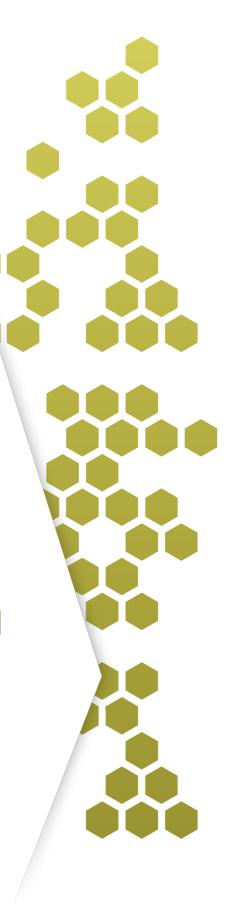
# **APPENDIX P**



# **Draft**

Protocol for managing asbestos during resource recovery of construction and demolition waste



### © 2014 State of NSW and Environment Protection Authority

The State of NSW and Environment Protection Authority (EPA) are pleased to allow this material to be reproduced in whole or in part for educational and non-commercial use, provided the meaning is unchanged and its source, publisher and authorship are acknowledged.

The EPA has compiled this draft protocol in good faith, exercising all due care and attention. No representation is made about the accuracy, completeness or suitability of the information in this publication for any particular purpose. The EPA shall not be liable for any damage which may occur to any person or organisation taking action or not on the basis of this publication. Readers should seek appropriate advice when applying the information to their specific needs.

Published by:

Environment Protection Authority

59 Goulburn Street, Sydney NSW 2000 PO Box A290, Sydney South NSW 1232

Phone: +61 2 9995 5000 (switchboard)

Phone: 131 555 (environment information and publications requests)

Fax: +61 2 9995 5999

TTY users: phone 133 677, then ask for 131 555

Speak and listen users: phone 1300 555 727, then ask for 131 555

Email: info@environment.nsw.gov.au

Website: www.epa.nsw.gov.au

### Report pollution and environmental incidents

Environment Line: 131 555 (NSW only) or info@environment.nsw.gov.au

See also www.epa.nsw.gov.au

ISBN 978 1 74359 619 7 EPA 2014/0345 July 2014

### Contents

### **Roles and definitions**

1. Introduction	1
2. Purpose and scope	2
2.1 Where the protocol does not apply	2
2.2 Core protocol principles	2
2.3 Introduction and review of the protocol	3
3. Recycling process	3
3.1 Site setup	3
3.2 Receiving and inspecting waste	4
3.3 Record-keeping responsibilities	5
4. Testing and system review	6
5. Training and competency	7
6. Asbestos in stockpiles or supplied waste-derived materials	7
6.1 Asbestos identification and reporting	8
6.2 Asbestos isolation and reporting	8
6.3 Asbestos removal processes	9
Appendix I: Steps for sampling and removing asbestos waste from stockpiles and supplied waste-derived materials	
Appendix II: Site safety plan	12
Appendix III: Sources and types of materials	13
Appendix IV: Sample Rejected Load Register	14
Appendix V: Sample Rejected Load Certificate	15
Appendix VI: Personal protective equipment (PPE) requirements	16
Appendix VII: Training providers	17
Appendix VIII: Sample Asbestos Inspection Register	18

### **Comments invited**

The Environment Protect Authority welcomes comment on this *Draft Protocol for Managing Asbestos During Resource Recovery of Construction and Demolition Waste*.

Comments can be sent to the EPA:

- via email to <u>waste.operations@epa.nsw.gov.au</u>
- via mail post a written response to:

Draft C&D waste asbestos protocol Waste and Resource Recovery Branch Environment Protection Authority PO Box A290 Sydney South NSW 1232

Submissions will be received until 5pm 1 September 2014.

