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Definitions

ACD  Asbestos Containing Dust or Debris that has settled within a workplace and is (or is assumed to be) contaminated with asbestos

ACM  Asbestos Containing Material

Air monitoring  Air monitoring involves sampling airborne asbestos fibres to assist in assessing exposure to asbestos and the effectiveness of implemented control measures. It must be conducted in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust, 2nd Edition [NOHSC: 3003 (2005)]. It is a DEC requirement that air monitoring is a requirement when any form of asbestos disturbance work is undertaken.

Agent of DEC  Department of Public Works and Services (DPWS), a division of Department of Finance and Services or similar

AMC  Asset Maintenance Contractor

AMD  Asset Management Directorate (DEC State Office)

AMP  Asbestos Management Plan for Schools only

AMU  Asset Management Unit (DEC Regional Office)

Amosite  Brown asbestos

ARRT  Asbestos Registers Review Tool

Asbestos  Defined as the fibrous form of mineral silicates; belonging to the serpentine and amphibole groups of rock-forming minerals, including actinolite, amosite, crocidolite, chrysotile, anthophyllite, tremolite, or any mixture containing one or more of these.

Asbestos Assessor  A person who is WorkCover NSW licensed in accordance with the Regulations for air monitoring, clearance inspections or the issuing of clearance certificates for class A asbestos removal work.

Bonded asbestos  As of Work Health and Safety Regulation 2011 the term Bonded Asbestos is to be no longer used. Please refer to Non-Friable Asbestos.

Chrysotile:  White asbestos. Generally, the most commonly used asbestos type

Class A licensed asbestos removalist  As per Part 8.10 of the WHS Regulations, a contractor, WorkCover NSW licensed to remove all types and quantity of asbestos

Class B licensed asbestos removalist  As per Part 8.10 of the WHS Regulations, a contractor, WorkCover NSW licensed to remove any amount of non-friable asbestos or ACM and ACM associated with the removal of non-friable asbestos or ACM.

Competent person  for a clearance inspection under clause 473 — A person who has acquired through training or experience, the knowledge and skills and is able to carry out a clearance inspection:

  a. a certification in relation to the specified VET course for asbestos assessor work, or
  b. a tertiary qualification in work health and safety, occupational hygiene, science, building, construction or environmental health

Crocidolite  Blue asbestos

DEC  Department of Education and Communities

DFS  Department of Finances and Services

DPWS  Department of Public Works and Services, a division of Department of Finance and Services
Environmental Consultant: Note: for the purposes of this plan, the hygienist and the environmental consultant are the same role. A qualified and/or experienced health and safety consultant engaged to provide advice on asbestos and to recommend management of asbestos-containing materials.

f/mL: fibres per millilitre of air.

Fair Condition: Showing small amounts of damage/deterioration.

Facility Manager: Person with responsibility for the DEC Facility or a suitably appointed delegate.

FMC: Facilities Maintenance Contractors.

Fibre: A particle of asbestos with a width of less than 3 µm and length greater than 5 µm, and with a length to width ratio of greater than 3:1.

Fibrous Cement: Cement based building material containing reinforcement of either asbestos or non-asbestos fibres. Trade names include but are not limited to Super Six, Hardiflex, Hardiplank and Villaboard.

Friable asbestos: Any material which contains asbestos, and is in a powder form or can be crumbled, pulverised or reduced to powder by hand pressure when dry.

Good Condition: Showing no, or very minor, signs of damage and/or deterioration of material.

HACA: Heads of Asbestos Coordination Authorities.

Hazardous Materials: Building materials that include asbestos, polychlorinated bi-phenols (PCBs), synthetic mineral fibres (SMFs) and lead based paints.

Hygienist: Note: for the purposes of this plan, the hygienist will also be a Competent Person/Asbestos Assessor as defined by Regulations and selected from DEC Hygienist Panel.

Licensed asbestos removalist: Means a person conducting a business or undertaking who is a WorkCover NSW licensed under the WHS Regulations to carry out class A or class B asbestos removal work.

NATA: National Association of Testing Authorities. NATA is a government-endorsed provider of accreditation for laboratories and similar testing facilities, including asbestos sample analysis and sampling for airborne asbestos fibres.

Non-friable asbestos: Means material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound.

NSW EPA: New South Wales Environment Protection Authority.


Permit to Work: A Permit to work authority will need to be issued to, and signed by a contractor acknowledging presence of asbestos containing materials in work area/s identified in register prior to commencing work. Contractor to indicate control measures to be used. Permit to work authorities will only be issued by the DEC Facility Manager (refer Appendix A).

PCBU: Person conducting a business or undertaking.

Poor Condition: Showing a large amount of damage/deterioration or that the material is unserviceable for its intended use.

### Risk Assessment (Asbestos)

- **Low Risk:** Asbestos containing materials that pose a low health risk to personnel, employees and the general public providing they remain undisturbed. Refer to Section 3.4.

- **Medium Risk:** Asbestos containing materials that pose a moderate risk to people in the area – there is a medium potential for the material to release asbestos fibres, if disturbed. Refer to Section 3.4.

- **High Risk:** Asbestos containing materials that pose a high health risk to personnel or the public in the area of the material – there is a high potential for the material to release asbestos fibres, if disturbed, or a potential for the materials to release fibres even if undisturbed. Refer to Section 3.4.

### SSAMP

- **Site Specific Asbestos Management Plan; also known as Asbestos in Grounds Management Plan**

### WHS Act

- **NSW Work Health and Safety Act 2011**

### WHS Regulation

- **NSW Work Health and Safety Regulation 2011**
1. Introduction

1.1 General Requirements

All Schools are required to notify their local Asset Management Unit (AMU) of any works to be carried out on their site. This includes work that may disturb asbestos containing materials.

Please refer to School Asset Management Guidelines at: https://detwww.det.nsw.edu.au/assetmanagement/planning/amguidel.htm

As policy and other asbestos related documents are subject to change, the most recent up to date advice may be found on the Department of Education and Communities (DEC) Asset Management Directorate (AMD) Intranet site at: https://detwww.det.nsw.edu.au/assetmanagement/safecomp/asbestosf.htm.

This information is accessible by all school staff and DEC administrative staff.

All asbestos specific related files are maintained on the AMD Asset Management System (AMS), which are accessible by state office and AMU staff with Principals able to access the same files via AMS on the Web. Please also refer to Section 3 of this document.

1.2 Asbestos Requirements

The DEC, as a person with management or control of a workplace, has an obligation under Part 8.3 of the NSW Work Health and Safety Regulation 2011 under the NSW Work Health and Safety Act 2011, to assess the risk of harm to the health and safety of any person arising from asbestos hazards.

Specifically, the Regulation states in Clause 422 that: “person with management or control of a workplace must ensure, so far as is reasonably practicable, that all asbestos or ACM at the workplace is identified by a competent person.”

The Regulation also states in Clause 425 that:

(1) A person with management or control of a workplace must ensure that a register (an asbestos register) is prepared and kept at the workplace.

(2) The person must ensure that the asbestos register is maintained to ensure the information in the register is up to date.

(3) The asbestos register must:

(a) record any asbestos or ACM identified at the workplace under clause 422, or likely to be present at the workplace from time to time including:

   1. the date on which the asbestos or ACM was identified, and
   2. the location, type and condition of the asbestos or ACM, or

(b) state that no asbestos or ACM is identified at the workplace if the person knows that no asbestos or ACM is identified, or is likely to be present from time to time, at the workplace.

(4) The person is not required to prepare an asbestos register for a workplace if a register has already been prepared for that workplace.

(5) Subject to subclause (6), this clause applies to buildings whenever constructed.
(6) This clause does not apply to a workplace if:

   (a) the workplace is a building that was constructed after 31 December 2003, and

   (b) no asbestos has been identified at the workplace, and

   (c) no asbestos is likely to be present at the workplace from time to time.

This Asbestos Management Plan (AMP) for New South Wales DEC Facilities has been developed to address this obligation as it specifically relates to the presence of asbestos on the site, by managing and minimising asbestos-related health risks to personnel working on or visiting the site. This AMP is to be read in conjunction with any existing hazardous materials (asbestos) register for the premises.

Nothing contained within this AMP may be considered to alter or modify guidelines as set down in the Safe Work Australia code of practice titled: How to Manage and Control Asbestos in the Workplace: Code of Practice 2011, or the requirements laid down under all relevant New South Wales Legislation.

No one section or part of a section, of this AMP should be taken as giving an overall idea of this AMP. Each section must be read in conjunction with the whole of this report, including its appendices and attachments.

Asbestos Incident Procedures are included in Section 9 to be used as an aid for DEC Facility staff to help determine appropriate responses to the discovery of suspected asbestos containing materials or particular incidents.

1.3 Objectives of the Asbestos Management Plan

This AMP details the approach to be taken by the DEC in managing the asbestos hazard in DEC Facilities, by documenting procedures designed to minimise the risk of exposure to asbestos of all personnel on DEC Facility premises including all DEC and Department of Public Works (PW) personnel, teaching staff, maintenance staff, students, maintenance contractors and other visitors. This AMP is to be used in conjunction with the hazardous materials (asbestos) register for the facility and/or any other records of asbestos containing materials or risk assessments or investigations undertaken for specific sites.

NSW Work Health and Safety Regulation 2011 clause 429 states: “A person with management or control of a workplace must ensure a written asbestos management plan is prepared for the workplace if asbestos or ACM has been identified or assumed present, or is likely to be present from time to time at the workplace.

The asbestos management plan must be maintained to ensure the information is up-to-date.”

This AMP contains the following information:

- scope and limitations of the AMP;
- overview of the risk assessment process;
- asbestos-related regulatory requirements;
- organisational responsibilities;
- management of in-situ asbestos containing materials;
- safe working practices;
- requirements for asbestos removal;
• training; and
• emergency response procedures.

An example hazardous materials (asbestos) register for the facility is included in Appendix J of this document for ready reference. This register identifies the presence of asbestos within the DEC Facility, detailing the locations, risk assessment, condition and priority rating for ACMs identified in DEC Facility buildings. Details of in ground ACMs have been included when previous asbestos containing material ground works have been undertaken.

The hazardous materials (asbestos) register will be stored on the DEC Asset Management System for access by AMU and State office staff. This is kept updated to provide a record of ACMs and remedial works carried out that may change the original entry.

1.4 Structure of the Asbestos Management Plan

1.4.1 Component Parts

When following this management plan, the following sections should be considered:

• risk assessment of asbestos containing materials;
• organisational responsibilities – the persons and organisations responsible for implementing this plan;
• managing asbestos in DEC Facility grounds;
• managing asbestos in DEC Facility buildings;
• safe work practices – using permits to work;
• asbestos removal and disposal guidelines;
• emergency response procedures;
• principles of asbestos management – controlling asbestos hazards;
• asbestos information – general information on asbestos containing materials and risks; and
• Methodology to update registers (Appendix G)
• Methodology to provide registers to persons. (Appendix G)
• DEC Panel Contract (Appendix I)
• DEC Facility Hazardous Substances Register (Asbestos – Appendix K).
1.4.2 User Structure

Figure 1.0 Asbestos Management User Structure*

*Please Note: Figure 1.0 is a basic flow chart of actions which are to be implemented; it does not aim to document specific items such as communications and use of the panel contract.
1.5 Regulatory Framework

All work on NSW DEC Facility buildings and grounds involving the assessment, management, removal, encapsulation, transport, disposal or otherwise potential disturbance of asbestos containing materials, shall be performed in accordance with all relevant State Acts, Regulations, Codes of Practice, Advisory Standards and industry standards, including the following as of February 2015:

- **NSW Work Health and Safety Act 2011** –

- **NSW Work Health and Safety Regulation 2011** –

- **WorkCover NSW Guide for applicants for asbestos removal and asbestos assessor licences and notification** –

- **How to Manage and Control Asbestos in the Workplace: Code of Practice** –

- **How to Safely Remove Asbestos: Code of Practice** –


- **Asbestos Blueprint: A guide to roles and responsibilities for operational staff of state and local government November 2011, as prepared by the Asbestos Co-Regulators Working Group (ACWG) for the NSW Government** –

As information becomes available from time to time changes to advice provided within this AMP or supporting documentation and/or specific investigations may be updated as required from any or above.

1.6 Users of the Asbestos Management Plan

It is the intention that the preparation and use of this AMP assists both the user and duty holder to comply with the Work Health and Safety Act 2011 (WHS Act), the How to Manage and Control Asbestos in the Workplace Code of Practice and How to Safely Remove Asbestos Code of Practice. Nothing contained within this report may be considered to alter or modify the above Act or guidelines or the requirements laid down under all relevant New South Wales Legislation. Those responsible for the management of DEC Facilities and Contractors, are duty holders who have a duty of care. Each duty holder is required to comply with all relevant New South Wales Legislation.
This AMP is designed for all duty holders where asbestos and asbestos-containing materials may be present. Where events or situations arise that cannot be managed under this plan by DEC Facility staff or volunteers and/or contractors, this AMP sets out the actions to be followed and the responsibilities of the NSW Department of Education and Communities who will manage all asbestos issues. Duty Holders include:

- Those responsible for the management of DEC Facilities, such as:
  - School Principal;
  - Institute/College Directors;
  - AMU Managers;
  - Asset Management Directorate;
  - Workers including Voluntary Staff; and
- Contractors.

Please refer to respective Section 2.1 to 2.8 under Section 2 in this plan.

### 1.7 Inputs

The development of this plan has been undertaken with the following inputs and consideration:

- Consultation with NSW Department of Education and Communities, NSW Department of Public Works (PW), WorkCover NSW and NSW Health; and

is also set out in accordance of the following applicable legislation and codes of practice:

- **NSW Work Health and Safety Act 2011.**
- **NSW Work Health and Safety Regulation 2011.**
- **How to Manage and Control Asbestos in the Workplace: Code of Practice 2011**
- **How to Safely Remove Asbestos: Code of Practice 2011**

This AMP should be revised should any new regulations and/or codes of practice come into force.

Each duty holder, including contractors are to familiarise themselves with the above documents before engaging and/or commencing works.

### 1.8 Control Revision and Amendments

This AMP is subject to ongoing development as further consultations take place and as further relevant codes of practice and/or advice on asbestos management become available.

Each new revision of this AMP will be made available as an electronic document to all registered copyholders with an instruction that the superseded copy be destroyed. Changes to the recent revision will be highlighted. The revision number is included at the

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1 The definition of a ‘worker’ includes any person who carries out work for a ‘person conducting a business or undertaking’ (PCBU - the new term that includes employers).
end of the document number, which is noted on each page. When amendments occur, the entire document will be made available electronically with the revision number updated accordingly.

The Project Director or Coordinator will approve amendments by initial in the Approval column below.

Minor amendments can be made to the electronic copy of this document without reissuing. The following provides a record of amendments to this document.

The same form will be used when updating the DEC online version of this DEC AMP. All site managers will be advised by memoranda and email when significant changes are made.

<table>
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All DEC Asbestos Registers and this AMP are available to the community generally via the Internet at;  http://www.dec.nsw.gov.au/about-us/supplying-to-us/asbestos-register with the most up to date information available internally on the DEC Asset Management System (AMS).
2. Organisational Responsibilities

It should be understood that this and similar AMP guidance documents, such as those prepared for the management of grounds is general in nature, and does not replace the need for site specific risk assessment to be undertaken by all parties involved in works prior to undertaking works on a site which might impact upon known location/s of asbestos containing materials (ACM) or uncover unexpected finds of asbestos containing materials (ACM).

This AMP is designed to be integrated into existing DEC Facility operations and maintenance programs. The following duty holders are responsible for the implementation of the control measures discussed in this document.

2.1 Department of Education and Communities

The DEC’s (AMD, AMU, FM) responsibilities include:

1. Ensuring that an Asbestos Register is prepared and kept at the workplace.

2. Ensuring that previous asbestos records including clearance certificate/s are maintained and made available to relevant persons. This may not necessarily be at the place of work, but may be kept at a central source and provided as required.

   All DEC Asbestos Registers and this AMP are available to the community generally via the Internet at: http://www.dec.nsw.gov.au/about-us/supplying-to-us/asbestos-register with the most up to date information available internally on the DEC Asset Management System (AMS).

   Please refer to Appendix G and K of this AMP.

3. Ensuring that the register is reviewed, at least whenever the AMP is reviewed, and also whenever; further asbestos or ACM is identified at the workplace, asbestos is removed, altered or disturbed, sealed or enclosed at the workplace.

4. Ensuring any employee, contractor or consultant undertaking works which may result in disturbance or impact to ACM checks the on-site register for asbestos register prior to commencing works.

5. Ensuring that all works undertaken by any employee, contractor or consultant is performed in such a way that either avoids disturbance or impact to ACM, or is performed with appropriate and effective controls in place to eliminate or minimise as far as practicable any potential for exposure of persons to asbestos.

6. Ensuring that a permit to work system is to be implemented for any works where ACM may be disturbed or impacted

7. Ensure that the AMP is reviewed and, if necessary, revised at least once every five years or whenever; the asbestos register or any associated control measures are reviewed or modified, whenever asbestos is removed or disturbed, sealed or enclosed at the workplace, if the AMP is no longer adequate for managing asbestos or ACM at the workplace, if a health and safety representative reasonably requests a review be undertaken in accordance with the provision of the regulations.

8. Ensuring that the AMP is readily assessable to; a worker who has carried out, carries out or intends to carry out work at the workplace, health and safety
representatives, a PCBU who has carried out, carries out or intends to carry out work at the workplace, a PCBU who has required, requires or intends to require work to be carried out at the workplace.

9. Ensuring adequate management of systems which ensure suitable contractors and consultants are engaged to carry out asbestos-related works and to ensure the necessary safety standards are being maintained for any such works.

10. Ensuring that appropriate work methods and control measures of any employee or contractor working on areas of known ACM, meets the conditions and standards approved for the DEC Facility.

11. Use of the DEC Hygienist Panel is mandated for all emergency and other situations of asbestos related works including, when arranging for the: undertaking of inspections, sampling and risk assessment of suspected asbestos containing materials/products, determination of asbestos in soil as non-friable/friable, preparation of management documentation, air monitoring and clearance inspections, and updating site asbestos records in the DEC asbestos register databases using the Asbestos Register Review Tool (ARRT).

12. Engaging accredited and/or licensed removal contractors when required in response to emergency situations and other situations when required (directly or indirectly through agent of DEC).

13. Ensuring that additional occurrences of asbestos containing materials are recorded in the hazardous materials (Asbestos) register.

14. Ensure that a copy of the asbestos register and AMP is transferred to successive persons whose role is to maintain management or control of each workplace.

Due to the extensive nature of DEC’s Asset base and resulting responsibilities, this AMP has been prepared and is to be used in conjunction with the hazardous materials (asbestos) register for each particular facility and/or any other records of asbestos containing materials or risk assessments or investigations undertaken for specific sites.

Where individual registers and/or AMPs exist, those documents may be reviewed and revised if necessarily for example when, there is a review of the asbestos register or a control measure, asbestos is removed from or disturbed, sealed or enclosed at the workplace, the plan is no longer adequate for managing asbestos or ACM at the workplace, a health and safety representative requests a review if they reasonably believe that any of the matters listed in the aforementioned points affects or may affect the health and safety of a member of their work group and the AMP was not adequately reviewed.

### 2.2 Use of DEC Panel Contract

This DEC AMP (2015) will require the panel contract to be used for all hygienist (asbestos assessor) services as to be detailed in the contract. This will allow DEC to obtain, from the panel contractors, electronic copies of all reports and testing results in a compliance file format for direct uploading onto the AMS i.e. School Code_Compliance Area_Date_Type of Report (e.g 1234_ASB_030113_AMP). Where there is any significant work undertaken on a DEC site, update of the asbestos register will be undertaken when a final clearance certificate is provided, using a new tablet module the Asbestos Register Review Tool (ARRT) that allows for more efficient update of asbestos data.
The Panel Contract will provide asbestos related services to support;

2.2.1 Capital Works

Capital Works are Works in excess of $0.5million, and includes new schools, new buildings and major refurbishments. The range of services can include; site inspections, Hazardous Materials Surveys, materials testing, air monitoring, clearance certificates. It would be expected one member of the panel contract to be appointed to a particular building project, to ensure consistency in reporting. For new construction, hygienist (asbestos assessor) services will be minimal, as there will be no asbestos used in construction. In works involving existing facilities, the range of services may be more extensive and finish with update of the existing asbestos register. Updating of the existing Asbestos Register will include; those spaces refurbished, and spaces in the remainder of the school not previously accessed, sampling/testing of materials listed as assumed asbestos, inspection of carpeted spaces to confirm the absence of vinyl containing asbestos, and subfloor and ceiling void spaces as rendered made accessible.

2.2.2 Minor Works

These are works usually less than $0.5million, and typically includes the construction of small new facilities, refurbishment or areas within a building, provision of IT services, electrical upgrades, installation of air cooling. The demand for hygienist (asbestos assessor) services will be similar to those required for Major Works.

2.2.3 Maintenance Works

Asbestos related works initiated as a result of maintenance activities are expected in most cases to be minor and are mostly less than 10m², unless the works are more extensive programmed maintenance works are to be undertaken by school Facilities Maintenance Contractors (FMC). The largest of the maintenance works will be similar to a small Minor Works and the necessary hygienist (asbestos assessor) services. Minor asbestos affectations (e.g. a whole to be advanced through a cement sheet wall or damaged eave sheet) will require timely materials testing that will permit timely resolution.

2.2.4 School Initiated Works

DEC AMP (2015) will require that any school initiated/ funded works use the Panel Contract to provide hygienist services. All hygienist (asbestos assessor) services provided to the school will have the same file naming convention as DEC, FMC or DPWS, and be reported to DEC. The inclusion of an Asbestos Register update as part of a final clearance certificate may not be required where a total project cost is less than $50,000.

2.2.5 Fibrous Cement in Grounds

Since 2003 DEC has had a separate program to address school sites that have grounds asbestos related issues, these are typically fragments of bonded AC (fibro) fragments. Services provided, in response to a positive notification of fragments would be; material testing, clearance certificate and a hygienist (asbestos assessor) report detailing; the area of the site, pickup report from FMC, air monitoring. A Site Specific AMP is created and maintained for grounds asbestos issues. For a new asbestos affected site, a Site Specific AMP is created and updated whenever remediation works are completed or additional incidents reported. Update of facilities Asbestos Registers are not triggered by grounds issues.
2.2.6  State Office Programs

State Office may undertake Asbestos Register updates for groups of schools where there are excessive quantities of assumed asbestos or spaces in need of survey. Such groups of schools would likely be selected geographically to control travel and accommodation costs. A minimum of two Panel Contract members would be invited to provide a price for any such work.

2.3  Hygienist Services, for asbestos, provided by the Panel Contract

Note: for the purposes of this plan, the hygienist will also be a Competent Person/Asbestos Assessor as defined by Regulations and selected from DEC Hygienist Panel.

Advice is to be provided that is consistent with the DEC Asbestos Management Plan (2015) which is compliant with the relevant NSW legislation and national requirements. There is to be reference to advice from other jurisdictions.

Ad-hoc advice is provided where an investigation is required. The advice typically provides options for resolution of an issue and typically is finalised using a Clearance Certificate or Site Specific AMP.

2.3.1  Site Inspections

Site Inspections may be required for existing schools where a new building is planned for an unused part of the site. Practical advice from the hygienist (asbestos assessor), to facilitate the project in a cost effective way is expected.

2.3.2  Hazardous Material Surveys

Hazardous Materials Surveys are typically undertaken for existing buildings and demountables proposed for refurbishment or demolition. These surveys generally include assessment for asbestos, PCB, lead etc. in addition to asbestos which is already covered by the Asbestos Register under this AMP, which cannot be undertaken in existing operating schools.

2.3.3  Clearance Certificate

A Clearance Certificate is provided when asbestos removal or remediation is completed, and where a clearance certificate is required under the regulations. This is common in facility refurbishment works and grounds remediation works.

2.3.4  Asbestos Register and update using ARRT

2.3.4.1  Building

Updating an asbestos register using ARRT is undertaken whenever asbestos or ACM is identified at the workplace, asbestos is removed, altered or disturbed, sealed or enclosed at the workplace. Additional information to be added to the register as a result of hygienist (asbestos assessor) activity will include areas inspected which were not previously accessible, additional samples collected etc. It is intended that all register information is to be available via the internet. Where ceiling and underfloor samples are taken there is to be air monitoring undertaken.
2.3.4.2 Demountables

Asbestos registers are to be updated annually with one upgrade being made early in each school year, once all demountable movements are completed to resolve accommodation needs. This bulk of this movement usually occurs in March. In general it is expected that additional demountable movements during the year occur infrequently and on a smaller scale.

Before movement of any demountable is undertaken an asbestos checklist must be completed, this is detailed in Appendix E.

All New System (NS) Demountables were constructed asbestos free.

Old System (OS) Demountables were constructed with asbestos containing materials (ACM), with all ACM being removed during off-site refurbishment. Such Demountables are considered to be ‘asbestos free’, with the exception of remnant mastic material that was unable to be extracted from window frames. Any asbestos fibres in this mastic are held within the ‘sticky’ substrate, this part of the window frame is encapsulated in the wall.

Please refer to Appendix G for Example Flowcharts for Updating of Register by Panel Contract Hygienist/s.

2.3.5 Site Specific AMP

A site specific AMP is produced for a DEC site with grounds asbestos (usually fibrous cement) occurrence. Where there is a reoccurrence, the Site Specific AMP is updated when a Clearance Certificate is produced or remediation works completed.

2.3.6 Analytical Services
2.3.6.1 Materials Testing

Materials testing for the full range of asbestos containing materials, which in DEC facilities is mostly non friable asbestos cement and vinyl flooring, will be required. Friable, fibrous materials, has been removed wherever found in previous programs. While there will be individual samples collected and analysed for much of the time, there will also be survey programs where bulk quantities greater than 50 will be submitted at any one time. Bulk discounts will be tendered.

2.3.6.2 Air Monitoring

Air monitoring will be required for all grounds pickups and as needed for disturbance works. Air Monitoring will be required where samples are taken in underfloor and ceiling spaces.

2.3.7 Training Services
2.3.7.1 Asbestos Sample Collection

The training of nominated personnel will be required to allow for timely sample collection and materials testing. An agreed training regime will be negotiated between all panel members. Personnel to be trained may be from DEC, DPWS, FMC or Sub-contractors (to FMC).
2.3.7.2 Asbestos Awareness Training

It is best practice that DEC Asset Management personnel and Asset Maintenance Contractors who are not likely to be exposed to asbestos but who work in areas where asbestos is, or may be present, be provided with asbestos awareness training.

Asbestos awareness training is to be provided by a consultant selected from the DEC Hygienist panel.

2.4 DEC Facility Manager

In addition to this AMP, the DEC Facility Manager is to make extensive use of documents mentioned within Appendix A, E and G of this AMP.

The files in Appendix E, regarding Engaging Contractors are available from the DEC Intranet, Work Health and Safety (WHS) Directorate / Safety Management System / Student, contractor and visitor safety.

These set out the broad responsibilities of Facility Manager’s.

The DEC Facility Manager (e.g. School Principal, AMU Officer, TAFE Director) or suitably appointed delegate responsibilities include:

1. Ensuring asbestos situations are safely controlled including contractor inductions where appropriate.

2. Ensuring that employees, contractors, consultants, external users and other visitors have been suitably informed about the presence of asbestos on the site, the potential risk associated with asbestos, the precautions and management procedures to be adopted and are referred to the on-site asbestos register. The DEC Facility Manager is to let all users of the site know that information is also available on the internet.

3. Ensuring staff, students and visitor concerns about asbestos are dealt with in a satisfactory and timely manner, with support by the AMU as required.

4. Entering direct into Asset Management System (AMS), any observations of potential asbestos containing material/s.

5. Issuing of Permits to Work where asbestos containing materials may be disturbed or impacted upon.

6. Maintaining a register of all Permits to Work involving asbestos-containing materials, which have been issued and cancelled.

7. Ensuring that the use of the DEC Panel Contract is mandated for all asbestos disturbance/s, including those undertaken by schools under the control of the FM.

2.5 Agent of DEC such as Department of Public Works or similar – where engaged by DEC

The responsibilities of the agent include:

1. Ensuring that all staff of the agent who visits the site as part of undertaking works reviews the on-site asbestos register.
2. Management of systems to ensure suitable contractors are engaged to carry out asbestos-related works and to ensure the necessary safety standards are being maintained for any such works and that all are referred to the onsite asbestos results for further information.

3. Ensuring that appropriate work methods and control measures of any staff member or contractor working on areas of known asbestos contamination, meets all legislative requirements.

4. Maintenance of management of systems to ensure suitable consultants from the DEC Hygienist Panel are engaged to carry out asbestos-related works and to ensure the necessary safety standards are being maintained for any such works and that all are referred first to the onsite asbestos results for further information.

