

Waste industry guidelines to manage the collection, receipt, transport and disposal of asbestos waste

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The information contained in these guidelines is freely available for use, provided this source is acknowledged.

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About WasteMINZ

WasteMINZ is the largest representative body of the waste, resource recovery and contaminated land sectors in New Zealand. Formed in 1989, it is a membership-based organisation with over 1,000 members – from small operators through to councils and large companies.

As the authoritative voice on waste, resource recovery and contaminated land issues in New Zealand, WasteMINZ seeks to achieve ongoing and positive development of the industry through strengthening relationships, facilitating collaboration, knowledge sharing and championing the implementation of best practice standards.

Disclaimer

Every effort has been made to ensure that these guidelines are as comprehensive and accurate as practicable; however, WasteMINZ will not be held responsible for any action arising out of their use. If the reader is uncertain about issues raised in these guidelines, they should refer to the Health and Safety at Work (Asbestos) Regulations 2016, Approved Code of Practice: Management and Removal of Asbestos and other applicable legislation and guidelines, and seek further expert advice as necessary.

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1. Introduction

These guidelines are for the waste, resource recovery and contaminated land sectors and they address:

- Collection of pre-wrapped asbestos waste from a customer's site;
- Receipt of pre-wrapped asbestos waste at a transfer station;
- Discovery of unexpected asbestos waste at a transfer station;
- Disposal of pre-wrapped asbestos waste to landfill.

These guidelines do not address activities associated with the removal of asbestos by licensed removalist specialists.

The Health and Safety at Work (Asbestos) Regulations 2016 impose requirements on persons conducting a business or undertaking (PCBUs) and others in relation to the carrying out of work involving asbestos. However, the Approved Code of Practice: Management and Removal of Asbestos 2016 (ACOP) does not cover the collection of asbestos waste, receipt at transfer stations or disposal to landfill.

These guidelines are intended to be supplementary to the Health and Safety at Work (Asbestos) Regulations 2016 and the ACOP and will be reviewed in 2022, or sooner, if required.

What are guidelines?

Guidelines provide guidance on what constitutes good practice within the sector, to assist with the effective management of health and safety. Although not legally binding, guidelines are admissible in court and may be used in evidence of good practice.

Symbols used in the Guidelines



THE LAW: Indicates that there is a legal obligation and refers to a specific piece or pieces of legislation.



ACTION POINT: Provides suggestions on what could or should be **implemented** in order to meet good practice and legal compliance.



IMPORTANT: Highlights or summarises key messages



MORE INFORMATION: Explains what the sector needs to know or to do to meet legal requirements or good practice.

Interpretation

Use of the words '**must**', '**ensure**' or '**require**' in the context of a legal requirement indicates that compliance is compulsory.

Use of the word '**should**' indicates a recommended course of action. The Guidelines intend a good practice imperative here, rather than a legal one. An alternative or equally effective method of achieving a safe workplace can be chosen, but the suggestions in these guidelines are considered a minimum requirement.

Content in italics signifies a direct quote from legislation, regulations, codes of practice or guidelines.

2. General information

What is asbestos?

Asbestos is a naturally occurring mineral that was once commonly used in building construction and insulation. There are two groups of asbestos; Serpentine and Amphibole, and six common types. Some of the materials include, but are not limited to:

Serpentine Group:

- Chrysotile (white asbestos): Found in roofing materials, walls, flooring, automobile brake linings, pipe insulation, gaskets, cement and boiler seals

Amphibole Group:

- Amosite (brown asbestos): Found in cement sheets, pipe insulation insulating board, ceiling tiles and thermal insulation products
- Crocidolite (blue asbestos): Found in spray-on coatings, pipe insulation and cement products
- Tremolite: Found in insulation products, paints, sealants and roofing materials.
- Anthophyllite: Found in composite flooring
- Actinolite: Found in paints, drywalls, sealants, joint compounds and children's toys
- Any mixture containing one or more of the mineral silicates belonging to the Serpentine and Amphibole groups

Asbestos may occur as a mineral or more commonly is bound into a material referred to as asbestos containing materials (ACM). Asbestos containing dust or debris (ACD) refers to fractured pieces of ACM or dust containing asbestos fibres.



MORE INFORMATION: More detailed information on asbestos can be found in Part A, Section 2 of the ACOP.



Figure 1: Asbestos fence panels



Figure 2: Asbestos roofing



Figure 3: Asbestos roofing



Figure 4: Asbestos piping



Figure 5: Asbestos cladding



Figure 6: Asbestos cladding



Figure 7: Asbestos vinyl flooring

Friable and non-friable

Asbestos or ACM is often referred to as friable and non-friable, and refers to its condition before work is conducted on it. Friable and non-friable asbestos have different levels of risk and require different controls to manage these risks. Work conducted on ACM may reveal previously hidden friable asbestos (Part B, Section 6.3 of the ACOP).

Airborne asbestos



THE LAW: Regulation 4 of the Health and Safety at Work (Asbestos) Regulations 2016 notes that *the airborne contamination standard for asbestos is an average concentration over any 8-hour period of 0.1 respirable asbestos fibres per millilitre of air.*



THE LAW: According to Regulation 9 of the Health and Safety at Work (Asbestos) Regulations 2016:

- (1) *A PCBU with management and control of a workplace must ensure that-*
 - (a) *exposure of a person at the workplace to airborne asbestos is eliminated so far as is reasonably practicable; and*
 - (b) *if it is not reasonably practicable to eliminate exposure to airborne asbestos, exposure is minimised so far as is reasonably practicable.*

Asbestos is dangerous when it is airborne and the fibres are respirable. The purpose of this document is to manage the asbestos fibres, as far as is reasonably practicable, to prevent the fibres from becoming airborne.

