

University of South Australia Asbestos Management Policy

University of South Australia



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Asbestos Management Policy for University of South Australia

PPK
Environment & Infrastructure

PPK House
101 Pirie Street
Adelaide SA 5000
GPO Box 398
Adelaide SA 5001
Telephone +61 8 8405 4300
Facsimile +61 8 8405 4301
Email adelaide@ppk.com.au

ABN 84 797 323 433
NCSI Certified Quality System to ISO 9001

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Author:

Reviewer:

Approved by:

Signed:

Date:

Distribution:

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Section 1 - Introduction

It is well recognised that adverse health effects, including lung cancer and mesothelium, can arise from inhalation of airborne asbestos fibres. The risk of such disease increases as the degree of exposure to airborne asbestos fibres increases.

Asbestos-containing building materials have been used in the past in a large number of applications, especially in the 1950s to mid 1970s. Consequently, many University buildings contain asbestos products.

These products do not pose risk to health unless the material is disturbed, leading to the release of airborne asbestos fibres.

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically pertaining to the management of asbestos in the work place. The South Australian Asbestos Management Policy establishes duties of building owners and other persons in possession of plant or buildings that contains or has asbestos on it. (This asbestos is referred to as "installed" as it has been put into place in or on a building, structure or plant as a building material or cladding, to provide insulation or fire-proofing, or for some other similar purpose).

UniSA, as part of its Occupational Health, Safety and Welfare Program is committed to the protection of staff, students and contractors from potentially hazardous substances.

UniSA has an ongoing program of asbestos management, that will continue (until as far as reasonably practicable to do so) until all asbestos is eliminated from UniSA occupied buildings.

UniSA has developed this Management Policy and Standard Operating Procedures to ensure that staff, students and contractors are not exposed to airborne asbestos fibres, particularly during any maintenance or building work activities within USA properties and workplaces.

Section 2 of this code details the responsibilities of individual Line Managers, employees and contractors.

Section 3 lists all of the relevant Standard Operating Procedures (SOP's).



UniSA Asbestos Policy

The aim of this Asbestos Policy is to:

- provide all staff, students and contractors with a safe working environment in accordance with South Australian Asbestos Regulations 1995 and other relevant South Australian statutory requirements of the Occupational Health Safety & Welfare Act 1986;
- prevent adverse health effects that may result from exposure to airborne asbestos fibres;
- continue working towards an asbestos-free working environment for all staff, students and contractors.

The University of South Australia (UniSA) recognises that the achievement of an asbestos-free working environment is a long-term goal. Until this is achieved, UniSA will provide:

Consultation

Ensure full and proper consultation at all stages of policy implementation, and any subsequent reviews that are undertaken.

Information and Training

Ensure that all relevant UniSA maintenance staff and contractors are provided with information and training on the health risks of asbestos, the operation of this Asbestos Policy and the implementation of the Safe Work Procures.

Assessment and Register

Ensure that any assessment or potential health risks from asbestos-containing materials in the UniSA workplace is undertaken by competent personnel.

Develop and maintain an Asbestos Materials Register, that documents the location, type and condition of any asbestos-containing materials found to be present within UniSA buildings. This will include updating of the Register on an annual basis.

Control

- Remove all asbestos-containing materials from the UniSA workplaces where the assessment has deemed the asbestos materials to constitute a risk to health.
- Label any known asbestos-containing materials and implement an appropriate Standard Operating Procedure to control any work that may lead to disturbance of these materials.
 - Where practicable to do so no further asbestos-containing materials will be purchased for use in any UniSA workplace.
 - All heads of schools and units shall advise the Property Unit of any asbestos containing products and/or equipment brought onto University sites.
 - Standard Operating Procedures.

Standard Operating Procedures

Develop, implement and regularly review Standard Operating Procedures including training and monitoring, for work undertaken by UniSA personnel and contractors, that has the potential for causing exposure to airborne asbestos fibres.

Section 2 - Responsibilities

Director: Property

The Director: Property is responsible for establishing, maintaining and continuously improving a pro-active Asbestos Management System that includes the:

- preparation of an annually updated Asbestos Register of all UniSA buildings and structures containing asbestos products, in compliance with the Asbestos Regulations 1995 (as amended), Section 4.2.10;
- establishment of an asbestos management plan;
- development and implementation of Standard Operating Procedures to ensure that asbestos is handled in a way to minimise the potential for release of asbestos fibres to atmosphere when working with or around asbestos; and
- appropriate procedures for the removal and disposal of asbestos contaminated material in accordance with legislative requirements.

Asset Manager

The Asset Manager is responsible for:

- Ensuring copies of the Asbestos Register, Asbestos Management Plan and SOP's are provided to all Project Managers for any/all campus specific activities.
- Ensuring that any work in the building or on plant and equipment that may disturb asbestos is only undertaken in strict accordance with the SOP's, the requirements of South Australian Occupational Health Safety & Welfare Act 1986 and the Asbestos Regulations (as amended) 1995.
- Ensuring the appropriate Line Manager advises the Contracts Manager: Maintenance of all alterations or changes made to installed asbestos containing materials through appropriate documentation
- Ensuring the Contracts Manager: Maintenance records all alterations or changes made to installed asbestos containing materials on the UniSA Asbestos Register.
- Ensuring that no further asbestos containing materials will be purchased for use in any UniSA workplace where practicable to do so.
- Implementing appropriate asbestos hazard control methods, including the use of qualified consultants and licensed asbestos removal contractors.
- Ensuring that UniSA maintenance staff and/or contractors who are required to undertake work that may disturb asbestos (excluding asbestos removal) are trained in the use of SOP's.

Contract Supervisor

The Contract Supervisor is the person nominated by the Line Manager to administer the contract. Contract Supervisors are responsible for:

- the implementation of this procedure in their area of responsibility and accountability
- ensuring the induction of the contractor or the contractor's nominated representative in accordance with the OHSW Procedure – OHSW Induction
- the management of contractors in relation to site specific hazards and ensuring contractors proposed work methods do not place University employees at risk
- advising the relevant Line Manager when the work will be conducted in the workplace of another Line Manager.

Line Manager

The Line Manager is responsible for consulting with staff and/or health and safety representatives on OHSW matters and participating in consultative forums designed to contribute to the improvement of workplace health and safety.

University Employees

University employees are responsible for:

- not placing themselves or others at risk of injury
- reporting work methods of contractors that place University employees at risk.

Maintenance Staff and Contractors

All maintenance staff and or Contractors internal and external to UniSA who engage in any Asbestos related works shall:

- Adhere strictly to the Asbestos Management System and SOP's for buildings, plant and equipment in which they work including, and in particular, the requirements of this Management Policy, South Australian Occupational Health Safety & Welfare Act 1986 and the Asbestos Regulations (as amended) 1995.
- Notify the designated Contract Supervisor of the specified works immediately, of any potential or actual asbestos hazard, that may have not been previously identified, or any deterioration in the condition of asbestos products included in the Asbestos Register.
- Not undertake work that may disturb asbestos products unless authorised to do so, in accordance with the Asbestos Management System and the requirements of the South Australian Occupational Health Safety & Welfare Act 1986 and the Asbestos Regulations (as amended) 1995.

Section 3 - Standard Operating Procedures

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SOP8

Unexpected Occurrences of Suspected Asbestos Containing Materials Procedure

SOP-001**Personnel Entering Asbestos Contaminated Roof & Ceiling Spaces**

1. Introduction

This SOP has been developed in response to the possible presence of residual asbestos contamination in the ceiling space of the Reid Building, City East Campus.

This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working in an environment that has residual asbestos contamination or installed asbestos materials.

Residual asbestos contamination has the potential to be found throughout ceiling space in a number of ways (but not limited to):

- *adhering to the tops of the ceiling "T" bar grid;*
- *adhering to the underside of the soffit and structural steel/timber;*

This SOP forms part of the University of South Australia Asbestos Management Plan and the University of South Australia Policies and Procedures.