5. Arranging for assessment and sampling of suspected asbestos containing materials/products by consultants engaged from the DEC Hygienist Panel if not mentioned in the register or not previously tested (i.e. listed as ‘Assumed asbestos’)

6. Ensuring asbestos situations are safely controlled including the labelling of asbestos remaining in-situ by consultants engaged from the DEC Hygienist Panel, where required.

7. Engaging consultants from the DEC Hygienist Panel when required in response to emergency situations and other situations when required.

Use of the DEC Hygienist Panel is mandated for all emergency and other situations of asbestos related works including, when arranging for the: undertaking of inspections, sampling and risk assessment of suspected asbestos containing materials/products, determination of asbestos in soil as non-friable/friable, preparation of management documentation, air monitoring and clearance inspections, and updating site asbestos records in the DEC asbestos register databases using the ARRT.

8. Engaging removal contractors who are approved by DEC when required in response to emergency situations and other situations when required.

*Note: Should a contractor be used on site that is not engaged by the agent, it is a DEC requirement that the contractor meets all of the requirements as set out above.*

In addition to this AMP, the agent of DEC is to make extensive use of documents mentioned within Appendix A to K of this AMP

### 2.6 DEC Staff and Volunteers

DEC staff responsibilities include:

1. Informing the Facility Manager of the presence of any previously unknown asbestos hazard or a suspected asbestos hazard on site. This may require reference to the on-site asbestos register.

2. Complying with the DEC Facility AMP to ensure staff or students are not at risk of exposure to airborne asbestos fibres.
2.7 Asset Maintenance Contractors and Other Contractors

A person conducting a business or undertaking has a primary duty of care to ensure workers and others are not exposed to risks to their health and safety. All duty holders are to consult, cooperate and coordinate with each other as well as consulting with workers and health and safety representatives.

All Contractors (including facility maintenance contractors and staff) involved in the undertaking of works (including preparatory stages) should be reminded that this and similar AMP guidance documents, such as those prepared for the management of grounds, are general in nature, and do not replace the need for site specific risk assessment to be undertaken by all parties involved in works prior to undertaking works on a site which might impact upon known location/s of asbestos containing materials or uncover unexpected finds of asbestos containing materials.

All projects require a review of a complete asbestos survey prior to contract. If any doubt exists as to the completeness of an existing register then a Contractor must discuss this concern with the DEC representative, and if required engage the services of a consultant from the DEC Hygienist Panel prior to contract being determined.

As a PCBU, Contractors’ responsibilities include:

1. Ensuring that they and/or their contractors refer to the on-site asbestos register for information and identify any asbestos or ACM that they have management or control of. The PCBU is to note that the existing register is a non-destructive survey and is to be used as a guide only.

2. If there is uncertainty as to whether work is asbestos-related work, assume asbestos is present or arrange for an analysis of a sample to be undertaken by a consultant engaged from the DEC Hygienist Panel to determine if asbestos or ACM is present. Analysis is to be completed by a laboratory accredited by NATA to do so.

3. The DEC is to be notified if any asbestos or ACM is identified and not included in the asbestos register for the workplace. A ready reckoner may be issued to the preferred contractor upon procurement (perhaps attached with purchase order) explaining where the register may be obtained from. Please refer to Appendix G of this AMP.

4. If they and/or their contractors consider that the work they are about to do will disturb asbestos, they are to discuss this with the DEC representative.

5. If advice is required then the DEC representative is to consult with and/or refer details of the DEC Hygienist Panel members to the contractor.

6. Ensuring that work methods and procedures comply with the relevant legislation, codes of practice, Advisory Standards and industry standards, and undertake work according to the requirements nominated by DEC.

7. Employing suitably trained, skilled and competent staff on DEC Facility projects. Determine if additional training is required prior to taking on or commencing works.

8. Ensuring that their employees are inducted in safe work procedures for asbestos containing materials/products.

9. Obtaining the necessary approvals from regulatory authorities prior to starting any asbestos removal or maintenance activities (including appropriate asbestos removal licences).
10. Ensuring that all work is conducted in a safe and competent manner.

11. Ensuring that a competent person/asbestos assessor (hygienist) selected from a member of the DEC Hygienist Panel carries out air monitoring of the work area if there is uncertainty as to whether the exposure standard is likely to be exceeded.

12. Ensuring ACM’s are disposed of in an appropriate manner at a licensed landfill facility.

13. Retain records of materials disposed of at a licensed landfill facility (e.g. tipping dockets).

14. Obtain corresponding asset number and details and provide all documentation, including analysis reports, clearance certificates, air monitoring and disposal documentation (including tipping dockets) via a member of the DEC Hygienist Panel to the agent of DEC and DEC.

In addition to this AMP, the contractor is to make extensive use of documents mentioned within Appendix A to K of this AMP.

2.8 Contractors involved in Construction Works

Construction work includes any work on a structure involving:

- maintenance and repair
- alteration and renovation
- construction and commissioning
- conversion, refurbishment and fitting out
- decommissioning, demolition and dismantling.

A person conducting a business or undertaking has a primary duty of care to ensure workers and others are not exposed to risks to their health and safety. All duty holders are to consult, cooperate and coordinate with each other as well as consulting with workers and health and safety representatives.

As a PCBU, Contractors’ responsibilities include:

1. Ensuring that they and/or their contractors refer to the on-site asbestos register for information and identify any asbestos or ACM that they have management or control of. The PCBU is to note that the existing register is a non-destructive survey and is to be used as a guide only.

2. If there uncertainty as to whether work is asbestos-related work, assume asbestos is present or arrange for an analysis of a sample to be undertaken to determine if asbestos or ACM is present. Analysis is to be completed by a laboratory accredited by NATA to do so and selected from the DEC Hygienist Panel.

3. The DEC is to be notified if any asbestos or ACM is identified and not included in the asbestos register for the workplace. A ready reckoner may be issued to the preferred contractor upon procurement (perhaps attached with purchase order) explaining where the register may be obtained from. Please refer to Appendix G of this AMP.
4. If they and/or their contractors consider that the work they are about to do will disturb asbestos, they are to discuss this with the DEC representative.

5. If advice is required then the DEC representative is to consult with and/or refer details of consultant panel members from the DEC Hygienist Panel to the contractor.

6. Ensuring that work methods and procedures comply with the relevant legislation, codes of practice, Advisory Standards and industry standards, and undertake work according to the requirements nominated by DEC.

7. Employing suitably trained, skilled and competent staff on DEC Facility projects. Determine if additional training is required prior to taking on or commencing works.

8. Ensuring that their employees are inducted in safe work procedures for asbestos containing materials/products.

9. Obtaining the necessary approvals from regulatory authorities prior to starting any asbestos removal or maintenance activities (including appropriate asbestos removal licences).

10. Ensuring that all work is conducted in a safe and competent manner.

11. Ensure a competent person/asbestos assessor (hygienist) selected from the DEC hygienist panel carries out air monitoring of the work area if there is uncertainty as to whether the exposure standard is likely to be exceeded.

12. Ensuring ACM’s are disposed of in an appropriate manner at a licensed landfill facility.

13. Retain records of materials disposed of at a licensed landfill facility (e.g. tipping doockets).

14. Obtain corresponding asset number and details and provide all documentation, including analysis reports, clearance certificates, air monitoring and disposal documentation to the agent of DEC and DEC.

In addition to this AMP, the contractor is to make extensive use of documents mentioned within Appendix A to K of this AMP.
3. **Asbestos Management**

3.1 **General**

The management of in-situ asbestos is important to ensure asbestos containing materials and other non-friable asbestos products are not damaged or deteriorate to such an extent that DEC Facility staff, students, contractors or visitors are unnecessarily exposed to airborne asbestos fibres.

The requirements of the contractor site induction and permit to work system (refer Section 3.8.3) will aid in the management of in-situ asbestos containing materials.

3.2 **Principles of Asbestos Management**

3.2.1 **General Principles**

The NSW Department of Education and Communities’ principles of asbestos management have been fully adopted from general principles published by the Safe Work Australia: *How to Manage and Control Asbestos in the Workplace: Code of Practice 2011*. The key principles are summarised below:

- asbestos removal may not be immediately necessary, but must be completed before a structure, or part of a structure, is demolished;
- removal of asbestos should be subject to priority setting, determined by the condition and location of the asbestos as well as scheduled refurbishment works;
- an asbestos presents a risk only when it is airborne. The risk to health increases as the number of fibres inhaled increases;
- wherever practicable, substitutes shall be found for asbestos products. Such substitutes shall be thoroughly evaluated before use, to ensure that they do not constitute a health hazard. Ultimately, all asbestos products should be eliminated;
- asbestos which has been incorporated into a stable matrix can be found in many working environments. Provided the matrix remains stable and no airborne dust is produced, it presents a negligible health risk;
- the presence of asbestos should be identified after reference to the on-site asbestos register for information further investigation maybe warranted where disturbance works are to be undertaken;
- no person shall be exposed to the risk of inhalation of asbestos in the course of employment without being provided with full information of the work health and safety consequences of exposure and appropriate control strategies;
- at present it is not possible to assess whether there is a level of exposure to asbestos in humans below, which an increased risk of cancer would not occur. Accordingly, exposure to asbestos should always be kept to a minimum;
- asbestos removalists and maintenance workers in an asbestos environment must be suitably protected;
- the recognised occupational exposure standard for asbestos is that adopted by Safe Work Australia. The method used to measure exposure to asbestos is the

- products containing asbestos in-situ shall be labelled accordingly where required; and
- the spraying of asbestos shall be prohibited. All future use of asbestos for insulation purposes shall be prohibited.

The general principles of asbestos management (and an AMP) are broadly covered by four separate phases. These are:

1. Identification phase.
2. Evaluation phase.
3. Control phase and;
4. On-going monitoring/re-assessment phase.

These phases are best illustrated by the following flow chart in Figure 3.1.

Procedures need to be designed and implemented to appropriately control any asbestos hazard, to ensure that personnel are not exposed to asbestos to an extent likely to cause danger to health. These procedures can be aligned to the DEC Work Health and Safety hierarchy as described below under Control of Asbestos Hazards.

### 3.2.2 Control of Asbestos Hazards

The control of asbestos hazards should utilise the most appropriate method applicable to the particular circumstances. Based upon the assessment of the condition of the asbestos, its potential to suffer damage or mechanically degrade, and the likelihood of exposing people to airborne asbestos, the following hierarchy of control strategies are relevant:

#### 3.2.2.1 Removal

Removal and disposal of ACMs undertaken where there is an immediate or likely risk of fibre release e.g. asbestos insulation.

#### 3.2.2.2 Substitution

Replacement of ACMs with non-hazardous materials (e.g. replacement of asbestos cement with compressed fibre cement sheeting)

#### 3.2.2.3 Mitigation (re: Removal)

Clean-up or decontamination of areas such as surface pick up

#### 3.2.2.4 Isolation

Encapsulation or sealing of in-situ ACM (e.g. painting exposed surfaces of asbestos cement products, sealing fill materials in the ground with a bitumen surface).

#### 3.2.2.5 Engineering Controls

It is DEC policy that these are not to be considered for DEC Facilities.
3.2.2.6 Administrative Procedures

3.2.2.7 Personal Protective Equipment (PPE)
To be used by persons working on or near asbestos containing materials e.g. respiratory protection. Use of specific PPE is to be in accordance with relevant guidelines and standards following appropriate risk assessment.

3.2.2.8 Atmospheric Monitoring
On occasions, and where required by regulations, Para-occupational airborne asbestos fibre monitoring may be required as a way of verifying the efficacy of any control measures implemented.

3.2.2.9 Health Monitoring
Under the *NSW Work Health and Safety Regulation 2011*, health monitoring may also be required. It is not anticipated that DEC will be required to provide/undertake health surveillance of its employees in relation to asbestos.

It is DEC policy that all risks (for example hazardous substances including asbestos) should be suitably managed to ensure that health surveillance is not required for staff, visitors and contractors (e.g. by using an asbestos management plan). This is achieved by ensuring that works disturbing asbestos are carried out in accordance with applicable statutory requirements and relevant guidance documents. For example by using existing site specific asbestos management plans, the on-site asbestos registers and appropriate procedures.
Figure 3.1 General Principles of an Asbestos Management Plan

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3.3 Identifying the Risk

All DEC Facilities were surveyed for ACM’s from October 2007 – May 2008 after which an initial asbestos register was issued to all schools and colleges.

All DEC Asbestos Registers and this AMP are available to the community generally via the Internet at: http://www.dec.nsw.gov.au/about-us/supplying-to-us/asbestos-register with the most up to date information available internally on the DEC Asset Management System (AMS).

The information in the register is a record of the location of any asbestos and is used to inform the risk assessment.

A material assessment of ACM is completed during the inspection to assess the type of Asbestos and ACM and level of damage or deterioration.

The surveyor, selected from the DEC Hygienist Panel, takes into consideration the location of the ACM to formulate the risk ratings and subsequent remediation priority mentioned below.

The surveyor updates the register by way of the Asbestos Register Review Tool (ARRT).

In addition to the completion of the survey, register and risk assessment, an important component of the management of ACM is regular condition assessment.

A condition assessment may be conducted for example by a Facility Manager. The Facility Manager is to inspect for building materials that are damaged or could be easily disturbed. It should be mentioned that this is not a survey, but simply an inspection of the fabric of the building looking for damage. If damage is found, and the material is known to contain asbestos or the Facility Manager is not sure, then the Facility Manager is to contact their AMU.

3.3.1 Asbestos Register

The DEC Facility Manager is responsible for ensuring that the asbestos register is available to any contractors who are planning works that may involve the disturbance of asbestos-containing materials. The register should be issued prior to works being undertaken.

Please note that the existing register is a non-destructive survey and is to be used as a guide only.

If asbestos containing materials are suspected to be present and have not been previously tested and recorded on-site the asbestos register, a hygienist (asbestos assessor) sourced from the DEC Hygienist Panel should be engaged to identify ACMs in the vicinity.

When demolition of buildings and/or structures is to be undertaken or when major refurbishment is to be undertaken, a supplementary asbestos audit with sampling of suspected asbestos-containing materials should be carried out. This may involve destructive inspections in order to access materials. The purpose of this audit is to identify all asbestos-containing materials for removal/encapsulation prior to demolition/refurbishment being carried out. The audit should also provide information on the location, extent, type and condition, including friability of asbestos containing
materials. All building works involving disturbance of ACM, will result in update of the site Asbestos Register when a clearance certificate is issued at the completion of works.

Please refer to Section 2.3.4 above; and

Please refer to Appendix G for Example Flowcharts for Updating of Register by Panel Contract Hygienist/s.

Asbestos Registers produced for DEC sites incorporates a risk assessment process that is embedded and well-defined within the Asbestos Register Review Tool (ARRT), this is identical in function to that used for the 2007/2008 survey of facilities that established Asbestos Registers for DEC.

3.3.2 Risk Assessment Process

The asbestos risk assessment process entails identifying, evaluating, controlling and monitoring sources of asbestos within buildings or other structures.

The risk assessment also involves consultation with others. Please refer to Appendix F Communications Strategy for details of risk assessment communications.

Asbestos within a building represents a health risk to people only when the asbestos fibres are airborne, and are subsequently inhaled. The risk to health increases as the number of fibres inhaled increases, that is, the health risk is related to the dose, or level of exposure. Dose is a function of the amount, or concentration, of airborne asbestos fibres, and the duration of exposure. Asbestos containing materials that are in a stable matrix, or are effectively encapsulated or sealed, and remain in a sound condition while left undisturbed, represents a negligible asbestos-related health risk.

It is necessary to differentiate between ‘asbestos hazard’ and ‘asbestos risk’. ‘Hazard’ indicates potential for harm, while ‘risk’ refers to the probability of that harm becoming actual. For example, the presence of asbestos in a building is a hazard, but while that asbestos remains in sound condition and does not release fibres into the air, the risk is negligible. When determining the risk the following factors should be assessed, condition of the asbestos, friability of asbestos containing materials, likelihood of disturbance, exposed surface areas, proximity of air plenums and direct air stream and environmental conditions. Figure 3.2 shows the likelihood of airborne fibres in disturbed or deteriorated asbestos containing materials.

![Diagram of likelihood of airborne fibres](image-url)
The inputs to the DEC risk assessment are the:

1. Material Condition Assessment
2. Risk Status Assessment

These are further defined below to ensure uniform application.

The both above mentioned assessment inputs are given numerical values, which when added, result in the output as a:

1. Remediation Priority, which is a default calculation.

The remediation priority is either agreed or additional standard/specific comments added, where the assessing factors have not been considered in the inputs.

Figure 3.3 is a flowchart representation of the ARRT risk assessment process.

### 3.3.2.1 Material Condition Assessment

The ARRT records the material condition of identified ACM in the following format:

- **Good Condition**, rating of (1), for non-friable asbestos that is sealed and has no visible damage. This primarily related to asbestos cement (AC) sheet and vinyl tiles.

- **Minimal Damage**, rating of (2), for non-friable asbestos that has a very small amount of damage e.g. hairline cracks

- **Some Damage/Unsealed**, rating of (3), non-friable asbestos that significant breakage or several small areas where material has been damaged revealing loose asbestos fibres. Non-friable asbestos that is unsealed.

- **Poor Condition**, rating of (4), non-friable asbestos that has extensive damage. Visible asbestos debris.

- **Friable Asbestos**, rating of (5), any occurrence of friable asbestos.

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*Source: Safe Work Australia How to Manage and Control Asbestos in the Workplace: Code of Practice 2011*
3.3.2.2 Risk Status Assessment

Asbestos identified by inspections is reported with a risk assessment in the register for each DEC Facility. Each asbestos situation is allocated either a ‘High’, ‘Medium’ or ‘Low’ risk rating to be delivered by a hygienist (asbestos assessor) onsite taking in to account: condition, location, surface treatment and potential friability.

The allocation of the risk rating is based on many factors, but is ultimately subjective and relies on the professional experience and competency of the assessor. DEC requires these to be well defined so there is a uniform application of criteria, and this is applied consistently across the DEC portfolio by assessors.

These Risk Status Assessments ratings are defined as follows:

**High Risk, rating of (3):** high potential for fibre release. **Restrict Access and Remove**

As a guide the material conforms to one, or more, of the following:
- Friable or poorly bonded to substrate (that can be readily release fibres), located in accessible areas.
- Asbestos subjected to recurrent abrasion or disturbance
- Severely Water Damaged or deterioration likely.
- Friable asbestos material located in air conditioning ducting.
- Asbestos debris and stored asbestos in reasonably accessible areas.

**Medium Risk, rating of (2):** elevated potential for fibre release. **Enclose, Encapsulate or Seal, Reinspect Periodically**

As a guide the material conforms to one, or more, of the following:
- Damaged Material in accessible area.
- Friable material or poorly bonded substrate, with bonding achievable using appropriate surface treatment.
- Possibility of disturbance through abrasive contact.
- Possibility of deterioration caused by weathering.

**Low Risk, rating of (1):** low potential for fibre release. **No Remedial Action, Remove during Refurbishment or Maintenance, Reinspect Periodically**

As a guide the material conforms to one, or more, of the following:
- Sealed, bonded ACM
- Firmly bonded to substrate and readily visible for inspection
- Asbestos debris or stored material in rarely accessed areas
- Further disturbance or damage unlikely other than during maintenance or service
- Readily visible for further assessment
- Stable and damage unlikely, due to isolation or location.

Should materials/products of unknown composition, or materials/products suspected of containing asbestos, be encountered on site, and are not documented in any existing asbestos survey report, including the on-site asbestos register such materials/products should be treated as if they were asbestos until sample analysis confirms otherwise.
In the event that additional asbestos is identified, a risk assessment shall then be conducted by a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel. For example, in the event that demolition or refurbishment works are to be carried out in areas previously not inspected for the presence of asbestos, such as inaccessible wall cavities or beneath floors, an inspection and risk assessment should be performed by a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel prior to the commencement of the planned demolition/refurbishment works.

### 3.3.2.3 Remediation Priority

The remediation priority is the addition of Material Condition and Risk Status Assessment score as per the selection by the DEC hygienist (asbestos assessor) selected from the Panel contract. The remediation priority score is automatically calculated with the following:

- **High Remediation Priority**, rating of (6 – 8) - ACM requires immediate removal or complete encapsulation.
- **Medium Remediation Priority**, rating of (4 – 5) - ACM requires immediate repair or sealing of surfaces to remediate potential for fibre release.
- **Low Remediation Priority**, rating of (2 – 3) - ACM may remain in-situ under the control of an asbestos management plan.

The total added score for the remediation priority will identify the urgency of asbestos material to be remediated or removed.

For example within ARRT, if the asbestos containing materials was determined to be in poor condition (rating of 4) and the risk status was high (risk status score of 3) the material would be determined to be a high remediation priority (i.e. a Remediation Priority score of 7 [High priority is between 6 and 8]).

Further guidance regarding the use of the ARRT can be found in Appendix G.

### 3.3.3 Example Materials and Typical Ratings

The 2007/2008 survey and subsequent updates of data have typically rated and actioned the following:

<table>
<thead>
<tr>
<th>Remediation Priority</th>
<th>Typical Products</th>
<th>Normal DEC Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Remediation</td>
<td>AC roofing, friable Pipe lagging, friable</td>
<td>All friable ACM products are removed immediately. Being programmed out of school hours, possibly during a school vacation. All known friable ACM removed.</td>
</tr>
<tr>
<td>Medium Remediation</td>
<td>AC sheet, badly broken AC sheet, multiple fragments in a space Broken or loose vinyl tiles</td>
<td>Where badly affected – removed, Where practicable, patch/fix/seal to make serviceable and safe.</td>
</tr>
<tr>
<td>Low Remediation</td>
<td>Painted AC sheet, Electrical distribution, Backing board, Vinyl tiles</td>
<td>Maintain by normal processes.</td>
</tr>
</tbody>
</table>
Please Note: All High remediation rated priority items were removed by DEC in 2008. Medium remediation items were dealt with within 12 months of the issued registers.

3.4 Record Keeping

The DEC Facility Manager shall maintain detailed records of all activities and work permits relating to asbestos works which have been undertaken on the site. The records kept should include:

- DEC Facility asbestos management plan;
- DEC Facility hazardous materials on site (asbestos) register, including updates and amendments; grounds asbestos management plan (if applicable)
- inspection records;
- copies of all 'permit to work' documents;
- records pertaining to the informing of DEC Facility employees about the presence of asbestos on site, and that such employees have been appropriately trained in safe work procedures and practices as required;
- observations by DEC Facility Manager, entered direct into Asset Management System (AMS)
- records of any asbestos abatement works performed on site electronically stored in FM Web
- Clearance certificates indicating areas are safe to reoccupy after asbestos abatement works.

DEC will engage consultants obtained from the DEC Hygienist Panel when updating registers. Please refer to Section 2.3.

DEC will retain all asbestos related reports including all asbestos fibre air monitoring results on the AMS.

Methodology including flow chart of how to update registers and site details are found in Appendix G.

3.5 Sampling and Labelling

3.5.1 Sampling

All analysis of bulk samples and all airborne fibre monitoring and analysis are to be conducted by a National Association of Testing Authorities, Australia (NATA) registered laboratory.

Consultants and/or laboratories are to be selected from the DEC Hygienist Panel.

3.5.2 Labelling

Labelling may be required to clearly identify and provide warning of the presence of asbestos containing materials. Labels should comply with Australian Standards AS1319. Regardless of labelling system chosen within facility, all visitors who are about to undertake works on site are to view the asbestos register on site.

An example of a standard warning label is illustrated below:
3.5.2.1 Non Public Areas

General Management policy should include the installation of self-adhesive labels, or other clear signage, in prominent positions on, or near, asbestos containing materials located in non-public areas, where maintenance personnel may operate from time to time. Such areas typically include plant rooms, ceiling spaces, service ducts and the like. The purpose of such labelling is to immediately bring to the attention of such personnel the presence of asbestos, to avoid the inadvertent mechanical disturbance of the material via maintenance or other works.

3.5.2.2 Public Areas

In the teaching and public areas of the DEC Facility, labels are not to be installed.

It is always the intention of DEC to manage all instances of asbestos containing materials in accordance with relevant guidance materials, codes of practices and Australian Standards, and in accordance with this AMP.

Before any work is to commence on site that may impact upon any structure or involve the disturbance of soils, the persons involved in such works are to consult the relevant building register and asbestos in grounds management plan for the site. It is the responsibility of those persons involved in the proposed project to familiarise themselves with the contents of the registers/asbestos in grounds management plan, to conduct their own risk assessment and perform works in accordance with all known relevant guidance materials, codes of practices, Australian Standards and this AMP.

All asbestos containing materials are to be determined prior to works commencing and not damaged during the works. All such materials are to be removed or managed under appropriate controlled conditions in accordance with all legislative requirements.

All teaching and support staff working on site are to be inducted onto this AMP and details contained within the registers/asbestos in grounds management plan contained on
site. All staff are to notify the principal immediately of any occurrence of broken building materials, regardless of its perceived asbestos content.

### 3.6 Occupational Exposure Standards

It is the aim of the DEC that personal exposure to airborne levels of asbestos is kept sufficiently low to negate medical surveillance.

The exposure standard for airborne asbestos exposure is 0.1f/ml.

DEC aims to maintain exposure of all employees, contractors and the general public to airborne levels considered to be not significantly above that of background and below the lower detection limit for the sampling/analytical method, that being 0.01f/ml.

All monitoring is to be conducted by a hygienist (asbestos assessor) from the DEC Hygienist Panel in accordance with Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003 (2005)].

It is expected that the only time that a level might be obtained above 0.01f/ml, is during asbestos removal works which are to be undertaken by a licensed asbestos removal contractor outside of school hours. In such cases all works will be managed in accordance with How to Safely Remove Asbestos: Code of Practice and NSW Work Health and Safety Regulation 2011.

### 3.7 Safe Work Practices

#### 3.7.1 General

Prior to commencing any works on any DEC Facility building, such as demolition, refurbishment or maintenance, the hazardous materials on site (asbestos) register must be consulted to determine if any known asbestos containing materials/products are present which are at risk of being disturbed.

Please note that the existing register is a non-destructive survey and is to be used as a guide only. If there is any doubt as to the location of asbestos, then an intrusive survey or additional sample collection and analysis is to be organised via the use of the DEC Hygienist Panel.

If documented asbestos containing materials/products are present in the area, and may be impacted upon by the proposed works, the asbestos must be removed/encapsulated under controlled conditions prior to the commencement of any building works. Depending on the nature of the asbestos, abatement options other than removal (such as encapsulation) may be feasible.

If unknown materials/products, or undocumented materials/products suspected of containing asbestos are encountered during building works, such materials/products are to be treated as if they contain asbestos and any work that may impact on that material/product must immediately cease, pending sampling and analysis by a qualified person selected from the DEC Hygienist Panel. This will allow the DEC to determine what control methods are required.

#### 3.7.2 Importation of Material

Imported material such as fill is a possible source of asbestos contamination. No individual or organisation is to be permitted to dump any type of fill on a school site.
Fill shall only be brought onto school sites as part of necessary works and must be accompanied by an appropriate validation certificate ensuring that the fill is suitable for use. Please refer to Appendix E for DEC Asset Management Directorate advice on the use of imported fill on school sites.

3.7.3 Permit to Work

If it is determined, after consulting the hazardous materials on site (asbestos) register, that asbestos containing materials or products are present in the vicinity of the planned works a permit to work authority will need to be issued to, and signed by, the contractor. Permit to work authorities will only be issued by the DEC Facility Manager (refer Appendix A). All asbestos works must be undertaken by an agent of DEC such as Department of Public works, following approval from the directorate. All asbestos works are to be undertaken outside of school hours.

Before being issued with a permit to work, individuals will be required to read and understand this AMP as well as copies of relevant hazardous materials on site (asbestos) registers or asbestos removal control plans or risk assessments prepared by DEC Hygienist Panel members and held on file on site or obtained from DEC Website/s. Individuals must be aware of their legal obligations in relation to health and safety specified in the NSW Work Health and Safety Act 2011 and the NSW Work Health and Safety Regulation 2011. Where practicable, project personnel should be made aware of the requirements of this AMP prior to tendering to ensure they allow for such requirements when quoting.

Workers engaged in the removal of asbestos and asbestos-containing materials will not be issued with a permit to work unless they are employed by a company holding a removal licence issued by WorkCover NSW appropriate for the type of asbestos containing materials concerned.

The permit to work formally places a responsibility for compliance with this AMP and the NSW Work Health and Safety Regulation 2011 on the signatories.

The permit to work is designed to ensure appropriate work practices are employed in the vicinity of asbestos containing materials/products. The permit to work will document what asbestos is to be removed, encapsulated or otherwise protected, prior to the contracted maintenance or building works proceeding. The permit to work will also indicate whether other requirements such as use of personal protective equipment (PPE), the installation of barricading and airborne fibre monitoring are necessary and may provide recommendation for further consultation, sampling, or investigation by a member of the DEC Hygienist Panel prior to permit and contract finalisation.

