

DEFENCE ESTATE LEAD PAINT MANAGEMENT PLAN

Requirements and Procedures

October 2025



Document Control

This document is to be maintained and reviewed in accordance with the requirements of Chapter 2 *Lead Paint Management*, of Defence Manual 43.2-3 *Contamination Management*

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This *Defence Estate Lead Paint Management Plan* is authorised and made operational by DM 43.2-3 Chapter 2 *Lead Paint Management* and should be read in conjunction with that publication. The original version of the *Defence Estate Lead Paint Management Plan* has been developed, consulted on and approved in conjunction with the authorising DM reference above.

NZDF would like to acknowledge and thank Kāinga Ora for sharing their “Paint Containing Lead Management and Control Policy” which has formed the basis for this document.

Assistance

Should you require assistance or information about this document please contact the Defence Estate & Infrastructure (DEI) Contamination Programme Manager through contaminationDEI@nzdf.mil.nz or the DEI Health and Safety Team, or if you are a contractor, your designated DEI contact.

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1.0 Introduction

1.1 Definition of Terms

The following definitions apply when interpreting this document:

Term	Definition
Certified lead paint abatement contractor	A contractor that has been appropriately trained in lead paint management procedures up to and including abatement. As per AS4361.2. Examples of relevant qualifications are <i>Lead Paint Hazard Management</i> certification as provided by the Master Painters NZ Association or Unit Standard 27413 <i>Demonstrate knowledge of removing lead-based paint and lead-based contaminated materials</i> .
DEI	Defence Estate and Infrastructure
DEI DOC	Defence Estate and Infrastructure Defence Officer of Compliance
Disturbance	Where works interact with paint in a manner that may generate dust and/or contamination.
Exposure	Lead exposure occurs when someone eats or drinks lead or breathes in lead dust. Health problems and lead poisoning occur when someone is exposed to too much lead over a period of time. ¹
FM Provider	Facilities Maintenance Provider. Includes both FM Provider employees directly commissioning the work and external entities conducting work on behalf of the FM Provider.
Minor Work	Based on the US Department of Housing and Urban Development “De minimis levels” (converted from imperial to metric): <ul style="list-style-type: none"> • 2.0 m² or less in total on exterior surfaces of a building/structure • 0.2 m² or less in any one interior room or space.
PCBU	Person Conducting a Business or Undertaking.
Responsible person	A person who is capable of identifying hazards (by experience and training) and has authorization to take prompt corrective measures to eliminate them. As per AS4361.2.
Worker	A person who carries out work in any capacity for NZDF, including contractors.

¹ Source: Health New Zealand Te Whatu Ora, 2024, <https://info.health.nz/conditions-treatments/emergencies-and-first-aid/lead-poisoning#how-you-get-exposed-to-lead-2512>

1.2 Purpose

Lead in paint, and the contaminated dust and soil it generates, is recognised internationally as a significant source of lead exposure and is an important occupational and public health issue.

The purpose of this document is to set out how the New Zealand Defence Force (NZDF) will identify, assess and control lead paint hazards to protect building occupants and workers from the health effects of lead exposure.

This document has been developed to ensure NZDF, as a responsible Person Conducting a Business or Undertaking (PCBU) under the Health and Safety at Work Act 2015, complies with the current legislative and regulatory framework along with best practice.

1.3 Scope and Applicability

The requirements and procedures set out in this document apply to all NZDF personnel (including military and civilian), contractors, consultants, and all other parties working on the NZDF Estate and NZDF managed properties.

This document applies to all New Zealand based NZDF managed properties, infrastructure, leases and potential acquisitions. This includes both NZDF workplaces (excluding ships and other military capability assets) and NZDF owned or leased homes.

Exclusions from this management plan:

- Lead from other sources such as leaded pipes and firing ranges.
- NZDF workplaces overseas, including operational environments.

1.4 Objectives

The objectives of this document are to:

1. Ensure that exposure of people and the environment to the hazards of lead paint across the Defence Estate is eliminated or minimised so far as is reasonably practicable;
2. Support the broader NZDF policies for health and safety, quality assurance and risk management; and
3. Ensure that practical tools are in place that enable work to be completed to the standard required by the NZDF.