2. Purpose

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment.

3. Locations

The SOP is to be implemented prior or upon entry in to the ceiling space in the following building:

- *Reid Building – City East Campus*

4. Risk Assessment

The risk from exposure to airborne asbestos fibres from residual asbestos when left undisturbed is in general terms very low.

However, the degree of the risk should be considered depending on the nature of the work to be undertaken. This includes the proximity of the area and personnel to the residual or installed asbestos and the potential for the residual asbestos to be accidentally and or deliberately disturbed during the course of the work.

If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance or a suitably qualified Asbestos Management Consultant.

5. Activity

The following activities may disturb the residual asbestos materials:

Access to the roof or ceiling space to undertake any form of maintenance work;

- Installation or modification to electrical or optic fibre cables;
- Removal and replacement of above ceiling and surface mounted light fittings ;
- Drilling or cutting holes to gain access into the ceiling space;
- Removal and modifications of ceiling mounted A/C Registers layout

6. Standard Operating Procedures – General

This SOP must be referred to if any work activity is to be undertaken within a roof or ceiling space of buildings (but not limited to) as documented in Section 3 of SOP No 1. This is to be done as follows:

- 6.1. Before commencing work, the Asbestos Register, that documents the location, type and condition of all known asbestos containing products, must be reviewed to determine if asbestos containing materials are in the proposed work area or building.

The Contracts Manager: Maintenance holds copies of asbestos registers for all properties owned by UniSA. However, for ease of use for UniSA maintenance staff and contractors, the asbestos registers are available on the Intranet as a read only document. Project Managers for each Campus also hold copies of asbestos registers.

If the register confirms the presence of asbestos in the area, then the person responsible for organising the work is to assess the risk which will be dependant on the type and duration of work. The responsible party shall then complete a UniSA Asbestos Work Permit that details the requirements for the work to proceed.

However, if it is suspected that an area not identified in the Asbestos Register contains asbestos, the Contract Supervisor must be notified so that necessary arrangements can be made to clarify the situation.

- 6.2 External contractors employed by UniSA will be responsible for the provision of appropriate personal protective safety equipment for their employees and regular maintenance of the personal protective safety equipment in accordance with the Australian Standards.
- 6.3 The Contract Supervisor is to make arrangements for environmental air monitoring to be carried out by either an approved accredited organisation such as NATA or a company that has been approved by DAIS. Refer to Section 7
- 6.4 All personnel working in an asbestos related environment must wear a half face respirator with a P1 particulate filter together with a hooded disposable overalls and protective footwear. Campus Services Staff can obtain the P1 particulate filter and disposable overalls from their Campus Services Team Leader
- 6.5 Plastic waste disposal bags and an approved vacuum cleaner can also be obtained from their Campus Services Team Leader
- 6.6 All work undertaken is to be planned so that as far as reasonably practicable the residual asbestos is not disturbed or disturbance is minimised.

6.7 Cleanup & Decontamination

Upon leaving the area or completing the work the following procedure is to be followed:

- 6.7.1 Using the approved vacuum cleaner, decontaminate the face respirator and disposable overalls.
- 6.7.2 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.
- 6.7.3 Remove the half face respirator and place into a plastic storage bag. The respirators can be cleaned and disinfected later. (Refer to SOP7, Cleaning & Maintenance of Personal Protective Equipment SOP7).
- 6.7.4 Dispose of the waste disposal bag in the asbestos storage bins and return the vacuum cleaner to the Campus Services Team Leader.

7. ***Environmental Air Monitoring***

For the purpose of determining the levels of airborne asbestos fibres during the works, it is a requirement of this SOP that the person who is responsible for organising the work is to make arrangements for environmental air monitoring to be carried out. The monitoring shall be carried out by an approved accredited organisation such as NATA or a company that has been approved by DAIS. Monitoring will be conducted when there is a possibility the work activity will result in the asbestos being disturbed and will be conducted during and after the work period.

In accordance with the requirements of Section 4.2.9 (5) (a) of the OHSW Regulations 1995, environmental air monitoring does not have to be carried out "***if the exposure to airborne asbestos fibres is no more than trivial, infrequent and of short duration***".

8. ***Applicable Legislation***

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

9. ***Records Management***

The Contract Supervisor will be responsible for distributing a copy of the Asbestos Work Permit and air monitoring result sheets to the Contracts Manager: Maintenance who will update the Asbestos Register accordingly.

SOP-002 Vinyl Floor Tiles (VFT's)

1. **Introduction**

This SOP has been developed in response to the presence of asbestos containing Vinyl Floor Tiles (referred to in this procedure as VFT) throughout a large number of UniSA properties.

This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working in an environment that has installed asbestos containing VFT's. Asbestos containing VFT's can be found in a variety of locations throughout a building but are mainly limited to floor and wall tiles.

This SOP forms part of the University of South Australia's Asbestos Management Plan and UniSA Policies and Procedures.

2. **Purpose**

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment.

3. **Risk Assessment**

The risk from exposure to airborne asbestos fibres from asbestos containing VFT's in general terms is very low. The asbestos fibre (usually Chrysotile or commonly called white asbestos) is bound up in the matrix of the VFT's and is unlikely to become airborne even when worked upon ie: cut, sawn, drilled or sanded. VFT's usually contain no more than 3-5% asbestos.

VFT's may also have been applied as "wall" tiles to some areas.

Despite the low risks associated with VFT's the degree of the risk should be considered depending on the nature of the work to be undertaken. This includes the proximity of the area and personnel to the installed asbestos VFT and the potential for asbestos fibres to be released during the course of the work.

If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance or a suitably qualified Asbestos Management Consultant.

4. **Activity**

This SOP is to be implemented when any one of the following activities is carried out:

- Removal of a small section of VFT's or wall tiles (less than 200 m²) to gain access to the sub-base for maintenance purposes only.
- Drilling or cutting into the VFT's.
- Cutting or drilling penetration holes to give access to a floor slab for the installation of services.
- Cutting or drilling penetration holes in walls for the installation of services.

Notes:

- ***For removal of VFT's of more than 200 m², the Contract Supervisor will make arrangements to engage a licensed asbestos removal contractor to undertake the work.***
- ***Workplace Services are currently reviewing the minimum amount of non-friable asbestos materials (such as VFT's) that can be removed (currently less than 200 m²) without a licence. The Contracts Manager: Maintenance will notify all relevant personnel of any changes made to the statutory requirements in this regard.***

The above activities are unlikely to release asbestos fibres into the work environment. However all work carried out must be undertaken in a manner that the potential for release of asbestos fibres is minimised.

5. **Standard Operating Procedure**

This SOP is to be referred to if any work with or on VFT's that contain asbestos is undertaken.

- 5.1 Before commencing work, the Asbestos Register, that documents the location, type and condition of all known asbestos containing products, must be checked to determine if asbestos containing materials are in the proposed work area or building. The Contracts Manager: Maintenance holds copies of the asbestos registers for all UniSA properties. However, for the ease of use for contractors, the asbestos registers are also available on the Intranet as a read only document. Project Managers for each Campus also hold copies of asbestos registers.

If the register confirms the presence of asbestos in the area, then the person responsible for organising the work is to assess the risk and complete the UniSA Asbestos Work Permit, that details the requirements for the work to proceed.

However, if it is suspected that an area not identified in the Asbestos Register contains asbestos, the Contract Supervisor must be notified so that necessary arrangements can be made to clarify the situation.

If the register does not list the VFT and the VFT is suspected of containing asbestos, then the Contract Supervisor responsible for organising the work will make the necessary arrangements for the VFT to be sampled and sent for analysis.

If the sample analysis results confirm that the VFT contains asbestos, the Contract Supervisor will notify the Contracts Manager: Maintenance who will update the information on the asbestos register.

