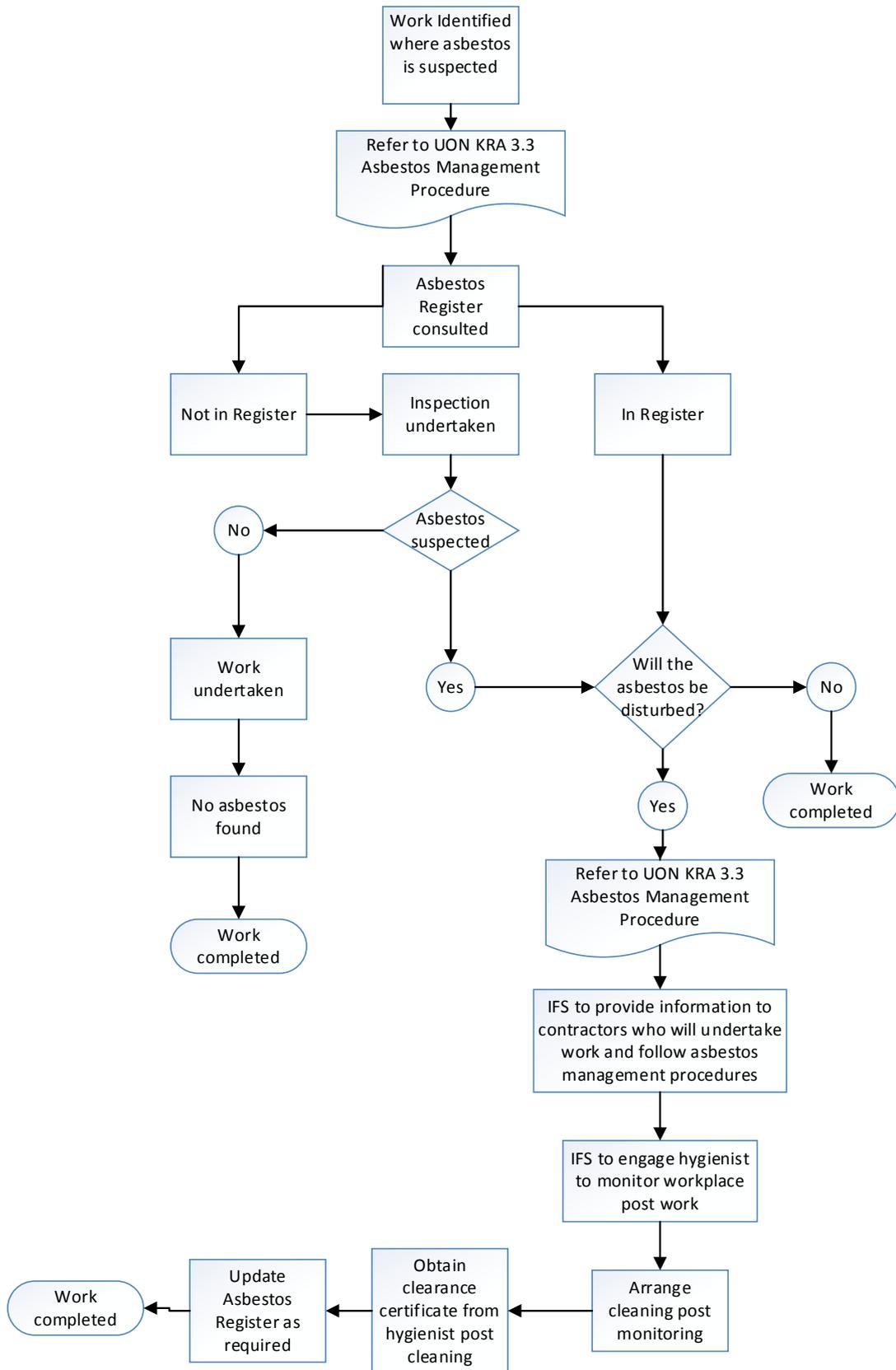
1. Asbestos Management Flowchart
2. Asbestos Containing Materials
3. Example of a Safe Work Procedure

## Document Control Table

<b>Asbestos Management Procedure – KRA 3.3</b>					
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# Attachment 1.

## Asbestos Management Flowchart



## Attachment 2. Asbestos Containing Materials

Location	Image
Flooring	
Roofing	
Fire Door	
Walls	
Insulation	

## Attachment 3. Example Safe Work Procedure

### Works within the Ceiling Spaces of the Hunter Building

NOTE: All work is, wherever possible, to be undertaken outside of normal working hours [8am till 8pm on Monday to Friday of a normal week (not including public holidays)], or where there is no risk of people entering the area of the work. Where work is required but there is a risk people may enter the work area, people are to be posted at each entry point to deny access while the work is occurring.