What effect can it have?

Breathing in airborne asbestos fibres is a serious risk to health. Once the fibres are breathed in, they lodge in the lungs and may cause diseases like asbestosis, lung cancer and mesothelioma (Part A, Section 2.5 of the ACOP).

The health risks increase when:

- *people inhale more fibres*
- *exposure is more frequent*
- *exposure occurs over a long period of time.*

All types of asbestos can cause asbestos-related disease (ACOP). Refer to Part A, Section 2.5 of the ACOP for further information on asbestos-related diseases.

Smokers that work with asbestos, have a greater risk of developing lung cancer than non-smokers.

3. Legislation, regulations and guidelines



THE LAW: Operators **must ensure** they are aware of and comply with relevant legislation. This includes but is not limited to:

- [Health and Safety at Work \(Asbestos\) Regulations 2016](#) (in particular, parts 2 and 5)
- [Health and Safety at Work \(General Risk and Workplace Management\) Regulations 2016](#) (in particular, parts 1, 2 and 3)
- [Health and Safety at Work Act 2015](#) (in particular Section 36)
- [Land Transport Act 1998](#)
- [Resource Management Act 1991](#)



ACTION POINT: Operators should have an understanding of the following documents:

- [Approved Code of Practice: Management and Removal of Asbestos 2016](#)
- [New Zealand Guidelines for Assessing and Managing Asbestos in Soil 2017.](#)

4. Asbestos Management Plan



ACTION POINT: Each site should be covered by an Asbestos Management Plan (AMP) which details procedures, relevant to the site, on how to manage asbestos.



THE LAW: The Health and Safety at Work (Asbestos) Regulations 2016 notes the following:

10 Duty to ensure asbestos identified at workplace

- (1) *A PCBU with management or control of a workplace who knows or ought reasonably to know that there is a risk of exposure to respirable asbestos fibres in the workplace must ensure, so far as is reasonably practicable, that all asbestos or ACM giving rise to the risk at the workplace is identified.*

11 Duty to analyse samples

- (1) *A PCBU with management or control of a workplace may identify asbestos or ACM by arranging for a sample of material at the workplace to be analysed for the presence of asbestos or ACM.*
- (2) *If a PCBU with management or control of a workplace arranges for an analysis, the PCBU must ensure that the sample is analysed by an accredited laboratory.*

12 Duty to ensure presence and location of asbestos indicated

- (1) *A PCBU with management or control of a workplace must ensure that the presence and location of asbestos or ACM identified at the workplace under regulation 10 are clearly indicated (and in a way that complies with the requirements of any applicable safe work instrument).*

13 Duty to prepare asbestos management plan

- (1) *This regulation applies if asbestos or ACM is-*
- (a) *identified at a workplace under regulation 10; or*
 - (b) *likely to be present at a workplace from time to time.*
- (2) *A PCBU with management or control of a workplace must ensure that a written plan (an **asbestos management plan**) for the workplace is prepared.*
- (3) *A PCBU with management or control of a workplace must ensure that the information in the asbestos management plan is kept up to date.*
- (4) *An asbestos management plan must include information about the following:*
- (a) *the identification of asbestos or ACM:*
 - (b) *decisions, and reasons for decisions, about the management of the risk arising from asbestos at the workplace:*
 - (c) *procedures for detailing incidents or emergencies involving asbestos or ACM in the workplace:*
 - (d) *the workers who carry out work involving asbestos, including-*
 - (i) *information and training that has been and will be provided to the workers;*
 - (ii) *roles and responsibilities of the workers:*
 - (iii) *any health monitoring of the workers that has been or will be undertaken.*

- (5) *A PCBU with management and control of a workplace must ensure that a copy of the asbestos management plan for the workplace is readily accessible to:*
- (a) *a worker who has carried out, carries out, or intends to carry out work at the workplace; and*
 - (b) *a representative of a worker referred to in paragraph (a); and*
 - (c) *a PCBU who has carried out, carries out, or intends to carry out work at the workplace; and*
 - (d) *a PCBU who has required, requires, or intends to require work to be carried out at the workplace.*

14 Duty to review asbestos management plan

- (1) *A PCBU with management or control of a workplace that has an asbestos management plan must ensure that the plan is reviewed and, if necessary, revised if-*
- (a) *there is a review of a control measure:*
 - (b) *asbestos is removed from, or disturbed, sealed, or enclosed at, the work place:*
 - (c) *the plan is no longer adequate for managing the risk arising from asbestos or ACM at the workplace:*
 - (d) *a representative requests a review under subclause (2):*
 - (e) *5 years have passed since the plan was last reviewed.*
- (2) *A representative for workers at a workplace may request a review of an asbestos management plan if the representative reasonably believes that-*
- (a) *a circumstance referred to in subclause (1)(a), (b), or (c) affects or may affect the health and safety of a member of the work group represented by the representative; and*
 - (b) *the PCBU with management and control of the workplace has not adequately reviewed the asbestos management plan in response to the circumstances.*



ACTION POINT: *Asbestos management plans can vary in length and detail, since they are dependent on factors like the size of the workplace, or the extent of asbestos contained within (Appendix C of the ACOP).*



ACTION POINT: *The AMP should address asbestos in buildings or asbestos that is brought to a workplace (e.g. a transfer station or landfill) from time to time.*

According to Section 9.2 of the ACOP, other information may be included in the asbestos management plan, such as:

- > a timetable for managing asbestos exposure risks (e.g., priorities and dates for removal, reviews, circumstances and activities that could affect the timing of action)*
- > procedures, including a timetable for reviewing and (if necessary) revising the asbestos management plan and asbestos documentation*
- > air monitoring procedures, if required.*

The content headers for an asbestos management plan are noted in Appendix C of the ACOP (refer to Appendix 1).