- 5.2 External contractors employed by UniSA will be responsible for the provision of appropriate personal protective safety equipment for their employees and regular maintenance of the personal protective safety equipment in accordance with the Australian Standards.

- 5.3 All maintenance staff internal to UniSA must wear a half face respirator with a P1 particulate filter together with a hooded disposable overall that can be obtained from the Campus Services Team Leader.

Plastic waste disposal bags and a vacuum cleaner approved for this purpose can also be obtained from the Campus Services Team Leader.

- 5.4 The Contracts Supervisor is to make arrangements for environmental air monitoring to be carried out by an approved accredited organisation such as NATA. Refer to Item 6, Environmental Air Monitoring.

- 5.5 The work is to be planned to minimise disruption to the occupants of the area/building.

- 5.6 Close off all doors to the area and close all windows.
The area is to be barricaded off and warning signs are to be placed at the entry points to the work area.

If there are no partitions or dividing walls then 200-micron plastic sheeting is to be erected as a protective screen.

The work on the VFT's is to be undertaken in a manner that disturbance of the VFT's is kept to minimum.

- 5.7 Removal of a section of the VFT's can be undertaken in one or more of the following ways:

- Mechanical scraper and use of approved vacuum cleaner.
- Manual scraper and use of approved vacuum cleaner.
- Applied heat followed by scraping and use of approved vacuum cleaner.

- 5.8 If the VFT's have to be cut or drilled, then the use of non-powered hand tools is recommended. Electrical or battery powered tool can be used so long as they have the capability to run at a very low operating speed of approximately 500 rpm.

- 5.9 To assist the process of dust minimisation, the nozzle of an approved vacuum cleaner can be held close to the point of dust generation.

- 5.10 Cleanup & Decontamination

Upon leaving the area or completing the work the following procedure is to be followed to ensure the area is safe for occupation

- 5.10.1 Using an approved vacuum cleaner, decontaminate the face respirator and disposable overalls.
- 5.10.2 Remove the hooded disposable overalls, place into the waste disposal bag and seal up the bag.
- 5.10.3 Remove the half face respirator and place into a plastic storage bag. The respirators can be cleaned and disinfected later. (Refer to SOP7 Cleaning & Maintenance of Personal Protective Equipment).
- 5.10.4 Place all VFT off cuts and fragments that were too big to be vacuumed, into the waste disposal bag and seal up the bag.
- 5.10.5 Dispose of the waste disposal bag in the asbestos storage bins provided by the Campus Services Team Leader

6. Environmental Air Monitoring

For the purpose of determining the levels of airborne asbestos fibres during the works, it is a requirement of this SOP that the Contract Supervisor make arrangements for environmental air monitoring to be carried out. The monitoring shall be carried out by an approved accredited organisation such as NATA or a company that has been approved by DAIS. Monitoring will be conducted when there is a possibility the work activity will result in the asbestos being disturbed and will be conducted during and after the work period.

In accordance with the requirements of Section 4.2.9 (5) (a) of the OHSW Regulations 1995, environmental air monitoring does not have to be carried out "***if the exposure to airborne asbestos fibres is no more than trivial, infrequent and of short duration***".

7. Applicable Legislation

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

8. Records Management

The Contract Supervisor will be responsible for distributing a copy of the Asbestos Work Permit and air monitoring result sheets to the Contracts Manager: Maintenance who will update asbestos register accordingly.

SOP-003 Asbestos Backed Vinyl Flooring (ABVF)

1. **Introduction**

This SOP has been developed in response to the presence of Asbestos Backed Vinyl Flooring, (referred to in this Standard Operating Procedure as ABVF) material throughout a number of the UniSA buildings.

This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working in an environment that has installed ABVF.

The majority of ABVF was manufactured by Armstrong Nylex until approximately 1986. The ABVF was usually applied in sheet form (as opposed to tiles) and has a "Terrazzo" type pattern look to the surface.

This SOP forms part of the University of South Australia Asbestos Management Plan and the UniSA Policies and Procedures.

2. **Purpose**

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment.

3. **Risk Assessment**

The risk from exposure to airborne asbestos fibres from ABVF is considered to be low unless the material is disturbed or worked upon. The asbestos backing material (usually Chrysotile or commonly called white asbestos) is located on the underside of the base flooring material and is bonded to the back of the base material. ABVF may also have been applied to work bench tops in some areas and usually contains 80-100% asbestos.

ABVF is classified as friable, however the degree of the risk should be considered depending on the nature of the work to be undertaken. This includes the proximity of the area and personnel to the installed ABVF and the potential for asbestos fibres to be released during the course of the work.

If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance as a suitably qualified Asbestos Management Consultant.

4. Activity

This SOP is to be implemented when any one of the following activities is carried out:

- Removal of a small section of ABVF (less than 2 m²) to gain access to the sub-base.
- Drilling or cutting into the ABVF.
- Cutting or drilling penetration holes to give access to a floor slab for the installation of services.
- Cutting or drilling penetration holes in walls for the installation of services.
- Removal, cutting or drilling of ABVF applied to bench tops

The above activities are unlikely to release asbestos fibres into the work environment. However all work carried out must be undertaken in a manner that the potential release of asbestos fibres is minimised.

5. Standard Operating Procedures - General Maintenance Activities

This SOP is to be referred to if any work with or on ABVF that contain asbestos is undertaken.

- 5.1 Before commencing work, the Asbestos Register, that documents the location, type and condition of all known asbestos containing products, must be checked to determine if asbestos containing materials are in the proposed work area or building. The Contracts Manager: Maintenance holds copies of the asbestos registers for all UniSA properties. However, for the ease of use for contractors, the asbestos registers are also available on the Intranet as a read only document.

Project Managers for each Campus also hold copies of the asbestos registers.

If the register confirms the presence of asbestos in the area, then the person responsible for organising the work is to assess the risk and complete the UniSA Asbestos Work Permit, that details the requirements for the work to proceed.

However, if it is suspected that the area not identified in the Asbestos Register contains asbestos, the Contract Supervisor is to be notified so that necessary arrangements can be made to clarify the situation.

If the register does not list the ABVF and the ABVF is suspected of containing asbestos, then the Contract Supervisor will make the necessary arrangements for the ABVF to be sampled and sent for analysis.

If the sample analysis results confirm that the ABVF contains asbestos, the Contract Supervisor will notify the Contracts Manager: Maintenance who will update information on the asbestos register.

- 5.2 External contractors employed by UniSA will be responsible for the provision of appropriate personal protective safety equipment for their employees and regular maintenance of the personal protective safety equipment in accordance with the Australian Standards.

- 5.3 All maintenance staff internal to UniSA must wear a half face respirator with a P1 particulate filter together with a hooded disposable overall that can be obtained from the Campus Services Team Leader.

Plastic waste disposal bags and an approved vacuum cleaner can also be obtained from the Campus Services Team Leader

- 5.4 The work is to be planned to minimise disruption to the occupants of the area/building.

- 5.5 The Contract Supervisor is to make arrangements for environmental air monitoring to be carried out by an approved accredited organisation such as NATA. Refer to Item 6, Environmental Air Monitoring.

For removal of ABVF of more than 2 m², the Contract Supervisor will make arrangements to engage a licensed asbestos removal contractor to undertake the work.

- 5.6 Close off all doors to the area and close all windows.
- 5.7 The area is to be barricaded off and warning signs are to be placed at the entry points to the work area.

If there are no partitions or dividing walls then 200-micron plastic sheeting is to be erected as a protective screen.