When a project involves a team of more than one worker, the person in charge of the team will be issued with the permit to work. The person will be responsible to ensure that their workers are aware of their responsibilities. The person will also be responsible to ensure that each worker's signature appears on the appropriate section of the permit.

When work is completed, or the permit to work expires, (whichever occurs first), the permit shall be signed by the contractor and returned to the DEC Facility Manager to cancel it after ensuring that a safe situation exists. The DEC Facility Manager shall review any documentation provided by the DEC Hygienist Panel member such as asbestos air monitoring and clearance inspection certificate/s and inspect the work area to ensure that the area is fit for purpose prior to returning it to normal use. The AMU can provide assistance if required.
The DEC Asset Management Directorate shall be advised immediately by any site personnel of any incidents of non-compliance with the AMP that have occurred.

The DEC Facility Manager will maintain a register of all permits to work which have been issued and cancelled.

It will be a condition of engagement of contractors who are required to work on site that a permit to work be issued and cancelled as required.

The format of the permit to work is illustrated in Appendix A.

3.7.4 Facility Site Visit Log

Each DEC facility is to maintain a Facility Site Visit Log. All visitors to site who intend to undertake works are to view the asbestos register/asbestos in grounds plan (Site specific Asbestos Management Plan) relevant to their proposed works on site. A copy of the relevant section from the asbestos register/asbestos in grounds management plan is available at DEC facilities. Following a complete review of that information, the visitor is to check the box (highlighted red in below image) and sign the Facility Site Visit Log to confirm that they have reviewed the asbestos register and other Asbestos related documents.

They are to note that the existing register is a non-destructive survey and is to be used as a guide only.

All contractors are to review details on FM Web during the planning of all works, review this AMP and make all relevant enquiries prior to finalisation of contract.
3.8 Contractor Health and Safety

Prior to undertaking any work that involves the removal, repair or disturbance of asbestos-containing materials, a Safe Work Method Statement (SWMS) will be prepared that defines safe procedures to protect the health and safety of personnel. This statement should include the following measures, as a minimum:

- confirmation of their review of the relevant asbestos register, asbestos removal control plan and other relevant documentation, prior to preparation of the SWMS;
- review of risks associated with their possible exposure to asbestos or asbestos containing materials (ACM);
- all workers shall wear appropriate Personal Protective Equipment (PPE) for the work undertaken. This may include protective coveralls, gloves and safety boots;
- all workers shall wear appropriate Respiratory Protective Equipment (RPE) for the work undertaken;
- decontamination procedures and measures (if applicable);
- asbestos removal areas and buffer zones;
- asbestos air monitoring samples (number and frequency); and

In addition,

- a reference to all appropriate licences and insurances held by the contractor should be included; and
- a reference as an additional safety measure; that all works are to be undertaken outside school hours, should be included. Appropriate measures are to be included to take into consideration of this requirement.

The Safe Work Method Statement (SWMS) should be reviewed by the Agent of DEC that engages the contractor as per the requirements of the permit to work.

3.9 Approvals

The following environmental approvals and licenses will be required for asbestos work and disposal:

- Prior to work being undertaken on a site, a permit is to be obtained from DEC;
- contractors who remove, repair or disturb areas of 10 square metres or more of non-friable asbestos must hold a non-friable or a friable asbestos licence issued by WorkCover NSW;
- contractors who remove, repair or disturb friable asbestos material must hold a friable asbestos removal licence issued by WorkCover NSW;
- WorkCover NSW must be notified at least five days prior to the commencement of work when 10 square metres or more of non-friable asbestos containing materials are removed or an amount of friable asbestos containing materials are removed;
- all asbestos work involving an area above 10 square metres of non-friable asbestos or any amount of friable asbestos must have a permit issued by WorkCover NSW specific for the project undertaken;
the facility that is to receive asbestos waste material would be required to be licensed by the EPA to receive that material subject to the waste classification; and

all contractors must hold insurance appropriate for the asbestos work that is to be carried out.

3.10 Awareness Training

It is best practice that DEC Asset Management personnel and Asset Maintenance Contractors who are not likely to be exposed to asbestos but who work in areas where asbestos is, or may be present, be provided with asbestos awareness training. It is recommended that such training shall include the following:

- overview of asbestos-related legislation (State), standards and codes of practice;
- information on the presence of asbestos in the DEC Facility buildings and grounds, including the types of asbestos and typical locations where asbestos may be encountered.
- information should be provided on the differences between non-friable and non-friable products.
- information on the health risks associated with asbestos;
- highlighting the need to avoid disturbing in situ asbestos containing materials/products; and
- procedures to be followed in the event damaged or disturbed asbestos containing materials/products are identified, or unknown materials/products or materials/products suspected of containing asbestos are encountered, including the relevant point of contact within the DEC.
- information about general methods of asbestos management and removal
- information about air monitoring

Asbestos awareness training is to be provided by a consultant selected from the DEC Hygienist panel.

3.10.1 Hazardous Materials

Although not covered by this management plan, the DEC has requirements for the management of hazardous materials other than asbestos. A general overview is presented of DEC hazardous materials management is presented in Appendix E of this document.
4. **Control and Mitigation Measures**

4.1 **Determination of Control Measures**

In accordance with the Safe Work Australia *How to Manage and Control Asbestos in the Workplace: Code of Practice 2011*, the following control measures may be adopted:

**Leave in Situ (defer action)**

The identification of asbestos in a building does not automatically necessitate its immediate removal. Asbestos in a stable condition and not prone to mechanical damage can generally remain in situ. The asbestos will need to be inspected on a regular basis to ensure its integrity is maintained. Asbestos situations should be labelled with an appropriate warning where required, and must be removed under controlled conditions prior to demolition or refurbishment works that may disturb the asbestos.

**Encapsulation or Sealing**

Encapsulation refers to the coating of the outer surface of the asbestos material by the application of some form of sealant compound that usually penetrates to the substrate and hardens the material. Sealing is the process of covering the surface of the material with a protective coating impermeable to asbestos. Encapsulation or sealing helps protect the asbestos from mechanical damage, and is designed to reduce the risk of exposure by inhibiting the release of asbestos fibres into the airborne environment, and increase the length of serviceability of the product.

The use of encapsulation or sealing may be of limited application. It is not considered to be an acceptable alternative to repairing or removing severely damaged or friable asbestos containing materials.

**Enclosure**

Enclosure involves installing a barrier between the asbestos material and adjacent areas. This is effective in inhibiting further mechanical damage to the asbestos, and friable products such as calcium silicate pipe lagging or sprayed limpet asbestos may be targeted for enclosure where removal is not an option. The type of barrier installed may include plywood or sheet metal products, constructed as boxing around the asbestos.

**Removal**

Removal of asbestos must be performed under certain controlled conditions, depending on the type of asbestos product to be removed. Removal is considered preferable to the other abatement options such as enclosure or encapsulation, as it eliminates the hazard from the work place. The removal process, however, does pose an increased risk to personnel engaged in the removal, and may result in increased airborne fibre levels in adjacent occupied areas if the removal program is not strictly controlled. Asbestos removal is generally an expensive exercise, and can cause major disruptions to building occupants.

The removal of asbestos is considered appropriate when the asbestos product is deteriorated, has reached an unserviceable condition, or is at risk of being disturbed, and the other control options are not feasible. Where demolition or refurbishment works are to occur, and this work is likely to impact on asbestos containing materials, the asbestos
must be removed under controlled conditions prior to the commencement of any site works.

Where the asbestos is friable and not in a stable condition, and there is a risk to health from exposure, they should be removed as soon as practicable. High risk friable is to be removed as a matter of priority.

Where removal is to occur, a hygienist (asbestos assessor) is to be selected from the DEC Hygienist Panel, to provide consultancy advice and monitoring prior to, during and after the removal process. An appropriately licensed and insured contractor will be engaged at all times.

_Table 4.1_ provides a summary of the relative advantages and disadvantages of each control method, as well as situations in which each may be considered appropriate.
### Table 4.1 Determination of Appropriate Control Method for Asbestos

<table>
<thead>
<tr>
<th>Appropriate When</th>
<th>Not Appropriate When</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defer</td>
<td>Possibility of deterioration or damage.</td>
<td>No initial cost.</td>
<td>Hazard remains.</td>
</tr>
<tr>
<td>- Negligible risk of exposure; and</td>
<td>- Airborne asbestos dust exceeds recommended exposure standard.</td>
<td>- Cost of removal deferred.</td>
<td>Need for continuing assessment.</td>
</tr>
<tr>
<td>- Asbestos inaccessible and fully contained; or,</td>
<td></td>
<td></td>
<td>Asbestos management program required.</td>
</tr>
<tr>
<td>- Asbestos stable and not liable to damage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encapsulate or Seal</td>
<td>Asbestos deteriorating.</td>
<td>Quick and economical for repairs to damaged areas.</td>
<td>Hazard remains.</td>
</tr>
<tr>
<td>- Removal difficult or not feasible.</td>
<td>- Application of sealant may cause damage to material.</td>
<td>- May be an adequate technique to control release of asbestos dust.</td>
<td>Cost for large areas may be near removal cost.</td>
</tr>
<tr>
<td>- Firm bond to substrate.</td>
<td>- Water damage likely.</td>
<td></td>
<td>Asbestos management system required.</td>
</tr>
<tr>
<td>- Damage unlikely.</td>
<td>- Large areas of damaged asbestos.</td>
<td></td>
<td>Eventual removal may be more difficult and costly.</td>
</tr>
<tr>
<td>- Short life of structure.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Readily visible for regular assessment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure</td>
<td>Enclosure itself liable to damage.</td>
<td>May minimise disturbance to occupants.</td>
<td>Hazard remains.</td>
</tr>
<tr>
<td>- Fibres can be completely contained within enclosure.</td>
<td>- Asbestos material cannot be fully enclosed.</td>
<td></td>
<td>Asbestos management program required.</td>
</tr>
<tr>
<td>- Most of surface already inaccessible.</td>
<td></td>
<td></td>
<td>Need to remove enclosure before eventual removal of asbestos.</td>
</tr>
<tr>
<td>- Disturbance to, or entry into, enclosure area not likely.</td>
<td></td>
<td></td>
<td>Precautions necessary for entry into enclosure.</td>
</tr>
<tr>
<td>Removal</td>
<td>Located on complex and inaccessible surfaces.</td>
<td>Hazard removed.</td>
<td>Increases immediate risk of exposure especially to removal workers.</td>
</tr>
<tr>
<td>- Surface friable or asbestos poorly bonded to substrate.</td>
<td>- Removal extremely difficult and other techniques offer satisfactory alternative.</td>
<td>- No further action required.</td>
<td>Creates major disturbance in building.</td>
</tr>
<tr>
<td>- Asbestos is severely water damaged or liable to further damage or deterioration.</td>
<td>- Airborne asbestos exceeds recommended exposure standard.</td>
<td></td>
<td>Often highest cost, most complex and time consuming method.</td>
</tr>
<tr>
<td>- Located in A/C duct.</td>
<td></td>
<td></td>
<td>Removal may increase fire risk within building; substitute required.</td>
</tr>
<tr>
<td>- Airborne asbestos exceeds recommended exposure standard.</td>
<td></td>
<td></td>
<td>Possible contamination of whole building if removal done poorly.</td>
</tr>
<tr>
<td>- Other control techniques inappropriate.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Asbestos in Grounds

5.1 General

For procedures to follow when new instance of asbestos and asbestos-containing materials have been found or are suspected to be present, please follow Section 9 Asbestos Incident Procedures, which details procedures to be followed for a series of asbestos scenarios. Section 9.2 refers to incidences of site specific details of already known grounds asbestos issues which are detected in the site specific asbestos containing materials register asbestos in DEC Facility grounds.

Safe Work Australia How to Safely Remove Asbestos: Code of Practice states that Removal of asbestos from contaminated soil will require a Class A licensed asbestos removalist for any friable asbestos to be removed, or a Class B licensed asbestos removalist if more than 10 m² of non-friable asbestos is to be removed. A person who does not have a licence can remove 10 m² or less of non-friable asbestos. Where there is uncertainty as to whether the amount of non-friable asbestos is more or less than 10 m², a Class A or Class B licensed asbestos removalist should be engaged.

Taking the above into consideration it is DEC policy to engage a Class A licensed asbestos removalist contractor as best practice for all occurrences of asbestos contaminated soil. The contractor will be engaged by an agent of DEC from a panel approved by DEC and all engagements will be to WorkCover NSW guidelines and follow the advice of the competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel to conduct a risk assessment and determine the most appropriate control measures and remediation strategies.

At the time of writing, DEC has approval from WorkCover NSW to collect small amounts of fragments of asbestos cement sheeting immediately. Should DEC Facility staff observe fragments of asbestos cement sheeting on DEC Facility grounds or students in possession of such material then these materials must be collected immediately and placed into sealed plastic asbestos bags (refer to Section 7.4 for specifications of asbestos bags).

The DEC Hygienist Panel will provide training for DEC staff, Public Works staff, FMC contractors and others as needed to ensure samples can be appropriately collected and tested to provide expeditious response to issues as they arise. Please refer to Section 2.3.7 and 3.11.

Alternatively, DEC or its agent is to proceed with the site collection of surface fragments of asbestos cement as soon as practicable by an appropriate contractor. This can often be the same day as discovery of the material and/or its confirmation as being asbestos containing material (ACM). The five day notification period is waived by WorkCover under these circumstances.

DEC only undertakes disturbance investigations in buildings and grounds in preparation for construction projects. In these circumstances, such investigations within the building fabric and grounds should be only undertaken using the DEC Hygienist Panel, in the absence of school students and staff. As the primary control method of ACM on DEC sites is by encapsulation (where the ACM is present as a surface layer in the building fabric or grounds) only the surface ACM is sampled, tested or remediated. The taking of soil samples for assessment of sites contaminated with fibro (asbestos cement)
fragments is not required, unless disturbance works are planned. Any excavation or planned removal of soil containing ACM must be undertaken with advice provided by a member of the DEC Hygienist Panel.

5.2 General measures when ACM has been confirmed

Where asbestos-containing materials (ACM) have been confirmed, appropriate measures should be undertaken to control the risks.

5.2.1 Surface Materials

All visible surface materials should be removed as soon as possible. Asbestos containing materials (ACM) found on the surface are likely to be in the form of fragments of asbestos cement sheeting. Should DEC Facility staff observe fragments of asbestos cement sheeting on DEC Facility grounds or students in possession of such material then these materials must be collected immediately and placed into sealed plastic asbestos bags (refer to Section 7.4 for specifications of asbestos bags). The risk to health from handling asbestos cement fragments is considered negligible as the asbestos fibres are bound into the cement matrix and are unlikely to release respirable fibres unless mechanically abraded.

Alternatively, an approved asbestos removal contractor should be engaged by DEC or its agent to perform the clean-up operation (this may be necessary where high level contamination is evident) as soon as practicable and where friable asbestos removal is required.

5.2.2 ACM in Fill Materials

When surface asbestos containing materials have been found and fill materials have been used and are evident at the surface, appropriate measures should be undertaken to remove or encapsulate any potential asbestos containing materials as further asbestos containing materials may possibly be contained within the fill below the surface. Soil erosion may cause these materials to reach the surface. A competent person/asbestos assessor (hygienist) should be selected from the DEC Hygienist Panel and engaged directly by the DEC or by an agent of DEC to assess the risks posed and to recommend appropriate management techniques to be employed.

Management techniques are required to control the risk of exposure to asbestos fibres. Depending on the situations, one or more of the following strategies may be employed:

- removal of all visible asbestos containing materials at the surface;
- enclosure of area to restrict access to students and visitors;
- containment of fill materials by means of applying a demarcation barrier such as geo-fabric and/or by applying a surface layer such as mulch or topsoil above contaminated soils;
- re-turfing of exposed soils;
- encapsulation of fill materials by means of applying a permanent covering such as concrete; or
- removal of asbestos contaminated soils.
Alternate strategies will be considered by DEC and or its agent in conjunction with a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel.

5.2.3 Re-inspections

In order to monitor the effectiveness of onsite management it is essential that the treated area be regularly inspected. A visual inspection of asbestos remedial measures should be carried out to ensure that they are being maintained adequately. Reinspections will be the responsibility of the Principal or site manager. Such inspections should occur on the following occasions:

- at three\(^4\) monthly intervals (e.g. a walkover of remediated areas to ensure that applications of mulch, turf etc. have been maintained);
- as part of routine building inspections
- after a period of prolonged heavy rain (e.g. a walkover of remediated areas to ensure that applications of mulch, turf etc. have not been disturbed by heavy rain); and
- whenever damage or disturbance has been reported (e.g. a walkover of remediated areas to ensure that applications of mulch, turf etc. have not been disturbed by events such as vehicle trafficking).

Should areas of exposed soil or geo-fabric be identified where previous containment has occurred or where encapsulating measures appear to be damaged or are no longer effective then these areas should be recovered immediately. Some remedial measures will require ongoing maintenance, such as surface layers including mulch and topsoils to ensure that a sufficient barrier layer is in place.

5.3 Actions to be taken

5.3.1 New instances of ACM

- Where new instances of asbestos containing materials are suspected of being present in DEC Facility grounds, the DEC AMU must be contacted upon discovery of suspected ACM to determine actions to be taken.
- Access to the area should be restricted to all students until it is proven that no asbestos containing material is present or until asbestos containing materials are removed or appropriately encapsulated (asbestos containment area).
- Samples of suspected materials may be taken by a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel and submitted to a NATA accredited laboratory for analysis of asbestos fibre content.
- In the absence of analytical results, suspected materials must be assumed to be asbestos-containing. Where site investigations (other than that indicated below) are undertaken only the surface level is inspected and determination of remediation requirements should be based upon the inspection and discussion with DEC.
- Please also refer to Section 9

\(^4\) Some sites, for example those with no new occurrence of asbestos in the past 5 years are inspected at twelve monthly intervals and/or as points indicated above.
5.3.2 Encapsulation of Soil on Site

- Where a requirement exists as a result of design factors for soil to be disturbed and/or managed and removed for development or maintenance, a preliminary investigation is to be instigated by DEC or its agent into possible contaminants within the area of intended soil disturbance/removal, utilising existing documentation as a starting point.

- In addition to the review of available site documentation, a preliminary investigation may include a site visit, and in the case of bulk excavation works, a possible below ground investigation and sampling to the depth required by the bulk excavation works.

- A consultant selected from the DEC Hygienist panel may assist in this review of documentation, preliminary investigation and below ground investigation.

- The above tasks should be undertaken as soon as possible, preferably before any works contract is issued and before subsurface work is commenced.

- Design/development changes may be preferable to avoid soil disturbance to mitigate the need for spoil management procedures, additional testing, third party review and unbudgeted waste disposal costs.

- A preferred option for consideration is encapsulation of soil on site. To encapsulate soil contaminated with ACM in an area on site, it is recommended to:
  
  - Ensure that the area is isolated in the interim and any potential dust is managed
  
  - Ensure that a document such as remedial action plan (RAP) including an asbestos management plan (AMP) be prepared by a consultant selected from the DEC Hygienist Panel detailing the encapsulation method (including comments on suitability for intended land-use, for example car park) and environmental management requirements during implementation (for example, dust and noise management). If the selected hygienist (asbestos assessor) requires additional soil expertise, then they are to involve a suitably experienced contaminated land management consultant, preferably from within their own company and known to DEC with experience gained from DEC sites.
  
  - Ensure that a permit is received from DEC to commence works.
  
  - The AMP will determine if the asbestos is friable/non friable and the extent of impact (lateral and vertical) through selected sampling and analysis
  
  - That document is to be submitted along with a permit application to WorkCover NSW by the selected asbestos removal contractor (as the work involves working with asbestos)
  
  - Notification by DEC to the EPA is to be considered depending on the level of impact.
  
  - DEC to verify compliance under WH&S Act and Protection of the Environment Operations (POEO) Act
  
  - Notification by DEC is to be made to the respective council to allow inclusion on the site s149 certificate (under the NSW EP&A Act, 1997)
  
  - In addition, the area to be encapsulated is to be documented / surveyed in such a manner to accurately determine location and depth at a later date
Upon receipt of both above mentioned Permits from DEC and WorkCover NSW, works are to commence, along with asbestos air monitoring by a hygienist (asbestos assessor) selected from the DEC Hygienist Panel during the encapsulation process.

Upon completion an inspection is undertaken by the hygienist (asbestos assessor) to confirm activities as detailed within the RAP/AMP has been implemented and providing comment that the land has been remediated/encapsulated to allow for intended use and a site management plan is prepared to manage any future subsurface activities that may be required for the site (e.g. excavation of a trench to install new electricity cables or stormwater).

5.3.3 Possible disturbance or bulk excavation of large volumes of soil

- Where a requirement exists as a result of design factors for large volumes of soil to be disturbed and/or managed and removed as part of a development or maintenance, a preliminary investigation is to be instigated by DEC or its agent into possible contaminants within the area of intended soil disturbance/removal, utilising existing documentation as a starting point.

- A preliminary investigation may also include a site visit, and potentially in the case of bulk excavation works, a below ground investigation and sampling to the depth required by the bulk excavation works.

- A consultant selected from the DEC Hygienist panel may assist in this review of documentation, preliminary investigation and below ground investigation.

- The above tasks should be undertaken as soon as possible, preferably before any works contract is issued and before subsurface works commence.

- Consideration should be given to re-design of any works to avoid soil disturbance or to incorporate encapsulation as an option (see 5.3.2 above).

- If works are to go ahead (i.e. the design cannot be altered and/or encapsulation is not an option) ensure that a document such as a remedial action plan (RAP) including an asbestos management plan (AMP) or asbestos removal control plan (ARCP) be prepared by a consultant selected from the DEC Hygienist Panel providing recommendations for the excavation of soil or its disturbance so as to provide for environmental management requirements during implementation (for example, dust and noise management). If the selected hygienist (asbestos assessor) requires additional soil expertise, then they are to involve a suitably experienced contaminated land management consultant, preferably from within their own company and known to DEC with experience gained from DEC sites.

- Consideration is also to be given to the preparation of unexpected finds protocols prior to works commencing by a member of the DEC Hygienist Panel to assist the contractor undertaking bulk excavation works lessen the risk of airborne asbestos release following the completion of the planned excavation or disturbance works.

- All procedures are to be submitted to DEC and its agent prior to all works commencing.
5.3.4 Limited Excavation or Disturbance of Soils

- Where building works requiring limited excavation or disturbance of soils (including footings) is to occur an inspection should be undertaken prior to the commencement of works. This may include a site visit with a consultant selected from the DEC Hygienist Panel, review of available documentation by the selected consultant and potentially in the case of excavation works, a below ground investigation by the selected consultant to the depth required by the excavation works.

- It may be a result that it is more prudent to alter the design of the intended works to avoid soil disturbance or to incorporate encapsulation as an option (see 5.3.2 above) then to continue and require spoil management procedures, and additional testing and review.

- Ensure that a document such as remedial action plan (RAP) including an asbestos management plan (AMP) or Asbestos Removal Control Plan (ARCP) be prepared by a consultant selected from the DEC Hygienist Panel providing recommendations for the excavation of soil or its disturbance so as to provide for environmental management requirements during implementation (for example, dust and noise management). If the selected hygienist (asbestos assessor) requires additional soil expertise, then they are to involve a suitably experienced contaminated land management consultant, preferably from within their own company and known to DEC with experience gained from DEC sites.

- Consideration is also to be given to the preparation of unexpected finds protocols prior to works commencing by a member of the DEC Hygienist Panel to assist the contractor undertaking excavation or disturbance works, following completion of the planned excavation or disturbance works.

- All procedures are to be submitted to DEC and its agent prior to all works commencing.

5.3.5 Importation of Material

- No fill should be imported without being tested or certificate indicating it is suitable for use on a school facility in accordance with NSW EPA waste and contaminated land guidelines. Generally it is preferable that any imported fill is virgin excavated natural materials (VENM) or excavated natural materials (ENM) as defined in the waste guidelines.

- If fill is to be imported onto a school site, the Principal should contact their local Regional Asset Management Unit to obtain advice on suitable sources of supply and any documentation required. DEC Memorandum DN/06/00362 offers Asset Management Directorate advice on the use of imported fill on school sites and is included in Appendix E of this document.
6. Asbestos in Buildings

6.1 General

All DEC Facilities were surveyed for ACM’s from October 2007-May 2008 after which an initial asbestos register was issued to all schools and colleges.

All DEC Asbestos Registers and this AMP are available to the community generally via the Internet at: http://www.dec.nsw.gov.au/about-us/supplying-to-us/asbestos-register with the most up to date information available internally on the DEC Asset Management System (AMS).

The management of in-situ asbestos is important to ensure asbestos containing materials and other non-friable (formerly known as bonded) asbestos products are not damaged or allowed to deteriorate to such an extent that DEC Facility staff; students, contractors or visitors are unnecessarily exposed to airborne asbestos fibres. Asbestos which has been incorporated into a stable matrix (i.e. non-friable) and which remains in a good condition with no production of airborne dust presents a negligible health risk.

For procedures to follow when asbestos and asbestos-containing materials have been found or are suspected to be present in buildings, please follow Section 9 Asbestos Incident Procedures, which details procedures to be followed for a series of asbestos scenarios. Section 9.3 refers to incidences of asbestos in DEC Facility buildings.

The requirements of the contractor site induction and permit to work system (refer Section 3.8.3) will aid in the management of in-situ asbestos containing materials.

No work is to commence on “assumed” asbestos. Testing of the material is to occur and results known prior to commencing works. As per Section 9, this is to be organised by DEC and/or its agent and the use of the DEC Hygienist panel.

Safe Work Australia How to Safely Remove Asbestos: Code of Practice states that Removal of asbestos will require a Class A licensed asbestos removalist for any friable asbestos to be removed, or a Class B licensed asbestos removalist if more than 10 m² of non-friable asbestos is to be removed. A person who does not have a licence can remove 10 m² or less of non-friable asbestos. Where there is uncertainty as to whether the amount of non-friable asbestos is more or less than 10 m², a Class A or Class B licensed asbestos removalist should be engaged.

Taking the above into consideration it is DEC policy to engage the appropriate contractor for each project requiring the removal of asbestos. The contractor will be engaged by an agent of DEC from a panel approved by DEC and all engagements will be to WorkCover NSW guidelines and follow the advice of the competent person/ asbestos assessor (hygienist) engaged from the DEC Hygienist Panel by an agent of DEC.

The competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel is to conduct a risk assessment is to determine the most appropriate control measures and remediation strategies prior to the selection of the class of asbestos removal contractor and asbestos removal works getting underway.
6.2 Actions to be implemented

An up-to-date hazardous materials on-site asbestos register is maintained by the DEC Facility. When required, the DEC and/or its agent will conduct a visual inspection of all asbestos-containing materials as part of the condition assessment process to record the status and condition of these materials. Changes in condition will be recorded in the on-site asbestos register, which will be made available to Site Manager’s as electronic files.

A condition assessment may be conducted for example by a Facility Manager. The Facility Manager is to inspect for building materials that are damaged or could be easily disturbed. It should be mentioned that this is not a survey, but simply an inspection of the fabric of the building looking for damage. If damage is found, and the material is known to contain asbestos or the Facility Manager is not sure, then the Facility Manager is to contact their AMU.

Please refer to Attachment H.

Please note that the existing register is a non-destructive survey and is to be used as a guide only.

A site specific management plan will be prepared by DEC and/or its agent to identify specific actions to be taken and those responsible.

The visual inspections shall provide management recommendations for asbestos-containing materials. As previously mentioned in Section 3.4, a priority rating system for control recommendations provides three ratings for managing asbestos. These are as follows:

**High Risk: Restrict Access and Remove**

As a guide the material conforms to one, or more, of the following:

- Friable or poorly bonded to substrate, located in accessible areas.
- Asbestos subjected to recurrent abrasion or disturbance
- Severely Water Damaged or deterioration likely.
- Friable asbestos material located in air conditioning ducting.
- Asbestos debris and stored asbestos in reasonably accessible areas.

**Medium Risk: Enclose, Encapsulate or Seal, Reinspect Periodically**

As a guide the material conforms to one, or more, of the following:

- Damaged Material.
- In reasonable accessible area.
- Friable material or poorly bonded substrate, with bonding achievable.
- Possibility of disturbance through contact.
- Possibility of deterioration caused by weathering.