### **Roles and definitions**

For the purposes of this protocol, the following roles and definitions apply:

ACM Asbestos-containing materials

**Asbestos** Fibrous form of mineral silicates belonging to the

serpentine and amphibole groups of rock-forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos), tremolite, or any mixture containing one or more of the mineral silicates belonging to these

groups

Asbestos assessors Person licensed by WorkCover NSW to carry out air

monitoring and clearance inspections and issue clearance certificates for asbestos removal or

remediation

**Asbestos Inspection** 

Register

On-site document that records details of each waste

load that is spread and checked for asbestos

**Competent person** Person who has acquired, through training, qualification

or experience or a combination of these, the knowledge

and skills to carry out a task

**Contamination** Any unwanted substance found in waste materials

**EPA** Environment Protection Authority (NSW)

**Friable asbestos** ACM that, when dry, is (or may become) crumbled,

pulverised or reduced to powder by hand

**Licensed demolishers** Any person licensed by the WHS Regulator to demolish

a building or structure where all ACM is removed either

before or during demolition

NATA National Association of Testing Authorities

compound

Occupational hygienist Person who specialises in the assessment and control

of chemical, physical and biological hazards and is a full member of the Australian Institute of Occupational

Hygienists (AIOH)

**PPE** Personal protective equipment – the equipment worn by

workers to reduce their exposure to hazards and may include respirators, hard hats, safety shoes, glasses, ear

plugs, overalls and the like

**Processing** Complete recycling process, including the inspection of

incoming loads and processing of different waste

materials to create recycled material

**Recycling facility** Resource recovery or waste processing (non-thermal

treatment) facility which receives waste (other than hazardous waste, restricted solid waste, liquid waste or special waste) from off-site and stores or processes that

waste, other than for the recovery of energy

**Regulator** WorkCover NSW and/or Environment Protection

Authority

Rejected Load Register

Skip bins

On-site document that records details of a rejected load

Bins left on a site for loading of materials which may be

source-separated or not

**Trained site personnel** Person who has successfully completed the Non-friable

Asbestos Removal Course

**Transporter** Employer or self-employed person who is engaged to

demolish and/or remove material from a construction or

demolition site

Waste Has the same meaning as defined in the *Protection of* 

the Environment Operations Act 1997

**Waste generator** Person who generates waste materials for supply to a

resource recovery facility or a waste processing (non-

thermal treatment) facility

WHS Work health and safety

### 1. Introduction

The NSW Government strongly supports the recycling industry, including the safe reuse of recycled construction and demolition materials. However, there is a national ban on the supply of any products containing asbestos and in NSW a person must not recycle or reuse asbestos waste.

Any material intended for resource recovery or recycling that is found to include asbestos-containing material ('ACM') is classified as 'Special Waste (asbestos waste)' and must be disposed of at a facility licensed to accept such waste.

The NSW Environment Protection Authority and WorkCover NSW have developed this protocol, in consultation with industry, to:

- prevent asbestos entering a recycling facility
- improve workplace safety at recycling facilities
- outline the management requirements for asbestos where it is discovered in waste, whether unprocessed, processed or supplied to a third party.

The protocol provides practical procedures for verifying that ACM does not contaminate material intended for resource recovery and thereby meets construction industry and community expectations.

NSW Work Health and Safety ('WHS') legislation requires the control of risk to safely manage asbestos within the waste stream, while the <u>Protection of the Environment</u> <u>Operations Act 1997</u> and <u>Protection of the Environment Operations (Waste)</u>
Regulation 2005 set out the requirements for managing and disposing of asbestos.

This protocol outlines the minimum good practice standards to meet these legislative requirements in a way that is clear and enforceable.

Contributors to the protocol included:

### Heads of Asbestos Coordination Authorities (HACA) members

- WorkCover NSW (Chair)
- Department of Trade and Investment, Regional Infrastructure and Services
- Department of Planning and Environment
- Division of Local Government
- Ministry of Health
- Ministry for Police and Emergency Services
- Environment Protection Authority
- Workers' Compensation Dust Diseases Board
- Local Government NSW.

#### Other contributors

- Waste Management Association of Australia NSW C&D Working Group
- Waste Contractors Recycling Association (NSW)

### 2. Purpose and scope

This protocol covers the receipt of waste at recycling facilities for recovery and processing of waste for lawful reuse. It focuses on preventing asbestos from entering the processing systems at recycling facilities and sets out the regulatory framework the EPA and WorkCover NSW will use where asbestos is detected in waste at a recycling facility or waste-derived materials supplied to a third party. The protocol only applies where, in the opinion of the EPA or WorkCover, asbestos is inadvertently present in the waste.

