Australian Standard™

Guide to lead paint management

Part 2: Residential and commercial buildings

This Australian Standard was prepared by Committee CH/3, Paint and Related Materials. It was approved on behalf of the Council of Standards Australia on 13 February 1998 and published on 5 May 1998.

The following interests are represented on Committee CH/3:

Australasian Corrosion Association

Australian Paint Approval Scheme

Australian Paint Manufacturers Federation

Australian Retailers Association

AUSTROADS

Building Research Association of New Zealand

Institution of Professional Engineers, New Zealand

Federation of Master Painters Australia

National Association of Testing Authorities Australia

New Zealand Abrasive Blasting Association

New Zealand Manufacturers Federation

New Zealand Painting Contractors Association

Surface Coatings Association Australia

Telstra Corporation

Additional interests participating in preparation of Standard:

Department of Public Works and Services, N.S.W.

Lead Reference Centre (EPA), N.S.W.

Master Painters Association of Victoria

Master Painters Association of N.S.W.

Roads and Traffic Authority of N.S.W.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/3, Paints and Related Materials.

The objective of the Standard is to provide guidelines for the successful management of lead paints and related hazards on non-industrial structures, such as dwellings and public buildings, particularly when any paint removal is carried out.

This document may be referred to in proposed State Legislation dealing with the treatment of lead paints. However, when preparing specifications for large projects involving the removal of lead paints, the assistance of suitable experts is necessary.

The recommendations contained in a number of publications, such as *Lead alert* compiled by the Commonwealth Environment Protection Agency in conjunction with the Australian Paint Manufacturers Association and *Guidelines for the management of lead paint* published by the New Zealand Occupational Safety and Health Service and other references, have been taken into account when preparing this Standard.

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FOREWORD

White lead (lead carbonate) was once the principal white pigment in paints for houses and public buildings. Its use was restricted in Queensland in 1923. In the other States, paint with lead pigment was manufactured up until the late 1960s, although in diminishing quantities from 1950 onwards. In 1969, the National Health and Medical Research Council's Uniform Paint Standard was amended to restrict lead content in domestic paint.

Many older Australian homes and buildings still contain lead paint, even though it may be covered with layers of more recent paint. It was used mainly on exterior surfaces and to a lesser extent on interior doors and architraves, especially in undercoats and primers where concentrations of up to 20% lead were commonly used. Interior walls were not commonly painted with paint containing white lead, but some colours did contain red, yellow or orange lead-chrome pigments. Although all paints manufactured for Australian dwellings from the 1970s onwards will have contained less than 1% lead, it is possible that industrial paints, having higher concentrations of lead, may have been applied to housing and commercial buildings.

Lead in any form is toxic to humans when ingested and inhaled. Repeated inhalation or ingestion of lead paint particles may produce the cumulative effects of lead poisoning (plumbism). Thus, lead paint removal methods give rise to two potential health problems, i.e. inhalation or ingestion of lead paint by the workers and public in the vicinity of the structure and the deposition of lead paint particles on nearby footpaths, streets or soil where they may be resuspended, tracked into houses or buildings where it can be inhaled or ingested. In most instances workers involved in paint management may be simply and easily protected by protective equipment, and the public may be protected by preventing access to the work site; however, lead paint deposition may be much more complex and difficult to manage depending on the size, shape and location of the building.

It is recommended that children and pregnant women should not be present in an area when renovations that will disturb lead paint are taking place. Even low blood lead levels may have detrimental effects on young children's intellectual development and may cause other health problems. Children absorb the lead mostly through ingestion, i.e. by touching contaminated dust or soil and then putting their fingers in their mouths. They absorb a much greater percentage of the lead entering their bodies than adults do. During pregnancy, essential elements such as calcium are transferred from the bones of the mother to the baby, which process may release accumulated lead. Women of child bearing years and during pregnancy, therefore, should take special care to avoid sources of lead exposure.

The concept of properly managing a building coated with lead paint by means of the decision path and much of the information detailed in this Standard, has been sourced from a number of publications on the subject. Presenting these guidelines in this format facilitates consideration of all those aspects which are critical to the successful management of lead paint. The practices and procedures detailed in this Guide may require modification to accommodate different structures, locations and legislation; nevertheless, a mechanism for the proper management of non-industrial structures coated with lead paints is documented.

Contractors should be aware that there needs to be a waste management plan in place prior to any lead paint management work (particularly paint removal) being undertaken. Waste minimization is an important aspect of any waste management plan.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This document provides guidance for the management of lead paint in non-industrial structures such as residential, commercial and public buildings. It provides information on methods for determining whether lead is present on a building, the amount of lead present and on the selection of an appropriate management strategy. Although this Guide does not fully address requirements for the evaluation of worker health and safety, which should be in accordance with current regulatory requirements, it does provide guidelines to produce a safer working environment.

NOTES:

1 Industrial paint removal methods, such as abrasive blasting and water blasting which may involve high emissions, are covered by AS 4361.1.

2 AS 2311 should be referred to for general information on the painting of buildings.

1.2 APPLICATION This Standard is intended to assist builders, trades people, architects, and the owners or administrators of residential and commercial buildings in which lead paint is present. It may provide useful background material when preparing specifications for the management of lead paint, but should not be called up in contracts without also specifying the detail to be derived from it. Figure 1.1 provides a flow chart detailing the lead paint management options given in this Standard.

Because of possible damage to public health and the environment due to the improper management of lead paint, this Guide allows trades people associated with lead paint management work to deal with lead paint and the related hazards in a safe and responsible manner. Trades people should obtain appropriate accreditation to undertake the proposed work.

Do-it-yourself (DIY) renovators should seek the assistance of trained or qualified people to undertake lead management. If this Guide is intended to be followed without professional help, then additional information and training should be obtained before attempting any management work.

Local authority requirements, public safety and health requirements, site preparation, waste disposal and contamination control all need to be fully considered prior to the commencement of any work.