**Low Risk: No Remedial Action, Remove during Refurbishment or Maintenance, Reinspect Periodically**

As a guide the material conforms to one, or more, of the following:

- Firmly bonded to substrate and readily visible for inspection
- Asbestos debris or stored material in rarely accessed areas
- Further disturbance or damage unlikely other than during maintenance or service
- Readily visible for further assessment
- Stable and damage unlikely

6.2.1 Re-inspections

Re-inspections of ACM remaining on site are to be conducted by a competent person/asbestos assessor (hygienist) to determine the condition of the material. Such re-inspections will comprise a visual assessment of the condition of the materials to determine whether the material remains in a satisfactory condition, or if deterioration has occurred since the previous inspection. Such re-inspections will determine if any remedial action, such as encapsulation, isolation or removal of the asbestos containing materials, is required. Re-inspections of asbestos containing materials will be performed in accordance with the Safe Work Australia: How to Manage and Control Asbestos in the Workplace: Code of Practice 2011 (however as per DEC policy re-inspections should be undertaken every 12 months where a risk assessment indicates the need for re-inspection). DEC will carry out this inspection as part of the normal annual condition assessment of the school and incorporate other details held centrally e.g. demountable building on site at any given time.

Normally, re-sampling of materials/products would not be required during re-inspections. If, however, previously unidentified or undocumented asbestos, or materials/products suspected of containing asbestos, are encountered during the re-inspection process, sampling and analysis may need to be performed by a hygienist (asbestos assessor) selected from the DEC Hygienist Panel. If so, once the results of sampling has been received by DEC, the Asbestos Register, will be updated and re-issued by a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel. Please refer to Attachment H.

6.2.2 Damage to ACM

If accidental damage occurs to any asbestos-containing material (ACM) that is likely to produce fibres during the course of day to day DEC Facility activities, DEC staff shall organise for all students and staff to immediately vacate the room/area. The Facility Manager shall be immediately informed, who shall contact the DEC Asset Management Unit to seek advice.

A course of remedial action will be determined, including any clean-up. The Incident Response plan should be followed in these situations (refer Section 9). Section 9.3.4 sets out appropriate responses to the discovery of damaged asbestos containing materials.

Should asbestos containing materials become fire damaged, the DEC and/or its agent shall utilize the DEC Hygienist Panel and arrange for inspections by a competent person/asbestos assessor (hygienist) and subsequent removal of materials by appropriate approved asbestos removal contractors. Any fire damaged buildings must be barricaded off. Section 9.3.9 sets out appropriate responses to the event of asbestos containing materials becoming fire damaged.
Asbestos containing materials that have become fire damaged are classified as friable asbestos by WorkCover NSW, and as such will require removal by a suitably licensed contractor.

Asbestos air monitoring is to be undertaken by a company selected from the DEC Hygienist Panel who is NATA accredited for asbestos air monitoring and is to be conducted in instances where ACM have become damaged or where assistance is required in determining airborne exposure and risk to building occupants.
7. Asbestos Removal

7.1 General

A detailed and site specific work scope and technical specification will be developed by an agent of DEC such as DPWS prior to the removal of asbestos-containing materials from any DEC Facility buildings and grounds. The removal of ‘asbestos containing materials’ shall be performed by a licensed asbestos removal contractor selected from the DEC Panel, (i.e. the appropriate licence for the removal of asbestos issued by WorkCover NSW).

Please note that any work that involves disturbing asbestos must be administered by DPWS.

Safe Work Australia How to Safely Remove Asbestos: Code of Practice states that Removal of asbestos will require a Class A licensed asbestos removalist for any friable asbestos to be removed, or a Class B licensed asbestos removalist if more than 10 m² of non-friable asbestos is to be removed. A person who does not have a licence can remove 10 m² or less of non-friable asbestos. Where there is uncertainty as to whether the amount of non-friable asbestos is more or less than 10 m², a Class A or Class B licensed asbestos removalist should be engaged.

Taking the above into consideration it is DEC policy to engage a Class A licensed contractor as best practice for all occurrences of asbestos contaminated soil. The contractor will be engaged by an agent of DEC from a panel approved by DEC and all engagements will be to Work Safe Australia guidelines and follow the advice of the hygienist/competent (asbestos assessor) person engaged from the DEC Hygienist Panel.

7.2 Asbestos in Grounds General Removal Procedures

All work carried out that involves disturbance of asbestos containing materials (including removal) must be administered by DPWS.

All removals are to be undertaken according to:

► NSW Work Health and Safety Act 2011
► NSW Work Health and Safety Regulation 2011
► How to Manage and Control Asbestos in the Workplace: Code of Practice 2011
► How to Safely Remove Asbestos: Code of Practice 2011
► Other relevant documentation issued from time to time by WorkCover NSW, EPA or SafeWork Australia. and

follow the advice of the hygienist/competent (asbestos assessor) person engaged from the DEC Hygienist Panel to conduct a risk assessment and determine the most appropriate control measures and remediation strategies prior to asbestos removal works getting underway.
Several examples of common circumstances involving soil and ACM have been determined. For each of those circumstances, the following procedures should be followed:

7.2.1 Sparrow Picking of ACM Fragments

- Following the determination of the area affected by fragments of asbestos containing materials (ACM) by a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel and approval to commence works from DEC, a permit will be issued to DPWS to engage a friable licensed asbestos contractor.
- It is likely that fragments of ACM are in the form of asbestos cement sheeting (ACS), bituminous membrane or vinyl tile.
- The asbestos removal contractor approved by DEC is engaged to sequentially and systematically travel across each area and remove all instances of fragments of potential ACM from exposed ground surfaces.
- All works are to require asbestos air monitoring provided by a hygienist selected from the DEC Hygienist Panel.
- All works are to require a clearance inspection undertaken by a hygienist selected from the DEC Hygienist Panel following the completion of the asbestos removal works.
- All documentation including licenses, air monitoring, clearance inspections and tipping dockets is to be provided to DEC.
- All records are to be updated. Please refer to Appendix G.

7.2.2 Encapsulation of Soil containing ACM on Site

- Ensure that the area is isolated in the interim and any potential dust is managed.
- Ensure that a document such as a remedial action plan (RAP) including an asbestos management plan (AMP) is prepared by a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel detailing the encapsulation method (including comments on suitability for intended land-use, for example car park) and environmental management requirements during implementation (for example, dust and noise management). If the selected hygienist requires additional soil expertise, then they are to involve a suitably experienced contaminated land management consultant, preferably from within their own company and known to DEC with experience gained from DEC sites.
- Ensure that a permit is received from DEC to commence works.
- The AMP will determine if the asbestos is friable/non friable and the extent of impact (lateral and vertical) through selected sampling and analysis.
- That document is to be submitted to WorkCover NSW, along with a permit application to WorkCover NSW by the selected asbestos removal contractor.
- DEC to obtain written approval from EPA before work permit is granted by DEC.
- DEC to verify compliance under WH&S Act and POEO Act.
- Notification by DEC is to be made to the respective council to allow inclusion on the site s149 certificate (under the NSW EP&A Act, 1997).
In addition, the area to be encapsulated is to be documented / surveyed in such a manner to accurately determine location and depth at a later date.

Upon receipt of both above mentioned Permits from DEC and WorkCover NSW, works are to commence, along with asbestos air monitoring by a hygienist selected from the DEC Hygienist Panel during the encapsulation process.

Upon completion an inspection is undertaken by the hygienist consultant to confirm activities as detailed within the RAP/AMP has been implemented and providing comment that the land has been remediated/encapsulated to allow for intended use and a site management plan is prepared to manage any future subsurface activities that may be required for the site (e.g. excavation of a trench to install new electricity cables or stormwater).

7.2.3 Excavation of Soil containing ACM from Site

The preferred method is encapsulation of soils on site (hence its repeat inclusion above), however if excavation and removal of soils from site becomes necessary, then the following is to be implemented as a general guide.

Ensure that the area is isolated in the interim and any potential dust is managed.

Ensure that a document such as a remedial action plan (RAP) including an asbestos removal control plan (ARCP) is prepared by a competent person/asbestos assessor (hygienist) selected from the DEC Hygienist Panel providing recommendations for the excavation of soil so as to provide for environmental management requirements during implementation (for example, dust and noise management). If the selected hygienist requires additional soil expertise, then they are to involve a suitably experienced contaminated land management consultant, preferably from within their own company and known to DEC with experience gained from DEC sites.

Ensure that a permit is received from DEC to commence works.

The ARCP will determine if the asbestos is friable/non friable.

That document is to be submitted to WorkCover NSW, along with a permit application to WorkCover NSW by the selected asbestos removal contractor.

Upon receipt of both above mentioned Permits from DEC and WorkCover NSW, works are to commence, along with asbestos air monitoring by a hygienist selected from the DEC Hygienist Panel during the encapsulation process.

Upon completion of soil (that portion contaminated with ACM) an inspection is undertaken by the hygienist consultant to confirm activities as detailed within the RAP/ARCP has been implemented and providing comment that those works have been completed in respect to asbestos contamination to a satisfactory level to allow for the next stage of works to commence. The site management plan (inclusive of a possible unexpected finds protocol) continues to be followed to manage any future occurrence of subsurface ACM that may be exposed during the excavation of soils on site.

Following the investigation, the material should be classified in accordance with NSW OEH Waste Classification Guidelines, Part 1: Waste Classification Guidelines (2009), and taken to an approved landfill site that is licensed to receive waste relevant to its classification.
7.3 Asbestos in Buildings General Removal Procedures

All work carried out that involves disturbance of asbestos containing materials (including removal) must be supervised by an agent of DEC such as DPWS.

All removals are to be undertaken according to:

► NSW Work Health and Safety Act 2011
► NSW Work Health and Safety Regulation 2011
► How to Manage and Control Asbestos in the Workplace: Code of Practice 2011
► How to Safely Remove Asbestos: Code of Practice 2011
► Other relevant documentation issued from time to time by WorkCover NSW or SafeWork Australia; and

follow the advice of the competent person/asbestos assessor (hygienist) engaged from the DEC Hygienist Panel to conduct a risk assessment and determine the most appropriate control measures and remediation strategies prior to the selection of the class of asbestos removal contractor and asbestos removal works getting underway.

Several examples of common circumstances involving the removal of non-friable (bonded) ACM in buildings have been determined and for the majority of instances a Class B contractor may be utilized, unless a risk assessment determines the need for a Class A removalist (except for asbestos containing vermiculite which is friable, and will always require a Class A removalist).

For each of those circumstances, the following steps or bullet-points (excluding major removal works or working at heights) should be followed.

As mentioned previously, in all instances, the above mentioned documents are to be followed and implemented.

Please note however that the following steps or bullet-points are general in nature, and are not to be considered to alter or modify guidelines as set down in the Safe Work Australia Code of Practice titled: How to Manage and Control Asbestos in the Workplace: Code of Practice 2011, or the requirements laid down under all relevant New South Wales Legislation.

7.3.1 Asbestos Containing Electrical Mounting Boards

- If possible the work should be done out of hours to minimise the risk of personnel coming into contact with asbestos removal works;
- The work area is to be barricaded off with barrier tape and asbestos warning signs for a minimum distance of ten metres around the work area;
- Select PPE - all persons in the asbestos removal area should wear disposable coveralls and a P2 respirator as minimum protection. PPE such as gloves and safety footwear is also recommended. A risk assessment is recommended to ensure adequate PPE is provided;
- Prior to commencement a qualified electrician shall isolate any electrical supply and disconnect any electrical fittings which will be affected by the works;
- Every effort shall be made to minimise the generation of dust:
plastic drop sheets of 200 \(\mu\)m thickness are to be placed in areas where the electrical mounting boards will be removed; and

components should not be removed where possible and disposed of as asbestos waste. Where a component is to be reused it is to be adequately decontaminated before it is reused.

Asbestos containing electrical mounting boards should be sealed in 200 \(\mu\)m plastic, or placed in approved asbestos waste bags and sealed for disposal off site in accordance with requirements of the regulatory authority. Disposal receipts must be returned to the DEC AMU to verify correct disposal of asbestos waste;

Surfaces adjacent to the electrical mounting board removal shall be vacuumed using an approved asbestos vacuum cleaner fitted with a HEPA filter; and

All potentially contaminated PPE and tools should either be appropriately decontaminated or disposed of as asbestos waste in approved asbestos waste bags.

7.3.2 Asbestos Containing Fire Doors

If a risk assessment by a hygienist selected from the DEC Hygienist Panel determines that a licensed friable asbestos removal contractor is required, then a licensed friable asbestos removal contractor must be engaged to complete the removal works.

If possible the work should be done out of hours to minimise the risk of personnel coming into contact with asbestos removal works;

The work area is to be barricaded off with barrier tape and asbestos warning signs for a minimum distance of ten metres around the work area;

Select PPE - all persons in the asbestos removal area should wear disposable coveralls and a P2 respirator as minimum protection. PPE such as gloves and safety footwear is also recommended. A risk assessment is recommended to ensure adequate PPE is provided;

Every effort shall be made to minimise the generation of dust:

plastic drop sheets of 200 \(\mu\)m thickness are to be placed in areas where the asbestos fire doors will be removed;

doors should be removed as a whole where possible and hinges removed from the door frame to avoid any possible disturbance of core material;

any damaged areas exposing core materials should be sealed prior to removal; and

door handles and locks should not be removed where possible and disposed of as asbestos waste. Where door hardware is to be reused, cavities should be sealed and hardware adequately decontaminated before it is reused,

Asbestos containing fire doors should be wrapped in 200 \(\mu\)m plastic and sealed with duct tape. Disposal receipts must be returned to the DEC AMU to verify correct disposal of asbestos waste;

Surfaces adjacent to the fire door removal shall be vacuumed using an approved asbestos vacuum cleaner fitted with a HEPA filter; and
All potentially contaminated PPE and tools should either be appropriately decontaminated or disposed of as asbestos waste in approved asbestos waste bags.

7.3.3 Asbestos Containing Mastic

Reference is to made to Window Asbestos Mastic Procedure - NSW Schools Demountable June 2014

- If possible the work should be done out of hours to minimise the risk of personnel coming into contact with asbestos removal works;
- The work area is to be barricaded off with barrier tape and asbestos warming signs for a minimum distance of ten metres around the work area;
- Select PPE - all persons in the asbestos removal area should wear disposable coveralls and a P2 respirator as minimum protection. PPE such as gloves and safety footwear is also recommended. A risk assessment is recommended to ensure adequate PPE is provided;
- If mastic is found to be present on the glass pane, the glass is to be placed within 200 µm thick polythene bags and sealed for disposal as asbestos waste. If the glass is found to be free of mastic or if the mastic can be removed cleanly then the glass pane can be disposed of or recycled as normal.
- An airless spray should be used to wet the asbestos mastic with a mix of water and wetting agent such as detergent, prior to attempting its removal.
- The remaining mastic within the frame is to be scrapped out with the use of hand tools such as scrappers, screw drivers or chisels.

*Note: No power tools are to be used during any mastic removal.*

- Mastic is to be removed as far as reasonably practicable. It is understood that corrugations are present within the aluminium frame which may prevent the removal of all of the mastic. It is expected that residual mastic will remain within the frame; however every effort should be made to remove as much mastic as reasonably practicable prior to the installation of the new window pane. A note to this effect should be placed on the certificate of works as detailed within Appendix A of the above procedure.
- The frame and tools are to be cleaned with wet rags. If the rags are unable to remove the residual mastic a solvent may be utilised.
- The mastic removed along with rags and any debris and dust are to be placed within 200 µm thick polythene bags for disposal as asbestos waste.
- Any debris or dust generated during the removal process must be removed via wet wiping and drop sheets are to be rolled onto themselves and placed within the 200 µm thick polythene bags for disposal as asbestos waste.
- Following the installation of the new glass pane the edges of the window frame are to be sealed with non-asbestos mastic to ensure the remaining asbestos mastic is enclosed and cannot be accessed during normal activity in the area.
- At the conclusion of all works the area is to be decontaminated of all dust and debris with the use of wet wipes to ensure the area is clean and free of dust prior to allowing students and staff to return.
7.3.4 Asbestos Cement Pipe

- If possible the work should be done out of hours to minimise the risk of personnel coming into contact with asbestos removal works;
- The work area is to be barricaded off with barrier tape and asbestos warning signs for a minimum distance of ten metres around the work area;
- Select PPE - all persons in the asbestos removal area should wear disposable coveralls and a P2 respirator as minimum protection. PPE such as gloves and safety footwear is also recommended. A risk assessment is recommended to ensure adequate PPE is provided;
- Adequate WorkCover NSW approved working platforms, scaffolds etc should be arranged for any work at height;
- Every effort shall be made to minimise the generation of dust:
  - plastic drop sheets of 200 µm thickness are to be placed below the areas from which the asbestos sheeting is to be removed; and
  - where applicable, seal off the area from other areas. This includes isolating such items as air inlets, exhaust flues and sealing openings with 200 µm thick plastic;
- Asbestos cement pipes should be sprayed with an encapsulated or wetted prior to removal. High pressure water jets shall not be used;
- The asbestos cement pipe should be removed in sections by breaking the collars with hand tools. Where this is not practical and the pipe requires cutting then this shall be done by hand tools;
- Power tools should not be used with the exception of removing fasteners;
- Asbestos cement pipe sections should be removed with minimum breakage and should be lowered to the ground or floor and not dropped;
- Asbestos cement pipe and/or debris shall be placed in approved asbestos waste bags, or a plastic lined industrial waste bin, and sealed for disposal off site in accordance with requirements of the regulatory authority. Disposal receipts must be returned to the DEC AMU to verify correct disposal of asbestos waste;
- Surfaces behind and adjacent to the asbestos cement pipe removed shall be vacuumed using an approved asbestos vacuum cleaner fitted with a HEPA filter, and asbestos cement residues removed from screws, nail heads and adjacent surfaces etcetera;
- Damaged edges of asbestos cement pipes shall be sealed with an approved encapsulating paint; and
- All contaminated PPE and tools should either be appropriately decontaminated or disposed of as asbestos waste in the manner described above.

7.3.5 Asbestos Containing Putty

Reference is to be made to Window Asbestos Putty Procedure - NSW School Buildings June 2014.
- If possible the work should be done out of hours to minimise the risk of personnel coming into contact with asbestos removal works;
- The work area is to be barricaded off with barrier tape and asbestos warming signs for a minimum distance of ten metres around the work area;
- Select PPE - all persons in the asbestos removal area should wear disposable coveralls and a P2 respirator as minimum protection. PPE such as gloves and safety footwear is also recommended. A risk assessment is recommended to ensure adequate PPE is provided;
- If putty is found to be present on the glass pane, the glass is to be placed within 200 µm thick polythene bags and sealed for disposal as asbestos waste. If the glass is found to be free of putty or if the putty can be removed cleanly then the glass pane can be disposed of or recycled as normal.
- An airless spray should be used to wet the asbestos putty with a mix of water and wetting agent such as detergent, prior to attempting its removal.
- The remaining putty within the frame is to be scrapped out with the use of hand tools such as scrappers, screw drivers or chisels.

*Note: No power tools are to be used during any mastic removal.*

- Putty is to be removed as far as reasonably practicable. It is understood that corrugations may be present on the frame which may prevent the removal of all of the putty. It is expected that residual putty will remain within the frame; however every effort should be made to remove as much putty as reasonably practicable prior to the installation of the new window pane. A note to this effect, should be placed on the certificate of works detailed within Appendix A of the above procedure.
- The frame and tools are to be cleaned with wet rags. If the rags are unable to remove the residual putty a solvent may be utilised.
- The putty removed along with rags and any debris and dust are to be placed within 200 µm thick polythene bags for disposal as asbestos waste.
- Any debris or dust generated during the removal process must be removed via wet wiping and drop sheets are to be rolled onto themselves and placed within the 200 µm thick polythene bags for disposal as asbestos waste.
- Following the installation of the new glass pane the edges of the window frame are to be sealed with non-asbestos putty to ensure the remaining asbestos putty is enclosed and cannot be accessed during normal activity in the area.
- At the conclusion of all works the area is to be decontaminated of all dust and debris with the use of wet wipes to ensure the area is clean and free of dust prior to allowing students and staff to return.

### 7.3.6 Asbestos Cement Sheeting

- If possible the work should be done out of hours to minimise the risk of personnel coming into contact with asbestos removal works;
- The work area is to be barricaded off with barrier tape and asbestos warming signs for a minimum distance of ten metres around the work area;
Select PPE - all persons in the asbestos cement removal area should wear disposable coveralls and a P2 respirator as minimum protection. PPE such as gloves and safety footwear is also recommended. A risk assessment is recommended to ensure adequate PPE is provided;

Prior to commencement a qualified electrician shall isolate any electrical supply and disconnect any electrical fittings which will be affected by the works;

Adequate compliant working platforms, scaffolds etc. should be arranged for any work at height;

Every effort shall be made to minimise the generation of dust:

- plastic drop sheets of 200 µm thickness are to be placed below the areas from which the asbestos sheeting is to be removed; and
- where applicable, seal off the area from other areas. This includes isolating such items as air inlets, exhaust flues and sealing openings with 200 µm thick plastic,

Asbestos cement sheets should be sprayed with an encapsulated or wetted prior to removal of screw or nails. High pressure water jets shall not be used;

Power tools should not be used with the exception of removing fasteners;

Asbestos cement sheets should be removed with minimum breakage and should be lowered to the ground or floor and not dropped;

Asbestos cement sheet and/or debris shall be placed in approved asbestos waste bags, or a plastic lined industrial waste bin, and sealed for disposal off site in accordance with requirements of the regulatory authority. Disposal receipts must be returned to the DEC AMU to verify correct disposal of asbestos waste;

Surfaces behind and adjacent to the asbestos cement sheet removed shall be vacuumed using an approved asbestos vacuum cleaner fitted with a HEPA filter, and asbestos cement residues removed from screws, nail heads and adjacent surfaces etc.;

Damaged edges of asbestos cement sheeting shall be sealed with an approved encapsulating paint; and

All contaminated PPE and tools should either be appropriately decontaminated or disposed of as asbestos waste in the manner described above.

7.3.7 Asbestos Containing Sprayed Vermiculite Ceiling Coating

If work is to be carried out in an affected room that will disturb or potentially disturb the vermiculite material, the contractor, maintenance person, DEC Facility Manager, Agent of DEC, Asset Maintenance Contractor or other authorised person must engage a specialist asbestos removal contractor who holds a friable asbestos licence to undertake the work.

The licensed contractor or other competent person should prepare an Asbestos Removal Control Plan (ARCP) and safe work method statement (SWMS) detailing procedures in accordance with above mentioned documentation. Each document is to be followed in such a manner that ensures personnel working in the affected room and any other person within the school will not be exposed to asbestos fibres. The work area must be completely enclosed and work must be undertaken out of school hours.
Work in progress asbestos air monitoring is to be carried out by a hygienist (asbestos assessor) during any work that disturbs or potentially will disturb the vermiculite material.

On completion of the asbestos work and following an inspection and subsequent certification by a hygienist (asbestos assessor) of the cleanliness of the work area and the enclosure, all surfaces must be sealed with PVA and applied by means of airless spray equipment. Prior to commencing clearance asbestos monitoring, the Hygienist shall inspect all internal surfaces within the asbestos removal area to verify adequate coverage of the PVA (where accessible). PVA adhesive should be mixed with a water-based paint or other appropriate colour to ensure that the PVA application is visible where applied.

Clearance asbestos air monitoring is to be carried out after a successful clearance inspection and application of PVA. Results of clearance air monitoring must be comparable to background levels and must be obtained before the area can be released for re-occupation

All asbestos management measures originally installed must be re-instated at the completion of work and prior to the removal of the work area enclosure unless all vermiculite material has been removed.


### 7.3.8 Asbestos Vinyl Tiles

If a risk assessment by a hygienist selected from the DEC Hygienist Panel determines that a friable licensed asbestos removal contractor is required or if friable backing material is found to be present, then a friable licensed asbestos removal contractor must be engaged to complete the removal works.

If possible the work should be done out of hours to minimise the risk of personnel coming into contact with asbestos removal works;

The work area is to be barricaded off with barrier tape and asbestos warming signs for a minimum distance of ten metres around the work area;

Select PPE - all persons in the asbestos removal area should wear disposable coveralls and a P2 respirator as minimum protection. PPE such as gloves and safety footwear is also recommended. A risk assessment is recommended to ensure adequate PPE is provided;

Any form of removal such as scraping, chipping or the use of a wide bladed tool may be used although every effort shall be made to minimise the generation of dust;

Where a heat source is used to soften adhesive beneath the vinyl tile, such equipment should not be used to burn the tile due to possible toxic substance release and the fire hazard;

Asbestos containing vinyl tiles and/or debris shall be place in approved asbestos waste bags or on plastic lined industrial waste bin, and sealed for disposal off site in
accordance with requirements of the regulatory authority. Disposal receipts must be returned to the DEC AMU to verify correct disposal of asbestos waste;

- All floor and adjacent surfaces shall be vacuumed after removal using an approved asbestos vacuum cleaner fitted with a HEPA filter. Wet wiping of adjacent surfaces is also recommended; and

- All potentially contaminated PPE and tools should either be appropriately decontaminated or disposed of as asbestos waste in approved asbestos waste bags.

### 7.4 Asbestos Waste Management

#### 7.4.1 ACM - General

Normally, disposal of asbestos containing materials/products will be the responsibility of the contractor engaged to perform any asbestos abatement works. The disposal of any asbestos containing materials/products off site will be in accordance with the applicable Safe Work Australia Code of Practice, local authority and legislative requirements.

Asbestos waste such as pipe lagging, limpet or fragments of asbestos cement sheeting shall be double bagged prior to its removal from site, using 200 µm thick polyethylene bags. Asbestos waste shall be bagged once at the workface and a second time away from the workface but prior to leaving the removal area enclosure. It is recommended that a maximum bag size of 1200 millimetres (length) x 900 millimetres (width) be used. Bags should be filled to no more than 50% capacity, and contents should be wet before sealing. Consistent with good manual handling practice, bags should not exceed 16 kilograms in weight.

As such:

- All asbestos containing materials removed or asbestos contaminated material must be either wrapped and sealed within 200 µm thick polythene or placed within a 200 µm polythene bag which is no longer than 1200 mm and no wider then 900mm wide.

- Bags containing waste are to be sealed with duct tape via the goose neck method and placed and sealed within another 200 µm polythene bag for transport to an appropriate waste disposal facility licensed to accept asbestos waste.

Alternatively, other approved containers may be used. In the case of non-friable materials such as large sheets of asbestos cement, such materials can be placed into a plastic lined industrial waste bin or like container.

- Polythene sheeting parcels are to be wrapped additionally within 200 µm thick polythene sheeting for transport to an appropriate waste disposal facility licensed to accept asbestos waste.

Each bag or container shall be labelled on its outermost surface, with the following warning statement:

**CAUTION – ASBESTOS WASTE**

**AVOID CREATING DUST**

**SERIOUS INHALATION HEALTH HAZARD**
Transport and final disposal of asbestos waste material shall be carried out in a manner that will prevent the liberation of asbestos dust to the atmosphere. All asbestos waste material shall be buried at an approved landfill site and in a manner approved by the local and state authorities. The DEC, prior to payment of invoices, must receive copies of waste disposal receipts, as provided by the approved landfills.

7.4.2 Soil Contaminated with ACM

A waste classification investigation is required to be undertaken on all soil determined as being for off-site disposal, including asbestos impacted fill.

The investigation involves the collection of soil samples for the purpose of determining the waste classification of the fill material prior to its removal and disposal. The samples may need to be analysed for other compounds such as hydrocarbons, metals and pesticides depending on the site history.

Following the investigation, the material should be classified in accordance with NSW DECC Waste Classification Guidelines, Part 1: Waste Classification Guidelines (2009), and taken to an approved landfill site that is licensed to receive waste relevant to its classification.

7.5 Project Supervision

Prior to the removal of any asbestos, a competent person/asbestos assessor (hygienist) obtained from the DEC Hygienist Panel, with experience in asbestos abatement works, shall be engaged by DEC or its agent to work independently of the DEC approved asbestos removal contractor to provide asbestos air monitoring and clearance inspection services. Depending on the nature of the work, a competent person/asbestos assessor (hygienist) from the DEC Hygienist Panel may also be engaged to oversee the removal of asbestos products, staying on site for the majority of the duration of asbestos removal works and providing an onsite field laboratory to facilitate a fast turn-around of asbestos air monitoring results to DEC or its agent. The competent person/asbestos assessor (hygienist) will work with the contractor and DEC or its agent and will be responsible for ensuring the asbestos removal contractor achieves a satisfactory level of workmanship, and complies fully with statutory requirements and the requirements of the technical specification.

Commensurate with the above requirements, the specific duties of the supervising occupational hygienist may include:

- inspection of the integrity of the containment prior to commencement of asbestos removal works;
- inspection of the asbestos removalist’s equipment, including decontamination and negative air units, water filtration systems, vacuum equipment, personal protective equipment (PPE) etc.;
- assessment of the asbestos removalist’s work methods, use and maintenance of PPE and decontamination procedures;
- clearance visual inspection of the work area after the removal of asbestos to ensure the asbestos has been removed to a satisfactory standard; and
- Asbestos air monitoring in accordance with the Safe Work Australia Membrane Filter Method, during asbestos removal works and as clearance air monitoring after the removal of asbestos, but before dismantling of the containment.
8. Incident Response and Emergencies

An emergency situation is most likely to entail a scenario where asbestos containing materials/products present on site have been inadvertently disturbed through actions of DEC Facility staff, pupils, maintenance personnel, contractors, out of hours vandalism and criminal entry, visitors, become damaged by severe weather conditions (e.g. hail damage to external asbestos products), or become exposed in DEC Facility grounds through surface erosion or illegal dumping of waste. Where such events have occurred, the DEC's School Security Unit on 1300 880 021 and DEC Asset Management Unit on 132 779 shall be notified immediately.