WorkCover NSW is responsible for the issue and control of licences to all asbestos removal and demolition contractors and for administering work health and safety.

The EPA regulates the classification, storage, transport and disposal of waste in NSW, including asbestos waste, as well as the recycling facilities that require environment protection licences.

### 2.1 Where the protocol does not apply

This protocol does not apply:

- where asbestos was observed and documented by the EPA or WorkCover staff at a recycling facility or other premises prior to the commencement of the protocol
- at asbestos-contaminated sites as these are dealt with under contaminated land and/or planning laws
- where the EPA or WorkCover believes that the asbestos has been deliberately placed on or in material or appears to be an attempt to unlawfully dispose of waste
- on any obligations under work health and safety laws
- on any obligations created by the <u>Protection of the Environment Operations Act</u> <u>1997</u> and Regulations made under that Act, such as operators of recycling facilities taking appropriate steps to comply with the requirements to prevent air, water or land pollution.

### 2.2 Core protocol principles

The protocol embraces a system of core principles which include:

- checking and inspection of incoming waste prior to its stockpiling or processing to minimise the risk of asbestos contamination in processed and recovered waste materials
- rejection of waste loads that may contain asbestos to prevent acceptance of asbestos-contaminated materials
- recording details of non-complying waste generators illegally disposing of asbestos or asbestos-containing material
- independent review of the waste processing system, which means that customers and regulatory authorities can have a high level of confidence in the quality of the product and operations of those businesses that adopt the requirements of the protocol
- increasing the level of appropriate and safe recycling of waste in a sustainable and environmentally sound manner.

Critically, the most effective control point for the separation and safe removal and management of asbestos is during the demolition of a structure. The primary responsibility for proper asbestos management lies with the waste generator and the

owner of the building or structure being demolished. However recycling facilities need to assess their own supply chain and develop strategies to deal with the levels of risk that apply to their customers based on the principles of this protocol.

### 2.3 Introduction and review of the protocol

In introducing this protocol, the EPA and WorkCover will work with the waste processing industry to educate all recycling facility operators about the benefits and assurance it will bring through its adoption by the industry.

HACA, the EPA and WorkCover will review the protocol 18 months after its adoption.

### 3. Recycling process

This section of the protocol sets out procedures for:

- · receiving waste
- checking and rejecting incoming loads of waste
- managing observed or suspected asbestos
- subsequent storage and removal of asbestos waste, classified as Special Waste (asbestos waste), to a facility that can lawfully receive it
- record-keeping requirements relating to those activities.

### 3.1 Site setup

All recycling facility operators must, in relation to their operations, have:

- written agreements with all waste generators, transporters and customers that clearly state that the facility does not accept asbestos
- signage that clearly states that asbestos is not accepted at the facility
- a designated inspection area to safely spread and check incoming loads
- environmental controls to prevent dust and runoff from the designated inspection area
- stockpiles of unprocessed waste physically separated from stockpiles of processed waste
- records of which stockpile each load has been placed in
- an up-to-date Rejected Load Register
- procedures for dealing with contaminated loads, including from repeat offenders
- a site safety plan, being a documented safe system of work that assists in eliminating or minimising risk associated with the identified hazards – see Appendix II.

The site safety plan should address health and safety hazards associated with the recycling process, which may include:

- the receival inspection process
- the work environment, such as site layout, traffic management, weather and noise, etc.
- equipment and materials, such as trucks, potential contaminants in loads, mobile plant, crushers, conveyors, etc.

The plan should take into account workers and others involved in the process, such as subcontractors, visitors and truck drivers, including those involved in removing any ACM detected in this process for disposal at a facility licensed to accept asbestos.

Designated inspection areas must:

- be physically separate and at least one metre from any stockpiles on the facility
- have environmental controls to prevent runoff and any contact with, or contamination of, other loads or stockpiles at the facility
- be capable of being wetted down to minimise airborne dust.

### 3.2 Receiving and inspecting waste

Recycling facility operators must ensure that all loads of waste received can be lawfully accepted. To ensure this occurs and to prevent asbestos from entering processing streams or being supplied to third parties, all waste loads must be inspected. The following receival procedures are integral in minimising the risk of ACM entering the recycling facilities and recycling process.