This SWP provides a minimum set of requirements only and does not substitute for the requirement for contractors and University staff to undertake a risk assessment and develop their own SWP's or SWMS as per their own safety management system.

#### Background

During assessment of potential hazardous materials that may impact on building works and contractors engaged to undertake alterations to the Griffith Duncan Theatre, sampling and testing of material on and around the supporting bearers and beams in the ceiling space of the Hunter building, was found to contain Asbestos.

Further sampling has occurred and the extent of the contamination has not yet been quantified.

In order to avoid any risk from exposure to asbestos fibres, until the extent of exposure is known, **all of the ceiling spaces of the hunter building are to be treated as being contaminated.**

Any person required to access the ceiling space is to do so only under controlled conditions and in line with this procedure.

#### Key concept

The dusts in the ceiling space is (until proven otherwise) considered to be contaminated with asbestos. The potential risks from asbestos in this situation includes;

- air movement causing dust and the fibres to become airborne
- persons moving around causing dust and airborne fibres
- persons entering the space, collecting fibres on their clothing or equipment and then transferring those to other spaces

#### Equipment required

Face mask of a P2 level or better

Disposable armlets / apron

Plastic sheet at least 2 metres x 2 metres

Disposable gloves

Plastic bag for placing PPE on completion of work pending disposal

Tape for sealing plastic bag on completion

Two cloth rags for wiping down tools, equipment and hands on completion

Hand held gardeners spray bottle with water for dampening dust and reducing risk of disturbance, airborne dust generation, and increased risk of inhalation

### **Work Method**

The method of work will include but not limited to:

1. Re-consider the need to access during this time pending quantification of the risk, and only access if absolutely necessary.
2. Identify the most appropriate access point taking into account
  - a. the distance to the required location (preference should be given to proximity to the work area so as to minimise movement)
  - b. the materials or equipment required to be carried and/or used (minimise tools and equipment so as to reduce the need to decontaminate following the works)
  - c. the visibility of the entrance to the general public (preference is to use an entrance away from public so as to avoid public anxiety)
3. Identify if the work can be undertaken outside normal hours.
4. Isolate the area. (During work hours, this may include asking all people to leave the room and closing the door; blocking off corridors and posting people at each entry point to keep people out.
5. Consider, based on location and scope of the work, the application of air monitoring for the duration of the work and for a short period following.
6. Place plastic sheets down under ladder.
7. Put ladder in place.
8. Put on PPE including face mask, armlets/apron and gloves ensuring there is no gap between gloves and armlets and the gloves are over the top of the armlets / apron.
9. Gather tools and equipment and spray bottle (for non-electric work).
10. Move ceiling tiles (or similar) taking care to minimise movement that may disturb dust or knock against beams or trusses.
11. In line with applicable asbestos sampling techniques, take a swab samples of dust in the area around the penetrations and have tested by a suitably qualified person, for asbestos content.
12. For non-electrical work, spray liberally the area in the ceiling around the work site.
13. Undertake the required work.
14. Gather up all equipment and remove it from the ceiling space.
15. Replace ceiling tile or similar.

16. Spray water onto the rag and wipe down the joint area of the moved tile.
17. Descend the ladder.
18. Spray more water onto the rag and wipe down tools and equipment including any containers, as well as the spray bottle, and place rag in plastic bag.
19. Spray water onto the second rag and wipe down the gloves and armlets / apron.
20. Turning the armlets inside out as you go, roll armlets / apron, and then gloves, inside out trapping any contaminants inside the inside-out gloves.
21. Remove face mask.
22. Dispose of bag containing PPE as asbestos contaminated materials.

### **Cabling works**

Where cabling is required within the ceiling space, the above procedure is to be applied with the addition of the use of conduit or other cable passage.

1. Breach the ceiling space using the previous mentioned method.
2. Ensure the conduit or other passageway is sealed to avoid and ceiling dust contaminating the internal of the conduit using a bung, tape or other means.
3. Feed the conduit or other passageway into the ceiling to the point of exit.
4. Breach the ceiling using the previous procedures at the point of exit.
5. Connect both ends of the conduit with appropriate fittings to enable the open ends to be outside of the ceiling space.
6. Reseal the breached ceiling spaces.
7. Feed the cables through the safe space of the conduit.

### **Planning for the future**

As it is not possible without a major testing contract or cleaning, work activities in the ceiling space is not able to be undertaken without the above controls.

One method of reducing future risk to workers and contamination should include creation of safe passages. Where works such as cabling works are being undertaken, consider the future needs of the space and where possible, place a larger safe passageway that will allow for future works to be undertaken without the need to breach the ceiling space.