- 5.8 The work on the ABVF is to be undertaken in a manner that disturbance of the ABVF is kept to a minimum.
- 5.9 If the ABVF has been placed onto hard board or particle board, the board shall be removed as well as the ABVF and disposed of as asbestos waste.
- 5.10 Removal of a section of the ABVF can be undertaken in one or more of the following ways:
- Mechanical scraper and use of approved vacuum cleaner.
 - Manual scraper and use of approved vacuum cleaner
 - Applied heat followed by scrapping and use of approved vacuum cleaner.
- 5.11 For general maintenance work where only very small sections of the ABVF (less than 2m²) (and a licensed asbestos removal contractor is not engaged to carry out the work), has to be worked upon, a fine water spray or mist can be applied to assist in the control and minimisation of asbestos fibres.
- 5.12 If the ABVF has to be cut or drilled, then the use of non-powered hand tools is recommended. Electrical or battery powered tool can be used so long as they have the capability to run at a very low operating speed of approximately 500 rpm.
- 5.13 To assist the process of dust minimisation, the nozzle of an approved vacuum cleaner can be held up close to the point of dust generation.
- 5.14 To assist the process of dust minimisation, the nozzle of an approved vacuum cleaner can be held up close to the point of dust generation.
- 5.15 Place all ABVF and fragments into the asbestos waste bag.
- 5.16 The floor or wall area is to be wet wiped with a damp cloth or is to be vacuumed with an approved vacuum cleaner. This task also applies to all horizontal and vertical surfaces.

It may be prudent to seal the edges of the ABVF with tape and apply a small amount of PVA sealant to lockdown any minor traces of asbestos fibres.

5.17 Cleanup & Decontamination

Upon leaving the area or completing the work the following procedure is to be followed:

- 5.17.1 Using an approved vacuum cleaner, decontaminate the face respirator and disposable overalls.
- 5.17.2 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.
- 5.17.3 Remove the half face respirator and place into a plastic storage bag. The respirators can be cleaned and disinfected later. (Refer to SOP7 Cleaning & Maintenance of Personal Protective Equipment).
- 5.17.4 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.
- 5.17.5 Dispose of the waste disposal bag in the asbestos storage provided by the Campus Services Team Leader.

6. ***Environmental Air Monitoring***

For the purpose of determining the levels of airborne asbestos fibres during the works, it is a requirement of this SOP that the Contract Supervisor is to make arrangements for environmental air monitoring to be carried out. The monitoring shall be carried out by an approved accredited organisation such as NATA or a company that has been approved by DAIS. Monitoring will be conducted when there is a possibility the work activity will result in the asbestos being disturbed and will be conducted during and after the work period.

In accordance with the requirements of Section 4.2.9 (5) (a) of the OHSW Regulations 1995, environmental air monitoring does not have to be carried out "***if the exposure to airborne asbestos fibres is no more than trivial, infrequent and of short duration***".

7. ***Applicable Legislation***

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

8. ***Records Management***

The Contract Supervisor will be responsible for distributing a copy of the Asbestos Work Permit and air monitoring result sheets to the Contracts Manager: Maintenance who will update the asbestos register accordingly.

SOP-004 Asbestos Fibre Cement Products (AFCP)

1. **Introduction**

This SOP has been developed in response to the presence of Asbestos Fibre Cement Products (referred to in this procedure as AFCP) throughout a number of UniSA properties.

This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working in an environment that has installed AFCP.

AFCP can be found in a variety of locations throughout a building and in one or more of the following forms (but not limited to):

- Corrugated roof and wall cladding.
- Flat sheeting to ceilings of rooms and/or laboratory areas.
- Flat sheeting to verandah walls and ceilings.
- Flat sheeting to “wet” areas such as toilets and laundries.
- Laboratory bench tops.

AFCP can also be found in the form of:

- Formed mouldings.
- Vent pipes.
- Pipes for water and drainage.
- Exhaust flues.
- Laboratory equipment such as ovens etc.

This SOP forms part of the University of South Australia Asbestos Management Plan and the UniSA Policies and Procedures.

2. **Purpose**

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment.

3. **Risk Assessment**

The risk from exposure to airborne asbestos fibres from AFCP in general terms is low unless the material is disturbed or worked upon. The hardness and structure (non friable) of AFCP and its relatively low asbestos content (in most cases) means that it is less likely to generate airborne asbestos fibres that say friable asbestos pipe lagging.

Generally these AFCP's are in good condition and often sealed with paint. There is a negligible health risk associated with these products so long as they are not subjected to cutting, drilling or other types of operations that could possibly generate airborne asbestos fibres.

However, the degree of the risk should be considered depending on the nature of the work to be undertaken. This includes the proximity of the area and personnel to the installed AFCP and the potential for asbestos fibres to be released during the course of the work.

If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance or a suitably qualified Asbestos Management Consultant.

4. Activity

This SOP is to be implemented when any one of the following activities is carried out:

- Drilling or cutting into AFCP.
- Sanding or drilling into AFCP.

The above activities are likely to release asbestos fibres into the work environment. Therefore all work carried out must be undertaken in a manner that the potential release of asbestos fibres is minimised

5. Standard Operating Procedure - General Maintenance Activities

This SOP is to be referred to if any work is required to be undertaken on or with AFCP.

- 5.1 Before commencing work, the Asbestos Register, that documents the location, type and condition of all known asbestos containing products, must be checked to determine if asbestos containing materials are in the proposed work area or building. The Contracts Manager: Maintenance holds copies of all asbestos registers for UniSA properties. However, for the ease of use for contractors, the asbestos registers are also available on the Intranet as a read only document.

The Project Manager for each Campus also holds copies of the asbestos registers.

If the register confirms the presence of asbestos in the area, then the person responsible for organising the work is to assess the risk and complete the UniSA Asbestos Work Permit, that details the requirements for the work to proceed.

However, if it is suspected that the area not identified in the Asbestos Register contains asbestos, the Contract Supervisor is to be notified so that necessary arrangements can be made to clarify the situation.

If the register does not list the AFCP and the AFCP is suspected of containing asbestos, then the Contract Supervisor responsible for organising the work will make the necessary arrangements for the AFCP to be sampled and sent for analysis.

If the sample analysis results confirm that the AFCP contains asbestos, the Contract Supervisor will notify the Contracts Manager: Maintenance who will update information on the asbestos register.

- 5.2 External contractors employed by UniSA will be responsible for the provision of appropriate personal protective safety equipment for their employees and regular maintenance of the personal protective safety equipment in accordance with the Australian Standards.

- 5.3 UniSA employees must wear a half face respirator with a P1 particulate filter together with a hooded disposable overalls that can be obtained from the Campus Services Team Leader.

- 5.4 Plastic waste disposal bags and an approved vacuum cleaner can also be obtained from the Campus Services Team Leader
- 5.5 The work is to be planned to minimise disruption to the occupants of the area/building.

Notes:

Workplace Services are currently reviewing the minimum amount of non-friable asbestos materials (such as AFCP) that can be removed (currently less than 200 m²) without a licence. The Contracts Manager: Maintenance will notify all relevant personnel of any changes made to the statutory requirements in this regard.

For removal of AFCP of more than 200 m² in total, the Contract Supervisor will make arrangements to engage a licensed asbestos removal contractor to undertake the work or for general maintenance work the following will apply:

- 5.6 If the work to be undertaken is inside a building then close off all doors to the area and close all windows.
- 5.7 The area is to be barricaded off and warning signs are to be placed at the entry points to the work area.
- 5.8 If there are no partitions or dividing walls then 200-micron plastic sheeting is to be erected as a protective screen.
- 5.9 The Contract Supervisor shall make arrangements for environmental air monitoring to be carried out by an approved accredited organisation such as NATA. (Refer to Item 6, Environmental Air Monitoring).
- 5.10 Work on the AFCP is to be undertaken in a manner that disturbance of the AFCP is kept to minimum.
- 5.11 If the AFCP has to be cut or drilled, then the use of non-powered hand tools is recommended. Electrical or battery powered tool can be used so long as they have the capability to run at a very low operating speed of approximately 500 rpm.
- 5.12 For general maintenance work where only very small sections have to be worked upon, a fine water spray or mist can be applied to assist in the control and minimisation of asbestos fibres.
- 5.13 To assist the process of dust minimisation, the nozzle of an approved vacuum cleaner can be held up close to the point of dust generation.