A comprehensive inspection regime must be implemented on the receipt of materials at the recycling facility. This must consider factors such as the differing likelihoods of contamination from various waste streams (see Appendix III) and comprise a minimum two-stage inspection process by appropriately trained personnel as follows:

- a first (provisional) inspection conducted when a load arrives at the recycling facility
- a second (detailed) inspection involving the spreading of material after the load is tipped at the designated inspection area prior to its inclusion in a stockpile or process.

Where ACM is detected during either inspection, the load must be rejected and details recorded.

### **Provisional inspection**

At the gate or weighbridge, trained site personnel must:

- inspect each load of waste to identify and document the type, amount and source
  of the waste, registration of the delivery vehicle and name and address of the
  waste generator or transporter
- check that the waste can lawfully be received at the facility
- check the top of each load to determine if asbestos, or suspected asbestos, is visible
- where asbestos, or suspected asbestos, is observed, reject the entire waste load and enter details of the load into a Rejected Load Register
- where asbestos, or suspected asbestos, is not observed, record the required details and allow provisional acceptance of the waste.

#### **Detailed inspection**

All waste loads that are provisionally accepted at the recycling facility must be tipped, spread and inspected in a designated inspection area, except those that consist solely of:

- tyres
- scrap metal

 waste with a written classification as Virgin Excavated Natural Material from a demolition site or site with no possibility of contamination by chemicals and acid sulfate or potentially acid sulfate soils.

The detailed inspection is undertaken for all waste loads in the designated inspection area as follows:

- trained site personnel inspect each load of waste for asbestos
- for each load, one of those who did the inspection fills out the Asbestos Inspection Register, confirming that the waste was spread and inspected, and specifying the type of waste inspected and whether asbestos, or suspected asbestos, was observed (see below).

Where no asbestos, or suspected asbestos, is observed, the waste can be moved into the storage/processing area or stockpile.

Where asbestos is sighted or suspected, the entire waste load must be rejected and details of the load entered into the Rejected Load Register.

If asbestos is observed, the load should be immediately wetted down.

For the purposes of this protocol, it is not necessary to confirm by testing that any asbestos observed during a provisional or detailed inspection is asbestos prior to the load being rejected.

### 3.3 Record-keeping responsibilities

### **Asbestos Inspection Register**

The recycling facility operator must maintain an Asbestos Inspection Register where the details of each load of waste inspected in the designated inspection area are recorded. The register must be filled out by one of the trained site personnel who undertook the inspection of the waste load and record the following:

- time the waste was received at the gate or weighbridge of the facility
- registration details of the waste delivery vehicle and name and address of the waste generator or transporter
- type, amount and source of the waste inspected
- confirmation that the waste load was spread and inspected
- whether asbestos or suspected asbestos was observed
- name of the trained site personnel who undertook the inspection.

The Asbestos Inspection Register must be maintained on site for a minimum of four years and be available for inspection by the Regulator at any time.

### Rejected Load Register

The recycling facility operator must maintain a Rejected Load Register which must record details of each load of waste rejected as containing asbestos. The Rejected Loads Register must include the following information:

- type and amount of waste
- full name (and, if relevant, Australian Company Number) of the generator of the
- full name (and, if relevant, Australian Company Number) of the transporter of the waste
- registration of the waste delivery vehicle

- address of the source of the waste and transporter
- time and date that the load was rejected.

The Rejected Load Register must be maintained on site for a minimum of four years and be available for inspection by the Regulator at any time.

Appendixes IV and V provide a sample Rejected Load Register and Rejected Load Certificate, respectively.

### 4. Testing and system review

Recycling facilities must review their receival processes where waste-derived materials are found to contain asbestos.

The recycling receival process must be reviewed internally every six months, regardless of whether asbestos has been found or not. The review must be undertaken by a competent person and include random testing for ACM when other quality control tests are conducted.

A suitably qualified, competent and independent person or a licensed asbestos assessor must review the entire operations of the recycling facility every two years.

The review for unexpected finds must include:

- date of the review
- · who carried it out
- remedial action
- non-compliant issues
- date of the next review.