Emergency Response Procedures shall be initiated and implemented in accordance with the flow chart diagram in Figure 8.1. A range of scenarios and appropriate responses are presented in Section 9 Asbestos Incident Procedures and should be followed when suspected asbestos containing materials have been found or when an emergency incident has occurred.
Potential asbestos problem identified

Restrict Access to area immediately. Do not attempt to move or dispose of material

Check on-site asbestos register. Is item asbestos or presumed asbestos containing material?

Schools Principal Contacts DEC State Office (AMU) who arrange for a visual assessment of suspected emergency asbestos situation

Is asbestos or suspected asbestos product present?

Is the asbestos or suspected asbestos product damaged or deteriorated?

Are unprotected personnel present in the vicinity of the product and at risk of exposure to airborne asbestos fibres

Has the damaged product been positively identified by Panel Member as containing asbestos?

Is cleanup/remediation required?

Does the DEC approved AMC have sufficient resources (trained personnel, approved equipment and PPE) to effect cleanup or remediation of asbestos products?

Does the sample contain asbestos?

AMC performs cleanup of asbestos products. Engage a competent person or licenced asbestos assessor from the Panel Contract to perform air monitoring and provide clearance certification, if required

Arrange disposal of asbestos waste at an approved landfill

Investigate the cause of the emergency situation, and implement changes to work practices if necessary

Resume normal work activities

Figure 8.1: Emergency Response Flow Chart
9. Asbestos Incident Procedures

9.1 Introduction

This asbestos incident procedures section aims to set out the steps to be taken for asbestos management when suspected asbestos containing materials have been found in DEC Facility grounds and buildings/facilities. While every effort has been to include all relevant content, each page is to be used as a guide only, and is to be read in conjunction with the remainder of this AMP and relevant applicable guidance and standards.

A number of scenarios have been included based on real situations and strategies. These scenarios are situations which may potentially arise when suspected asbestos containing materials are found (and that have not been previously identified in the on-site hazardous materials register (Asbestos). The management procedures described are based on the general management set out in Section 2.

When asbestos has been identified/suspected the on-site hazardous materials (asbestos) register should be immediately updated to include such materials. Where asbestos has been removed or remediated, the on-site hazardous materials (asbestos) register should be updated accordingly.

All DEC Asbestos Registers and this AMP are available to the community generally via the Internet at; http://www.dec.nsw.gov.au/about-us/supplying-to-us/asbestos-register with the most up to date information available internally on the DEC Asset Management System (AMS).

Where asbestos management as set out in this plan requires the labelling of in-situ asbestos that can be safely managed in the DEC Facility or disposal of waste asbestos containing materials, please refer to Section 3.6.2 Labelling and Section 7.4, Asbestos Waste Management.

9.1.1 ACM in DEC Facility Grounds

Illegal Dumping of Suspected Asbestos Waste

Due to the high costs associated with the disposal of asbestos waste, on rare occasions this waste is illegally dumped. Dumped ACM can be mixed with general builders’ waste, which may include rubble and spoil. It is not unknown for individuals and companies to dispose of building waste, including asbestos waste, on DEC Facility grounds. This section sets out the procedures to follow in response to a dumping incident.

Single Source at Surface

When ACM, such as fibrous cement sheeting or other material types, have been found at the surface of DEC Facility grounds over a small area, this is usually due to demolition of a structure containing asbestos such as a building or fence where waste asbestos has been left at the surface or buried instead of proper disposal. This section sets out the procedures to follow in response to the finding of such materials.
Extensive Surface Contamination

ACM, typically as fibrous cement sheeting, has been found over a wide area of DEC Facility grounds. This can be as a result of imported waste materials used for landscaping or from demolition of domestic dwellings previously found on the site, with fibrous cement fragments becoming exposed over time due to surface erosion and soil dynamics, or due to demolition of structures containing ACM (as above). This section describes management of extensive surface contamination.

Fill Materials

Fill material has been widely used in DEC Facilities, typically for landscaping/levelling purposes. Fill may also be present in building footprints. Fill generally comprises builder’s rubble, typically bricks, although older fill often contains waste fibrous cement materials in addition to other building materials. Fill may also be generated onsite to build up depressions or level grounds. This section describes procedures to follow where fill materials have been found within DEC Facility grounds.

Fill material is not to be imported onto any DEC Facility unless appropriately certified.

In-ground Asbestos Cement Pipes

It is possible that asbestos cement drainage pipes may be present in-situ within the ground at DEC Facilities. Such materials whilst remaining buried and in operation represent a low risk. Redundant piping may also be present, which represents a low risk if still buried or intact.

9.1.2 Facilities and Buildings

Sub-Floor of Buildings

DEC Facility buildings which have cavities below (typically demountable or older style buildings) present storage opportunities for waste or spare materials. This can include asbestos building materials, such as Super Six roofing or fibrous cement sheeting. Fibrous cement packing may also be present between piers and the building. Fill materials or demolition waste containing fragments of fibrous cement materials may also be present below demountable buildings and as such require action to remove materials/remediate the area. This section describes management of asbestos containing materials that may be found below buildings.

Ceiling or Roof Space within Buildings

DEC Facility buildings which have ceiling or roof space (typically older style buildings) present storage opportunities for waste or spare materials. This can include asbestos building materials, such as Super Six roofing, fibrous cement sheeting or roofing tiles. Fibrous cement packing may also be present between framework and the building. This section describes management of asbestos containing materials that may be found within these spaces within buildings.

Appliances and Furniture

A number of electrical/heating appliances and furniture have been installed at DEC Facilities that are likely to contain asbestos containing materials. These include but are not limited to “Thermacon” heaters, air conditioning units and hot metal workbenches. Whilst such appliances and fixtures remain operational in good condition, the risks are
controlled; however they should be properly maintained. This section describes day to
day management of these appliances and fixtures.

*Building Materials – No Damage*

Asbestos-containing materials are a common building product within structures. Providing
that these materials are in a good condition and are not disturbed, they present a
negligible risk of exposure and a low health risk. This section describes management of
in-situ asbestos containing materials that do not require immediate attention.

*Building Materials – Damaged*

Damage occurring to asbestos-containing materials in buildings may cause an increase
in the risk of asbestos fibre release. Materials becoming degraded over time may also
cause an increase in the risk of asbestos fibre release. Minor surface scratches may not
require emergency response actions, rather a repair to the surface coating, although
more extensive damage will usually require emergency responses such as restricting
access and material removal. This section describes management of in-situ asbestos
containing materials that may require immediate attention.

*Non-friable Asbestos containing materials to be disturbed by Works*

There may be occasions where essential maintenance or minor refurbishment work is
required where asbestos containing materials are present and where work carried out will
involve disturbance to these materials. This section describes steps to be taken where
work may disturb asbestos-containing materials or where full removal may be required.

*Friable Asbestos Building Materials*

A small proportion of facilities may contain friable asbestos insulation materials such as
pipe lagging and fire rated spray coatings to metal supports such as roof girders. Friable
asbestos typically represents the highest risk to health, although pipe insulation will
usually be sealed with a calico type wrap. Where friable asbestos is exposed or loose
sprayed, immediate measures are required in order to control the risk. This section
describes management of in-situ friable asbestos containing materials.

Please note that friable asbestos may only be removed by contractors licensed by
WorkCover NSW to remove friable asbestos. Contractors will also be required to apply to
WorkCover NSW prior to friable asbestos removal for a work site-specific permit. Please
also note that DEC requires that all asbestos works undertaken on DEC Facilities be
supervised by an agent of DEC such as Department of Public Works. On some projects
on-site supervision and provision of on-site laboratory (asbestos air monitoring services)
may be required to be provided by a member of the DEC Hygienist Panel.

*Fire Damaged Buildings*

Where DEC Facility buildings become damaged or destroyed by fire, it is possible that
asbestos-containing materials may also have become damaged. Once asbestos
containing materials become damaged by fire, there is a significantly elevated potential
for fibre release. As such, it is important in all circumstances to restrict access well away
from fire damaged buildings in case asbestos containing materials are present and have
become damaged. This section describes the management of fire damaged buildings
with respect to asbestos.

Fire damaged asbestos will also likely to be classified as friable, and as such will require
removal by a licensed friable asbestos removal contractor.
Air Handling Units

A small number of DEC Facilities may operate air handling units containing asbestos cement sheet internal duct lining and/or asbestos millboard within heater banks. Where asbestos cement sheeting is damaged or is likely to become disturbed, units must be sealed off and all asbestos containing materials removed. Where asbestos cement sheeting is undamaged, appropriate measures should be undertaken to ensure all surfaces are completely sealed. Where asbestos cement sheet materials are to remain, a risk assessment involving air monitoring must be carried out under full operating conditions to determine whether or not fibres are being released. If asbestos millboard products have been identified or are suspected, these should be removed immediately.

Removal of asbestos from within Air Handling Units will require removal by a licensed friable asbestos removal contractor.

Asbestos Containing Mastic

Asbestos Containing Mastic can be found in old style demountable with DPWS Suite 2 aluminium framed windows in the following locations:

- Within the window frame where the glass pane is fixed to the external aluminium frame
- On the window frame where the window is fixed to the demountable steel frame (not consistent)
- On the frame of the plywood and aluminium wall panels where the panel is fixed to the demountable steel frame (not consistent)

It is anticipated that repair works will only be undertaken to the glass pane of the demountable. It is also understood that the asbestos mastic in its current form is enclosed and is deemed to be stable. This section describes management of in-situ asbestos containing mastic.

In addition a Window Asbestos Mastic Procedure has been prepared to provide a procedure for the safe removal of small sections of asbestos putty while repairing a window. Please refer to Appendix H.

Asbestos Containing Putty

Windows within school buildings may contain asbestos containing putty.

Typically this putty can be identified at the following locations:

- Within the window frame where the glass pane is fixed to the external window frame
- On the window frame where the window is fixed to the building brick or timber work

It is anticipated that repair works will only be undertaken to the glass pane of the window. This section describes management of in-situ asbestos containing putty.

In addition a Window Asbestos Putty Procedure has been prepared to provide a procedure for the safe removal of small sections of asbestos putty while repairing a window. Please refer to Appendix H.
Accidental Disturbance by Maintenance/Contractor/Capital Works

Damage occurring to asbestos-containing materials in buildings may cause an increase in the risk of asbestos fibre release. Minor surface scratches may not require emergency response actions, rather a repair to the surface coating, although more extensive damage will usually require emergency responses such as restricting access and material removal. This section describes management of in-situ asbestos containing materials that may require immediate attention.

It is essential that site managers have site asbestos registers checked before undertaking any disturbance within facilities.

In the event that a maintenance contractor were to disturb asbestos after checking the asbestos register and undertaking all necessary precaution, the site manager would be required to;

- Isolate the area
- Do not attempt to move/dispose of material
- Immediately advise the Asset Management Unit on 132 779, who will arrange support to the school from
- the school Facilities Maintenance Contractor or a hygienist support using the Panel Contract.

Accidental Disturbance by School based person or GA

Damage occurring to asbestos-containing materials in buildings may cause an increase in the risk of asbestos fibre release. Minor surface scratches may not require emergency response actions, rather a repair to the surface coating, although more extensive damage will usually require emergency responses such as restricting access and material removal. This section describes management of in-situ asbestos containing materials that may require immediate attention.

DEC does not require or support any staff, students or visitors to its sites to undertake any asbestos works. It is essential that site managers have site asbestos registers checked before undertaking any disturbance within facilities. DEC has an existing requirement (Safety Alert No 32) that requires DPWS to deliver or participate in the oversight of any remediation works. It should be noted that DPWS is involved in all DEC capital works, school maintenance works and the Panel Contract for hygienist services. Site managers are not permitted to undertake asbestos works, including licensed asbestos contractors, without the participation of DPWS.

In the event that a school based person were to disturb asbestos after checking the asbestos register and undertaking all necessary precaution, the site manager would be required to;

- Isolate the area,
- Do not attempt to move/dispose of material
- Immediately advise the Asset Management Unit on 132 779, who will arrange support to the school from
- the school Facilities Maintenance Contractor or a hygienist support using the Panel Contract.
9.2 Procedures for ACM in DEC Facility Grounds

The following procedures are set out as a guide to follow where suspected asbestos containing materials have been found at the surface of DEC Facility grounds.

The following key describes the colour coding of the flow arrows in each procedure:

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<thead>
<tr>
<th>Flow Arrow</th>
<th>Description</th>
<th>Description</th>
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<tbody>
<tr>
<td>Suspected or identified asbestos containing material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-asbestos containing material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area cleared of asbestos containing material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asbestos containing materials suspected or identified by periodic re-inspections</td>
<td></td>
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</table>

It should be noted that WorkCover NSW How to Safely Remove Asbestos: Code of Practice states that Removal of asbestos from contaminated soil will require a Class A licensed asbestos removalist for any friable asbestos to be removed, or a Class B licensed asbestos removalist if more than 10 m² of non-friable asbestos is to be removed. A person who does not have a licence can remove 10 m² or less of non-friable asbestos. Where there is uncertainty as to whether the amount of non-friable asbestos is more or less than 10 m², a Class A or Class B licensed asbestos removalist should be engaged.

Taking the above into consideration it is a DEC policy to engage a friable licensed asbestos removal contractor (Class A) as best practice for all occurrences of asbestos contaminated soil. The contractor will be engaged from a panel approved by DEC and all engagements will be to WorkCover NSW guidelines and following the advice of a WorkCover NSW licensed asbestos assessor who is also a hygienist engaged from the DEC Hygienist Panel.
9.2.1 Dumping of suspected asbestos waste

**Event:**
Waste materials discovered dumped on school grounds.

**Example:**
Pile of builders rubble, spoil, vegetation and asbestos cement “Super Six” roofing sheets found dumped on the grounds of a school.

**Asbestos Materials**
Waste found to contain suspected asbestos-containing materials.

1. Immediately restrict access to vicinity of dumped waste. Do not attempt to dispose of/move waste.
2. Contact DEC Asset Management Unit on 132 779 as soon as possible and DEC School Security Unit on 1300 880 021.
3. Contact local Police Station to investigate source of dumping.
4. DEC and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
5. DEC and DPWS to arrange removal of waste out of school hours.

**Non Asbestos Materials**
Waste found not to contain suspected asbestos-containing materials.

Contact local Police Station and DEC’s School Security Unit on 1300 880 021 to report the dumping.

Contact AMC to arrange appropriate disposal if required.

Return area to normal use.
9.2.2 Single Source ACM at Surface

**Event:**
Suspected single fragment or small number of suspected asbestos containing materials observed at a single location.

**Example:**
Fibrous cement sheet debris remaining from builder’s waste of recently demolished building/structure.

1. Restrict access to area immediately.
2. Do not attempt to dispose of/move material.

3. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
4. DEC and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
5. DEC and DPWS to arrange removal of ACMs.

**Non-Asbestos Materials**
Return area to normal use. No further action required.

Return area to normal use
Specific maintenance required for the affected area may include additional watering; ensuring that excessive wear/erosion does not occur; and undertaking top-dressing / turfing.

Visual inspections of area to be carried out at three monthly intervals, after a period of prolonged heavy rain, whenever damage or disturbance to remedial measures has been reported and whenever a suspected asbestos material has been found.

If no suspected asbestos materials found, continue with normal use. If suspected asbestos materials found, contact DEC Asset Management Unit on 132 779 and return to point 1.
9.2.3 Extensive Surface Contamination

**Event:**
Numerous fragments of suspected asbestos materials observed over a wide area.

**Example:**
Fibrous cement sheet fragments observed at surface of playing field / school grounds.

1. Restrict access to area immediately.
2. Do not attempt to dispose of/move material.
3. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
4. DEC and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
5. DEC and DPWS to arrange removal of ACMs/remediation of site.

Return area to use
Area to be entered into hazardous materials (asbestos) register.

Visual inspections of area remediated to be carried out at three monthly intervals, after a period of prolonged heavy rain, whenever damage or disturbance to remedial measures has been reported and whenever a suspected asbestos material has been found.

If no suspected asbestos materials found, continue with normal use. If suspected asbestos materials found, contact DEC Asset Management Unit on 132 779 and return to point 1.

**Non Asbestos Materials**
Return area to normal use. No further action required.
9.2.4 Evidence of Suspected ACMs within Fill Materials

**Event:**
Fill materials revealed, containing possible asbestos materials.

**Example:**
Erosion of a school field has revealed evidence of fill materials used for landscaping purposes. Fill typically has been found to consist of building rubble, including fibrous cement sheet materials as well as sand, soil and gravel.

1. Restrict access to area immediately.
2. Do not attempt to dispose of/move material.
3. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
4. DEC and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
5. DEC and DPWS to arrange removal of ACMs/remediation of site.

**Non Asbestos Materials**
Return area to normal use.
There remains the possibility that ACMs may be buried further down within the fill. Inspections should be carried out once per year to visually check for further fragments.
If suspected ACMs are found, contact DEC Asset Management Unit on 132 779 and return to point 1.

**Asbestos Removed/Area Remediated**
Return area to use.
Area to be entered into hazardous materials (asbestos) register.
Visual inspections of area remediated to be carried out at three monthly intervals, after a period of prolonged heavy rain, whenever damage or disturbance to remedial measures has been reported and whenever a suspected asbestos material has been found.
If no suspected asbestos materials found, continue with normal use. If suspected asbestos materials found, contact DEC Asset Management Unit on 132 779 and return to point 1.

Specific maintenance will be related to the extent and nature of the remediation undertaken. Where surface materials have been applied (e.g. turf, topsoil, mulch) these must be maintained as per the original application.
9.2.5 In-Ground Asbestos Cement Pipes

Event:
Asbestos cement piping is found or suspected to be present within the ground.

Examples:
Excavation activities have uncovered buried redundant or in-use asbestos cement piping.
Maintenance is carried out on piping which is suspected of containing asbestos.

Is piping damaged/deteriorated or requires replacing?

Yes

Piping to be removed
DEC/DPWS is to engage a consultant from the DEC Hygienist panel and a licensed asbestos removal contractor to remove all damaged and/or redundant piping. It is DEC policy to engage a friable licensed asbestos removal contractor as best practice for all occurrences of asbestos in soil.
Return area to normal use.

No

Piping to remain in-situ
1. Ensure that all piping is not damaged and no debris is present. Any damaged piping and debris must be removed.
2. Piping must be adequately buried and have a surface layer of grass/vegetation or a sealing layer such as concrete ensuring that the soil does not become eroded leaving any sections of the pipe exposed.
3. Enter pipe into hazardous materials (asbestos) register.
4. Return area to normal use.
5. Inspect surface level periodically to ensure that damage has not occurred. If damage has occurred, contact DEC Asset Management Unit on 132 779 for advice and return to point 5.
9.3 Procedures for ACM in Buildings

The following procedures are set out as a guide to follow where suspected asbestos containing materials have been found within or around DEC Facility buildings and facilities.

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<tbody>
<tr>
<td>Suspected or identified asbestos containing material</td>
<td></td>
</tr>
<tr>
<td>Non-asbestos material or area cleared of asbestos containing materials</td>
<td></td>
</tr>
<tr>
<td>Asbestos containing material suspected or identified by periodic re-inspections. Asbestos containing materials found to have deteriorated after periodic re-inspections</td>
<td></td>
</tr>
</tbody>
</table>

It should be noted that WorkCover NSW define asbestos that has been subjected to hail damage where abrasion has occurred and asbestos that has been demolished without proper removal as friable asbestos. Removal of such materials should be carried out by contractors licensed by WorkCover NSW to remove friable asbestos. Contractors will also be required to apply to WorkCover prior to friable removal for a work site-specific permit.
### 9.3.1 ACM Accessible Below Buildings

#### Event:
Suspected asbestos containing materials observed below a building / facility

#### Examples:
- Maintenance work below a demountable classroom has revealed a stack of stored fibrous cement roofing sheeting
- Overland flow channelled below a demountable has eroded the surface and revealed fibrous cement materials at the surface
- Asbestos cement packing is suspected within the demountable piers

#### 1. Restrict access to area immediately.
#### 2. Do not attempt to dispose of/move material.
#### 3. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
#### 4. AMU and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
#### 5. AMU and DPWS to arrange removal of ACMs. Materials not removed to be entered into hazardous materials (asbestos) register.

---

<table>
<thead>
<tr>
<th>Non Asbestos Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return area to normal use. No further action required.</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Asbestos Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return area to normal use. No further action required.</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Return area to use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual inspections of area remediated to be carried out at three monthly intervals, after a period of prolonged heavy rain, whenever damage or disturbance to remedial measures has been reported and whenever a suspected asbestos material has been found.</td>
</tr>
<tr>
<td>If no suspected asbestos materials found, continue with normal use. If suspected asbestos materials found, contact DEC Asset Management Unit on 132 779 and return to point 1.</td>
</tr>
</tbody>
</table>
9.3.2 ACM Accessible within Ceiling or Roof Space of Buildings

**Event:**
Asbestos containing material is found or suspected to be present within ceiling/roof cavities.

**Examples:**
Maintenance activities have uncovered old asbestos cement sheets. Dust is found to contain asbestos fibres.

1. Restrict access and stop work in area immediately.
2. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
3. AMU and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.

Does ceiling space contain asbestos containing materials and/or contaminated dust?

- **Yes**
  - Asbestos containing materials to be removed
    - AMU/DPWS is to engage a consultant from the DEC Hygienist panel and a licensed asbestos removal contractor to remove all damaged and/or redundant ACM. It is DEC’s policy to engage a friable licensed asbestos removal contractor as best practice.
    - Return area to normal use.

- **No**
  - Area cleared
    - Return area to normal use.
### 9.3.3 Appliances and Furniture containing ACM

**Event:**
Thermacon Heating unit present within school (these units may contain flexible woven asbestos sheeting within the unit). Note: loose insulation materials found near the top of the unit are likely to be non-asbestos.

Hot metal work bench present within school (such benches may have an asbestos cement work surface).

Ovens present within school (on rare occasions, asbestos materials may be within the oven).

---

#### Unit Damaged/Broken
1. Restrict access to area as soon as possible.
2. Is damage to exterior panels only?

---

#### Unit damaged/broken/cannot be repaired
1. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
2. AMU to arrange inspection and removal, appropriate disposal and replacement of unit if found to contain asbestos.

---

#### Unit removed
Return area to normal use.
No further action required.

---

#### Unit in Good Condition
Providing that the unit is in a satisfactory condition with no damage to external surfaces no action is necessary.

---

#### Broken Panels
1. Contact GA/AMU to repair/replace panels as soon as possible.
2. Can panels be repaired / replaced?

---

#### Unit repaired
Return area to normal use. Return unit to operational status.
Ensure that covering panels are maintained.
Enter unit into hazardous materials (asbestos) register.

---

#### Unit removed
Return area to normal use.
No further action required.
9.3.4 Non-friable ACM in Buildings – No Damage

Event:
Asbestos containing material identified or suspected within a building or facility.

Examples:
Building inspection has identified an asbestos-containing material within a school building. Maintenance work has identified a suspected asbestos material.

Asbestos within air ducts
Contact DEC Asset Management Unit on 132779 to arrange immediate assessment and to engage consultant from DEC Hygienist panel.

Vinyl Sheeting and Floor Tiles:
Enter material into hazardous materials (asbestos) register. Re-inspect by AMU to assess condition. If condition found to have deteriorated, follow procedure 9.3.5.

Unsealed Asbestos Materials
Occasionally found within sheds, garages etc.
1. Ensure all exposed surfaces are appropriately sealed (e.g. with paint) or encapsulated (e.g. with boxing) for all materials except asbestos roof materials – these should not be sealed. Enter material into hazardous materials (asbestos) register.
2. Re-inspect by AMU (typically every 12 months).
3. If condition found to have deteriorated, follow procedure 9.3.5.
4. If material is likely to be disturbed (e.g. by school occupants), re-inspect at least every 6 months. Consider full removal of asbestos material if disturbance may damage surfaces.

Sealed / encapsulated non-friable asbestos materials commonly found as ceiling and wall panels and eave linings
1. Re-inspect by AMU to assess condition. Enter material into hazardous materials (asbestos) register.
2. If condition found to have deteriorated, follow procedure 9.3.5.
3. If material is likely to be disturbed (e.g. by school occupants), re-inspect at least every six months by school. Consider full removal of asbestos material if disturbance may damage surfaces.
9.3.5 Non-friable ACM in Buildings - Damaged

Event:
Damaged asbestos contaminated material identified or suspected within a building or facility.

Examples:
Building inspection has identified a damaged asbestos-containing material within a school building.
An incident has resulted in the damage of a known or suspected asbestos material.
Asbestos debris found within roof space due to contractors not disposing of waste roof materials.

Is damage surface scratch?
Yes

Minor Surface Damage
Engage General Assistant or AMU to seal surface scratch with appropriate substance such as paint. Enter material into hazardous materials (asbestos) register.
Return area to normal use and re-inspect to assess condition. Follow procedure 9.3.4.
If structural damage has occurred, start at point 1.

No

Structural Damage
1. Restrict access to area immediately.
2. Do not attempt to move/dispose of material.
3. Contact AMU and DEC Asset Management Unit on 132 779.
4. AMU and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
5. AMU and DPWS to arrange removal or repair as deemed necessary.
6. AMU and DPWS to arrange clearances if necessary.

Asbestos Removed
Return area to normal use.

Asbestos Repaired
Return area to normal use and re-inspect. If condition is found to have deteriorated, contact DEC Asset Management Unit (AMU) on 132 779 and return to point 1.

Non Asbestos
Return area to normal use.
No further action required.
9.3.6 Non-friable ACM to be disturbed by works

Event:
Work is required that will disturb an asbestos material

Examples:
Installation of new equipment requires drilling into an asbestos containing material.
An asbestos workbench requires repair.
Refurbishment requires asbestos walls to be replaced.

Check hazardous materials (asbestos) register prior to works being undertaken. Does the work involve disturbing/working on or near an ACM?

Yes

Contact DEC Asset Management Unit on 132 779 for advice.

No

Work may be undertaken. If any doubt as to the nature of the material, contact DEC Asset Management Unit on 132 779 to arrange inspection.

All works to be supervised by the Department of DPWS or AMU as directed by DEC. Do not undertake works without supervision no matter how small the project is.

DEC will instruct on method of work or whether ACM should be removed prior to work commencing.
9.3.7 Asbestos Containing Sprayed Vermiculite Ceiling Coating

Event:
Work is required that will disturb a Vermiculite Ceiling Coating.

Examples:
Installation of new equipment requires drilling into a Vermiculite Ceiling Coating.

Check hazardous materials (asbestos) register prior to works being undertaken. Does the work involve disturbing/working on or near the Vermiculite material?

Yes

Contact DEC Asset Management Unit on 132 779 for advice.

All works to be supervised by the Department of DPWS or AMU as directed by DEC. Do not undertake works without supervision no matter how small the project is.

DEC will instruct on method of work or whether Vermiculite should be removed prior to work commencing.

No

Work may be undertaken. If any doubt as to the nature of the material, contact DEC Asset Management Unit on 132 779 to arrange inspection.
9.3.8 Friable ACM within Buildings

**Event:**
Friable asbestos containing materials found within school building.

**Examples:**
Maintenance work has encountered friable asbestos insulation to girders in roof. Damage has occurred to pipes revealing friable asbestos lagging.

---

1. Immediately restrict access to area.
2. Do not attempt to move or dispose of material.
3. Contact DEC Asset Management Unit on 132 779 immediately.
4. AMU and DPWS to arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
5. AMU and DPWS to arrange appropriate removal or management of ACM.

---

**Asbestos to be removed**
Friable asbestos removed by a WorkCover NSW licensed contractor. Consultant from DEC Hygienist panel clears area to be returned to use.

---

**Asbestos Removed and Area Cleared**
Return area to normal use.

---

**Non Asbestos Containing Material**
Return area to normal use.

---

**Asbestos Adequately Encapsulated**
1. Label material as potentially containing asbestos. Enter material into hazardous materials (asbestos) register.
2. Ensure material is not disturbed.
3. Arrange for AMU to re-inspect at least every year to assess condition. If condition found to have deteriorated, follow from point 1.
9.3.9 Fire Damaged Buildings containing ACM

**Event:**
Fire has damaged confirmed or suspected asbestos containing materials.

**Examples:**
Arsonists have set fire to a demountable school building. The building is known to contain asbestos cement eaves linings panels.

Fire has gutted part of a school building. The nature of materials present is unknown.

---

**ACM Found or Suspected**

5. DPWS to arrange for asbestos removal. This may require structural improvements to allow safe access to damaged structures. Air monitoring to be carried out by a consultant from DEC Hygienist panel.