5.14 Cleanup and Decontamination

Prior to leaving the work and upon completion of works the following tasks are to be carried out:

- 5.14.1 Place all AFCP and fragments into the asbestos waste bag and wet wipe surrounding areas with a damp cloth. Alternatively, the affected area can be vacuumed with an approved vacuum cleaner. This task applies to all horizontal and vertical surfaces.
- 5.14.2 It may be prudent to seal the exposed edges of the AFCP with tape and apply a small amount of PVA sealant or paint to lockdown any minor traces of asbestos fibres.

Upon leaving the area or completing the work then:

- 5.14.3 Using an approved vacuum cleaner, decontaminate the face respirator and disposable overalls.
- 5.14.4 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.
- 5.14.5 Remove the half face respirator and place into a plastic storage bag. The respirators can be cleaned and disinfected later. (Refer to SOP7 for Cleaning & Maintenance of Personal Protective Equipment).
- 5.14.6 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.
- 5.14.7 Dispose of the waste disposal bag in the asbestos storage bins provided by the Campus Services Team Leader.

6. ***Environmental Air Monitoring (as required)***

For the purpose of determining the levels of airborne asbestos fibres during works, it is a requirement of this SOP that the Contracts Supervisor is to make arrangements for environmental air monitoring to be carried out. The monitoring shall be carried out by an approved accredited organisation such as NATA or a company that has been approved by DAIS. Monitoring will be conducted when there is a possibility the work activity will result in the asbestos being disturbed and will be conducted during and after the work period.

In accordance with the requirements of Section 4.2.9 (5) (a) of the OHSW Regulations 1995, environmental air monitoring does not have to be carried out “***if the exposure to airborne asbestos fibres is no more than trivial, infrequent and of short duration***”.

7. ***Applicable Legislation***

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

8. ***Records Management***

The Contract Supervisor will be responsible for distributing a copy of the Asbestos Work Permit and air monitoring result sheets to the Contracts Manager: Maintenance who will update the asbestos register accordingly.

SOP-005 Asbestos Containing Fire Doors (ACFD)

1. **Introduction**

This SOP has been developed in response to the presence of Asbestos Containing Fire Doors (referred to in this procedure as ACFD) throughout a number of the UniSA buildings.

ACFD's can consist of either timber or metal encased types that have an asbestos core, sandwiched between the inner and outer cores of the door. The doors are utilised as a fire isolation barrier between fire zones.

Almost all ACFD's have been identified and labelled with the appropriate "caution" labels. However, it is possible that not all ACFD's have been identified and labelled. In most cases, fire doors can be identified as being different from normal type doors due to the difference in weight and they are also tagged on the doorframe.

This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working on or with ACFD's.

This SOP forms part of the University of South Australia Asbestos Management Plan and UniSA Policies and Procedures.

2. **Purpose**

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment.

3. **Risk Assessment**

The risk from exposure to airborne asbestos fibres from the inner asbestos core of the ACFD in general terms is low unless the material is disturbed or worked upon. The outer timber or metal cover provides an effective barrier and will restrict the opportunity for the materials to generate airborne asbestos fibres.

Generally the inner asbestos core is in good condition. There is a negligible health risk associated with this product so long as it is not subjected to cutting, drilling or other types of operations that could possibly generate airborne asbestos fibres.

However, the degree of the risk should be considered depending on the nature of the work to be undertaken and the potential for asbestos fibres to be released during the course of the work. If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance or a suitably qualified Asbestos Management Consultant.

4. Activity

This SOP is to be implemented when any one of the following activities is carried out:

- Drilling or cutting into the timber of metal outer panels.
- Easing of the door margins.
- Affixing or removing the door hardware, closers etc.
- Removing or affixing the door hinges.
- Affixing or removing the door latch and handle.

It is possible that the above activities could disturb the inner core and release asbestos fibres into the work environment. Therefore all work carried out must be undertaken in a manner that will minimise the potential release of asbestos fibres.

5. Standard Operating Procedure - General

This SOP is to be referred to if any work with or on ACFD's is undertaken.

- 5.1 Before commencing work, the Asbestos Register, that documents the location, type and condition of all known asbestos containing products, must be checked to determine if asbestos containing materials are present within the fire door. The Contracts Manager: Maintenance holds copies of asbestos registers for all UniSA properties. However, for the ease of use for contractors, the asbestos register is also available on the Intranet as a read only document.

Project Managers for each Campus also hold copies of asbestos registers.

If the register confirms the presence of asbestos material in the fire door, then the person responsible for organising the work is to assess the risk and complete the UniSA Asbestos Work Permit that details the requirements for the work to proceed.

However, if it is suspected that the fire door(s) not identified in the Asbestos Register contains asbestos, the Contract Supervisor is to be notified so that necessary arrangements can be made to clarify the situation.

If the register does not list the fire door and is suspected of containing asbestos, then the person responsible for organising the work will make the necessary arrangements for the inner core of the fire door to be sampled and sent for laboratory analysis.

If the sample analysis results confirm that the inner core contains asbestos, the Contract Supervisor will notify the Contracts Manager: Maintenance who will update the information onto the asbestos register.

- 5.2 External contractors employed by UniSA will be responsible for the provision of appropriate personal protective safety equipment for their employees and regular maintenance of the personal protective safety equipment in accordance with the Australian Standards.
- 5.5 UniSA personnel must wear a half face respirator with a P1 particulate filter together with a hooded disposable overall that can be obtained from the Campus Services Team Leader.
- 5.3 Plastic waste disposal bags and an approved vacuum cleaner can also be obtained from the Campus Services Team Leader
- 5.4 The work is to be planned to minimise disruption to the occupants of the area/building.
- 5.5 The work undertaken on the fire door must also be carried out in accordance with the Building Code of Australia with reference to the maintenance of Fire Doors.

6. Standard Operating Procedure - Easing Door Margins

If the fire door has a top or bottom edge timber insert that is in good condition and has a reasonable amount of timber that can be worked upon, the door can be planed to give the required clearance without having to implement the SOP. If the top or bottom edge exposes the asbestos core or the outer door panel is damaged beyond repair, then arrangements should be made to have the fire door removed and disposed of, off Campus, by a licensed asbestos contractor or arrange for the contractor to carry out the work under a controlled environment off Campus.

7. Standard Operating Procedure – Door Locks, and Door Hardware

7.1 The Contract Supervisor shall make arrangements for environmental air monitoring to be carried out by an approved accredited organisation such as NATA. Refer to Item 8, Environmental Air Monitoring.

7.1 A plastic drop sheet (200m μ) should be placed and set up on the floor under the fire door. The plastic drop sheet should extend approximately 1 metre around the fire door to catch any small dust particles.

7.2 To assist the process of dust minimisation, the nozzle of an approved vacuum cleaner can be held up close to the point of dust generation.

7.6 A fine water spray or mist can be applied to assist in the control and minimisation of asbestos fibres.

7.8 The work on the fire door is to be undertaken in a manner that disturbance of the asbestos inner core is kept to minimum.

7.9 If the fire door inner core has to be cut or drilled, then the use of non-powered hand tools is recommended. Electrical or battery powered tool can be used so long as they have the capability to run at a very low operating speed of approximately 500 rpm.

Note: The cutting or drilling of a fire door may compromise its fire rating certification. If you are unsure, seek advice from the Contract Supervisor.