5. Training and supervision



THE LAW: Under Regulation 9 of the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, A PCBU must ensure, so far as is reasonably practicable, that every worker who carries out work of any kind, uses plant of any kind, or deals with a substance of any kind that is capable of causing a risk in a workplace –

- (a) either
 - (i) has adequate knowledge and experience of similar places, and work, plant, or substance of that kind, to ensure that the worker carrying out the work, using the plant, or dealing with the substance is not likely to adversely affect the health and safety or cause harm to the worker or any other person; or
 - (ii) is adequately supervised by a person who has that knowledge and experience; and
- (b) is adequately trained in the safe use of –
 - (i) all plant, objects, substances, or equipment that the worker is or may be required to use or handle; and
 - (ii) all personal protective equipment that the worker is or may be required to wear or use.



THE LAW: According to Regulation 17 of the Health and Safety at Work (Asbestos) Regulations 2016:

- (1) In addition to the training required by regulation 9 of the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, a PCBU must ensure that workers who are engaged by the PCBU and who the PCBU reasonably believes may be involved in asbestos removal work or in the carrying out of asbestos-related work are trained in the identification and safe handling of, and suitable control measures for, asbestos and ACM.
- (2) This regulation does not apply in relation to a worker referred to in regulation 29.
- (3) The PCBU must ensure that a record is kept of the training undertaken by the worker-
 - (a) while the worker is carrying out the work; and
 - (b) for 5 years after the day on which the worker ceases working for that PCBU.
- (4) The PCBU must keep the record available for inspection under the Act.



THE LAW: Regulation 18 of the Health and Safety at Work (Asbestos) Regulations 2016 also notes the following:

- (1) *A PCBU must not use, or direct or allow a worker to use, either of the following on asbestos or ACM:*
 - (a) *a high-pressure water spray;*
 - (b) *compressed air.*
- (2) *Subclause (1)(a) does not apply to the following:*
 - (a) *the use of a high-pressure water spray for fire-fighting or fire prevention purposes;*
 - (b) *water jetting to clear or prevent blockages in waste water or water pipe networks;*
 - (c) *specific instances of the use of a relevant method for managing risk associated with asbestos that is approved under regulation 8.*
- (3) *A PCBU must not use, or direct or allow a worker to use, any of the following equipment on asbestos or ACM unless the use of the equipment is controlled:*
 - (a) *a power tool;*
 - (b) *a broom;*
 - (c) *any other implement that causes the release of airborne asbestos into the atmosphere.*
- (4) *For the purposes of subclause (3), the use of equipment is **controlled** if-*
 - (a) *the equipment is enclosed while being used; or*
 - (b) *the equipment is designed to capture or suppress airborne asbestos and is used in accordance with its design; or*
 - (c) *the equipment is used in a way that is designed to capture or suppress airborne asbestos safely; or*
 - (d) *any combination of paragraphs (a), (b), and (c) applies.*

Part C Section 12 of the ACOP provides specific details regarding training and supervision requirements and should be referred to when developing programmes for workers. These Guidelines provide a brief description of these requirements.

Training (ACOP Part C Section 12.3)

The workers must receive task-specific training on:

- *how to recognise material that may contain asbestos or is an ACM*
- *how to handle and work with asbestos and ACM safely*
- *suitable control measures for the specific tasks required for collection, receipt, transport or disposal of asbestos waste.*

...

The training could include topics like:

- *all types of asbestos and ACM the workers are likely to encounter*
- *every step of the safe work procedures for collection, receipt, transport and disposal of asbestos waste*
- *decontamination, waste and transportation requirements*
- *what to do if something goes wrong*
- *the PCBU's PPE and respiratory protection programme (see section 14.12.2 of this code for more information)*
- *health monitoring requirements*
- *air monitoring processes*
- *any other matters the PCBU (and workers or representatives) considers relevant.*

Supervision (ACOP Part C Section 12.4)

Inexperienced workers must be supervised by an experienced and knowledgeable worker until they have gained the knowledge and experience needed to do the job safely.

The supervision must be suitable and adequate for the workers, considering:

- *the nature of the work the workers carry out*
- *the nature of the risks associated with the work*
- *the control measures for managing the risks of the work the workers conduct.*

The level of supervision will vary, according to:

- *the nature of the work the worker does*
- *the risks associated with the work being carried out*
- *the control measures for managing the risks of the work the workers conduct.*

Supervising workers until they can do the work safely is an active task. Workers should be monitored appropriately to make sure they are working safely and effectively.

Training Records (ACOP Part C Section 12.6)

The workers' PCBU must keep records of the training each worker does:

- *while the worker is carrying out the work, and*
- *for five years from the day the worker stops working for that PCBU.*

The records must be made available for inspection under the Act by a health and safety inspector.

6. Personal protective equipment



THE LAW: According to Section 36 of the Health and Safety at Work Act 2015:

- (1) A PCBU must ensure, so far as is reasonably practicable, the health and safety of—
 - (a) workers who work for the PCBU, while the workers are at work in the business or undertaking; and
 - (b) workers whose activities in carrying out work are influenced or directed by the PCBU, while the workers are carrying out the work.
- (2) A PCBU must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.
- (3) Without limiting subsection (1) or (2), a PCBU must ensure, so far as is reasonably practicable,—
 - (a) the provision and maintenance of a work environment that is without risks to health and safety; and
 - (b) the provision and maintenance of safe plant and structures; and
 - (c) the provision and maintenance of safe systems of work; and
 - (d) the safe use, handling, and storage of plant, substances, and structures; and
 - (e) the provision of adequate facilities for the welfare at work of workers in carrying out work for the business or undertaking, including ensuring access to those facilities; and
 - (f) the provision of any information, training, instruction, or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking; and
 - (g) that the health of workers and the conditions at the workplace are monitored for the purpose of preventing injury or illness of workers arising from the conduct of the business or undertaking.
- (4) Subsection (5) applies if—
 - (a) a worker occupies accommodation that is owned by, or under the management or control of, a PCBU; and
 - (b) the occupancy is necessary for the purposes of the worker's employment or engagement by the PCBU because other accommodation is not reasonably available.
- (5) The PCBU must, so far as is reasonably practicable, maintain the accommodation so that the worker is not exposed to risks to his or her health and safety arising from the accommodation.
- (6) A PCBU who is a self-employed person must ensure, so far as is reasonably practicable, his or her own health and safety while at work.