6. Consultant from DEC panel to provide clearance certificates to DEC upon successful completion of asbestos removal works.

7. DPWS to arrange for demolition or repair of building.

---

**Emergency Services Response**

Building released by emergency services (fire brigade/police)

1. Access to area restricted by DPWS / AMU. Commonly isolation fence installed.
2. Do not attempt to access the area under any circumstances.
3. Contact DEC Asset Management Unit on 132 779 immediately if not previously advised.

---

**No ACM Found**
DPWS to arrange for demolition or repair of building.

---

4. AMU and DPWS to arrange inspections and testing as required for hazardous substances by consultant from DEC Hygienist panel.
9.3.10 Air Handling Units containing ACM

**Event:**
Asbestos cement materials used in air handling units.

**Examples:**
- Asbestos cement sheet panels lining internal ducting of air conditioning system.
- Asbestos cement sheet panels lining internal ducting of air movement system.
- Asbestos millboard suspected within heater banks of air handling system.

**Are asbestos millboard materials present?**

- **Unknown**
  - 1. Contact DEC Asset Management Unit on 132 779 immediately.
  - 2. AMU and DPWS to arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
  - 3. AMU and DPWS to provide appropriate management of ACM. This may involve removal or leaving materials in-situ with monitoring.

- **Yes**
  - Millboard Products Identified
    - 1. Do not operate air handling system.
    - 2. Contact DEC Asset Management Unit on 132 779 immediately.
    - 3. AMU and DPWS to arrange inspections and testing by consultant from DEC Hygienist panel. AMU and DPWS to arrange appropriate removal or management of ACM.

**Asbestos Removed and System Cleared**
Air handling system may be returned to use.

**Asbestos Retained**
Air handling system may be returned to use providing that ongoing monitoring is carried out as recommended by competent person or asbestos assessor clears area to be returned to use.

**Asbestos to be removed**
Friable asbestos removed by licensed contractor. Consultant from DEC Hygienist panel clears area to be returned to use.
   - Clearance Certificates to be provided to DEC.

**Asbestos Removed and System Cleared**
Air handling system may be returned to use.
9.3.11 Asbestos-containing chalk boards

Event:
Asbestos-containing chalk board in operation within teaching room.
Such chalk boards comprise asbestos cement sheeting with a paint coating forming the writing surface.

Board damaged or paint surface deteriorating
Do not use chalk board.

Board damaged
1. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
2. AMU to arrange inspection and removal, appropriate disposal and replacement of board if found to contain asbestos.

Paint surface deteriorating
Recoat as soon as possible.
Return board to use.

Chalk board in good condition
Board is intact with no visible damage and painted surface in good condition. (i.e. no peeling or flaking)

Leave and maintain
Enter material into hazardous materials (asbestos) register.
If condition found to have deteriorated, follow damaged procedures.
If material is likely to be disturbed (e.g. by school occupants), re-inspect at least every six months by school. Consider full removal of asbestos material if disturbance may damage surfaces.

Asbestos detected.
Board can be repaired.

Asbestos board removed
Return area to normal use.
No further action required.
9.3.12 Asbestos Containing Mastic

Event:
The Mastic is found within the window frame where the glass pane is fixed to the external aluminium frame, in old style demountable.
The Mastic is found on the window frame or on the frame of the plywood and aluminium wall panels where the panel is fixed to the demountable steel frame. (not consistent)

Mastic deteriorating/damaged
Restrict access to area as soon as possible.

Mastic damaged
1. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
2. AMU to arrange inspection and removal, appropriate disposal and replacement of board if found to contain asbestos.

Asbestos detected.
Yes
Asbestos mastic removed
Return area to normal use.
No further action required.

No
Mastic can be repaired / sealed.

Mastic in good condition
Putty is intact with no visible damage and painted surface (if it exists) in good condition. (i.e. no peeling or flaking)

Leave and maintain
Enter material into hazardous materials (asbestos) register.
If condition found to have deteriorated, follow procedures as per Window Asbestos Mastic Procedure, Appendix H.
If material is likely to be disturbed (e.g. due to works on glass panes or window frames), re-inspect at least every six months by school. Consider full removal of asbestos material if disturbance may damage surfaces.

Asbestos detected.
9.3.13 Asbestos Containing Putty

Event:
Window frame to where glass is fixed to the external window frame contains putty. Putty is present on the window frame where the window is fixed to the building brick or timber work.

Putty deteriorating/damaged
Restrict access to area as soon as possible.

Putty damaged
1. Contact DEC Asset Management Unit on 132 779 as soon as practicable.
2. AMU to arrange inspection and removal, appropriate disposal and replacement of board if found to contain asbestos.

Putty in good condition
Putty is intact with no visible damage and painted surface (if it exists) in good condition. (i.e. no peeling or flaking)

Leave and maintain
Enter material into hazardous materials (asbestos) register
If condition found to have deteriorated, follow procedures as per Window Asbestos Putty Procedure, Appendix H.
If material is likely to be disturbed (e.g. due to works on glass panes or window frames), re-inspect at least every six months by school. Consider full removal of asbestos material if disturbance may damage surfaces.

Asbestos detected.

Asbestos putty removed
Return area to normal use.
No further action required.

Putty can be repaired / sealed.
### 9.3.14 Accidental Disturbance of ACM by Maintenance/Contractor/Capital Works

**Event:**
Asbestos or suspected asbestos containing material is damaged by contractor or other non-school based person due to maintenance works or general housekeeping.

**Example:**
Work is undertaken before the register is checked and without sampling, resulting in damage to what is later identified to be asbestos containing vinyl wall lining.

#### Structural Damage
1. Restrict access to area immediately.
2. Do not attempt to move/dispose of material.
3. Inform relevant school personnel.
4. Contact DEC Asset Management Unit (AMU) on 132 779.
5. AMU and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
6. AMU and DPWS to arrange removal or repair as deemed necessary.
7. AMU and DPWS to arrange clearances if necessary.

#### Non Asbestos
Return area to normal use/next stage of works.
No further action required.

#### Asbestos Removed
Return area to normal use.

#### Asbestos Repaired
Return area to normal use and re-inspect. If condition is found to have deteriorated, contact DEC Asset Management Unit (AMU) on 132 779 and return to point 1.
9.3.15 Accidental Disturbance of ACM by School based personnel

Event:
Asbestos or suspected asbestos containing material is disturbed by school based personnel due to maintenance works or general housekeeping.

Example:
Work is undertaken around ceiling cavity without prior checking of asbestos register resulting in disturbance to fibrous cement sheeting.

Structural Damage
1. Restrict access to area immediately.
2. Do not attempt to paint/move/dispose of material.
3. Contact DEC Asset Management Unit (AMU) on 132 779.
4. AMU and DPWS will arrange inspections and testing if necessary by consultant from DEC Hygienist panel.
5. AMU and DPWS to arrange removal or repair as deemed necessary.
6. AMU and DPWS to arrange clearances if necessary.

Non Asbestos
Return area to normal use.
No further action required.

Minor Surface Damage
Engage General Assistant or AMU to seal surface scratch with appropriate substance such as paint. Enter material into hazardous materials (asbestos) register.
Return area to normal use and re-inspect to assess condition. Follow procedure 9.3.4.
If structural damage has occurred, start at point 1.

Asbestos Repaired
Return area to normal use and re-inspect. If condition is found to have deteriorated, contact DEC Asset Management Unit (AMU) on 132 779 and return to point 1.

Asbestos Removed
Return area to normal use.
10. Frequently Asked Questions (FAQ)

Frequently Asked Questions:
(These frequently asked questions and answers have been prepared in terms of queries of the School and TAFE principals. All scenarios in the questions are purely examples.)

A school’s general assistant, while undertaking a small material task has accidentally disturbed what appears to be fibro. What should be done?

Follow the steps mentioned below:

- Stop working immediately and isolate the immediate area. Check to see if the material is identified in the school’s Asbestos Register.
- Contact Asset Management Unit (AMU) on 132 779 to seek advice.

For more information, check the DEC’s Asset Management Plan Appendix ‘F’ – Communications Strategy regarding the Brochure ‘What You Need to Know About Asbestos-Containing Materials’

A member of teaching staff requested students to remove loose vinyl tiles in the foyer area of the school as part of an activity. The tiles were subsequently found in the Asbestos Register to be positive for Asbestos. What should be done?

- Stop working immediately and isolate the immediate area.
- Make sure all those involved in the removal of the tiles have undertaken basic personal decontamination.
- Contact Asset Management Unit on 132 779 to seek advice.

Along with above steps, check the DEC’s Asset Management Plan Appendix ‘F’ – Communications Strategy regarding the Brochure ‘What You Need to Know About Asbestos-Containing Materials’

A member of the school staff may have been exposed to asbestos, and have made a complaint about skin and eye irritation. What should be done?

Irritation of eyes and skin is not caused by exposure to asbestos. However, if there is a concern regarding respiratory damage, the teacher should contact their own doctor and the Asset Management Unit on 132 779. In addition, Work Health and Safety Directorate may be contacted for advice.

How will a school know if buildings contain asbestos?

Please check the Asbestos Register of the school for identified asbestos containing materials. If a register does not exist, contact Asset Management Unit on 132 779 and the AMU will contact panel contractor to conduct sample tests or asbestos surveys, depending on requirement.

If ever in doubt about whether or not an asset is positive for asbestos, assume asbestos is present and take the necessary precautions by following above mentioned steps of contacting AMU to seek advice.

Someone has dumped potentially asbestos containing materials by the school’s foot path. What should be done?

Areas outside school property are a council issue. Contact the local council and inform them of the incident.
Also contact Asset Management Unit on 132 779 and inform them of the incident and the AMU will follow up with the council regarding the matter.

For more information, check the DEC’s Asset Management Plan Appendix ‘F’ – Communications Strategy regarding the Brochure ‘What You Need to Know About Asbestos-Containing Materials’

Where can I get a guide to asbestos removal?

Please check the DEC’s Asset Management Plan Appendix ‘F’ – Communications Strategy regarding ‘What You Need to Know About Asbestos-Containing Materials’ last section about ‘Where Can I Get More Information’.

How does a School find a WorkCover NSW licensed contractor?

Schools do not need to conduct any asbestos works themselves. Consequently, schools do not need to search for any WorkCover NSW licensed contractor themselves.

It is essential that site managers have site asbestos registers checked before undertaking any potentially disturbing work within the school’s facilities.

In the case of any asbestos related work, the school must contact Asset Management Unit (AMU) on 132 779.

It should be noted that DPWS is involved in all DEC capital works, school maintenance works and the Panel Contract for hygienist (asbestos assessor) services.

For more information, please read DEC’s Asbestos Management Plan.

How can I be sure, as a Principal, that the removal of asbestos on a school site has been conducted in a safe manner?

Ensure that following steps have been taken by a WorkCover NSW licensed contractor while removing fibro sheeting:
- They have received a permit (refer to Appendix A) to commence works from DEC
- They have received a permit from WorkCover NSW relevant to the type of asbestos works to be carried out.

In general, the contractor is to
- Not use power tools. Asbestos fibres can be released if power tools are used for anything other than the removal of screws.
- Wear an Australian Standards Protection Level 2 (P2) minimum half face disposable mask and disposable coveralls. These are generally available from hardware suppliers. Non-Australian Standards certified masks should not be used where asbestos is present.
- Wet down fibro sheets to reduce dust generation and movement.
- Take the fibro sheets off whole (again, do not use power tools as this may create dust).
- Seal fibro sheets in construction grade plastic. (This should be 200 microns thick) and dispose of as asbestos waste.

Should the asbestos be in powder form or can be crumbled, pulverized or reduced to powder by hand pressure when dry, then an asbestos removal contractor with an AS1 Licence is required for its removal.

Contact Asset Management Unit (AMU) on 132 779 and seek further advice on appropriate removal of asbestos on school sites.

For more information, check the DEC’s Asset Management Plan Appendix ‘F’ – Communications Strategy regarding the Brochure ‘What You Need to Know About Asbestos-Containing Materials’
As a Principal, I have concerns about the neighbours (or a contractor working for them) taking down a shed or demolishing a house and generating dust. Are they doing it safely?

Your neighbour, or their contractor, should be:

- Wearing personal protective equipment (PPE)
- Taking the sheets off whole and not using power tools to minimise dust
- Not working on windy days
- Wetting down the sheets
- Putting them in a plastic-lined skip.

If you are worried that they are not doing things safely, contact Asset Management Unit on 132 779 immediately.

How do schools know if a neighbour's fibro shed or other building has asbestos in it?

First of all, schools need to identify whether the property is adjoining or not to the school property. If the property is adjoined, then contact the local council and also inform Asset Management Unit on 132 779 to seek advice. AMU will arrange for sample test by consultant from DEC Hygienist panel.

For further information, check the DEC's Asset Management Plan Appendix ‘F’ – Communications Strategy regarding the Brochure ‘What You Need to Know About Asbestos-Containing Materials’
Appendix A

Permit to Work for Works Affecting or Involving Asbestos containing Materials
(Section 3.7.3)

To be completed by the Facility Manager

School Principals will require the support of the AMU to complete this documentation for school initiated works.
### Part A: Planned Work Details

**School to Complete:**

Work Permit Number: AMF1 / __________________________ Date of Issue: __________________________

DEC Facility Name: ____________________________________________

DPWS Contact: __________________________ Phone: __________________________

Emergency Contact: __________________________ Phone: __________________________

**Contractor to Complete:**

Permit Issued to: __________________________ Valid up to: __________________________

Contractors Company Name: __________________________

Address: __________________________

Phone: __________________________ Asbestos Licence Number: __________________________

Location of Works: __________________________

Description of Works: __________________________

Duration of Works: __________________________

Location and Description of Asbestos-Containing Materials: __________________________

---

Before approval is granted to proceed with work, confirm the following: *(School to Complete)*

1. Has the existing hazardous materials on-site (asbestos) register been examined jointly with the DEC Facility Manager?  
   **YES/NO**

2. Has the area where the intended works are to be performed been examined jointly with the DEC Facility Manager?  
   **YES/NO**

3. Are asbestos containing materials/products present in the work area?  
   **YES/NO**

4. Will the works impact on or disturb the asbestos containing materials/products?  
   **YES/NO**

5. If YES to question 4 above, are the appropriate asbestos work procedures as outlined in the DEC Facility Asbestos Management Plan documented and understood?  
   **YES/NO**

6. Are DEC Facility users at risk of exposure to airborne asbestos?  
   **YES/NO**

7. Is it necessary to evacuate DEC Facility staff and students prior to work commencing?  
   **YES/NO**

8. Has a copy of the on-site hazardous materials (asbestos) register for the work area concerned been issued to the contractor?  
   **YES/NO**

9. Has a copy of a Safe Work Method Statement been supplied and reviewed? *(refer to AMU for advice)*  
   **YES/NO**
Mark as Required *(Contractor to Complete)*

<table>
<thead>
<tr>
<th>Yes / No</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>WorkCover NSW Asbestos Removal Licence required</td>
</tr>
<tr>
<td>Yes</td>
<td>Health and Safety Plan to meet WorkCover NSW Requirements to be prepared and approved prior to works commencing</td>
</tr>
<tr>
<td>Yes</td>
<td>Asbestos Supervisor to be present whilst work is being carried out</td>
</tr>
<tr>
<td>Yes</td>
<td>Personal protection equipment to be worn</td>
</tr>
<tr>
<td>Yes</td>
<td>No air conditioning to be running on affected building/floor</td>
</tr>
<tr>
<td>Yes</td>
<td>'Asbestos No Entry' signs to be placed at each end of affected floor and in the lift lobbies</td>
</tr>
<tr>
<td>Yes</td>
<td>No power tools allowed to work on asbestos material without suitable controls</td>
</tr>
<tr>
<td>Yes</td>
<td>Procedures documented in asbestos removal technical specifications/procedures for this work to be adhered to</td>
</tr>
<tr>
<td>Yes</td>
<td>Air monitoring required</td>
</tr>
<tr>
<td>Yes</td>
<td>Clearance visual inspection by independent party required</td>
</tr>
</tbody>
</table>

Comments/Other Requirements:

---

**Part B: Acceptance of Work Permit**

I/We (The Contractor) have read and understood the requirements of the permit and will undertake work in accordance with the Work Health and Safety Regulation 2011

Contractors Name: __________________________ Signature: __________________________

DEC Facility Manager Name: __________________________ Signature: __________________________

---

**Part C: Completion of work (If Applicable)**

I (The Hygienist (Asbestos Assessor) /Supervisor) have inspected the area where work has been carried out and am satisfied that the works have been carried out in accordance with the work permit and that all asbestos risks are satisfactorily controlled

Hygienists (Asbestos Assessor) and/or Supervisors Signature:

Once signed above no further works can be undertaken on this permit. If work has changed the status of asbestos containing materials, the hazardous materials (Asbestos) register must be updated.

Completed permit to be retained by DEC Facility
Appendix B

Identifying Asbestos containing materials
Possible Situations of Asbestos-Containing Materials in DEC Facilities

Fibrous cement corrugated roof sheeting panels are very commonly found as roofing on older buildings and occasionally as wall sheeting. Also known as Super Six, these materials typically contain 10-15 percent asbestos, most commonly chrysotile, although amosite and/or crocidolite have frequently been used. The manufacture of asbestos cement ceased in the late 1980s. A whole of Government program removed asbestos cement roofing during the 1980's and early 1990's, however some may remain that was previously unidentified.

Fibrous cement ceiling panels commonly used in older buildings as the ceiling between classrooms and the roof space. Usually manufactured in 1 m wide sheets, with nail or fixing points usually recognisable at 1 m intervals. Also known as Hardifex, Hardiplank and Villaboard, these materials typically contain 10-15 percent asbestos, most commonly chrysotile, with amosite and crocidolite occasionally used.

Fibrous cement wall sheeting is occasionally used in older buildings cladding existing walls or used to form partition walls. Usually manufactured in 1 m wide sheets, with nail or fixing points usually recognisable at 1 m intervals. Also known as Hardifex, Hardiplank and Villaboard, these materials typically contain 10-15 percent asbestos, most commonly chrysotile, with amosite and crocidolite occasionally used.

Vinyl floor finishes are very commonly used throughout DEC Facility buildings, usually as small tiles. Sometimes known as Corlon. Generally chrysotile was used as a reinforcing agent and may be between 3-7 percent for both the vinyl and the reinforced backing of linoleum. Not all vinyl floor tiles contain asbestos and sometimes quantities of asbestos can be too low to detect.

Electrical insulation board are very commonly found on older electrical meter panels or switch/fuse boards. Sometimes labelled as Zelemite, Lebah or Ausbestos and mostly black in colour. These boards are commonly found as a mounting for electrical meters or as a hinged panel mounting for fuses and switchgear. Typically, chrysotile is bonded into the matrix of the material.

Fibrous cement debris. Imported fill materials used in DEC Facility grounds, such as for landscaping or for gravel tracks, have been found to contain fibrous cement board fragments. Occasionally, previous structures with fibrous cement materials that have existed on DEC Facility grounds may have debris buried in the ground after demolition.
Appendix C

Asbestos Information Sheets
Common Types of Asbestos-Containing Materials

Asbestos Cement: The most commonly used asbestos material. Common types include corrugated roof sheeting, flat panel sheeting used for walls and ceilings as well as fibre pipes and insulation boards. Flat fibre cement sheeting has been used extensively in eaves lining, ceilings, and internal and external wall linings. These materials contain typically chrysotile asbestos, although amosite and crocidolite may have been used, particularly in older materials. The asbestos fibres are held in a cement bound matrix and therefore have a low potential to be released unless abraded or damaged.

Resinous Asbestos Insulation Board: Typically, these are found as panels behind and/or in front of electric meters and circuits. Chrysotile is the most common asbestos fibre used in these products. The fibres are held in a bonded matrix and therefore have a low potential to be released unless the material is abraded or damaged.

Vinyl Floor Tiles: Vinyl materials often contain very small quantities of asbestos fibre (typically less than 7%), usually chrysotile. Asbestos contained in the vinyl body of the tile or sheet is held in a stable matrix. The very low rate of wear does not normally give rise to fibre release considered to pose a significant health risk. Asbestos may be found in the vinyl body of the tile or sheet, as a fibrous backing under the tile or sheet and/or as a fibrous adhesive used to fix the tile.

Sprayed Asbestos Insulation: Sometimes referred to as 'impert'. Sprayed asbestos was applied as a thermal and anti-condensation insulation material on the undersides of roofs, as well as a fire protection material on steel and concrete reinforcement beams and columns and on the underside of floors. Over-spray of target areas is common. Spray coatings usually contain 55-83% asbestos containing one or a combination of chrysotile, amosite and crocidolite. Generally not applied after the 1970s. Sprays have a high potential for fibre release if unsealed.

Thermal Insulation: Used as insulation of pipes, boilers, pressure vessels, calorifiers etc., containing between 55 and 85% asbestos content of all types. Often asbestos insulation will be encapsulated with calico and painted, although these may be easily damaged. Once damage has occurred, the risk of fibre release is high.

Paper/Card and Textiles: Paper and card products typically contain chrysotile asbestos and can be used for electrical/heat insulation of electrical equipment wiring and plant as well as a lining for other products. These materials if not encapsulated or bonded can easily become damaged and release fibres. Asbestos ropes were often used as heat resistant lagging and seals and electrical flash guards in fuses, typically containing chrysotile and/or crocidolite. Cutting of ropes may increase risk of fibre release along with degradation over time.

Health Risks Associated with Asbestos

The inhalation of airborne asbestos fibres is associated with the contraction of the respiratory diseases. Asbestos-related diseases typically have a lag period of between 20 and 40 years after first exposure.

Asbestosis: Scarring of lung tissue resulting from prolonged inhalation of asbestos fibres. Can result in breathlessness, which may lead to disability and in some cases death.

Lung Cancer: Prolonged inhalation of asbestos fibres may increase the risk of contracting lung cancer.

Mesothelioma: A cancer of the lining of the chest cavity (pleura) or the lining of the abdominal cavity (peritoneum). Typically only occurs from inhalation of amosite and crocidolite fibres.

Contraction of asbestos-related diseases is typically dependent on a high dose of asbestos inhalation (a function of the extent of fibre and exposure and the period of exposure).

Asbestos Fibres

Chrysotile: White asbestos fibre. Generally the most commonly used asbestos type. Lowest risk asbestos fibre.

Amosite: Brown asbestos fibre. Frequenty used asbestos fibre. Slightly increased health risk than chrysotile.

Crocidolite: Blue asbestos fibre. Not as commonly used. Highest health risks associated with this fibre.

Fibre Release

For asbestos containing products to pose a health risk, airborne fibres must be generated either through degradation or high energy mechanical action. The degree of asbestos fibre release, and hence inhalation exposure, is in part dependent upon the matrix material binding the asbestos and its general condition.
Appendix D

Ground Remedial Measures and Maintenance
## DEC Facility Grounds Remedial Measures and Maintenance Techniques

<table>
<thead>
<tr>
<th>Remedial Measure/Treatment</th>
<th>Appropriate When:</th>
<th>Maintenance Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass seeding and/or turfing</td>
<td>Topsoil has become exposed in an areas where asbestos containing materials may be present below clean soil/clean fill. Low traffic areas.</td>
<td>Visual checks to ensure grass cover is adequate at 3 monthly intervals. Periodic resting of area may be required.</td>
</tr>
<tr>
<td>Topsoil and turfing</td>
<td>Fill material has become exposed/surface eroded where asbestos containing materials may be present. Low to Medium traffic areas.</td>
<td>Visual checks to ensure grass cover is adequate at 3 monthly intervals. Periodic resting of area may be required. Otherwise turf will require re-laying if the surface becomes eroded. Adequate watering during drought periods (this option may not be suitable during periods of extended drought when reservoir levels drop below 40%).</td>
</tr>
<tr>
<td>Mulching (May be in conjunction with topsoiling). Locally indigenous plant species can be planted in addition to create a thicker surface layer and to discourage trafficking across the area.</td>
<td>Fill material has become exposed/surface eroded where asbestos containing materials may be present. Low traffic areas.</td>
<td>Visual checks to ensure mulch cover is adequate at 3 monthly intervals. Materials should be re-applied if original application becomes displaced or lessens.</td>
</tr>
<tr>
<td>Application of geo-fabric and clean fill. Must be used in conjunction with topsoil and turf/seeding or mulching</td>
<td>Fill materials (containing asbestos) are exposed and high concentrations are expected. Low to medium traffic areas.</td>
<td>As per maintenance requirements for topsoil/turf and mulch. If geo-fabric becomes exposed, clean fill and surface materials must be re-applied. If geo-fabric becomes damaged, consider replacement.</td>
</tr>
<tr>
<td>Terracing. Must be used in conjunction with topsoil and turf/seeding or mulching</td>
<td>Embankments comprising fill materials become eroded exposing fill and asbestos containing materials.</td>
<td>As per maintenance requirements for topsoil/turf and mulch.</td>
</tr>
<tr>
<td>Restricting access using physical barriers such as fencing, walls etc. Must be used in conjunction with topsoil and turf/seeding or mulching</td>
<td>High traffic areas where asbestos containing materials have become exposed (this measure diverts traffic away from the area).</td>
<td>As per maintenance requirements for topsoil/turf and mulch. Ensure that physical barrier integrity is maintained.</td>
</tr>
<tr>
<td>Concrete/bitumen encapsulation</td>
<td>High traffic areas, high risk of exposure to asbestos containing materials in the ground.</td>
<td>Visually inspect periodically to ensure surface is as original application.</td>
</tr>
<tr>
<td>Removal of asbestos contaminated fill/soil</td>
<td>Major works are required in area that require significant excavations.</td>
<td>n/a – asbestos removed.</td>
</tr>
</tbody>
</table>

*Note: Where asbestos remedial measures have been carried out with the exception of removal, excavation works carried out subsequently must be under the authority of a work permit and appropriate PPE and RPE must be worn. Dust suppression must be carried out to avoid potential release of fibres.*
Appendix E

Safety Notices, Key Points for Engaging Contractors, Local Workplace Procedure for Contractors and Demountable Checklists

- DN/05/00321 Safety Notice No 10 Mandatory Survey: Portable plug in kilns may contain asbestos
- DN/06/00362 Use of Imported Fill on School Sites
- DN/07/00356 Safety Notice No 17 Asbestos Survey of Department of Education and Communities Facilities
- DN/12/00505 Safety Notice No. 36 – Sealant containing asbestos in demountable buildings
- Safety Alert No. 32 - Procedures relating to Asbestos during Construction Work (May 2011)
- DN/13/00168 Safety Notice No. 46 – Use of imported fill containing Asbestos, on School sites

Engaging Contractors – Key Points

- Local Workplace Safety Procedures for Department of Public Works Contractors
- Local Workplace Safety Procedures for Independent Contractor (Not managed by Department of Public Works)

Demountable Checklists – Release/Transfer and Installation
Memorandum to all Principals

Safety Notice No 10 — Mandatory Survey: Portable Plug-in Electric Kilns May Contain Asbestos

Reference: DN/05/00321  
Date: 9 September 2005

A small portable plug-in electric kiln used in a secondary school industrial arts area has been found to contain fibrous asbestos lagging. Kilns of this type may have application in secondary school industrial arts, creative arts and possibly science areas and may be present in some primary schools.

The Department of Education and Training requires the identification of all portable electric kilns used in schools to determine the range of models and age of this equipment to facilitate any necessary remedial actions.

This issue does not include any of the larger pottery kilns (70, 140 or 280 litre) which are maintained under the School Building Services and Equipment Maintenance Contract.

Principals are required, as a matter of urgency to:

- Identify whether portable plug-in electric kilns are present in the school (sample photographs are attached) Kilns which are obviously not small portable electric kilns should not be reported.

- Advise no later than Thursday 22nd September 2005 the regional WHS Liaison Manager by Fax or email, using the attached form, detailing the type of kilns in the school. A NIL RETURN is required if no portable kiln is present in the school.

As soon as the collated advice is available, additional information will be provided to schools regarding a state wide remediation action.

Should you wish to discuss this matter further please contact your regional WHS Liaison Manager, or Alan Smith, Manager Compliance and Energy, Asset Management on Ph.: 9561 8956.

Mike Cush  
General Manager, Asset Management
Portable Electric Kilns

Photograph 01: Kiln with exposed lagging

Photograph 02: SMF lagged kiln

Photograph 03: Two versions of kiln from same manufacturer
USE OF IMPORTED FILL ON SCHOOL SITES

I am aware of a number of cases where building contractors, neighbouring property owners or members of the school community have approached the school principal to obtain permission to dump excavation soil on a school site. This could be presented to the school as an inexpensive way to enhance school facilities.

Excavated soil being provided to schools in this way could contain fibro fragments or other contaminants. The removal of such materials after distribution across a school site is extremely difficult and can only be achieved at a high cost. Visual inspection is not sufficient to identify all contaminants.