The six-monthly internal review must involve:

- checking signage
- inspecting PPE see Appendix VI for further advice on PPE requirements
- training for those involved with ACM
- inspecting the Rejected Load Register
- observing the inspection process.

The two-yearly independent review must involve:

- analysing the six-monthly reviews
- reviewing the safety guidelines
- reviewing the site safety management plan
- observing and reviewing the process for receiving waste
- reviewing testing results
- reviewing non-compliant incident reports
- reviewing training.

### 5. Training and competency

The minimum training for those working at a recycling facility or workplace where ACM may be present is an **asbestos awareness course**. Those who are involved in asbestos removal or asbestos-related work must be trained in the identification, safe handling and suitable control measures for asbestos. The content of the course includes:

#### Introduction to asbestos

- what is asbestos?
- the three types of asbestos found in ACM
- the properties of asbestos

### **Asbestos products**

- when asbestos was used in Australia
- the types of material that can contain asbestos
- bonded and friable ACM
- samples of ACM

#### **Health effects**

- adverse health effects
- routes of exposure
- effect of fibre size
- hazards and risks

### Legislation

- Work Health and Safety Act and Regulation 2011
- Code of practice for the safe removal of asbestos
- Code of practice for the management and control of asbestos in workplaces

### Safe handling techniques and PPE

- how to handle ACM
- techniques to reduce asbestos exposure
- use of PPE
- how to store ACM.

The minimum training for those involved in the inspection and removal of non-friable ACM is a **non-friable asbestos removal course**, which runs for about four hours.

The minimum training for those involved in the inspection and removal of friable ACM is a **friable asbestos removal course**, which runs for a minimum of two days.

Appendix VII provides contact details for asbestos training providers.

### 6. Asbestos in stockpiles or supplied waste-derived materials

Where suspected asbestos is observed in a waste stockpile at a recycling facility or in waste-derived materials supplied to a third party or off site, and the facility can satisfy the EPA that it has complied with the requirements of Sections 3–5 of this protocol, a risk-based approach to assessing the waste can be permitted.

This means that the waste must be sampled, classified and managed in accordance with this protocol by an occupational hygienist or qualified professional approved by the EPA or WorkCover NSW. The final regulatory decision is a matter for the EPA.

Removal of asbestos, or suspected asbestos, from stockpiles or waste-derived materials supplied to a third party by 'emu-picking' or processing of any other kind is not permitted.

Where asbestos is observed in a waste stockpile at a recycling facility or in wastederived materials supplied to a third party, and the facility cannot demonstrate compliance with the requirements of Sections 3–5 of this protocol to the satisfaction of the EPA, all of the waste material involved is required to be classified and removed to a facility that can lawfully receive it.

### 6.1 Asbestos identification and reporting

In the event that asbestos, or suspected asbestos, is observed in a stockpile at a recycling facility or in waste-derived material supplied to a third party or off site, the recycling facility operator that stores or supplied the waste must:

- take a digital photograph of the asbestos and a digital photograph showing its location in the stockpile or supplied waste
- immediately cease stockpiling, applying, removing or disposing of waste from the stockpile or supplied waste
- immediately restrict access to the waste with a visible barrier around the entire stockpile or area of supplied waste
- provide signage identifying that the waste is contaminated with asbestos
- ensure that no dust or runoff is generated from the asbestos
- conduct a careful visual inspection of the surface of the entire stockpile or all of the supplied waste to identify any further asbestos and, if any is observed, take digital photographs as set out above for this additional asbestos
- sample and test the suspected asbestos at a NATA-accredited laboratory
- notify the EPA by phoning 131 555 within five days of the suspected asbestos find and provide documentary evidence of how Sections 3-5 of this protocol have been complied with.

The EPA will advise the recycling facility operator within 14 days of receipt of notification of the suspected asbestos if it is satisfied that the requirements of Sections 3-5 of this protocol have been complied with.

