

# Asbestos

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## Foreword

This Standard is one of a suite of documents which address the Policy implementation requirements within Generation Operations which apply to the operation, modification, and maintenance of its generating assets in order to minimise significant safety hazards or threats to commercial operation of the plant and to maximise the value from those assets.

## Coverage

This Standard applies to all Generation Sites.

## Exclusions

The following items of plant or operating practices are excluded from this Standard:

- Nil

## Deviations

Deviations from the requirements of this Standard can be considered where full compliance is not appropriate. Circumstances which require deviation from this Standard may include regulatory obligations, local conditions or other circumstances which make it infeasible or inappropriate for a particular site or set of circumstances.

In order to authorise any deviation from this Standard:

- The impact and duration of the deviation shall be risk assessed and documented. Where appropriate the Risk Register shall be updated to reflect the Deviation
- Agreement to the deviation shall be obtained from the Corporate Engineering Authority and Approval obtained from the Chief Generation Officer.

The following items of plant or operating practices deviate from this Standard:

- Nil

## 1. Introduction

Contact is committed to providing a healthy and safe workplace. As part of our health and safety management system, Contact has a process in place to manage Asbestos.

Although the occupational health risks associated with asbestos were largely recognised it was used extensively in industry and construction due to its versatility and unique properties of strength, flexibility, insulation (acoustic, thermal, and electrical) and resilience.

From the mid 1980's asbestos products began to be removed from production in Australasia. In 1983 New Zealand banned the importation of raw asbestos though asbestos containing products were still allowed. From October 2016 there is a total ban on importation of all Asbestos and ACM.

In the energy sector asbestos and ACM was widely used for thermal and electrical insulation, in construction materials such as wall cladding and roofing and in components such as fuse holders, gaskets, switch gear etc.

At Contact extensive programs of work have ensured most of the friable asbestos that is accessible has been removed and if not removed encapsulated.

Frequent and/or long-term exposures to airborne asbestos fibres are known to cause Lung Cancer, Mesothelioma and Asbestosis therefore the risk of exposure **MUST** be managed to ensure the safety of those working on or in the vicinity of our plant and equipment where asbestos and ACM's are present.

## 2. Purpose

To manage the risk of exposure to airborne asbestos fibres on Contact owned or operated sites the following steps are taken:

- Identification of asbestos and ACM
- Assessment of the risk associated with the identified material.
- Treatment of the risk

In addition procedures are implemented to manage unplanned events such as asbestos discoveries and accidental exposures.

## 3. Scope

This company-wide standard is mandatory for Contact operations. Legal compliance is the minimum requirement, where this standard present requirements above that required by various legislation and regulations, this standard **MUST** still be applied as well as full compliance with the law.

This standard covers Asbestos materials management in the work environment or associated with the tasks performed at all Contact sites. This procedure applies to contractors on Contact controlled sites to the same extent it applies to Contact employees.

Contractors **MUST** inform Contact of any asbestos materials that they have identified or are required to work with.

This procedure applies to all work performed by Contact employees, regardless of where that work is performed. Where contractors perform work on Contact's behalf but not at sites controlled by Contact, the contractor is expected to have asbestos materials management processes which are at least equivalent to those required by this procedure.

## 4. Management of Asbestos Exposure

### Identification

All known ACM is recorded in a centrally held asbestos register. In addition to maintaining a register Asbestos surveys are undertaken at 5 yearly intervals. The surveys are undertaken by independent suitably qualified parties. The purpose of the survey is to:

review the condition of the current "known" ACM and effectiveness of the risk treatments, identify, sample, and analyse any other suspect material.

update the register to reflect any removal activities completed since the previous survey'.

The surveyor may verify that the appropriate removal/clearance protocols were followed assuming all the relevant documentation is available.

In addition to formal surveys ACM may be discovered during routine maintenance and other work activities. People working on sites where there is this possibility are made aware of the potential types of ACM's and how to identify them. In all cases if suspected ACM is found work **MUST** be stopped until the material is removed, treated, or verified to be asbestos free. If the material is treated and left in situ and found to contain asbestos, it will be added to the Asbestos Register.

### Assessment of Risks

As part of the asbestos survey a risk assessment is undertaken to provide guidance for the implementation of controls. The risk assessment **MUST** consider the following factors:

Classification with respect to the Regulations (Friable or Non friable?)

Condition (is it damaged or showing signs of deterioration?)

Risk of fibre release (based on the type of material)

Exposure to potential damage (what activities occur in the vicinity?)

Location (is it in an enclosed or open environment?)