7.10 Cleanup & Decontamination

Prior to leaving the work and upon completion of the work the following tasks are to be carried out:

7.10.1 The surrounding area is to be wet wiped with a damp cloth or is to be vacuumed with the approved vacuum cleaner.

7.10.2 Place all removed door locks etc into the asbestos waste bag along with the plastic drop sheet and any asbestos contaminated waste materials such as the damp cloth used to wet wipe the area.

Upon leaving the area or completing the work then:

7.10.3 Using an approved vacuum cleaner, decontaminate the face respirator and disposable overalls.

7.10.4 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.

7.10.5 Remove the half face respirator and place into a plastic storage bag. The respirators can be cleaned and disinfected later. (Refer to SOP7 Cleaning & Maintenance of Personal Protective Equipment).

7.10.6 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.

7.10.7 Dispose of the waste disposal bag in the asbestos storage bins and return the vacuum cleaner to the Campus Services Team Leader.

8. Environmental Air Monitoring

For the purpose of determining the levels of airborne asbestos fibres during the works, it is a requirement of this SOP that the maintenance supervisor is to make arrangements for environmental air monitoring to be carried out. The monitoring shall be carried out by an approved accredited organisation such as NATA or an organisation approved by DAIS. Monitoring will be conducted when there is a possibility the work activity will result in the asbestos being disturbed and will be conducted during and after the work period.

In accordance with the requirements of Section 4.2.9 (5) (a) of the OHSW Regulations 1995, environmental air monitoring does not have to be carried out "***if the exposure to airborne asbestos fibres is no more than trivial, infrequent and of short duration***".

9. Applicable Legislation

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

10. Records Management

The Contract Supervisor will be responsible for distributing a copy of the Asbestos Work Permit and air monitoring result sheets to the Contracts Manager: Maintenance who will update the asbestos register accordingly.

1. **Introduction**

This SOP has been developed in response to the presence of a large number of “Zelemite” AEBB throughout a number of UniSA buildings.

This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working on or with Zelemite” AEBB.

The “Zelemite “AEBB can be found in a variety of locations throughout a building and in one or more of the following forms (but not limited to):

- Electrical switch and meter cupboards.
- Plant room control panels
- Lift motor room control panels.

This SOP forms part of the University of South Australia Asbestos Management Plan and UniSA Policies and Procedures.

2. **Purpose**

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment.

3. **Risk Assessment**

The risk from exposure to airborne asbestos fibres from “Zelemite” AEBB in general terms is low unless the material is disturbed or worked upon. The hardness and structure (non friable) of “Zelemite” AEBB and its relatively low asbestos content (in most cases) means that it is less likely to generate airborne asbestos fibres than friable asbestos pipe lagging.

Generally these “Zelemite” AEBB are in good condition and often sealed with a tar like resin. There is a negligible health risk associated with these products so long as they are not subjected to cutting, drilling or other types of operations that could possibly generate airborne asbestos fibres.

However, the degree of the risk should be considered depending on the nature of the work to be undertaken. This includes the proximity of the area and personnel to the installed “Zelemite” AEBB and the potential for asbestos fibres to be released during the course of the work.

If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance or a suitably qualified Asbestos Management Consultant.

4. Activity

This SOP is to be implemented when the following activity is carried out:

- Drilling, cutting or sanding the “Zelemite” AEBC.

The above activities are likely to release asbestos fibres into the work environment. Therefore all work carried out must be undertaken in a manner that the potential release of asbestos fibres is minimised.

5. Standard Operating Procedure - General Maintenance Activities

This SOP is to be referred to if any work is required to be undertaken on or with “Zelemite” AEBC.

- 5.1 Before commencing work, the Asbestos Register, that documents the location, type and condition of all known asbestos containing products, must be checked to determine if asbestos containing materials are in the proposed work area or building. The Contracts Manager: Maintenance holds copies of the asbestos registers for all of the UniSA properties. However, for ease of use by contractors, the asbestos registers are also available on the Intranet as a read only document.

The Project Manager for each Campus also holds copies of the asbestos registers.

If the register confirms the presence of asbestos in the area, then the Contract Supervisor responsible for organising the work is to assess the risk and complete the UniSA Asbestos Work Permit, that details the requirements for the work to proceed.

However, if it is suspected that the area not identified in the Asbestos Register contains asbestos, the Contract Supervisor is to be notified so that necessary arrangements can be made to clarify the situation.

If the register does not list the “Zelemite” AEBC and the “Zelemite” AEBC is suspected of containing asbestos, then the Contract Supervisor responsible for organising the work will make the necessary arrangements for the “Zelemite” AEBC to be sampled and sent for laboratory analysis.

If the sample analysis results confirm that the “Zelemite” AEBC contains asbestos, the Contract Supervisor will notify the Contracts Manager: Maintenance who will update the information onto the asbestos register.

- 5.2 External contractors employed by UniSA will be responsible for the provision of appropriate personal protective safety equipment for their employees and regular maintenance of the personal protective safety equipment in accordance with the Australian Standards.
- 5.3 UniSA personnel must wear a half face respirator with a P1 particulate filter together with a hooded disposable overalls and protective footwear that can be obtained from the Campus Services Team Leader.
- 5.4 Plastic waste disposal bags and an approved vacuum cleaner can also be obtained from the Campus Services Team Leader
- 5.5 The Contract Supervisor shall make arrangements for environmental air monitoring to be carried out by an approved accredited organisation such as NATA. Refer to Item 6, Environmental Air Monitoring.
- 5.6 The work is to be planned to minimise disruption to the occupants of the area/building.

- 5.7 The area is to be barricaded off and warning signs are to be placed at the entry points to the work area.
- 5.8 The work on the “Zelemite” AEBB is to be undertaken in a manner that disturbance of the material is kept to minimum.
- 5.9 A plastic drop sheet (200m μ) should be placed and set up on the floor under area to worked upon. The plastic drop sheet should extend approximately 1 metre around the work area to catch any small dust particles.
- 5.10 If the “Zelemite” AEBB has to be cut or drilled, then the use of non-powered hand tools is recommended. Electrical or battery powered tool can be used so long as they have the capability to run at a very low operating speed of approximately 500 rpm.
- 5.11 To assist the process of dust minimisation, the nozzle of an approved vacuum cleaner can be held up close to the point of dust generation.
- 5.12 Cleanup & Decontamination

Upon leaving the area or completing the work the following procedure is to be followed:

- 5.12.1 Place all asbestos fragments and the plastic drop sheet into the asbestos waste bag.
- 5.12.2 The surrounding area is to wet wiped with a damp cloth or is to be vacuumed with the approved vacuum cleaner. This task also applies to all horizontal and vertical surfaces.
- 5.12.3 It may be prudent to seal the exposed edges by the application a small amount of PVA sealant or paint to lockdown any minor traces of asbestos fibres.
- 5.12.4 Remove the half face respirator and place into a plastic storage bag. The respirators can be cleaned and disinfected later. (Refer to SOP7 Cleaning & Maintenance of Personal Protective Equipment).
- 5.12.5 Remove the hooded disposable overalls and place into the waste disposal bag and seal up the bag.
- 5.12.6 Dispose of the waste disposal bag in the asbestos storage bins and return the vacuum cleaner to the Campus Services Team Leader

6. Environmental Air Monitoring (as required)

For the purpose of determining the levels of airborne asbestos fibres during the works, it is a requirement of this SOP that the Contract Supervisor is to make arrangements for environmental air monitoring to be carried out. The monitoring shall be carried out by an approved accredited organisation such as NATA or a company that has been approved by DAIS. Monitoring will be conducted when there is a possibility the work activity will result in the asbestos being disturbed and will be conducted during and after the work period.

In accordance with the requirements of Section 4.2.9 (5) (a) of the OHSW Regulations 1995, environmental air monitoring does not have to be carried out “***if the exposure to airborne asbestos fibres is no more than trivial, infrequent and of short duration***”.