### 6.2 Asbestos isolation and reporting

In the event that any samples are found to contain asbestos and the facility operator or generator is able to demonstrate compliance with Sections 3–5 of this protocol to the satisfaction of the EPA, the recycling facility operator that stores or supplied this waste must prepare an Asbestos Survey and Sampling Report. This report must contain all of the following details and be submitted to the EPA:

- 1. a volumetric survey of the entire stockpile or area of supplied waste, in metres, indicating the observed location(s) of asbestos
- 2. all digital photographs required to be taken by this protocol
- 3. details of all sources of the waste in the stockpile or supplied waste and the name and contact details of the waste generators and transporters likely to have been the source of the material containing the asbestos

- 4. details of any blending, processing or movement of the waste in the contaminated waste
- 5. full name, address and contact details of any persons (including the Australian Company Number if relevant) who have received the waste or may have received waste from the stockpile
- 6. details on how the stockpile or supplied waste has been sampled in accordance with the requirements of Appendix I to this protocol
- 7. any waste classification reports for wastes in the stockpile or supplied waste
- 8. the amount of waste, in cubic metres and tonnes, identified as Special Waste (asbestos waste) and the amounts, in cubic metres and tonnes, of any other waste identified as a result of the sampling done in accordance with the requirements of Appendix I
- 9. the current locations of the physically separated Special Waste (asbestos waste) and other waste
- 10. details of the proposed timelines for the removal of the Special Waste (asbestos waste)
- 11. a statement setting out what steps, if any, will be taken by the operator to further minimise the future risk of asbestos contamination in stockpiles or in wastederived materials supplied to third parties.

The Asbestos Survey and Sampling Report must be submitted to the EPA for approval prior to any Special Waste (asbestos waste) being removed from the facility.

All waste classifications, reports or sampling done under this protocol must be prepared and implemented by independent, suitably qualified experts who have previous experience in classifying waste in accordance with the EPA's <u>Waste</u> <u>Classification Guidelines</u> and <u>Protection of the Environment Operations Act 1997</u>.

All occupational hygienists who are engaged to do any work under this protocol must:

- be certified as a full member of the Australian Institute of Occupational Hygienists Incorporated
- have experience in relation to asbestos identification, handling and disposal
- have current personal professional indemnity insurance.

The testing of all samples must be undertaken at a NATA-accredited laboratory.

Airborne monitoring for asbestos may need to be undertaken during the removal process for asbestos, in accordance with the direction of a licensed asbestos assessor.

Classification or assessment of samples against contaminated land guidelines is not relevant for the purposes of this protocol.

### 6.3 Asbestos removal processes

In the event that the facility operator or generator is able to demonstrate compliance with Sections 3–5 of this protocol and has submitted a completed Asbestos Survey and Sampling Report to the satisfaction of the EPA, the facility operator or generator must:

 remove and lawfully dispose of all the waste identified as Special Waste (asbestos waste) in accordance with the proposed timelines for the removal of that waste contained in the Asbestos Survey and Sampling Report

- remove and lawfully transport all of the other waste identified in accordance with the proposed timelines for the removal of that waste in the Asbestos Survey and Sampling Report
- provide an Asbestos Disposal Report to the EPA within seven days of the final disposal of all the Special Waste (asbestos waste) or, where its removal continues over more than a month, within seven days after every month or part thereof for as long as the Special Waste (asbestos waste) is being removed.

The Asbestos Disposal Report must contain:

- a signed and dated statement from the recycling facility operator or generator, confirming that there has been compliance with all of the requirements of this protocol or, where there has not been compliance with a requirement, an additional statement indicating why
- all the weighbridge dockets demonstrating the receipt of the Special Waste (asbestos waste) removed in accordance with this protocol to a landfill that can lawfully receive it
- all the weighbridge dockets demonstrating the receipt of any other waste removed in accordance with this protocol to a facility that can lawfully receive it
- a signed and dated statement from the landfill operator that received the Special Waste (asbestos waste), confirming the dates of receipt of the waste, the amounts received on each day, and the total amount received.

The EPA can still require some or all of the waste to be removed to a facility that can lawfully receive it at any time.

Any supplied waste-derived material may be able to be assessed and removed from the third party's site, in accordance with this protocol.

# Appendix I: Steps for sampling and removing asbestos waste from stockpiles and supplied waste-derived materials

Note: Handling, storage, transport and disposal of asbestos waste must be in accord with the requirements of the <u>Protection of the Environment Operations (Waste) Regulation 2005</u>.