THE LAW: Regulation 15 of the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 states that A PCBU who directs the carrying out of work at a workplace must provide personal protective equipment to workers carrying out the work unless the personal protective equipment has been provided by another PCBU.

Workers handling asbestos or ACM must wear the following personal protective equipment (PPE), over and above the standard uniform:

Equipment	Information
Respirator/breathing apparatus	<ul style="list-style-type: none"> • Ensures workers do not inhale airborne asbestos and should include a half-face respirator with replaceable particulate filter (minimum Class P2) or disposable half-face (minimum class P2) respiratory mask. Ordinary dust masks are not sufficient. • A respirator fit test should be completed by a trained tester when the respirator is fitted for the first time to ensure that a good seal is achieved around the edges of the respirator. Fit testing must also be carried out if the wearer has had a significant weight gain or loss, if a different size of model of respiratory protective equipment is specified and annually (or more frequently if specified by company policy). Facial hair can affect the fit of the respirator (ACOP). • Plant involved in asbestos disposal should be fitted with high efficiency particulate air (HEPA) filters in the air conditioning system, with doors and windows closed.
Safety glasses/goggles	Protects eyes from airborne asbestos fibres
Gloves/safety gloves	Protects skin from asbestos
Disposable overalls	Provides protection to the skin from asbestos fibres
Safety boots	Non-lace up, for example, gumboots that can be washed down easily.

Asbestos Kit

It is recommended that each facility maintain an Asbestos Kit that would include this specialised PPE and additional equipment for dealing with asbestos. This kit should include:

- Polythene roll (minimum 200 µm thick)
- Polythene bags – for small quantities of asbestos 200 µm thick)
- Half mask (P2/3) as a minimum
- Disposable gloves
- Disposable coveralls
- Safety goggles/glasses
- Duct tape
- Asbestos waste sticker
- Water mist spray/surfactant

Decontamination

According to Part C, Section 14.3 of the ACOP, When selecting PPE, PCBUs and workers should consider if reusable PPE can be decontaminated. PPE that is not clothing must be disposed of as asbestos waste, or decontaminated and kept in a sealed container until it is re-used for asbestos work. Clothing should be made from material that provides protection against fibre penetration; not wool or other materials that attract fibrous dusts.

The PPE that has been worn in the asbestos contaminated area should be removed in the decontamination area on site and disposed as asbestos contaminated waste.

All plant and equipment should be decontaminated according to Section 17 of the ACOP.

7. Receipt and handling of asbestos waste at refuse transfer stations



ACTION POINT: Each site should have access to a person who is trained to recognise potential asbestos containing materials.



MORE INFORMATION: Asbestos contaminated soil should not be accepted at refuse transfer stations.

The arrival of asbestos waste at a refuse transfer station can be unexpected (uncontrolled) or expected (controlled) and each situation requires a different procedure.

Uncontrolled receipt of asbestos waste

Uncontrolled receipt refers to those situations where asbestos waste is deposited at a refuse transfer station that would not otherwise accept asbestos, or in a form not accepted at the site (e.g. not packaged correctly).

As standard good practice, site workers should visually check material prior to disposal and ask the customer what the material is, how much there is, where it came from and, if it is building material, the age of the material. If asbestos is identified or suspected the customer should be instructed to take the material away, to contact a licensed removalist or approved disposal facility for further advice and that a list of current asbestos removal licence holders can be found on WorkSafe New Zealand's website (<http://worksafe.govt.nz/the-toolshed/registers/asbestos-licence-holder-register/>).



IMPORTANT: If in doubt, refuse transfer station workers should treat the material as asbestos or ACM.

If asbestos waste has been off-loaded on the site and identified by a trained worker the following steps should be taken:

1. If asbestos or ACM is suspected it should be treated as such
2. Appropriate PPE should be put on (refer to Section 5)
3. If the asbestos waste is cleaned up by site workers the *Organising a Clean-Up of a 'Minor Contamination'* process described in Appendix D of the ACOP must be followed
4. The material should be isolated, by setting up barriers, for example
5. The person who is in charge of the site should be alerted
6. The material should be carefully dampened to reduce any risk of windblown fibres, avoiding high-pressure hosing
7. If the suspected asbestos waste is less than 10m², or the equivalent thereof, it should be cleaned up by trained workers. If a larger volume of asbestos waste is present, it should be isolated and enclosed until a competent person is able to confirm the presence of asbestos and perform the clean-up
8. Once the clean-up work is completed personal decontamination must be carried out as described in Appendix D of the ACOP
9. The PPE that has been worn in the asbestos contaminated area should be removed in the decontamination area on site
10. Asbestos waste must be double wrapped with 200µm thick polythene, sealed and labelled and exterior cleaned. If bags are used, these must be goose-neck tied. Asbestos waste must be disposed of to a landfill.