7. *Applicable Legislation*

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

8. *Records Management*

The Contract Supervisor will be responsible for distributing a copy of the Asbestos Work Permit and air monitoring result sheets to the Contracts Manager: Maintenance who will update the asbestos register accordingly.

SOP-007

Cleaning & Maintenance of Personal Protective Equipment (PPE)

1. **Introduction**

This SOP has been developed in response to the presence of various types of Asbestos Containing Materials (ACM) located across UniSA occupied properties.

This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working in an environment that has installed ACM. As part of the safe system of work process and as documented in UniSA SOP's numbered 1–8, all personnel required to undertake any work on an item or work in an area that has installed ACM, are required to be provided with and wear PPE.

This SOP forms part of the University of South Australia Asbestos Management Plan and UniSA Policies and Procedures.

2. **Purpose**

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment. This includes the provision of, PPE in good working order including the cleaning and maintenance of said PPE.

3. **Risk Assessment**

The risk from exposure to airborne asbestos fibres from most ACM in general terms is low unless the material is disturbed or worked upon. Generally these ACM are in good condition and often sealed with paint. There is a negligible health risk associated with these products so long as they are not subjected to cutting, drilling or other types of operations that could possibly generate airborne asbestos fibres.

There are however, a number of areas within UniSA buildings where the ACM is in a friable condition. These areas have a greater risk potential from exposure to airborne asbestos fibres.

All personnel who are required to work in an environment or on an asbestos containing materials that has the potential to generate air borne asbestos fibres, shall be provided with and required to wear the appropriate PPE.

External contractors employed by UniSA will be responsible for the provision of appropriate personal protective safety equipment for their employees and regular maintenance of the personal protective safety equipment in accordance manufacturers guidelines and or relevant Australian Standards whichever is the higher.

4. Standard Operating Procedure - General

This SOP is to be referred to for the Cleaning and Maintenance of PPE owned by the University of South Australia.

With the exception of disposable PPE filters, all PPE equipment as held by the Campus Services Team Leader for each Campus will be cleaned on a regular basis. The following method will apply for the Cleaning and Maintenance of PPE:

- 4.1 Remove the filters. The type of filter will depend on the type of respirator ie: single or double canister.

Wash the respirator face piece with detergent and warm water. A soft brush is the most effective way to achieve this. Rinse with clean water and hang up the respirator to air dry.

- 4.2 When the respirator is dry, it can be disinfected by the use of a broad spectrum disinfectant or a disinfectant swab type. If a broad spectrum disinfectant is used make sure that the manufacturers instructions are followed.
- 4.3 The respirator should then be again rinsed with clean water and hung up to air dry. If required, an "anti fog" preparation can be applied.
- 4.4 For periods when the respirator is used for a short duration, cleaning and disinfection of the respirator with a disinfectant swab (Isowipes) would be sufficient.
- 4.5 Disposable respirators should be discarded at the completion of each work task and placed into the asbestos waster disposal bag along with any other asbestos contaminated waste materials.

5. Storage of Respirators

- 5.1 All UniSA owned PPE is held by the Campus Services Team Leader for each Campus and should be stored in a secured central location (preferably a storage cupboard that can be locked to prevent unauthorised access or use).

In order to prevent tampering; remove filters from face pieces and store in a sealed container or sealable plastic bag. The date of last inspection of filters should be indicated on the container.

Respirators are to be stored in a manner to prevent distortion of face pieces. In order to protect face pieces from dust, sunlight or corrosive substances store in sealed plastic bags in the secured PPE storage cupboard.

6. Inspections and Maintenance

All UniSA owned PPE should be carefully inspected during the cleaning process and before and after each use.

With the exception of disposable filters, the results of inspections are to be recorded in the inspection log form (Refer PPE Inspection Log, Section 4, Standard Forms).

Disposable respirators should be inspected for:

- Physical damage such as holes in the filter.
- Deterioration of metal nose clips.
- Deterioration and reduced elasticity of straps.

In the event that damage or deterioration is detected replace respirator completely or contact the manufacturer to obtain new straps. Components of half face and full face respirators should be inspected for damage and deterioration and the appropriate remedial action taken (Table 1).

Table.1 Inspection of half face and full face respirators

Component	Inspect for	Remedial Action
Head straps	Breaks or tears Loss of elasticity Excessively worn serrations on the head harness that may potentially allow the face piece to slip Broken or non-functioning buckles	Replace head harness Replace head harness Replace head harness Replace buckles
Rubber face piece	Cracks, tears or holes Cracked, scratched or loose fitting lenses Dirt Distortion	Replace face piece Contact manufacturer to replace lenses or replace face piece Clean dirt from face piece Remove face piece from any constraints and allow to return to correct shape. If distortion remains, replace the face piece.
Filter elements	Increased filter resistance Missing or won gaskets Worn filter threads and face piece threads Cracks or dents in filter housing Ensure the appropriate recommended filter is in place for the hazard Ensure appropriate approval conditions where applicable	Replace filter Contact manufacturer for replacement parts Replace appropriate component, filter or face piece Replace filter
Inhalation and exhalation valves	Dust, dirt or detergent residue on valve or valve seat. Missing or defective valve cover Cracks, tears or distortion of the valve or valve seat.	Remove residue with soap and water Contact manufacturer and obtain new valve cover Contact manufacturer for advice
Corrugated breathing tube	Cracks or holes in tube Missing or loose hose clamps Missing or broken end connectors	Replace tube Replace clamps Replace connectors
Powered air-purifying respirators	Check assembly for leaks. Check flow rate prior to use. Check flow rate after use.	Tighten filter clamps and replace any damaged components If flow rate is below manufactures specifications check battery and recharge if necessary If flow rate is below manufactures specifications replace filter. If still below check battery charge or other major faults

7. Replacement and disposal of filters

Breathing resistance of particulate respirators will progressively increase with use as the filter becomes loaded with trapped particles. When breathing resistance becomes too high the filter should be replaced. Breathing resistance is considered to be too high when there is a perceived increase in resistance to breathing by the operator. The time taken for this situation to occur varies and will be determined by the characteristics of the filter and the nature and concentration of the particles.

Clogging of the filters of power assisted air purifying respirators (full-face respirators) is indicated by a decrease in air flow rate.

There is no general rule about when filters should be changed. Each situation should be assessed on a case by case basis.

As a filter becomes clogged the efficiency of the filter does not decrease. The main purpose of changing filters is to assist breathing comfort.

Used filters should be sealed in a waste disposal bag.

The waste disposal bag should be returned to the Campus Services Team Leader who will make arrangements for final disposal.

8. Applicable Legislation

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

Table 2 PPE Maintenance Log

<i>Inspection Date</i>	<i>Inspected by (name)</i>	<i>Component inspected</i>	<i>Damage identified</i>	<i>Remedial Action Taken</i>
		Head straps		
		Rubber face piece		
		Filter elements		
		Inhalation and exhalation valves		
		Corrugated breathing tube		
		Powered air-purifying respirators		

1. Introduction

This SOP has been developed in response to the presence of asbestos containing materials throughout a number of UniSA properties. This has resulted in the need to provide and maintain a safe system of work for all maintenance and contractor personnel when working in an environment that may potentially have asbestos containing materials.

Asbestos can be found in a variety of locations throughout a building and in one or more of the following forms (but not limited to):

- Corrugated roof and wall cladding.
- Flat sheeting to ceilings of rooms and/or laboratory areas.
- Flat sheeting to verandah walls and ceilings.
- Flat sheeting to “wet” areas such as toilets and laundries.
- Laboratory bench tops.
- Formed mouldings.
- Vent pipes.
- Pipes for water and drainage and hot water pipe insulation.
- Exhaust flues.
- Laboratory equipment such as ovens etc.
- Residual asbestos contamination in roof and ceiling spaces or other enclosed spaces.
- Fragments sprayed on to structural steel beams as fireproofing.
- Vinyl floor tiles.
- Asbestos backed vinyl flooring.
- Asbestos Containing Fire Doors.
- Asbestos electrical backing boards.