#### Scenario

One or more pieces of ACM (or suspected ACM) is identified in a stockpile or supplied waste-derived materials

#### Step 1

Immediately cease adding to or removing from the stockpile or supplied waste-derived material (except in line with the steps below) and manage as per Section 6.1 of the protocol, including notifying the EPA on 131 555. Where approved by the EPA, remove from the stockpile or waste-derived material each piece of ACM and one cubic metre of the stockpile surrounding it. This cubic metre is deemed to have a minimum waste classification of Special Waste (asbestos waste) (or any higher class as determined in accord with the EPA <a href="Waste Classification Guidelines">Waste Classification Guidelines</a>) and must be disposed of to a landfill that can lawfully receive that waste.\*\*

#### Step 2

Segregate from the stockpile or supplied waste-derived material the 20 cubic metres immediately adjacent to and surrounding each cubic metre removed in Step 1. Move this 20 cubic metres to an area that is not contaminated with asbestos, divide it into four separate 5-cubic metre sections and spread them to a height of not more than 100 mm, ideally on a hardstand (such as a concrete pad) and inspect for visible ACM.

### No visible ACM detected

#### Step 3a

Regroup the 20-cubic metre section of waste into a single separate pile and collect one 10-litre sample for analysis. The sample must be sent to an accredited NATA laboratory and analysed for asbestos in accord with the requirements of AS4964-2004: Method for the qualitative identification of asbestos in bulk samples.

### Visible ACM detected

#### Step 3b

The separated 20 cubic metres is deemed to have a minimum waste classification of Special Waste (asbestos waste) (or any higher class as determined in line with the EPA <u>Waste</u>

Classification Guidelines) and must be disposed of to a landfill that can lawfully receive that waste.\*\*

### Asbestos not detected

### Asbestos detected by lab analysis

### Step 4a

The 20 cubic metres of waste can lawfully be managed in accord with its usual waste classification. It can be returned to the original stockpile once Steps 1–3 have been followed for all pieces of ACM identified in the original stockpile.

The entire stockpile of waste or supplied wastederived materials can now lawfully be managed in accordance with its usual waste classification.

### Step 4b

40 cubic metres of the stockpile or supplied waste-derived materials surrounding and immediately adjacent to this 20 cubic metres must be tested and managed as in Steps 2 and 3a or 3b.

### Step 4c

If ACM and/or asbestos is detected in the 40 cubic metres separated for visual assessment and testing in Step 4b, repeat that step on 40-cubic-metre quantities until it can be demonstrated that the waste material is free of asbestos or ACM.

<sup>\*</sup> In accord with Section 6.2 of the protocol, submit an Asbestos Survey and Sampling Report to the EPA prior to the removal of any Special Waste (asbestos waste) from the facility.

<sup>\*\*</sup> Within seven days of the disposal of the waste, submit an Asbestos Disposal Report to the EPA which meets all of the requirements of Section 6.3 of the protocol.

### Appendix II: Site safety plan

The site safety plan should address the health and safety hazards associated with the recycling process including:

- the inspection process
- the work environment, such as site layout, traffic management, weather and noise
- equipment and materials, such as trucks, potential contaminants in loads, mobile plant, crushers and conveyors.

The plan should cover and consider all those involved in the recycling process, including subcontractors, visitors and truck drivers, such as those involved in removing any ACM detected in this process for disposal at a facility licensed to accept asbestos.

The site safety plan should include the elements below.

### Work health and safety policy

Demonstrates the organisation's commitment to the health, safety and welfare of its workers and anyone else that may be affected through its activities, as well as controlling the hazards and risks that have the potential to harm the environment

### Roles and responsibilities

Ensures that the appropriate time and resources are provided to effectively implement and maintain the plan

#### Consultation

An agreed and documented mechanism where workers consult on a regular basis to express their views on work, health and safety matters

### Risk management

- Identifies hazards, assesses the risks and implements control measures
- Allocates responsibilities and resources to implement control measures and assesses the effectiveness of the risk management process
- Develops procedures, including safe work method statements, which demonstrate how hazards are identified and risks are assessed, such as safe removal of asbestos, manual handling, traffic management

#### Training and competency

Everyone is trained to fulfil their roles and responsibilities and is competent to perform tasks safely with no adverse impact on themselves, others or the environment.