Controlled receipt of asbestos waste

Controlled receipt of asbestos waste refers to those refuse transfer stations that accept asbestos and ACM for the purposes of temporary storage and consolidation before transport to a landfill. Anyone who is accepting controlled asbestos waste should have an AMP in place, detailing how they are managing asbestos. Acceptance of asbestos waste should be limited to material that has been appropriately packaged as described by Part C Section 18 of the ACOP, anything else would be considered prohibited under the regulations.

Site specific procedures around the receipt of asbestos waste should be documented and well understood by those workers involved in the process. Receipt of asbestos waste should be pre-arranged between the customer and the refuse transfer station to ensure that a trained worker is available to receive the waste.

The receipt of asbestos waste must be well documented and any site that intends to accept asbestos waste should have a site specific AMP and appropriate documentation.

As noted in Part C of the ACOP, asbestos waste must be stored in a designated area that is secured from the general activities on the site and clearly labelled as asbestos waste.

Arrangements with a competent asbestos transport operator (see Section 9 of these Guidelines) and landfill should be made prior to acceptance of asbestos waste by a refuse transfer station.

8. Collection and transportation of asbestos waste



THE LAW: The Dangerous Transport Rule: Dangerous Goods 2005 and New Zealand Standard 5433:2012, Transport of Dangerous Goods on Land in New Zealand classify asbestos as a Class 9 (miscellaneous) dangerous good. However special provision 168 of this Standard provides an exception to this rule; *Asbestos which is immersed or fixed in a natural or artificial binder (such as cement, plastics, asphalt, resins or mineral ore) in such a way that no escape of hazardous quantities of respirable asbestos fibres can occur during transport is not subject to this Standard.*



ACTION POINT: It is the transport operator's responsibility to assess the risk of transporting asbestos but it is recommended that asbestos is treated as a dangerous good, particularly if it is in a friable form.

Collection and transport of asbestos waste should be conducted in accordance with the [Land Transport Act 1998](#) and the [Health and Safety at Work \(Asbestos\) Regulations 2016](#).

The transport operator should ask the customer to confirm the classification of the asbestos waste that is being removed and how it was managed. If the waste is Class A or Class B, the transport operator should request a copy of the customer's licence before the waste is picked up.

Asbestos waste to be collected should be packaged in accordance with Part C, Section 18.25 of the ACOP, *If the volume or size of asbestos waste cannot be contained in asbestos waste bags, drums or bins, use a waste skip, vehicle tray or similar container in good condition.*

The PCBU doing asbestos-related work, or asbestos removalist, should seal the asbestos in double-lined, heavy-duty plastic sheeting (200 µm minimum thickness), or double-bag it before placing it in the container. Non-friable asbestos waste may be placed directly into a skip or vehicle tray double-lined with heavy-duty plastic sheeting, if it is kept damp to minimise airborne dust.

Asbestos waste should be collected, transported and disposed of on the same day. If the waste material cannot be taken to its final disposal site on the same day, it should be left on the site it was generated at and collected the next morning.



IMPORTANT: The asbestos packaging should be inspected by the driver prior to uplift. Should the asbestos packaging not be to an appropriate standard, the material must not be collected or transported.

Transportation of asbestos waste

Due to the risk of a spill, it is recommended that asbestos waste is transported as a Dangerous Good (Class 9) in accordance with the Land Transport Act 1998; which includes Dangerous Goods endorsement on driver's license, completion of a Dangerous Good Declaration document (if carrying friable asbestos) and placarding of the transport vehicle (Section 156 of the Land Transport Act 1998). It is recommended that the licensed asbestos removalist (customer) completes the Dangerous Goods Declaration to ensure completeness of documentation. The document must be signed by both parties (licensed asbestos removalist and transporter) before the material is removed from the site.



ACTION POINT: Each vehicle transporting asbestos waste should carry:

- Dangerous Goods documentation
- Emergency response information
- An asbestos spill response procedure and an asbestos kit.

Incident during transport



ACTION POINT: If an incident occurs during transport, the transporter should advise the New Zealand Police's Commercial Vehicle Safety Team and WorkSafe New Zealand.



THE LAW: If the transporter has an accident en route to the Disposal Facility the contents will be treated as a dangerous good for transport purposes. Subclause 8.3(1) of the Land Transport Rule: Dangerous Goods 2005 (emergency response requirements for dangerous goods transport) will then apply.

Decontamination

If it is suspected that the vehicle transporting the asbestos, or the surrounding area has become contaminated, then the vehicle and surrounding area should be decontaminated as described in Part C, Section 17 of the ACOP.

9. Disposal of asbestos waste at a landfill



ACTION POINT: Each site must be covered by an Asbestos Management Plan.



IMPORTANT: Every landfill approved to accept asbestos waste should dispose of it as a special waste; but the acceptance and disposal requirements will depend on the facility's special waste requirements, site management plan, and asbestos management plan applicable to the site.

Receipt of asbestos waste

Asbestos waste should be appropriately packaged or wrapped and covered as described in Part C, Section 8 of the ACOP. If not, the transporter/customer should be notified that the asbestos waste was not appropriately packaged, wrapped or covered and the landfill site should take measures to suppress the release of airborne fibres during handling and disposal.

Disposal of asbestos waste

Asbestos waste should be disposed of in a dedicated special waste location at the landfill (Regulation 7 of the Health and Safety at Work (Asbestos) Regulations 2016) and the co-ordinates of the location recorded in the AMP. The disposal location should be considered an area of asbestos related work and the appropriate controls should be established to protect workers from asbestos exposure. Asbestos waste disposal areas must have appropriate signage to alert site workers and customers to the presence and location of asbestos (Regulations 10, 12 and 50, Health and Safety at Work (Asbestos) Regulations 2016).