School principals must not permit any individual or organisation to dump fill of any type on a school site. Should there be a need to obtain soil or fill materials, the principal should contact their local Regional Asset Management Unit (AMU) for advice regarding suitable sources of supply and any documentation required. The AMU will document the approved arrangements on the school file. If you are purchasing fill, a reputable supplier will provide certification that the fill is clean on request. Alternatively, a report from a qualified Occupational Hygienist should be obtained prior to acceptance of fill from donors.

Should illegally dumped material be identified on a school site, the principal should immediately restrict access to the dumped waste and must not attempt to remove the material. The principal must contact officers in their Regional AMU which will arrange inspections and any necessary testing in conjunction with the Department of Commerce (Commerce). The AMU and Commerce will then arrange for the safe removal of waste materials out of school hours.

Should you require any further advice regarding this matter please contact Alan Smith, Manager, Compliance & Energy on telephone 02 9561 8956 or John Deeble, Senior Advisor, Asset Services on telephone 02 9561 8084.

[Signature]

Beryl Jamieson
GENERAL MANAGER, ASSET MANAGEMENT
MEMORANDUM TO PRINCIPALS,
REGIONAL DIRECTORS and
INSTITUTE DIRECTORS

SAFETY NOTICE No.17  

Asbestos Survey of Department of Education and Training Facilities.

The Department, under State Procurement Contract 0602390, has recently engaged Noel Arnold and Associates to undertake an asbestos survey of schools and TAFE colleges, to commence during Term 4, 2007.

The Department anticipates that surveys will be completed during May 2008 with the asbestos registers provided to schools and colleges during July 2008. The results of this survey will be used to establish an asbestos register for each school and TAFE college.

All schools and colleges can expect to be surveyed unless, they have previously been surveyed with an asbestos register established or all facilities on site have been constructed after 1989.

Principals and College Directors are requested to:
• Respond promptly to enquiries from Noel Arnold and Associates when programming the survey of their school/college;
• Facilitate access to sensitive spaces (e.g. student toilet/change facilities) and access to normally locked spaces (e.g. store rooms) to undertake the survey;
• Ensure all school/college staff are aware that contractors from Noel Arnold and Associates are afforded a brief inspection all occupied spaces including those which may be in use for teaching learning purposes; and
• Accommodate variations to the notification periods during the early stages of the survey, i.e. 2 weeks initial notification and 48 hours confirmation will normally apply.

Your support in facilitating this survey is greatly appreciated and feedback to your regional Asset Management Unit, via maintenance review meetings will also be beneficial.

The Department has developed a brochure with information on the contract, the responsibilities of contractors, schools and colleges, and a Site Inspection and Test Report.

The brochure and all other information relating to this contract, is available on the Department's Intranet at: https://detwww.det.nsw.edu.au/assetmanagement/safecomps/abifbr/ The Department will also post future updates on the survey here.

If you have any questions regarding the survey please contact Alan Smith, Manager Compliance and Energy, on telephone number 9561 8956 or fax 9561 8438.

Beryl Jamieson
General Manager, Asset Management
November 2007
MEMORANDUM TO PRINCIPALS

SAFETY NOTICE No. 36

Sealant containing asbestos in Demountable buildings.

The Department of Education and Communities has confirmed that an asbestos containing mastic like sealant has been used in demountable buildings to weather seal glazing, aluminum window frames and wall panels.

An independent health hygienist has inspected the sealant product and has found it to be non-friable and assessed the risk associated with this material as low as it would be quite difficult to liberate asbestos due to the sticky nature of the sealant.

Principals are requested to ensure any contractors working on demountable buildings are made aware of this asbestos affectation. This will ensure contractors implement appropriate Workcover approved procedures when works may disturb this product.

The Department is revising all school asbestos registers to include this product as an asbestos affectation, these will be available to Principals via AMS on the Web and the DEC Internet site at:


Specific advice regarding the product will the added to the Department's Asbestos Management Plan, which is under review with Workcover pending release for implementation for 2013.

Related information, Safety Notice No. 32, Construction Work and Asbestos, was issued in 2011 and can be found at:

Should you require further advice please contact Alan Smith, Manager Compliance and Environment (Ph: 9561 8956) or Amelia Tsang, Compliance and Safety Officer (Ph: 9561 8969) in Asset Management Directorate.

Peter Johnson
R/Deputy Director-General, Corporate Services
10 August 2012
MEMORANDUM TO:

ASSET MANAGEMENT UNITS
REGIONAL DIRECTORS
INSTITUTE DIRECTORS
SCHOOL EDUCATION DIRECTORS
REGIONAL HR MANAGERS
REGIONAL ASSET MANAGEMENT UNIT MANAGERS
OHS LIAISON MANAGERS
PRINCIPALS
TAFE COLLEGE AND CAMPUS MANAGERS
BER COORDINATORS

SAFETY ALERT No 32

PROCEDURES RELATING TO ASBESTOS DURING CONSTRUCTION WORK

The Department’s Asbestos Management Plan sets out the requirements for managing asbestos related issues in construction work.

In accordance with the Asbestos Management Plan, all NSW government schools and TAFE colleges and campuses are required to notify their local Asset Management Unit (AMU) of any works to be carried out on their site. This includes work that may disturb asbestos materials.

In accordance with the Department’s procedures set out in the Asbestos Management Plan, it is essential that the appropriate action is taken to check for the presence of asbestos in buildings or grounds before construction work begins on Departmental premises.

There are a range of steps that must take place before construction work commences:

- The contractor is inducted onto the site and given a copy of the school’s asbestos register and Asbestos Management Plan. With respect to the induction of contractors, there are important processes for safety induction in place. Refer to the site Engaging contractors on the Department’s OHS website.
- The contractor understands the procedure in place for reporting unexpected finds of asbestos (refer to Section 5 of the Asbestos Management Plan, Incident Response and Emergencies).
• The contractor has consulted the asbestos register to determine whether there are any asbestos containing materials in the vicinity of the work
• A permit to work is issued to the contractor and the contractor has the appropriate licences and approvals
• The work area is effectively barricaded and/or isolated
• Ensure appropriate work methods and control measures of any staff member or contractor working on areas of known asbestos contamination, meets all legislative requirements
• Engaging removal contractors when required in response to emergency situations

For further information, please refer to the Asbestos Management Plan.

Asbestos registers have recently been updated to reflect changes that have occurred in recent capital works and any advice regarding the removal and identification of asbestos material that has arisen from maintenance and other activities.

Asset Management Directorate requires that all asbestos related disturbance works involve Public Works to either deliver the works or participate in oversight of any remediation works. This is to ensure all legislative requirements are met and for the necessary documentation to be collected to enable ready update of Asbestos Registers.

The Asset Management website provides further information concerning management of asbestos:


Please contact your regional Asset Management Unit on telephone 132 779 if you require support and advice when addressing asbestos issues.

Yours sincerely

Peter Riordan
Deputy Director-General
Workforce Management and Systems Improvement
May 2011
SAFETY NOTICE No.46

Use of imported fill containing asbestos, on school sites

There have been a number of instances in recent years where building contractors, neighbouring property owners or members of the school community have approached a school principal to obtain permission to dump excavated soil or fill on a school site. This is often presented to the school as an inexpensive way to enhance school facilities.

Excavated soil or fill provided to schools in this way may contain fibro (asbestos) fragments, building rubble (glass or ceramic tiles) or other contaminants. The removal of such soil after distribution across the school site is extremely difficult and can only be achieved at a high cost. Visual inspection is usually not sufficient to identify all contaminants.

Recently there have been a number of instances where a school has accepted contaminated soil/fill. In one recent incident, the inspection and clean-up costs of one truckload of ‘donated’ fill containing fibro fragments was $15,000. Had this fill been distributed across a wide area the remediation costs could have been many times greater.

Principals must not permit any individual or organisation to dump soil or fill of any type on a school site. Should there be a need to obtain soil or fill material, the principal should contact their local Asset Management Unit (AMU) on 132 779 for advice on a suitable source of supply and the necessary documentation to ensure that it is clean. The AMU will document this on the school file. If you are purchasing fill, a reputable supplier will provide certification that the fill is clean, on request. This certification must be retained by the school.

If a Principal accepts soil or fill from a donor, the Principal must ensure that a material testing report from a qualified Occupational Hygienist is obtained certifying the soil or fill as clean, prior to the soil or fill being accepted. This certification must be provided to the AMU for attachment to the school file, prior to the soil or fill being placed on the school site.

Should any material be dumped on a school site without the authorisation of the Principal, the Principal must follow the Department’s Asbestos Management Plan (Section 6.2.1). This requires Principals to restrict access to the dumped waste immediately and not attempt to remove the material. The incident must be reported to the AMU, after which Public Works will arrange for removal of the material out of school hours.

All future contaminated fill delivered to a school site may be reported to the Environment Protection Authority as an illegal activity under the Environmental Planning and Assessment Act 1979. In addition, the school will be required to contribute to clean-up/remediation costs.

Should you wish to discuss this matter further please contact: Paras Doshi, Compliance and Safety Officer on Ph: 9561 8969 or Alan Smith, Manager Environment and Compliance, on Ph: 9561 8956.

Anthony Perreau
General Manager, Asset Management Directorate
October 2013

Endorsed 25/10/13
Engaging contractors

Under WHS legislation, the obligation to ensure health and safety extends not only to staff and students, but to all workplace visitors, including contractors.

Providing a Work Health and Safety (WHS) induction for all new employees and others undertaking work is a legislative requirement for all departmental workplaces. For detailed information, please check WHS Directorate’s Induction link on intranet: https://detwww.det.nsw.edu.au/workhealthandsafety/induction

Contractors are often used to carry out maintenance and repair work on Departmental premises. The risk associated with such activities can be high, so particular attention must be paid to health and safety.

To assist Departmental workplace managers, the Department of Public Works and Services (DPWS) addresses WHS requirements in the specifications for all major and minor capital works, as well as maintenance contracts. This includes the:

- Facilities Management Manual
- For Schools:
  - Quick Reference Guide to School Maintenance and Cleaning Contracts

The detailed information on Facilities Management contract is available at: https://detwww.det.nsw.edu.au/assetmanagement/maintain/asset_maintenance_contracts.htm

Using independent (non-Department of Public Works approved) contractors places the responsibility for overall safety, supervision and ensuring legislative and Departmental requirements are met, on the workplace manager.

Key points for engaging contractors:

Workplace managers should:

- Wherever possible, use government contractors who comply with legislative and Departmental requirements e.g. maintenance and cleaning contractors.
- Follow Departmental procedures for engaging contractors. See WHS Induction link.
- Rigorously check independent contractors to ensure safety obligations are met. Contractors must be suitably licensed and trained to undertake the work required and be able to provide relevant safety and insurance documentation prior to work commencing.
- Ensure that all contractors report to the workplace manager or their delegate on arrival.
As part of the sign-in process, ensure all contractors complete either the:

- Local workplace safety procedures for Department of Public Works (DPWS) contractors;
- Local workplace safety procedures for independent contractors (Not approved by DPWS).

Provide contractors with a site-specific induction. Include information on local conditions which may impact on safety, as per the above safety procedures.

Inform staff, students and visitors of safety procedures while work is in progress.

Provide opportunities for ongoing consultation and review of safety matters with contractors.

Monitor contractor performance and raise any safety concerns with the contractor, and where relevant, with the Department of Public Works (DPWS) supervisor.

Further information:

- Asset Management Directorate – Asbestos Fibro Link on DEC Intranet
- Work Health and Safety Directorate - Induction

Date: 1st February 2015
**DET Demountable release / transfer checklist**

Demountable serial number: 
Current Location: 
Check carried out by: 
Date:

AMS: Asbestos Present? Yes [ ] No [ ]  
If No, no further action is necessary. (information is held by DET AMU)

Release – Please check each item below and tick box as applicable. Mark any defects on a plan/drawing of the unit and attach to this checklist.

<table>
<thead>
<tr>
<th>Element</th>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ceiling Sheet (containing asbestos)</td>
<td>Good condition</td>
<td>No action required</td>
</tr>
<tr>
<td></td>
<td>Small cracks (corners)</td>
<td>Stabilise crack and repair on installation, refer to Demountable Remediation Guidance 01</td>
</tr>
<tr>
<td></td>
<td>Large cracks &amp; loose sheets, holes, effecting stability</td>
<td>Remove sheet, reinstate on installation, refer to Demountable Remediation Guidance 02</td>
</tr>
<tr>
<td>2. Wall Sheeting (containing asbestos)</td>
<td>Good condition</td>
<td>No action required</td>
</tr>
<tr>
<td></td>
<td>Small cracks</td>
<td>Stabilise crack and repair on installation, refer to Demountable Remediation Guidance 04</td>
</tr>
<tr>
<td></td>
<td>Large cracks &amp; loose sheets, holes, effecting stability</td>
<td>Remove sheet, reinstate at installation, refer to Demountable Remediation Guidance 03</td>
</tr>
<tr>
<td>3. Entry steps and landing (containing asbestos)</td>
<td>Good condition</td>
<td>No action required</td>
</tr>
<tr>
<td></td>
<td>Small amounts of wear/small cracks</td>
<td>Stabilise damage panel and repair on installation, refer to Demountable Remediation Guidance 05</td>
</tr>
<tr>
<td></td>
<td>Large amounts of wear/large cracks effecting stability</td>
<td>Remove sheet, reinstate at installation, refer to Demountable Remediation Guidance 05</td>
</tr>
<tr>
<td>4. External eaves (containing asbestos)</td>
<td>Good condition</td>
<td>No action required</td>
</tr>
<tr>
<td></td>
<td>Small cracks</td>
<td>Stabilise crack and repair on installation, refer to Demountable Remediation Guidance 06</td>
</tr>
<tr>
<td></td>
<td>Large cracks &amp; loose sheets, holes, effecting stability</td>
<td>Remove sheet, reinstate at installation, refer to Demountable Remediation Guidance 06</td>
</tr>
</tbody>
</table>

**Installation** (if not proceeding to storage on off-site maintenance)

New location: 
Check carried out by: 
Date:

Installation – Please check each item below and tick box as applicable. Refer to plan/drawing of the unit (see above) attached to this checklist.

<table>
<thead>
<tr>
<th>Element</th>
<th>Condition</th>
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</tr>
<tr>
<td>2. Wall Sheeting (containing asbestos)</td>
<td>Good condition</td>
<td>No action required</td>
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<td></td>
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<td>Good condition</td>
<td>No action required</td>
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<tr>
<td></td>
<td>Small amounts of wear/small cracks</td>
<td>Stabilise damage panel and repair on installation, refer to Demountable Remediation Guidance 05</td>
</tr>
<tr>
<td></td>
<td>Large amounts of wear/large cracks effecting stability</td>
<td>Remove sheet, reinstate at installation, refer to Demountable Remediation Guidance 05</td>
</tr>
<tr>
<td>4. External eaves (containing asbestos)</td>
<td>Good condition</td>
<td>No action required</td>
</tr>
<tr>
<td></td>
<td>Small cracks</td>
<td>Stabilise crack and repair on installation, refer to Demountable Remediation Guidance 06</td>
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<td></td>
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</tr>
</tbody>
</table>
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Communication Strategy - Brochure ‘What you need to know about Asbestos containing Materials’
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Introduction

The health, safety and well-being of students and staff is the highest priority of the NSW Department of Education and Communities (DEC). This commitment includes ensuring that any asbestos-containing materials found in schools, colleges and other facilities is managed in such a way as to minimise the risk to students, staff, contractors, parents and other visitors to the site.

Asbestos can be found throughout our society. Thousands of Australian businesses, homes and public buildings such as hospitals and schools were built using asbestos-containing materials in the roof, floors and walls or have asbestos in insulation and ceilings.

The fact that asbestos fibres can cause asbestos related diseases such as lung cancer and mesothelioma often causes anxiety if people suspect that their home, school or office has asbestos-containing materials. However, studies have shown that these products, if in sound condition and left undisturbed, do not pose a significant health risk.

Health problems usually occur when people are unaware of the hazards of working with asbestos-containing materials. DEC has therefore implemented processes to ensure that all potential asbestos hazards are appropriately controlled and that asbestos-containing materials that have deteriorated and therefore represents a health hazard are immediately removed from schools and colleges.

This document is designed to help students, staff, parents and the community answer questions and learn the facts about asbestos in schools and colleges. An awareness and understanding of these issues is essential to ensure that potential asbestos risks are quickly reported and managed, and that students, staff and visitors to the site are protected from possible exposure to asbestos.

Dr Michele Brungies
DIRECTOR-GENERAL OF EDUCATION AND COMMUNITIES
MANAGING DIRECTOR OF TAFE NSW
The Asbestos issue

What is Asbestos and Where Is It Found?

Asbestos is a mineral found in certain types of rock formations. When mined and processed, it takes the form of very small fibres which are usually invisible to the naked eye.

Asbestos became a popular commercial product because it is strong, won't burn, resists corrosion, and insulates well. It was used in around 3,000 products manufactured worldwide, most commonly in the construction, car manufacturing and textile industries.

Between the 1940s until the late 1980s asbestos was widely used in domestic, commercial and government buildings in Australia as ‘fibro’ wall and ceiling sheeting, ‘super six’ roofing sheeting, floor and ceiling tiles, as an insulator around pipes or sprayed in buildings, and as a fire retardant. Asbestos is sometimes found in unauthorised material such as fill on school sites.

Bonded (non-friable) and Friable Asbestos

Bonded (non-friable) Asbestos containing materials are those where the asbestos fibres are bonded into the matrix e.g. fibro and which cannot be crushed by hand when dry. Most of the asbestos found in NSW schools, colleges and homes is bonded. Organisations like NSW Health advise that these materials, if left undisturbed and in a reasonable condition, are not a significant health risk.

Friable Asbestos is asbestos fibres or material that contains asbestos and can be pulverized under hand pressure. Friable (loosely bound) asbestos is more hazardous than bonded (non-friable) asbestos, as the fibres can more easily become airborne, presenting a greater risk of them being inhaled. Millboard, pipe and boiler lagging are examples of friable asbestos. Asbestos cement product which has been damaged so that it can be crushed by hand is also considered as friable asbestos.

When is Asbestos a Problem?

The presence of asbestos-containing material at a school or college does not automatically mean that health is at risk. The potential risk is dependent upon how the asbestos-containing material is managed and whether it is bonded (non-friable) or friable.

Asbestos becomes a health risk when a large amount of asbestos fibres are released into the air and inhaled. Health problems usually occur when people are unaware of the hazards of working with asbestos-containing materials. It is therefore important that any work undertaken with materials containing asbestos is done in a manner that ensures minimal release of dust or small particles.

If safety guidelines are followed, asbestos-containing materials should not be a problem.
I Think I Have Found Some Asbestos – What Happens Next?

If you identify a possible asbestos hazard at your school or college:

- Do not panic – asbestos that is properly managed represents a very low health risk. Immediately advise the School Principal / College Director; and
- Comply with all asbestos management requirements at the site.

The School Principal / College Director will:

- See if the material has already been identified in the Asbestos Register;
- Isolate the immediate area where the material has not previously been identified or where the condition of the material has deteriorated;
- Not attempt to dispose of or remove any material; and
- Contact the DEC Regional Asset Management Unit on 132 779 as soon as possible.

The Regional Asset Management Unit will:

- Arrange inspections and testing if necessary;
- Arrange treatment or removal of material if required; and
- Advise when the area can be returned to normal use.

Management of Asbestos-containing Materials

How Does DEC Manage Asbestos-Containing Materials?

DEC ensures that asbestos-containing materials are managed in a way that provides the maximum safety to students, staff and visitors to the site. The process followed by DEC includes:

- Making School Principals and College Directors aware of the requirements for managing asbestos;
- Assessing facilities to ascertain the presence or absence of asbestos;
- Developing and maintaining a register containing the location or suspected location of asbestos at each site;
- Assessing the potential health risks of asbestos-containing materials;
- Removing or controlling asbestos containing materials that pose an immediate health risk;
- Ensuring asbestos removalists and maintenance workers are suitably qualified and protected;
- Regularly reviewing and monitoring identified areas to ensure they are in good condition and do not pose an immediate health risk;
- Schools and colleges are required to obtain the approval of the Regional Asset Management Unit before undertaking any building work on the site; and
- Within funding constraints, continually working towards asbestos free facilities.
What Has DEC Done So Far?

- DEC has an asbestos management plan which details how it manages asbestos in its facilities and documents the procedures which are followed to minimise the risk of exposure to asbestos of all students, staff and other visitors to the site;
- Visual inspections and testing are undertaken immediately where possible asbestos hazards are identified at a school or college;
- Inspections of all DEC facilities been completed. A register of areas containing asbestos has been provided to each facility;
- Where there is a risk to health from exposure DEC takes action to encapsulate, enclose or remove the asbestos-containing material (see page 7);
- All known hazardous, friable asbestos-containing materials have already been removed from schools and colleges in previous programs; and
- Schools and colleges are provided with advice on how to maintain gardens, grounds and other facilities which have been treated for asbestos-containing materials.

What are the Methods of Controlling Asbestos Hazards?

DEC has a number of options to control asbestos hazards. It is important to understand that the immediate removal of asbestos-containing materials may not be necessary or even the most appropriate action. In some instances the removal process may prove more hazardous than other options as it may increase the risk of fibres being released into the air.

Depending on the particular circumstances and condition of the asbestos-containing material DEC will utilise one of the following four options:

**Remove**

DEC will **remove** any unstable asbestos-containing materials under controlled conditions to ensure the health and safety of all persons at the site.

**Leave and Monitor**

DEC will firstly look to **leave and monitor** stable asbestos-containing materials that are not prone to damage.

**Encapsulate or Seal**

The second option is to **encapsulate or seal** (i.e. paint or coat) stable asbestos-containing material that may be prone to damage and therefore need to be protected.

**Enclose**

DEC may **enclose** stable asbestos-containing material that may be prone to damage but where encapsulating or sealing does not provide sufficient protection or may disturb asbestos fibres.
What are the School / College’s Responsibilities?

The main responsibility of the school or college is to ensure the health and safety of its students, staff and visitors to the site including parents, tradespeople and contractors.

To achieve this, the School Principal / College Director must:

- Read and comply with all instructions and information provided on asbestos issues;
- Provide information to students, staff and parents on the management and control of asbestos in schools and colleges;
- Ensure that contractors appointed by the school to work on or near asbestos-containing materials are working in a safe manner (see Page 9);
- Stop any work on or near asbestos-containing materials where unsafe practices appear to be happening;
- Contact the Regional Asset Management Unit on 132-779 if they have any concerns or require assistance in the management of asbestos; and
- Maintain gardens, grounds and other facilities that have been treated for asbestos or left in-situ in the manner advised by the Asset Management Unit or Contractor.

Staff also have responsibilities including:

- Informing the School Principal / College Director if they identify any potential asbestos-containing material;
- Taking reasonable care to ensure the health and safety of themselves and others under their supervision; and
- Complying with all asbestos management requirements at the site.

How Do I Know If Work On or Near Asbestos-containing Materials Is Being Done Safely?

Building work done on or near asbestos-containing materials will be closely supervised by the Facilities Maintenance Contractor, the Department of Public Works and Services or the Regional Asset Management Unit.

If the work is being undertaken in a safe manner:

- The Contractor will have been inducted onto the site and been given a copy of the Asbestos Register and Asbestos Management Plan;
- The Contractor will have consulted the Asbestos Register to determine if there are any asbestos-containing materials in the vicinity of the work;
- A Permit to Work will have been issued to the Contractor;
- The Contractor will have the appropriate licences and approvals (see Page 10);
- The Contractor will have prepared safe work method statements;
- The work area will be effectively barricaded and / or isolated;
- Warning signs will be erected;
- Air-conditioning units in adjacent areas will be switched off and vents sealed;
- Dust generated from the work will be contained within the immediate area;
- Breathing protection devices, disposable coveralls and other necessary personal protective equipment will be worn;
- Drop sheets will be used to gather work-generated asbestos waste;
- Asbestos material which is to be removed will be placed in heavy duty stiff plastic bags; and
- Asbestos disposal bins will be lined with plastic.
What Licences and Approvals Should the Contractor Completing the Works Have?

The following environmental approvals and licenses are required for asbestos work and disposal:

- Contractors who remove, repair or disturb areas of 10 square metres or more of bonded (non-friable) asbestos must hold a bonded (non-friable) or a friable asbestos licence or a demolition licence issued by WorkCover NSW;
- Contractors who remove, repair or disturb friable asbestos material must hold a friable asbestos removal licence issued by WorkCover NSW;
- Friable asbestos work must have a permit issued by WorkCover NSW specific for the project undertaken;
- WorkCover NSW must be notified at least five days prior to the commencement of work when 10 square meters or more of bonded (non-friable) asbestos containing materials are removed;
- The facility that is to receive asbestos waste material must be licensed by the EPA to receive that material; and
- Contractors must hold insurance appropriate for the asbestos work that is to be carried out.

What Do I Do If It Appears Unsafe Practices are Occurring?

If you see any practices that appear to be unsafe you should advise the School Principal / College Director who will contact the Regional Asset Management Unit if required.

The School Principal / College Director has the right to stop the work, pending advice from the Asset Management Unit, where they have serious concerns about health and safety.

Work should also be stopped and the Regional Asset Management Unit contacted in all instances where a Contractor finds or suspects the presence of asbestos-containing materials when undertaking building or maintenance work at the site.
Where Can I Get More Information

If you have any further queries you should contact the School Principal or College Director. This person will know the most about the asbestos situation at the school or college and should be able to answer most of your questions relating to the management and control of asbestos at the site. The Principal / Director can seek further advice and support at any time from the Regional Asset Management Unit.

In addition, general information is available on a number of government websites. This information is useful not only for the management of asbestos in schools and colleges but also for the many homes and offices which contain asbestos throughout NSW and Australia.

**Department of Education and Training Intranet**

Asbestos Management Plan


Work, Health and Safety (WHS)

https://detwww.det.nsw.edu.au/workhealthandsafety

**Other Government Websites**

NSW Government, *Fibro and Asbestos - A Renovator and Homeowner's Guide*  

NSW Government, *Fibro and Asbestos – First Steps Checklist*  

NSW Department of Environment and Conservation, *Safely Disposing of Asbestos Waste*  

WorkCover Authority of NSW, Asbestos


WorkCover Authority of NSW, Heads of Asbestos Coordination Authorities (HACA)  

NSW Health, Asbestos and Health Risks  

NSW Health, DIY Safe  
http://www0.health.nsw.gov.au/publichealth/environment/diy/

NSW Health, DIY Safe “Dust and Fume Hazard”  


Department of Health and Ageing, enHealth Document, Management of asbestos in the non-occupational environment  
Asbestos Related Laws and Codes of Practice in NSW

Legislation

Work Health and Safety Regulation 2011

Protection of the Environment Operations (Waste) Regulation 2005

Other Asbestos Related Legislation

WorkCover Authority of NSW Codes of Practice / Safe Work Australia Resources

How to Safely Remove Asbestos

How to Manage and Control Asbestos in the Workplace

Guide to Working with Asbestos

Heads of Asbestos Coordination Authorities (HACA) – Asbestos Resources
Appendix G

DEC Hazardous Materials (Asbestos) Register Update

- Asbestos Register
- Example Flow Chart/s for Updating Register
- Asbestos Register Review Tool (ARRT) – Operation Manual
- Asbestos Register – FMweb Update Procedure
Example Flowcharts for Updating of Register

This section of AMP illustrates the involvement of the hygienist (asbestos assessor) and the updating of the asbestos records in the Asset Management System (AMS).

The following flowchart is provided as an example and explains maintenance of an asbestos register via a panel hygienist and their subsequent use of the Asbestos Register Review Tool (ARRT) prior to a project commencing. It does not aim to show all stakeholders and steps.

Figure G.1: Example Flow Chart - Updating of Register by Panel Contract Hygienist
The following flowchart is provided as an example and explains maintenance of an asbestos register via a panel hygienist, their involvement in asbestos management during a project and their subsequent use of the Asbestos Register Review Tool (ARRT). It does not aim to show all stakeholders and steps.

Figure G.2: Example Flow Chart - Updating of Register by Panel Contract Hygienist (with Project Involvement)
Asbestos Register – Update Procedure for FMWEB

This section of AMP illustrates the procedure of updating the asbestos records in the FMweb program. The following flowchart explains maintenance of asbestos asset registers in FMweb.

**Maintenance of Asbestos Asset Register in FMweb**

**Start**

1. Asbestos Asset Set up
   - List screen
   - FMweb Asbestos Register to be updated from AMS Asbestos Register. FMWeb database design for Asbestos Data storage is mapped with AMS.

2. Contractor need to inspect/update Register?
   - Yes
   - Contractors to update existing Asbestos Register only if post inspection updates on an asset is required
   - Predefined processes (Asbestos Details screen)
     1. Contractors to select ‘Status Indicator’ after inspection
     2. Contractors to select Condition, enter Comments etc.
     3. Contractors to tick ‘Approval from Commerce’ checkbox only if Asbestos Register needs update after inspection.

