AS/NZS 4361.2:2017

Australian/New Zealand Standard™

Guide to hazardous paint management

Part 2: Lead paint in residential, public and commercial buildings

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Australian Institute of Building
Australian Paint Manufacturers' Federation
Australian Wall and Ceiling Association
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH-003, Paints and Related Materials, to supersede AS 4361.2—1998, *Guide to lead paint management*, Part 2: *Residential and commercial buildings*.

This Standard is Part 2 of a series of two parts providing guidance on management of hazardous paints. Part 1 covers management of lead and other hazardous metallic pigments in industrial applications.

The revision of this Part 2 has not widened the scope to include other toxic metallic compounds that have historically been used in paints. Although the controls for most of these other toxicants are similar to those used to manage lead in paint, there are specific differences in toxicology and environmental impact that would require extensive modifications and additions to the general procedures of this Standard.

The objective of this 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 disturbance or removal is carried out.

This document may be referred to in legislation dealing with the treatment of lead paints. When preparing specifications for large projects involving the removal of lead paints, the assistance of competent experts is necessary.

The management of lead paint, as covered by this Standard, requires compliance with regulations that apply at the time of commencing work with regard to the jurisdiction within which the work is carried out.

The recommendations contained in a number of publications, issued by both the Australian and New Zealand Governments, and industry organizations, 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. 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 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 non-industrial use, from the 1970s onwards, contain less than 1% lead, it is possible that industrial paints, having higher concentrations of lead, may have been applied to residential, public and commercial buildings. Paints manufactured since 1997 contain less than 0.1% of lead by mass, and this limit has been adopted for the definition of lead-containing paint in this Standard.

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; 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 lead 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, deposition of lead paint waste may be much more complex, and difficult to manage, depending on the size, shape and location of the building.

Women of child-bearing age, pregnant women and children should be excluded from lead paint removal areas, as lead can have detrimental effects on a child's intellectual development, and may cause other health problems.

While potentially toxic elements and compounds, other than those containing lead, might have historically been used in the manufacture of paints, this Standard does not specifically address such constituents. Metals and compounds of metals, such as chromium, cadmium, arsenic, antimony, bismuth and mercury have been used in the past and might be present in existing paint. Users of this Standard will need to employ additional strategies where the presence of these materials is suspected. Expert professional assistance should be sought in these circumstances.

Paint management principles for a building coated with lead paint as set out in this Standard have been determined with reference to a number of publications on the subject. This Standard facilitates consideration of all aspects that are critical to the successful management of lead paint. The practices and procedures detailed in this Standard 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 are advised that this Standard recommends that an appropriate waste management plan be prepared 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 Standard provides guidance for the management of lead paint on non-industrial structures such as residential, public and commercial buildings. It provides information on methods for determining whether lead is present on a building, the amount of lead present and the selection of an appropriate management strategy. Although this Standard does not fully address requirements for the evaluation of worker health and safety, which are covered by 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 to very high emissions, are covered by AS/NZS 4361.1.

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

1.2 APPLICATION

This Standard applies to lead paint only. As the buildings covered are generally occupied, one specific limit of lead concentration has been defined (see Definitions 1.4.15 and 1.4.16). In AS/NZS 4361.1, which covers industrial applications, a paint is deemed to be 'hazardous' depending on not only the concentration of lead, but also the total amount of hazardous pigment present (comprising lead, zinc chromate, arsenic and cadmium) such that additional limits apply.

This Standard is intended to assist builders, trades people, architects and the owners or administrators of residential, public and commercial buildings, in which lead paint is present. It provides guidance on the management of lead paint, but should not be called up in contracts without a detailed specification, which may be derived from it.

Improper management of lead paint can create hazards to public health and the environment. This Standard is a guide for 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 training and competency prior to undertaking paint management work.

Where the disturbance or removal of lead paint involves public buildings, such as schools or hospitals, it is recommended that all work be carried out by hazardous coating workers who are assessed as competent in lead-risk work and who have a Responsible Person to plan and oversee the work. In addition, this Standard recommends that a Lead Specialist be consulted to provide project support, such as conducting sampling and testing in relation to a project.

Do-it-yourself (DIY) renovators should seek the assistance of trained and competent people prior to undertaking lead paint management. If it is intended to apply this Standard without professional help, additional information and training should be obtained before attempting any lead paint management work.