IMPORTANT: All asbestos waste disposal areas should be located a sufficient distance away from the edge of the landfill and a sufficient distance from other landfill activities to minimise the risk of exposure.

Asbestos waste should be buried following disposal to ensure that there is no release of airborne respirable fibres from the stockpile.

All workers in the asbestos disposal area should be wearing appropriate PPE at all times (refer to Section 5 of these Guidelines).

If loose ACM is discovered or bags containing ACM break during disposal, the material should be dampened to reduce any risk of airborne fibres, until buried.

10. Accidental exposure to asbestos waste

Accidental exposure to asbestos can occur in a number of situations, for example, when a person is in the vicinity when a load is unexpectedly tipped.

An accidental exposure procedure is a requirement of the AMP and the following issues should be considered:

- Appropriate PPE (refer to Section 5 of these guidelines)
- Decontamination
- Health testing
- Isolation of the material
- Notifications
- Control measures
- Clean up
- Placing the exposed person on the National Asbestos Register.

11. Exposure monitoring and health monitoring of workers dealing with asbestos waste



THE LAW: Under Section 36 of the Health and Safety at Work Act 2015, a PCBU has the primary duty of care to ensure, so far as is reasonably practicable, both the health and safety of workers. This includes monitoring any conditions at the workplace that could put a worker's health at risk.



THE LAW: The PCBU must tell its workers about any asbestos-related health monitoring requirements before they start any work that may expose them to asbestos (Regulation 34, Health and Safety at Work (General Risk and Workplace Management) Regulations 2016).



THE LAW: According to Regulation 9 of the Health and Safety at Work (Asbestos) Regulations 2016:

- (1) A PCBU with management or control of a workplace must ensure that –
 - (a) Exposure of a person at the workplace to airborne asbestos is eliminated so far as is reasonably practicable; and
 - (b) If it is not reasonably practicable to eliminate exposure to airborne asbestos, exposure is minimised so far as is reasonably practicable.
- (2) A PCBU with management or control of a workplace must ensure that the airborne contamination standard for asbestos is not exceeded at the workplace.

Two types of monitoring should be carried out for workers exposed to asbestos; exposure monitoring and health monitoring.

Exposure monitoring

Exposure monitoring determines the presence or amount of asbestos fibres workers may be exposed to. It includes monitoring of conditions at the workplace and personal monitoring of workers, in accordance with Part 3 of the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 and Subpart 3 of Part 2 of the Health and Safety at Work (Asbestos) Regulations 2016.

In New Zealand there is currently one biological monitoring standard for asbestos endorsed by WorkSafe New Zealand; Workplace Exposure Standards and Biological Exposure Indices (WorkSafe New Zealand, 2017).



ACTION POINT: *Exposure monitoring should be carried out at appropriate intervals and after any significant change at the workplace that may affect exposure (Part 3, Health and Safety at Work (General Risk and Workplace Management) Regulations 2016).*

Health monitoring

Health monitoring involves testing a person at regular intervals to determine a change in their health status due to exposure to a hazard at the workplace. Part C section 16.5 of the ACOP specifies the health monitoring required for workers exposed to asbestos:

- > *a physical examination*
 - *this should emphasise the respiratory system, and include a chest x-ray (PA and lateral) and lung function test (FEV1 and FVC)*
- > *the worker's demographic, medical and occupational history*
- > *records of the worker's personal exposure to asbestos, for example:*
 - *relevant risk assessment reports*
 - *air monitoring results*
 - *investigation reports if the airborne contamination standard for asbestos was exceeded.*

Part C Section 16.6 of the ACOP specifies the frequency of health monitoring.



THE LAW: The PCBU must keep each worker's exposure and health monitoring reports confidential for at least 40 years after the report was generated (Regulation 32(2) Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 and Part C, Section 16.11, ACOP).



ACTION POINT: Risk can be reduced by work rotation and automation of certain tasks.



ACTION POINT: Anyone who believes they were exposed to asbestos, or were diagnosed with an asbestos-related disease, can register with the [Asbestos Exposure Register](#) (AER). The register is used for research purposes within WorkSafe New Zealand to better understand the effects of asbestos exposure in New Zealand. The register is not used to prompt clients to receive medical treatment or check-ups.

12. References

WorkSafe New Zealand (2016). *Approved Code of Practice: Management and Removal of Asbestos 2016*

BRANZ (2017). *New Zealand Guidelines for Assessing & Managing Asbestos in Soil*

Health and Safety at Work Act 2015

Health and Safety at Work (Asbestos) Regulations 2016

Health and Safety at Work (General Risk and Workplace Management) Regulations 2016

Land Transport Act 1998

Land Transport Rule: Dangerous Goods 2005

WasteMINZ. (2015). *Draft Definitions and Protocols for Information about Waste Services and Facilities*. Retrieved December 18, 2018 from www.wasteminz.org.nz

WorkSafe New Zealand (2016). *Health monitoring and exposure monitoring information sheet*. Retrieved June 14, 2017 from www.worksafe.govt.nz

WorkSafe New Zealand (2016). *Information Sheet 5: Personal protective equipment to use when working with asbestos*. Retrieved February 2, 2016 from www.worksafe.govt.nz

WorkSafe New Zealand (2017). *Workplace Exposure Standards and Biological Exposure Indices*

13. Definitions

Asbestos: *A term describing naturally occurring fibrous silicate minerals (rock-forming minerals). There are two groups, and six common types:*

- (a) *actinolite*
- (b) *grunerite (or amosite) (brown)*
- (c) *anthophyllite asbestos*
- (d) *chrysotile asbestos (white)*
- (e) *crocidolite asbestos (blue)*
- (f) *tremolite asbestos (Approved Code of Practice: Management and Removal of Asbestos, 2016).*