Based on the level of risk the independent assessors recommend the most appropriate control measures based on their current state of knowledge.

### Implementation of Controls

Controls are implemented based on the survey recommendations and in consultation with site leadership.

Friable asbestos **MUST** be either removed, encased, or encapsulated with removal being the preferred option if it is practicable to do so.

The removal of non-friable ACM is not always practicable, necessary or the best option however any ACM left in situ **MUST** be clearly labelled and closely managed regardless of

the treatment method. Asbestos treatment will be funded by site maintenance and operation budgets

## Asbestos Removal

Asbestos removal will be undertaken in accordance with the regulations.

Friable asbestos removal will be undertaken by a Class A licence holder or in accordance with a method approved by WorkSafe. In most circumstances WorkSafe require 5 days notification of this work.

Non-Friable asbestos may be removed by a Class A or Class B licence holder. Quantities of up to 10m<sup>2</sup> may be removed in accordance with our internal procedures if the removal is deemed low risk.

Removed asbestos will be disposed of at approved land fill sites, proof of disposal **MUST** be obtained, and records kept on file.

Removal of known ACM **MUST** occur prior to the demolition of any building.

Sale of buildings, plant or equipment containing ACM

Sale of buildings, plant or equipment that contain ACM **MUST** occur with full disclosure to the purchaser. A copy of the assessment from the Asbestos Register for the item **MUST** be provided to all potential purchasers.

## Accidental Finds

Asbestos surveys are non-invasive, so it is not possible to guarantee all asbestos materials are identified. On sites where ACM's are present or have historically been used staff will be made familiar with potential types of ACM that might be found and where they are likely to be found.

If suspected ACM is encountered the work party **MUST** immediately stop work and notify the Supervisor or Job Owner. They **MUST** then follow the process outlined in the Management of Asbestos Containing Materials procedure.

An incident **MUST** be raised in Risk Manager and photographs of the material and location taken and filed for future reference. Actions taken **MUST** also be documented.

## Asbestos Dump Sites

There are a number of sites within the Wairakei steam fields where ACM's were disposed of. These dump sites have been capped and are delineated by fencing and signage. Audits are undertaken at six monthly intervals to ensure the sites are maintained in good condition.

## Asbestos Contaminated Soils

Soils adjacent to the original Wairakei Steam Lines contain some asbestos contamination due to historic lagging practices and the lagging removal process.

The ground immediately underneath the affected lines is capped with gravel. This capping will be maintained in good condition. Soil sampling has determined areas of higher than acceptable asbestos levels and these areas have been demarcated and capped. Any work in or adjacent to the affected areas that involves soil disturbance **MUST** be preceded by a program of soil sampling and analysis so the risk can be fully assessed, and adequate controls established. No other work may take place to the soil other than removal where it is identified that Asbestos may become airborne.

Where asbestos contaminated soil has been removed and clearance certification obtained the clean area shall be physically demarcated from the contaminated area and clearly identified.

## 5. Implementation

The Health and Safety team will ensure that a HS team member has been assigned to oversee the company-wide asbestos management plan.

Each site is responsible for overseeing its own asbestos management plan. This includes.

- ensuring the 5 yearly surveys are conducted,
- the site's register is maintained in the company-wide asbestos register,
- ensuring awareness training is occurring,
- maintenance, monitoring, and removal program is ongoing.

Each site **MUST** maintain a provision to fund the removal and ongoing management of ACM to ensure treatment decisions are made on the basis of best practicable options.

## 6. Definitions

Asbestos	A naturally occurring mineral silicate belonging to the serpentine or amphibole groups of rock forming minerals... There are three types commonly used in products: Chrysotile (White), Amosite (Brown or Grey) and Crocidolite (Blue).
Asbestos Containing Material (ACM)	Any material or thing that as part of its design contains asbestos.
Asbestos Contaminated Dust or Debris (ACD)	Any dust or debris that has settled that is, or is assumed to be, contaminated with asbestos.
Friable Asbestos	Any asbestos material in a powder form or any asbestos material that can be crumbled, pulverized, or reduced to a powder by hand pressure when dry.
Non-friable asbestos	Any material that contains asbestos in a bonded matrix that cannot be crushed by hand when it is dry and in good condition.
Encase	Implement a physical barrier around the ACM so as to completely enclose it.
Encapsulate	Cover the ACM with a bonded external layer that prevents fibre release.
Regulations	The Health and Safety at Work (Asbestos) Regulations 2016

## 7. Appendix

- Protect @ Contact Essentials – Asbestos DMS 10000023825