



Part E - General Controls - Environmental Controls

Chapter E21: Demolition and Asbestos Management

Contents

1	INTRODUCTION	1
2	OBJECTIVES	1
3	DEFINITIONS	1
4	RELEVANT LEGISLATION	1
4.1	Environmental Planning and Assessment Act 1979 and Wollongong Local Environmental Plan 2009	1
4.2	Occupational Health and Safety Act 2000 and occupational health and safety regulations 2001	2
5	DEMOLITION OF BUILDINGS	2
5.1	Demolition work plan	2
5.2	Other information requirements for demolition works	3
6	ASBESTOS MANAGEMENT	3
6.1	Types of asbestos and health impacts	3
6.2	Procedures for handling asbestos material	5
7	REFERENCES	5

Figures

Figure 1: Bonded Asbestos (Fibro).....	4
Figure 2: Bonded Asbestos Tiles.....	4
Figure 3: Friable Asbestos – Pipe Lagging	4

1 INTRODUCTION

1. This Chapter outlines the general submission requirements and controls for the demolition of buildings or structures.
2. The Chapter also provides guidelines to assist in protecting the health and safety of property owners and site workers when carrying out demolition and building works involving asbestos products.

2 OBJECTIVES

1. The objectives of this Chapter of the DCP are to:
 - a) Ensure that demolition is undertaken in a manner that minimises waste generation and adverse amenity impacts.
 - b) Protect the health and safety of persons involved in or situated in close proximity to demolition works particularly those involving asbestos; and
 - c) Ensure asbestos material is removed in accordance with relevant NSW WorkCover Authority requirements and relevant Australian Standards.

3 DEFINITIONS

“**Asbestos**” means the fibrous form of those mineral silicates that belong to the serpentine or amphibole groups of rock forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos) and tremolite. (OHS Regulations 2001)

“**Asbestos removal work**” means any work, in which bonded or friable asbestos material is removed, repaired or disturbed. (OHS Regulation 2001)

4 RELEVANT LEGISLATION

4.1 Environmental Planning and Assessment Act 1979 and Wollongong Local Environmental Plan 2009

1. The demolition of a building or works is considered a form of development, under the *Environmental Planning and Assessment Act 1979*.
2. Under Schedule 2 of *Wollongong Local Environmental Plan 2009* (WLEP 2009), certain minor demolition work may be classified as exempt development where it is in compliance with the following requirements:
 - (a) Must be demolition of a structure, the erection of which would be exempt development under WLEP 2009.
 - (b) Activity must be carried out within the property boundary.
 - (c) Must be demolition of an entire structure, not part of a structure.
 - (d) Must be carried out in accordance with AS 2601—2001, *Demolition of structures* and any relevant WorkCover guidelines.
 - (e) If a structure is likely to have been treated with pesticides, must avoid contact with the top 10–20mm of soil.

3. Under Schedule 3 of WLEP 2009, the demolition of single storey dwelling houses and outbuildings may be classified as complying development where it is in compliance with the following requirements:
 - (a) Must be demolition of a building or structure, the demolition of which is necessary to enable the erection of a dwelling house under Schedule 3 of WLEP 2009.
 - (b) Must not involve the demolition of a building or structure that has more than one storey.
 - (c) Must be undertaken in accordance with *AS 2601—2001, Demolition of structures*.
4. In order for demolition to qualify as either exempt or complying development it must also comply with clause 3.1 or 3.2 of WLEP 2009. Development consent is required for all other demolition works.

4.2 Occupational Health and Safety Act 2000 and occupational health and safety regulations 2001

1. The main legislation regarding the handling of asbestos materials is the *Occupational Health and Safety Act 2000* (OHS Act) and the *Occupational Health and Safety Regulation 2001* (OHS Regulation).
2. Under the OHS Regulation, a licence authorised by the NSW WorkCover Authority is required for all friable asbestos work and bonded asbestos work where the asbestos has a surface area of more than 10 square metres.
3. The main legislation dealing with the disposal of asbestos material is governed by the *Environmental Protection (Controlled Waste) Regulation 2001*.

5 DEMOLITION OF BUILDINGS

1. The demolition of any building or structure (i.e. subject to appropriate consent being issued) must be carried out in accordance with Australian Standard *AS 2601 -2001 – Demolition of Structures*.

5.1 Demolition work plan

1. Any Development Application lodged for the demolition of a building or structure must include a Demolition Work Plan. The Demolition Work Plan shall include the following information:
 1. Site location plan showing the building or structure which is proposed to be demolished.
 2. The name, address and contact telephone numbers and license number of the demolition contractor and the asbestos removal contractor (i.e. where asbestos material is required to be removed from the building or structure);
 3. Details as to the qualifications and experience of the demolition contractor.
 4. Details as to the height of the building or structure above ground level and the distance of the building or structure from all boundaries.
 5. Details of the type of building including footing, structural steel and concrete components, wall roof information.
 6. A detailed list of any hazardous material (including asbestos) that might be within the building and procedures to be utilised for storage, transport and disposal of these hazardous materials.
 7. Details of the methods of demolition proposed, including all equipment to be utilised onsite. Information concerning the noise rating of any jackhammers or other mechanical plant shall be submitted, including details of the noise level above the ambient at the property boundary.

8. Proposed method(s) of demolition and proposed removal of any hazardous material including any asbestos material;
9. Written documentation as to the proposed demolition measures being carried out in accordance with Australian Standard *AS 2601 – 2001 – Demolition of Structures*.
10. A time sequence of the demolition, including the staging of the work, hours of operation and in addition the anticipated number of days involved in each component of the work.