Asbestos-contaminated dust or debris (ACD): *Dust or debris that has settled within a workplace and it, or is assumed to be, contaminated with asbestos (Approved Code of Practice: Management and Removal of Asbestos, 2016).*

Asbestos-containing material (ACM): *Any material or thing that, by its design, contains asbestos (Approved Code of Practice: Management and Removal of Asbestos, 2016).*

Asbestos-contaminated soil: *Soil that is contaminated with asbestos or ACM (Approved Code of Practice: Management and Removal of Asbestos, 2016).*

Asbestos-related work: *Work involving asbestos (other than asbestos removal work to which Part 3 applies) that is permitted under the exceptions set out in regulation 7(2), (3) and (4) of the Health and Safety at Work (Asbestos) Regulations 2016 which include:*

- (c) *removal or disposal of asbestos or ACM, including demolition work, in accordance with the Health and Safety at Work (Asbestos) Regulations 2016*
- (d) *the transport and disposal of asbestos or asbestos waste in accordance with the Health and Safety at Work (Asbestos) Regulations 2016 (Health and Safety at Work (Asbestos) Regulations 2016).*

Asbestos waste: *Asbestos or asbestos-contaminated soil or asbestos-containing material removed, and disposable items used, during asbestos removal work, including plastic sheeting and disposable tools (Health and Safety at Work (Asbestos) Regulations 2016).*

Competent person: *A person who has the knowledge, experience, skills, and qualifications to carry out a particular task under these regulations, including any knowledge, experience, skills, and qualifications prescribed in a safe work instrument (Health and Safety at Work (Asbestos) Regulations 2016).*

Exposure monitoring:

(a) *means the measurement and evaluation of exposure to a health hazard experienced by a person; and*

(b) *includes—*

(i) *monitoring of the conditions at the workplace; and*

(ii) *biological monitoring of people (Health and Safety at Work (General Risk and Workplace Management) Regulations 2016).*

Friable: *Means, in relation to asbestos or ACM, in a powder form or able to crumbled, pulverised, or reduced to a powder by hand pressure when dry (Approved Code of Practice: Management and Removal of Asbestos 2016). A Class A asbestos removal licence is required to remove friable asbestos.*

Hazard: *A source or situation with a potential for harm in terms of human injury or ill-health, damage to property, damage to the environment, or a combination of both (Australian and New Zealand Standard AS/NZS 4801:2001 ‘Occupational Health and Safety Management Systems’).*

Health monitoring: *In relation to an individual, means monitoring of the individual to identify any changes in his or her health status because of exposure to certain health hazards (Health and Safety at Work (General Risk and Workplace Management) Regulations 2016) and, according to Regulation 16 of the Health and Safety at Work (Asbestos) Regulations 2016, includes-*

(a) *consideration of—*

- (i) *the worker's demographic, medical, and occupational history; and*
 - (ii) *records of the worker's personal exposure to asbestos; and*
- (b) *a physical examination of the worker.*

Landfill: *A waste disposal site used for the controlled deposit of solid waste onto or into land (Technical Guidelines for Disposal to Land 2016). For the purposes of this document the term landfill is used to refer to an appropriately consented disposal facility for the acceptance of asbestos.*

National Asbestos Registers: *Registers that were formed by the health and safety Regulator in 1992 to record details of:*

- > *people who were exposed to asbestos*
- > *people who have asbestos-related disease (Approved Code of Practice: Management and Removal of Asbestos, 2016).*

Non-friable asbestos: *In relation to asbestos or ACM, means not friable (and, for the purposes of this definition, asbestos and ACM include material containing asbestos fibres reinforced with a bonding compound) (Approved Code of Practice: Management and Removal of Asbestos 2016). A Class B asbestos removal licence is required to remove non-friable asbestos.*

Personal conducting a business or undertaking (PCBU):

(1) ... a **person conducting a business or undertaking** or **PCBU**—

(a) *means a person conducting a business or undertaking—*

(i) *whether the person conducts a business or undertaking alone or with others;*
and

(ii) *whether or not the business or undertaking is conducted for profit or gain;*
but

(b) *does not include—*

(i) *a person to the extent that the person is employed or engaged solely as a worker in, or as an officer of, the business or undertaking;*

(ii) *a volunteer association;*

- (iii) *an occupier of a home to the extent that the occupier employs or engages another person solely to do residential work:*
- (iv) *a statutory officer to the extent that the officer is a worker in, or an officer of, the business or undertaking:*
- (v) *a person, or class of persons, that is declared by regulations not to be a PCBU for the purposes of this Act or any provision of this Act*

(2) ... **volunteer association** means a group of volunteers (whether incorporated or unincorporated) working together for 1 or more community purposes where none of the volunteers, whether alone or jointly with any other volunteers, employs any person to carry out work for the volunteer association (Health and Safety at Work Act 2015).

Personal Protective Equipment (PPE): (a) means anything used or worn by a person (including clothing) to minimise risks to the person's health and safety; and (b) includes air-supplied respiratory equipment (Approved Code of Practice: Management and Removal of Asbestos 2016).

Reasonably practicable: *That which is, or was, at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters* (Health and Safety at Work Act 2015).

Respiratory Protective Equipment (RPE): A type of personal protective equipment that protects people from breathing in substances hazardous to health.

Risk: *The likelihood that a hazard will actually cause its adverse effects, together with a measure of the effect* (Health and Safety Executive website, 2016).

Risk assessment: The overall process of estimating the magnitude of risk, based on the likelihood, frequency and consequence of exposure to a worker.