   - ‘DPWS AP’ to approve Contractor’s inspection

   - Predefined processes
     - FMweb Asbestos Asset Register is considered as NOT UPDATED

   - ‘DPWS Approved Assets’ in FMweb Asbestos Register are marked as updated after contractor inspection & update

   - Predefined processes
     - DEC is to run periodic report on FMweb Asbestos Register for ‘PW Approved Assets’. These updated assets to be uploaded back in the AMS System.

**END**

*DPWS AP – Department of Public Works and Services Authorised Person*
Asbestos List Screen in FMweb:

- Log in using user name and password in FMweb
- Click on ‘Register’ >> ‘Asbestos List’ from FMWeb main menu to go to the Asbestos List screen.
- Asbestos Asset List screen shows important fields like Asbestos Asset ID, AMS ID, Property Name, Building, Room, Element and Status details for the selected Property and Building.
- To get the asbestos asset list, user must select property and building.

- ‘Edit’ button on the ‘Asbestos list’ screen open up the ‘Asbestos Details’ screen. Users can modify the details of recorded asbestos asset on this page.
Asbestos asset can only be recorded at the element level. Elements drop down list shows all the valid elements for selection.

‘Location’ is a free text box where multiple locations can be entered for a single asbestos asset recorded against element.

‘Extent’ is a free text where users can enter measurements of the assessed asbestos.

‘Description’ is a 500 character long free text where user can enter asbestos description and other details.

‘Material Condition’ is a drop down box with the condition options.

‘Risk status’ is drop down to mark the asbestos condition risk as High, Medium or Low

‘Control priority’ is drop down to select priority ranking as high, medium or low.

‘Status’ drop down box allows users to select appropriate status based on the survey result.

Contractors should update Asbestos asset status periodically. The status indicator have below 3 options -

a. Assumed Asbestos
b. Tested
c. No Asbestos Detected (NAD)

‘Comments’ is a 500 character free text box where user can enter notes with respect to the periodic assessment of asbestos asset.

Asbestos Details screen is updated to provide an option for contractor to send an approval request to Public Works Authorised Person (AP), once inspection is carried out at the site.

Once contractor tick ‘Request Change Certification’ checkbox and save the record, auto-email notification will be sent to Public Works AP to inspect and action this item in FMweb.
- New ‘AUTHORISED PERSON REVIEW & APPROVAL’ Panel is added on Asbestos Details screen in FMweb where PW AP can tick on ‘AP Approval’ check box and add Comments in ‘Notes’ text box.

FMweb Reports:

- FMweb has reporting facility to generate ad-hoc reports on Asbestos Asset Register maintenance.
Appendix H

Window Asbestos Mastic and Putty Procedure

- Window Asbestos Mastic Procedure
- Window Asbestos Putty Procedure
Window Asbestos Mastic Procedure – NSW Schools Demountable

1 February 2015
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<td>24 October 2012</td>
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<td>B</td>
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Signed: ........................................................................................................

Approved by: ................................................................................ Jason North

Signed: ........................................................................................................

Date: ..................................................................................... See Above

Signed: ........................................................................................................

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## Glossary

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<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>A</td>
<td>Amosite Asbestos (brown asbestos)</td>
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<tr>
<td>ACM</td>
<td>Asbestos-Containing Material</td>
</tr>
<tr>
<td>AS 1216</td>
<td>Standards Association of Australia, Classification and Class Labels for Dangerous Goods</td>
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<td>AS 1319</td>
<td>Standards Association of Australia, Rules for the Design and Use of Safety Signs for the Occupational Environment</td>
</tr>
<tr>
<td>AS 1715</td>
<td>Standards Association of Australia, Selection, Use and Maintenance of Respiratory Protective Devices</td>
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<td>AS 1716</td>
<td>Standards Association of Australia, Respiratory Protective Devices</td>
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<td>C</td>
<td>Crocidolite Asbestos (blue asbestos)</td>
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<td>CH</td>
<td>Chrysotile Asbestos (white asbestos)</td>
</tr>
<tr>
<td>Competent person</td>
<td>Contractor that has undertaken asbestos awareness training, has appropriate experience and has been inducted to this WAMP</td>
</tr>
<tr>
<td>EPA</td>
<td>Environment Protection Authority</td>
</tr>
<tr>
<td>Fibres/mL</td>
<td>Countable Fibre per Millilitre of Air Sampled</td>
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<tr>
<td>L/min</td>
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<td>NATA</td>
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<td>NOHSC</td>
<td>National Occupational Health and Safety Commission</td>
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<td>PPE</td>
<td>Personal Protective Equipment</td>
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<td>RPE</td>
<td>Respiratory Protective Equipment</td>
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<td>WAMP</td>
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1. Introduction

This window asbestos mastic procedure (WAMP) has been developed to assist with the management of asbestos mastic associated with aluminium framed windows installed in some old system demountables located throughout NSW Public and High Schools.

This WAMP has been developed for the use of Department of Education and Communities (DEC), NSW Public Works and school contractors that have been engaged to repair a window following the identification of damage such as a broken window.

Any repairs to windows fitted with asbestos mastic must be undertaken by a competent person; that is, a contractor that has undergone at minimum an asbestos awareness training course, can demonstrate relevant experience and has been inducted into the use of this WAMP.

This WAMP only allows for the competent person to undertake remediation works that do not exceed 10m² of mastic asbestos containing material. In respect of this value of 10m², a comparative linear amount is difficult to determine.

It is considered appropriate that this might not be typically greater than 3-4 windows. Please note that it is not expected that the amount of asbestos containing mastic included within the removal of 3-4 windows is to exceed an amount of 10m², however it is considered that a project of such size requires the involvement and guidance of a contractor working alongside a glazier.

If additional windows need to be repaired/replaced or if the demountable is to undergo any refurbishment works, works to the windows or other asbestos containing materials must be undertaken by a contractor holding as a minimum a non-friable asbestos removal licence (ASB).

Please refer to Work Health and Safety Act and Regulations 2011 (NSW), WorkCover NSW How to Manage and Control Asbestos in the Workplace Code of Practice 2011, WorkCover NSW How to Safely Remove Asbestos Code of Practice 2011 and the DEC asbestos management plan (AMP), in particular Sections 7 and 9.

1.1 Background

An investigation was undertaken of a typical old style demountable with Public Works Suite 2 aluminium framed windows and asbestos containing mastic was identified in the following locations of the demountable:

a) Within the window frame where the glass pane is fixed to the external aluminium frame
b) On the window frame where the window is fixed to the demountable steel frame (not consistent)
c) On the frame of the plywood and aluminium wall panels where the panel is fixed to the demountable steel frame (not consistent)

As it is anticipated that repair works will only be undertaken to the glass pane of the demountable and as the asbestos mastic in its current form is enclosed and deemed to be stable and safe this WAMP shall only provide a procedure for the safe removal of small sections of asbestos mastic while repairing a window.
2. Window Asbestos Mastic Procedure (WAMP)

2.1 Determination if window is fitted with asbestos mastic

[Diagram of decision tree]

Figure 2.1 Demountable Broken Window

2.2 Asbestos removal control plan – minor works

The following plan has been developed as a guide to assist with the safe removal of asbestos mastic associated with the aluminium window frames of the old system demountable buildings located at NSW Schools.

Each contractor is to assess the works to be done prior to commencement, noting that all asbestos removal works must be undertaken in accordance with the requirements of Work Health and Safety Act and Regulations 2011 (NSW), WorkCover NSW How to Safely Remove Asbestos Code of Practice 2011 and the DEC asbestos management plan (AMP).

Asbestos removal works are only to be undertaken outside of school hours as detailed within the DEC AMP.

All asbestos removal/remediation works must be documented and a certificate of works (see Appendix A) completed and provided to the Asset Management Unit (AMU) representative. The school asbestos register is to be updated with the applicable information.

2.2.1 PPE Requirements

All persons engaged in the asbestos removal and window replacement works should wear appropriate PPE including:

- Particulate respirator in accordance with AS 1715 and 1716; As a minimum it is recommended contractors are to be fitted with P2 disposable respirators;
• Disposable coveralls that provide particle-tight protection (Type 5) and limited splash-tight protection (Type 6);
• Safe eye protections such as safety glasses, goggles or face shields;
• Cut and slip resistant hand protection;
• Ankle high, steel caped safety boots; and
• Hard hats

Please regularly refer to relevant Australian Standard (AS) for further details, and updates.

2.2.2 Site set-up

The work area is to be set up so as not to contaminate areas on either side of the window. Prior to setting up the work area all non-fixed furniture, equipment and miscellaneous goods adjacent to the window should be removed from the area.

200 μm thick polythene sheeting is to be utilised as drop sheets on either side of the window to collect any debris and to prevent cross-contamination. The drop sheets should extend at least 2 metres from the window.

2.2.3 Removal procedure

The broken glass is to be removed as detailed within the contractor’s safe work methods statement (SWMS). If mastic is found to be present on the glass pane, the glass is to be placed within 200 μm thick polythene bags and sealed for disposal as asbestos waste. If the glass is found to be free of mastic or if the mastic can be removed cleanly then the glass pane can be disposed of or recycled as normal.

An airless spray should be used to wet the asbestos mastic with a mix of water and wetting agent such as detergent, prior to attempting its removal.

The remaining mastic within the frame is to be scrapped out with the use of hand tools such as scrapers, screw drivers or chisels.

Note: No power tools are to be used during any mastic removal.

Mastic is to be removed as far as reasonably practicable. It is understood that corrugations are present within the aluminium frame which may prevent the removal of all of the mastic. It is expected that residual mastic will remain within the frame; however every effort should be made to remove as much mastic as reasonably practicable prior to the installation of the new window pane. A note to this effect should be placed on the certificate of works detailed within Appendix A.

The frame and tools are to be cleaned with wet rags. If the rags are unable to remove the residual mastic a solvent may be utilised.

The mastic removed along with rags and any debris and dust are to be placed within 200 μm thick polythene bags for disposal as asbestos waste.

Any debris or dust generated during the removal process must be removed via wet wiping and drop sheets are to be rolled onto themselves and placed within the 200 μm thick polythene bags for disposal as asbestos waste.

Following the installation of the new glass pane the edges of the window frame are to be sealed with non-asbestos mastic to ensure the remaining asbestos mastic is enclosed and cannot be accessed during normal activity in the area.

At the conclusion of all works the area is to be decontaminated of all dust and debris with the use of wet wipes to ensure the area is clean and free of dust prior to allowing students and staff to return.
2.2.4 Decontamination

Personal decontamination must be undertaken each time workers leave the asbestos work area and at the completion of the asbestos removal work. Personal decontamination should be done within the asbestos work area where re-contamination cannot occur. Refer to WorkCover NSW How to Safely Remove Asbestos Code of Practice 2011 and the NSW WHS Regulation 2011 made under NSW WHS Act 2011 for personal decontamination methods.

For non-friable (bonded) asbestos removal works a dry decontamination area is to be set up at the entry point of the asbestos work area. This will include a weighed down sheet of 200μm thick polythene sheeting laid on the floor with access to an airless water spray bottle and rags or towels.

When leaving the work area all site personnel must make their way to the nominated dry decontamination area, spray down their coveralls with water, remove their coveralls inside out and clean their masks and boots using the wet rags. The respirator must remain on during decontamination and must only be removed on completion of decontamination.

All equipment that is to leave the work area must also be decontaminated in the dry decontamination area with the use of wet rags.

Once the decontamination process is complete contaminated rags and coveralls must be disposed of in 200μm polythene bags.

2.2.5 Containment, Labelling and Waste Disposal

In accordance with Section 4.8 of WorkCover NSW How to Safely Remove Asbestos Code of Practice 2011, all asbestos containing materials removed or asbestos contaminated material must be either wrapped and sealed within 200 μm thick polythene or placed within 200 μm polythene bag/s that are no longer than 1200 mm and no wider then 900mm wide. Refer to Section 4.8 for additional guidance.

Bags containing waste are to be sealed with duct tape via the goose neck method and placed and sealed within another 200 μm polythene bag for transport to an appropriate waste disposal facility licensed to accept asbestos waste.

Polythene sheeting parcels are to be wrapped additionally within 200 μm thick polythene sheeting for transport to an appropriate waste disposal facility licensed to accept asbestos waste.

Prior to leaving site all bags and parcels are to be labelled appropriately and in accordance with Appendix B of WorkCover NSW How to Manage and Control Asbestos in the Workplace Code of Practice 2011 and Section 4.8 of WorkCover NSW How to Safely Remove Asbestos.

As per Section 4.8 of WorkCover NSW How to Safely Remove Asbestos all waste drums or bins should be lined with plastic (minimum 200 μm thickness), and labels warning of the asbestos waste should be placed on the top and side of each drum or bin with the words, ‘Danger: Asbestos Do not break seal’ or similar warning.

As per Section 4.8 of WorkCover NSW How to Safely Remove Asbestos, if the volume or size of the asbestos waste cannot be contained within asbestos waste bags, drums or bins, a waste skip, vehicle tray or similar container in good condition should be used. The asbestos should be sealed in double-lined, heavy-duty plastic sheeting or double bagged before it is placed in the skip. However, non-friable asbestos waste may be placed directly into a skip or vehicle tray that has been double-lined with heavy-duty plastic sheeting (200 μm minimum thickness) provided it is kept damp to minimise the generation of airborne asbestos.

As per Section 4.8 of WorkCover NSW How to Safely Remove Asbestos, all asbestos waste must be disposed of as soon as is practicable at a licensed asbestos disposal site. The asbestos waste must be disposed of as soon as reasonably practicable, whether that is at the end of the removal job, when the waste containers are full or at the end of each day if the asbestos waste cannot be secured at the removal site.

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Certificate of Works
Demountable Window Repair

Works undertaken compliant with Window Asbestos Mastic Procedure

<table>
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<th>Site Details</th>
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<td>Schools:</td>
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<tr>
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<tr>
<td>Time:</td>
</tr>
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<td>Demountable No.:</td>
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<th>Competent person details</th>
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<td>Contractor name:</td>
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<tr>
<th>Details of repair/remediation works</th>
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<tbody>
<tr>
<td>Location of Window#</td>
</tr>
<tr>
<td>Pane of glass**</td>
</tr>
<tr>
<td>Details of work:</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Conclusion</th>
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<td>Has the asbestos mastic been removed as far as reasonably practicable?</td>
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<tr>
<td>Yes [ ] No [ ] if no make comment below</td>
</tr>
<tr>
<td>Has residual asbestos mastic been sufficiently encapsulated with non-asbestos mastic?</td>
</tr>
<tr>
<td>Yes [ ] No [ ] if no make comment below</td>
</tr>
<tr>
<td>If no answered to any of the above questions please make comment:</td>
</tr>
</tbody>
</table>

[Additional comments]
[Additional comments]
[Additional comments]
[Additional comments]
[Additional comments]
Sign off

I __________________________ of __________________________ confirm that the asbestos mastic has been removed as far as reasonably practicable and the remaining mastic residue has been encapsulated with non-asbestos mastic. The area is now in a safe condition to be returned to normal occupation.

Signature:
Name: __________________________________________
Position: _________________________________________
Company: _________________________________________
Date: ____________________________________________

Reference

Location of window: In terms of describing the window location the following assumptions are made:
The elevation with the entrance shall be referred to as the “front” The elevation with no entrance shall be referred to as the “back” Looking at the front, windows shall be numbered 1 onwards from the left Looking at the back, windows shall be numbered 1 onwards from the right

Example: The fourth window from the left on the front of the demountable shall be given the identifying number: Front-4

Pane of glass**: Typically a window has 4 panes. See diagram below:

```
Fixed Pane    Slider
```

```
Hopper beneath Fixed Pane    Hopper beneath Slider
```

** Pane of glass
Appendix B of WAMP
- Photographs
Photograph 1: Old system demountable showing typical wall panels and windows – view from front

Photograph 2: Old system demountable showing typical wall panels and windows – view from rear
Photograph 3: Typical panels removed from demountable – red arrows show the location of the asbestos containing mastic on the aluminium frame of the panel.

Photograph 4: Typical panels showing location of asbestos containing mastic on aluminium frame
Photograph 5: Typical windows – view from inside demountable

Photograph 6: Position where asbestos containing mastic is used to seal the join between the steel frame of the demountable and the aluminium frame of the windows / panels.
Photograph 7: Asbestos containing mastic in the groove of the window where the glass pane is inserted.
Window Asbestos Putty Procedure – NSW Schools Buildings

1 February 2015
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<th>Amended By</th>
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Author: ................................................................. John G Batty
Signed: ........................................................................
Reviewer: ............................................................... Jason North
Signed: ........................................................................
Approved by: .............................................................. Jason North
Signed: ........................................................................
Date: ........................................................................... See Above
Distribution: ............................................................. 1 electronic PDF copy – DEC

Doc. Ref: 2171371A PR_DRAFT

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Appendices for WAPP

Appendix A Certificate of Works
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>A</td>
<td>Amosite Asbestos (brown asbestos)</td>
</tr>
<tr>
<td>ACM</td>
<td>Asbestos-Containing Material</td>
</tr>
<tr>
<td>AS 1216</td>
<td>Standards Association of Australia, Classification and Class Labels for Dangerous Goods</td>
</tr>
<tr>
<td>AS 1319</td>
<td>Standards Association of Australia, Rules for the Design and Use of Safety Signs for the Occupational Environment</td>
</tr>
<tr>
<td>AS 1715</td>
<td>Standards Association of Australia, Selection, Use and Maintenance of Respiratory Protective Devices</td>
</tr>
<tr>
<td>AS 1716</td>
<td>Standards Association of Australia, Respiratory Protective Devices</td>
</tr>
<tr>
<td>C</td>
<td>Crocidolite Asbestos (blue asbestos)</td>
</tr>
<tr>
<td>CH</td>
<td>Chrysotile Asbestos (white asbestos)</td>
</tr>
<tr>
<td>Competent person</td>
<td>Contractor that has undertaken asbestos awareness training, has appropriate experience and has been inducted to this WAPP</td>
</tr>
<tr>
<td>EPA</td>
<td>Environment Protection Authority</td>
</tr>
<tr>
<td>Fibres/mL</td>
<td>Countable Fibre per Millilitre of Air Sampled</td>
</tr>
<tr>
<td>L/min</td>
<td>Litres per Minute of Air</td>
</tr>
<tr>
<td>Minor Works</td>
<td>Removal of non-friable asbestos putty to an extent of less than &lt;10m² or approximately 3-4 windows</td>
</tr>
<tr>
<td>NAD</td>
<td>No Asbestos Detected</td>
</tr>
<tr>
<td>NATA</td>
<td>National Association of Testing Authorities, Australia</td>
</tr>
<tr>
<td>NOHSC</td>
<td>National Occupational Health and Safety Commission</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>RPE</td>
<td>Respiratory Protective Equipment</td>
</tr>
<tr>
<td>Trained Personnel</td>
<td>A person from the school, DEC, AMU, Public Works, FMU, contractor or hygienist; who has gone through an asbestos awareness training session that details the correct method of sampling putty for asbestos content</td>
</tr>
<tr>
<td>WAPP</td>
<td>Window Asbestos Putty Procedure (this document)</td>
</tr>
</tbody>
</table>
1. Introduction

This window asbestos putty procedure (WAPP) has been developed to assist with the management of asbestos putty associated with windows installed in NSW School.

This WAPP has been developed for the use of Department of Education and Communities (DEC), NSW Public Works and school contractors that have been engaged to repair a window following the identification of damage such as a broken window.

Any repairs to windows fitted with asbestos putty must be undertaken by a competent person; that is, a contractor that has undergone at minimum an asbestos awareness training course, can demonstrate relevant experience and has been inducted into the use of this WAPP.

This WAPP only allows for the competent person to undertake remediation works that do not exceed 10m² of putty asbestos containing material. In respect of this value of 10m², a comparative linear amount is difficult to determine.

It is considered appropriate that this might not be typically greater than 3-4 windows. Please note that it is not expected that the amount of asbestos containing putty included within the removal of 3-4 windows is to exceed an amount of 10m², however it considered that a project of such size requires the involvement and guidance of a contractor working alongside a glazier.

If additional windows need to be repaired/replaced or if the building is to undergo any refurbishment works, works to the windows or other asbestos containing materials must be undertaken by a contractor holding as a minimum a non-friable asbestos removal licence (ASB).

Please refer to Work Health and Safety Act and Regulations 2011 (NSW), WorkCover NSW How to Manage and Control Asbestos in the Workplace Code of Practice 2011, WorkCover NSW How to Safely Remove Asbestos Code of Practice 2011 and the DEC asbestos management plan (AMP), in particular Sections 7 and 9.

1.1 Background

It has been brought to the attention of the DEC that windows within its school buildings may contain asbestos putty. Typically this putty can be identified at the following locations:

   a) Within the window frame where the glass pane is fixed to the external window frame

   b) On the window frame where the window is fixed to the building brick or timber work

As it is anticipated that repair works will only be undertaken to the glass pane of the window and as any other asbestos putty should be enclosed and deemed to be stable and safe this WAPP shall only provide a procedure for the safe removal of small sections of asbestos putty while repairing a window.
2. Window Asbestos Putty Procedure (WAPP)

2.1 Determination if window is fitted with asbestos putty

- Broken/damaged window identified
- Is the window on the asbestos register? If so what is the result
  - No Asbestos Detected
  - Not on the register
    - Is there visible evidence of putty within the window frame?
      - No
      - Trained personnel to collect the sample of putty and forward to a NATA accredited laboratory chosen from the DEC hygienist panel for asbestos analysis
        - Does putty sample contain asbestos?
          - No
          - Procedure for the window removal and management of the asbestos putty within this WAPP should be followed
            - School / AMU to advise contractors that asbestos putty may be present when arranging for repairs.

Figure 2.1 Broken Window

2.2 Asbestos removal control plan – minor works

The following plan has been developed as a guide to assist with the safe removal of asbestos putty associated with the window frames of buildings identified as containing asbestos putty windows.

Each contractor is to assess the works to be done prior to commencement, noting that all asbestos removal works must be undertaken in accordance with the requirements of Work Health and Safety Act and Regulations 2011 (NSW), WorkCover NSW How to Safely Remove Asbestos Code of Practice 2011 and the DEC asbestos management plan (AMP).

Asbestos removal works are only to be undertaken outside of school hours as detailed within the DEC AMP.

All asbestos removal/remediation works must be documented and a certificate of works (see Appendix A) completed and provided to the Asset Management Unit (AMU) representative. The school asbestos register is to be updated with the applicable information.

2.2.1 PPE Requirements

All persons engaged in the asbestos removal and window replacement works should wear appropriate PPE including:
Particulate respirator in accordance with AS 1715 and 1716. As a minimum it is recommended contractors are to be fitted with P2 disposable respirators;

- Disposable coveralls that provide particle-tight protection (Type 5) and limited splash-tight protection (Type 6);
- Safe eye protections such as safety glasses, goggles or face shields;
- Cut and slip resistant hand protection;
- Ankle high, steel caped safety boots; and
- Hard hats.

Please refer to relevant Australian Standard (AS) for further details, and updates.

### 2.2.2 Site set-up

The work area is to be set up so as not to contaminate areas on either side of the window. Prior to setting up the work area all non-fixed furniture, equipment and miscellaneous goods adjacent to the window should be removed from the area.

200 μm thick polythene sheeting is to be utilised as drop sheets on either side of the window to collect any debris and to prevent cross-contamination. The drop sheets should extend at least 2 metres from the window.

### 2.2.3 Removal procedure

The broken glass is to be removed as detailed within the contractor’s safe work methods statement (SWMS). If putty is found to be present on the glass pane, the glass is to be placed within 200 μm thick polythene bags and sealed for disposal as asbestos waste. If the glass is found to be free of putty or if the putty can be removed cleanly then the glass pane can be disposed of or recycled as normal.

An airless spray should be used to wet the asbestos putty with a mix of water and wetting agent such as detergent, prior to attempting its removal.

The remaining putty within the frame is to be scrapped out with the use of hand tools such as scrapers, screw drivers or chisels.

*Note: No power tools are to be used during any Putty removal.*

Putty is to be removed as far as reasonably practicable. It is understood that corrugations may be present on the frame which may prevent the removal of all of the putty. It is expected that residual putty will remain within the frame; however every effort should be made to remove as much putty as reasonably practicable prior to the installation of the new window pane. A note to this effect should be placed on the certificate of works detailed within Appendix A.

The frame and tools are to be cleaned with wet rags. If the rags are unable to remove the residual putty a solvent may be utilised.

The putty removed along with rags and any debris and dust are to be placed within 200 μm thick polythene bags for disposal as asbestos waste.

Any debris or dust generated during the removal process must be removed via wet wiping and drop sheets are to be rolled onto themselves and placed within the 200 μm thick polythene bags for disposal as asbestos waste.

Following the installation of the new glass pane the edges of the window frame are to be sealed with non-asbestos putty to ensure the remaining asbestos putty is enclosed and cannot be accessed during normal activity in the area.

At the conclusion of all works the area is to be decontaminated of all dust and debris with the use of wet wipes to ensure the area is clean and free of dust prior to allowing students and staff to return.
2.2.4 Decontamination

Personal decontamination must be undertaken each time workers leave the asbestos work area and at the completion of the asbestos removal work. Personal decontamination should be done within the asbestos work area where re-contamination cannot occur.

For non-friable (bonded) asbestos removal works a dry decontamination area is to be set up at the entry point of the asbestos work area. This will include a weighed down sheet of 200μm thick polythene sheeting laid on the floor with an airless water spray bottle and rags or towels.

When leaving the work area all site personnel must make their way to the nominated dry decontamination area, spray down their coveralls with water, remove their coveralls inside out and clean their masks and boots using the wet rags. The respirator must remain on during decontamination and must only be removed on completion of decontamination.

All equipment that is to leave the work area must also be decontaminated in the dry decontamination area with the use of wet rags.

Once the decontamination process is complete contaminated rags and coveralls must be disposed of in 200μm polythene bags.

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Appendix A of WAPP

- Certificate of Works
Certificate of Works
Buildings Window Repair

Works undertaken compliant with Window Asbestos Putty Procedure

Site Details

Schools: ____________________________________________
Date: ___________________________________________
Time: ___________________________________________
Building No.: ____________________________________
Room No.: ______________________________________

Competent person details

Company: ____________________________________________
Contractor name: __________________________________

Details of repair/remediation works

Location of Window: __________________________________
Pane of glass: ______________________________________
Details of work: _____________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Conclusion

Has the asbestos putty been removed as far as reasonably practicable?
Yes [ ] No [ ] if no make comment below

Has residual asbestos putty been sufficiently encapsulated with non-asbestos putty?
Yes [ ] No [ ] if no make comment below

If no answered to any of the above questions please make comment:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Sign off

I ________________________________ of __________________________ confirm that the asbestos putty has been removed as far as reasonably practicable and the remaining putty residue has been encapsulated with non-asbestos putty. The area is now in a safe condition to be returned to normal occupation.

Signature: ________________________________________________

Name: ____________________________________________________

Position: _________________________________________________

Company: ________________________________________________

Date: ____________________________________________________
Appendix I

Panel Contract

*Panel Contract Brochure – to be inserted*
Appendix J

Notes on the Asbestos Survey 2008 and update of information

How to read Asbestos Register

- Asbestos Register – Permanent Facilities
- Asbestos Register – Demountable Facilities
- Asbestos Register – List of Electronic Files
- Asbestos Register – Site Specific AMP (where applicable)
<table>
<thead>
<tr>
<th>Product</th>
<th>Material Description</th>
<th>Sample No</th>
<th>Test Result</th>
<th>Extent</th>
<th>Location Reference</th>
<th>Material Condition</th>
<th>Risk Status</th>
<th>Control Priority</th>
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<tr>
<td><strong>B00A - Multi Purpose Facilities, 1953</strong></td>
<td>SSES Hall, Wyndham Type</td>
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<tr>
<td>Floor Coverings</td>
<td>Vinyl Tiles</td>
<td>8165/000/R0006/Floor Coverings</td>
<td>Chrysotile (white asbestos)</td>
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<td>Throughout</td>
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<td>Low Priority (2-3)</td>
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</table>

*Register Issue Date: Friday, 11 Feb 2011*
# Asbestos Register (Hazardous Materials and Risk Assessment) for 8582 Bossley Park High School

<table>
<thead>
<tr>
<th>Product</th>
<th>Material Description</th>
<th>Test Result</th>
<th>Extent</th>
<th>Location Reference</th>
<th>Material Condition</th>
<th>Risk Status</th>
<th>Control Priority</th>
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</table>

Register Issue Date: Tuesday, 06 Nov 2012

8582 - Bossley Park High School
Appendix K

DEC Hazardous Materials (Asbestos) Register

Schools to insert current Asbestos Registers

- Asbestos Register, from AMS on the Web
- Site Specific AMP’s (where applicable) from AMS on the Web