This SOP forms part of the University of South Australia Asbestos Management Plan and UniSA Policies and Procedures.

2. Purpose

In April 1991, legislation was introduced in South Australia under the Occupational Health Safety & Welfare Act (1986) specifically addressing the management of asbestos in the workplace and establishes the duties of employer, employees and building owners to ensure work is carried out in a safe manner in relation to installed asbestos materials.

The purpose of this SOP is to ensure that all personnel who are required to undertake work in an environment that has the potential to cause exposure to asbestos are provided with a safe system of work and safe working environment.

3. Risk Assessment

The risk from exposure to airborne asbestos fibres from any of the above (Section 1) items in general terms is low unless the material is disturbed or worked upon. Generally these asbestos containing materials are in good condition and often sealed with paint. There is a negligible health risk associated with these products so long as they are not subjected to cutting, drilling or other types of operations that could possibly generate airborne asbestos fibres.

However, the degree of the risk should be considered depending on the nature of the work to be undertaken. This includes the proximity of the area and personnel to the installed materials and the potential for asbestos fibres to be released during the course of the work.

If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance as a suitably qualified Asbestos Management Consultant.

4. Activity

The SOP is to be implemented when any one of the following activities is carried out:

- Prior to sanding, drilling or cutting into materials suspected of containing asbestos.
- Upon entering suspected contaminated roof spaces to undertake maintenance work;
- Work in Service risers and ducts;
- Work Under floor voids;
- Work in Wall cavities;
- Work in Service risers and ducts; and
- Work in Ceiling voids

Although an inspection has been undertaken to identify (as far as reasonably practicable) all occurrences of asbestos containing materials with UniSA buildings, due to the nature of building construction practices, asbestos containing materials could be located anywhere with a building structure.

5. Standard Operating Procedure

This SOP is to be referred to if any work is required to be undertaken on or with materials and in areas that are suspected of containing asbestos. If in doubt at any time as to whether or not materials may contain asbestos cease work activities and comply with the following procedures

- 5.1 Before commencing work, the Asbestos Register, that documents the location, type and condition of all known asbestos containing products, must be checked to determine if asbestos containing materials are in the proposed work area or building. The Contracts Manager: Maintenance holds copies of the asbestos registers for all of the UniSA properties. However, for the ease of use for contractors, the asbestos register is also available on the Intranet as a read only document.

The Project Manager for each Campus also holds copies of the asbestos registers.

- 5.2 If the register confirms the presence of asbestos in the area, then the Contract Supervisor responsible for organising the work is to assess the risk and complete the UniSA Asbestos Work Permit, that details the requirements for the work to proceed. However, if it is suspected that the area not identified in the Asbestos Register contains asbestos, the Contract Supervisor is to be notified so that necessary arrangements can be made to clarify the situation.

If the register does not list the material and the material is suspected of containing asbestos, then the Contract Supervisor responsible for organising the work will make the necessary arrangements for the material to be sampled and sent for analysis.

- 5.3 If the sample analysis results confirm that the material contains asbestos, the Contract Supervisor will notify the Contracts Manager: Maintenance who will update the asbestos register accordingly.
- 5.4 If the presence of asbestos is confirmed follow the appropriate and applicable Standard Operating Procedure for the work situation or asbestos material.
- 5.5 If the person supervising the work is unsure of the level of risk, then arrangements should be made to consult with the Contracts Manager: Maintenance or a suitably qualified Asbestos Management Consultant.

6. *Applicable Legislation*

- South Australian OHS & Welfare Act Sections 19 & 21.
- South Australian OHS & Welfare Regulations 1995 – Div 4.2.
- Approved Codes of Practice – Safe Removal of Asbestos.
- Approved Codes of Practice Asbestos Work (excluding asbestos removal).

Section 4 – Standard Forms

Index of Standard Forms

PRO-005

Asbestos Work Permit Form

PRO-006

Environmental Air Monitoring Form

PRO-007

Asbestos Works Awareness Form

PRO-008

Personal Protective Equipment Inspection Log Form [\(not currently available\)](#)

PRO-005 - Asbestos Permit to Work Form

This permit is valid :*	from	to
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This Asbestos Permit to Work is to be used for and is limited to construction, maintenance or repair work in areas or on items that contain asbestos. If the work requires the asbestos materials to be removed, then the appropriate Contract Supervisor in consultation with the Contracts Manager: Maintenance will make the appropriate arrangements to have the asbestos materials removed by a licensed asbestos removal contractor.

Insert name of contractor

Is/are authorised to undertake construction or maintenance work in areas contaminated by asbestos in accordance with the Occupation Health, Safety and Welfare (Asbestos) Regulations 1995

Nature of Work to be undertaken * _____

The following Standard Operating Procedures have been provided to the contractor:

- | | |
|---|---|
| <input type="checkbox"/> SOP1 Personnel entering asbestos contaminated roof and ceiling spaces Procedure
<input type="checkbox"/> SOP2 Vinyl floor tiles (VFT's) Procedure
<input type="checkbox"/> SOP3 Asbestos backed vinyl flooring (ABVF) Procedure
<input type="checkbox"/> SOP4 Asbestos Fibre Cement Products (AFCP) Procedure | <input type="checkbox"/> SOP5 Asbestos Containing Fire Doors (ACFD) Procedure
<input type="checkbox"/> SOP6 Asbestos Electrical Backing Boards 'Zelemite' (AEBB) Procedure
<input type="checkbox"/> SOP7 Cleaning and Maintenance of Personal Protective Equipment (PPE) Procedure
<input type="checkbox"/> SOP8 Unexpected Occurrences of Suspected Asbestos Containing Materials Procedure
<input type="checkbox"/> Other (as attached) |
|---|---|

Work is to be undertaken in Building (s) * _____
 Room (s) _____

*Authorising Officer
 For Asset Manager**

*Approved
 Contract Supervisor*

This permit is only valid for the tasks identified, under the conditions below and outlined in the Standard Operating Procedures provided.
 The work permit is valid only for the time period outlined above.

PRO-006 - Environmental Air Monitoring Report Form

For the purpose of determining the levels of airborne asbestos fibres during the works, it is a requirement of this Asbestos Work Permit and Standard Operating Procedures (SOP's) that the person responsible for organising the work is to make arrangements for environmental air monitoring to be carried out. The monitoring shall be carried out by an approved accredited organisation such as NATA or a company that has current DAIS Pre-Qualification for such works. Monitoring will be conducted when there is a possibility the work activity will result in the asbestos being disturbed and will be conducted during and after the work period.

In accordance with the requirements of Section 4.2.9 (5) (a) of the OHSW Regulations 1995, environmental air monitoring does not have to be carried out "***if the exposure to airborne asbestos fibres is no more than trivial, infrequent and of short duration***".

This permit is issued conditional upon all work being carried out in accordance with legislative and regulatory requirements including Standard Operating Procedures that accompany this permit.

I acknowledge having read and signed the Asbestos Register and received a copy of this UniSA Asbestos Work Permit and accompanying Standard Operating Procedures.

Print
Name _____

Signed _____

PRO-007 - Asbestos Works Awareness Form

The UniSA Contract Supervisor(s) and designated Line Manager(s) must ensure that all efforts are made to inform staff/students of asbestos related construction and or maintenance works being undertaken in their areas of responsibility. Asbestos related works shall be clearly documented on the relevant UniSA Asbestos Work Permit and this form signed by affected staff/students.

I acknowledge that I am aware that asbestos work is being undertaken as outlined in this asbestos work permit.

Name	Title	Department	Building	Floor	Date	Signature



PRO-008 - Personal Protective Equipment Inspection Log Form [\(not currently available\)](#)