Special Waste: *Waste that fits into significant, identifiable waste streams, usually from a single generator. Special wastes are those that cause particular management and/or disposal problems and need special care. It includes any substantial waste stream (such as biosolids, infrastructure fill or industrial waste) that significantly affects the overall composition of the waste stream, and may be markedly different from waste streams at*

other disposal facilities (New Zealand Waste Data Framework: Draft Definitions and Protocols for Information about Waste Services and Facilities 2015).

Trained worker: A worker who has been trained to recognise potential asbestos containing materials.

Work involving asbestos: Work that *involves manufacturing, supplying, transporting, storing, removing, using, installing, handling, treating, disposing of, or disturbing asbestos or ACM* (Health and Safety at Work (Asbestos) Regulations 2016).

Worker:

(1) *...Unless the context otherwise requires, a **worker** means an individual who carries out work in any capacity for a PCBU, including work as –*

- (a) An employee; or*
- (b) A contractor or subcontractor; or*
- (c) An employee of a contractor or subcontractor; or*
- (d) An employee of a labour hire company who has been assigned to work in the business or undertaking; or*
- (e) An outworker (including a homeworker);*
- (f) An apprentice or a trainer; or*
- (g) A person gaining work experience or undertaking a work trial; or*
- (h) A volunteer worker; or*
- (i) A person of a prescribed class.*

(2) *...*

- (c) A PCBU is also a worker if the PCBU is an individual who carries out work in that business or undertaking (Health and Safety at Work Act 2015).*

Workplace: *A place where work is being carried out, or is customarily carried out, for a business or undertaking. Includes any place where a worker goes, or is likely to be, while at work (Health and Safety at Work Act 2015).*

14. Further reading

Department of Environment and Conservation (2012). *Guidelines for managing asbestos at construction and demolition waste recycling facilities*

Waste Industry Safety and Health Forum (2010). *Managing health and safety at civic amenity sites*. Issue 1, 2015. Retrieved February 2, 2018 from www.wishforum.org.uk

WorkCover New South Wales (2010). *Management of asbestos in recycled construction and demolition waste*

15. Appendix 1: Content headers for an asbestos management plan from the ACOP

HEADER	MORE INFORMATION
Identification of asbestos or ACM	<p>Describe the identified asbestos and ACM in the workplace.</p> <p>Include:</p> <ul style="list-style-type: none"> > a reference or link to asbestos records > information about where asbestos identification signs and labels are located > how the asbestos was identified (e.g. by assumption, or by survey from a competent person, etc).
Decisions and reasons for the decisions for managing the asbestos in the workplace	<p>Describe the decisions and reasons for making those decisions. Refer to Table 5 of the ACOP for further information.</p>
Procedures for detailing incidents or emergencies involving asbestos or ACM in the workplace	<p>Describe the procedures for recording incidents or emergencies involving asbestos ACM that might occur in the workplace.</p>
Workers carrying out work involving asbestos	<p>Include:</p> <ul style="list-style-type: none"> > information and training that has been and will be provided to the workers > roles and responsibilities of the workers carrying out work involving asbestos > any health monitoring that has been or will be undertaken
Asbestos risks	<p>Provide information about:</p>

	<ul style="list-style-type: none"> > how asbestos and ACM risks will be controlled > how the control measures were decided upon
Processes	<p>Include information about:</p> <ul style="list-style-type: none"> > priorities > dates for asbestos/ACM removal > reviews > circumstances and activities that could affect the timing of planned actions
People with responsibilities under the plan	<p>Include information about:</p> <ul style="list-style-type: none"> > their identities > what their responsibilities are > who has oversight of the plan
Review	Timetables for reviewing asbestos records and the asbestos management plan
Air monitoring	Air monitoring results, if applicable

16. Appendix 2: Example of asbestos acceptance criteria and instructions

Asbestos must be wrapped correctly to ensure there is no risk to our staff and customers.

ACCEPTABLE WRAPPING METHODS

Polythene sheeting

Asbestos sheeting, asbestos lagged pipes and similar long or large items should be double wrapped in new heavy duty 200µm (minimum thickness) polythene sheeting. Once double wrapped, label the bundles to indicate the presence of asbestos. Double wrap the waste in polythene sheeting and apply adhesive tape to the entire length of every overlay to minimise the risk of the sheeting splitting or tearing. Bundles have a maximum allowance weight of 1000kg. We require any pallets brought into the facility to be left behind and have exchange pallets available.

Bags

Asbestos waste must be contained in new and heavy 200µm (minimum thickness) polythene bags. The waste must be double bagged and be closed with a goose neck tie. The bags should be no more than half full to reduce the risk of bags tearing or splitting.

Mark bags clearly 'Caution asbestos – do not open or damage bag. Do not inhale dust'.

Drums

We do not accept asbestos waste in drums.

There must be NO exposed asbestos product protruding from plastic bags or sheeting and acceptable wrapping methods used as above
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ON SITE PROCESS

Asbestos waste is accepted between the hours of 8.30am-12pm and 1pm-4pm only.

Asbestos waste is not accepted on Saturday, Sunday or public holidays.

1. Manifest/permit information is recorded at weighbridge kiosk on arrival.
2. You will be directed to the locked compound.
3. A senior staff member will inspect incoming loads and unlock the Asbestos Waste Compound (AWC) to allow unloading. Non-compliant loads will not be accepted.
4. Site staff may monitor but will not assist with offloading asbestos waste.
5. The AWC will be locked immediately following the delivery.

DISPOSAL COSTS

Please check our website, ask the kiosk or call our main office [insert number] for the current pricing.

[insert contact details of team leader, mobile number and website]

ABOUT ASBESTOS

http://en.wikipedia.org/wiki/Asbestos_abatement

SUPPLIERS OF ASBESTOS WASTE BAGS AND POLYTHENE WRAP

[insert supplier's details]

FURTHER INFORMATION

For any further information please contact our main office on [insert number]