#### **Document control**

All records of work, health and safety matters – documents, forms and procedures – are maintained, relevant and up-to-date

#### **Evaluation and review**

Regular inspections of the workplace are understood to monitor control measures and reduce the likelihood of an incident

### Appendix III: Sources and types of materials

The primary control point for the removal of asbestos is prior to demolition and the primary responsibility lies with the waste generator and the owner of the building or structure being demolished. Waste that is asbestos-free should not be mixed with waste that may contain it.

It is important to recognise that different sources and types of materials received at a recycling facility carry different probabilities of containing ACM.

Buildings and structures normally undergo regulated and comprehensive asbestos removal programs and stringent 'clearance' inspections prior to demolition. Where licensed demolishers conduct the demolition and the waste has had any ACM removed and separated at source, the probability of ACM being present should be low for the segregated material.

However, it is not unusual for mixed waste from unknown sources or small-scale demolition or refurbishment placed in skip bins to contain observable or significant levels of ACM and therefore be high risk.

All waste materials derived from skip bins must undergo a rigorous inspection, that is spreading of material.

A number of factors have reduced the probability of ACM contamination in recycled materials including:

- the requirement by WorkCover NSW for asbestos registers in workplaces
- the removal of ACM prior to the demolition of buildings and structures
- demolition to be conducted by licensed demolishers.

### Appendix IV: Sample Rejected Load Register

Date and time	Customer	Rego	Source	Reason rejected	Waste type	Amount	Docket no.	Rejected by

### **Appendix V: Sample Rejected Load Certificate**

# **Rejected Load Certificate**

Certificate no:
Date:
Time:
Source of waste:
Vehicle registration details:
Driver name & licence no:
Driver signature:
Company signature:

This certificate is to advise that your load has been found to contain suspected asbestos-containing material and therefore is rejected from entry to this site.

Details of your vehicle, company and the reason for rejection will be entered into the Rejected Load Register that is audited by the Regulator.

You are advised that this load should be conveyed to a facility licensed to accept asbestos for disposal.

# Appendix VI: Personal protective equipment (PPE) requirements

The personal protective equipment (PPE) required for handling asbestos include safety shoes, high-visibility vests and respirators and are additional to the PPE requirements for the facility.

When working with ACM, only respirators which comply with Australian Standards 1715 and 1716 should be used. These standards provide more detail on the selection, use and maintenance of respiratory protection equipment and should be consulted for more detailed advice on nominal protection factors and other relevant matters.

Care should be taken when handling ACM (in non-friable form) to ensure no contact occurs between the ACM and clothing. Where contact is likely, disposable overalls should be worn. Disposal or decontamination should be in accordance with WorkCover NSW's How to Safely Remove Asbestos: Code of Practice.

The recommended PPE for the removal of ACM are:

- half-face P1 or P2 respirator either a disposable or cartridge respirator
- gloves
- disposable overalls with hood
- boot covers
- wet wipes.

The ACM and all PPE used during the removal process must be disposed of in an appropriate asbestos bag.

### **Appendix VII: Training providers**

The following list of training providers is not exhaustive and is only a guide:

TAFE NSW

Phone: 1300 131 499

Website: www.tafensw.edu.au

Housing Industry Association (HIA)

Phone: (02) 9978 3333 Website: http://hia.com.au/

Local Government Training Institute

Phone: (02) 4922 2333 Website: www.lgti.com.au

**Comet Training** 

Phone: (02) 9649 5000

Website: www.comet-training.com.au/site

Masters Builders Australia (MBA)

Phone: (02) 8586 3521

Website: www.masterbuilders.com.au

Asbestos Removal Contractors Association NSW (ARCA)

Phone: (02) 9642 0011

Website: www.asbestosremovalcontractorsassociation.com.au/

# **Appendix VIII: Sample Asbestos Inspection Register**

Time and date	Registration	Waste generator	Waste type	Amount	Source	Confirmation waste was checked	Was asbestos present?	Name of trained site personnel	Signature