In this regard demolition works shall be generally limited by Council to the following hours:

- a. Monday to Friday: 7am to 5pm
 - b. Saturday: 8am to 4pm
 - c. Sundays and Public Holidays: No demolition work permitted
11. Details of any hoardings or fences, including overhead protection and scaffolding when necessary. Note: Refer to the provisions contained within the Hoardings Chapter of this DCP.
 12. Details of any safety precautions necessary for persons carrying out the demolition or persons living within the vicinity or using facilities within the vicinity.
 13. Proposed measures and processes to be implemented to ensure the health and safety of workers and community;
 14. Proposed measures to be implemented to minimise any airborne asbestos and dust emissions (subject to compliance with the requirements of the NSW WorkCover Authority); and
 15. Proposed methods and location of disposal of any asbestos or other hazardous materials (subject to compliance with the requirements of the NSW WorkCover Authority).

5.2 Other information requirements for demolition works

1. A Site Waste Minimisation and Management Plan (SWMMP) shall also be prepared in accordance with the requirements contained within the Waste Management Chapter in Part E of this DCP, with particular regard to the controls relating specifically to demolition.
2. A Dilapidation Report is also required for any demolition works situated within the zone of influence of any other building or structure. The Dilapidation Report must include photographic evidence of all building or structures within the zone of influence.

6 ASBESTOS MANAGEMENT

6.1 Types of asbestos and health impacts

1. According to the NSW WorkCover Authority's *Working with Asbestos Guide 2008* the main types of asbestos are:
 - Chrysotile (white asbestos);
 - Amosite (brown asbestos); and
 - Crocidolite (blue asbestos).
2. These types of asbestos are considered to range from hazardous to highly hazardous, especially where they are in a poor or deteriorated condition or disturbed during activities that produce dust containing asbestos fibres.
3. Chrysotile (white asbestos) is the only form of asbestos that was commercially used from the serpentine group of silicates. Chrysotile was previously used in the manufacture of:

- Asbestos cloth, tapes, ropes and gaskets for packing and in thermal and chemical insulation;
 - Asbestos cement sheets and pipes for construction, casing for water and electrical / telecommunication services;
 - Fire rated doors, equipment and structural beams of buildings;
 - Rubber, plastics, thermosetting resins, adhesives, paints, coatings, caulking compounds and sealants for thermal, electrical and insulation applications;
 - Filters; and
 - Packing and friction material such as gaskets, brake and clutch linings.
4. Amosite (brown asbestos) and crocidolite (blue asbestos) were used in a range of products until the mid 1980's. These products were mainly:
- Asbestos cement sheets and pipes for construction, casing for water and electrical / telecommunication services; and
 - Thermal and chemical insulation i.e. fire rated doors, limpet spray, lagging and gaskets.
5. **Bonded asbestos** material means any material (other than friable asbestos material) that contains asbestos. (OHS Regulation 2001).
6. **Friable asbestos** material means any material that contains asbestos and is in the form of a powder or can be crushed, pulverised or reduced to powder by hand pressure when dry (OHS Regulation 2001). Additionally, any asbestos cement product which has been subjected to weathering, severely damaged by hail, damaged by heat / fire or other mechanical action or illegal water blasting is also considered a friable asbestos product (NSW WorkCover Authority 2008).



Figure 1: Bonded Asbestos (Fibro)



Figure 2: Bonded Asbestos Tiles



Figure 3: Friable Asbestos – Pipe Lagging

Source: NSW WorkCover Authority (2008) *Working with Asbestos Guide 2008*

7. Asbestos fibres are made up of many very fine fibres so that as asbestos is further processed or disturbed, the airborne fibres become progressively finer and more hazardous. The most dangerous fibres are the smallest ones which are invisible to the naked eye, but which penetrate the deepest part of the lungs.
8. Breathing in the fibres of asbestos can bring the risk of asbestosis, lung cancer and mesothelioma. However, asbestos related diseases have a long delay or lag period in the order of 20 – 40 years between first exposure and the onset of symptoms and / or detection of the disease.

9. **Asbestosis** is the scarring of lung tissue that can result from the inhalation over a period of years of substantial amounts of asbestos. This results in breathlessness which may lead to disability and in some cases early death.
10. **Lung cancer** is related to the amount of fibre that is breathed in and the risk of lung cancer is greatly increased in those who also smoke tobacco.
11. **Mesothelioma** is a cancer of the pleura (outer lung lining) or of the peritoneum (the lining of the abdominal cavity). The risk of mesothelioma is less with chrysotile (white asbestos) than with other types of asbestos. Both pleural and peritoneal mesothelioma can result from exposure to amosite (brown asbestos) and crocidolite (blue asbestos).
12. The current maximum exposure standard for airborne concentrations of asbestos which should not damage the health of workers is 0.1 fibres per millimetre of air (NSW WorkCover Authority 2008).

6.2 Procedures for handling asbestos material

1. Handling, management and disposal of asbestos shall comply with NSW WorkCover requirements. The NSW WorkCover Authority's *Working with Asbestos Guide 2008* recommends a range of work procedures for dealing with bonded asbestos material including asbestos cement. This document may be obtained from the following NSW WorkCover Authority website:

www.workcover.nsw.gov.au/OHS/AsbestosFibro/default.htm
2. As at 1 January 2008, individuals are limited to handling a maximum area of 10 square metres of bonded asbestos material. Otherwise a licensed person must carry out the removal and disposal of the bonded asbestos material.

7 REFERENCES

Kogarah Council. *Asbestos Management Policy*.

NSW WorkCover Authority. 2008.. *Working with Asbestos Guide 2008*

Randwick City Council. 13 September 2005. *Asbestos Policy*.