1.5 Responsibilities

1.5.1 Head of Defence Estate and Infrastructure

The **Head of Defence Estate and Infrastructure (HDEI)** is accountable for the safe management of the NZDF estate. HDEI has a duty to gain an understanding of the hazards and risks associated with lead paint, as well as ensuring appropriate resources and processes are available and used to minimise risks to health and safety associated with lead paint. HDEI is responsible for ensuring processes and programmes are in place for identifying and addressing lead hazards arising from properties managed by NZDF. These processes and programmes need to ensure that NZDF:

- a. meets statutory obligations, such as under the Health Act 1956 and Building Act 2004
- b. provides properties that are lead safe
- c. assesses and manages all lead hazards arising from properties including hazards that have been caused by past actions such as paint remediation and removal
- d. administers and finances abatement work, including necessary repairs to properties
- e. selects and agrees to abatement work, with input from public health units and council where relevant
- f. engages contractors for abatement work who are competent and appropriately trained in working with lead paint
- g. informs contractors of lead paint hazards
- h. monitors the performance of contractors for compliance with work specifications
- i. conducts routine property maintenance work that is lead paint safe
- j. monitors the condition of properties and abatement works to ensure lead hazards do not recur
- k. obtains necessary building consents and all other consents including those for the disposal of lead wastes and wastewater
- l. provides information to tenants on lead hazards that properties may present and the steps that the tenant should take to minimise risks to the household
- m. informs purchasers of NZDF buildings and sites of known or suspected lead hazards.

1.5.2 NZDF Project Manager Responsibilities

All NZDF Project Managers (PMs) that are responsible for the planning, scoping, commissioning, oversight, review and close-out of any work or undertaking that may disturb lead paint or a lead paint hazard on the Defence Estate must check and follow the processes set out in this plan. To assist, a series of workflow diagrams are provided in [Section 4](#) that outline the steps for each process and the parties involved in each step.

The Facilities Maintenance Provider (FM Provider), and occasionally other contractors, are assigned PM roles for projects involving lead paint work, or other work where lead paint hazards may be encountered. The 'PM' or 'NZDF PM' roles described within this plan therefore refer to anyone assigned that role by the NZDF. All persons assigned PM responsibilities are equally responsible for ensuring works under their control are undertaken in conformance with CHES, this Plan and all applicable Health and Safety regulations.

1.5.3 Other PCBUs (including Facilities Maintenance Providers)

All other PCBUs operating on the NZDF estate, including FM Providers, are required to be familiar and remain up to date with their responsibilities under all applicable legislation. Specifically in relation to this Defence Estate Lead Paint Management Plan, all PCBUs are responsible for ensuring that all projects and works undertaken by their staff and contractors are:

- a. Conducted in a manner that is cognisant of the lead paint hazards present on the NZDF estate; and
- b. Compliant with all applicable regulations and the requirements of this plan.

1.6 Key Reference Material

This document is made operational by, and is to be read in conjunction with, Defence Manual (DM) 43.2-3 *Contamination Management*. This supports the implementation of Defence Force Instruction (DFI) 43.2 *Estate Management*.

The primary reference for this document is the most current version of the **Australian and New Zealand Standard AS 4361.2 Guide to lead paint management. Part 2: Residential and commercial buildings**. The document is available on NZDF's DDMS here http://ddms-r/ds/D4-0030/03/AS_NZS%204361.2_2017.pdf

This document adopts the lead paint and lead contaminated dust clearance and guideline values set out in **Ministry of Health's Environmental Case Management of Lead-exposed Persons, 2021** document.

The **Residential Tenancies Act 1986** requires landlords to provide and maintain the premises in a reasonable state of repair, with regard to the age and character of the premises (section 45(1)(b)). Landlords are also required to comply with all statutory building, health and safety requirements applying to the premises (section 45(1)(c)). Failure by a landlord to comply with these obligations is an 'unlawful act' under Residential Tenancies Act (section 45(1)A). This Act binds the Crown.

1.7 History of Lead in Paint Use

In New Zealand several forms of lead including white lead, lead sulphate, lead chromate and red lead have been used within the paint industry.

As stated in the Ministry of Health 2021 (MoH, 2021) document *The Environmental Case Management of Lead-exposed Persons*:

“It may be assumed that pre-1945 interior or exterior domestic paintwork contains a high lead content; pre-1965 paintwork probably does, while pre-1980 paintwork possibly does. Post-1980 paintwork may generally be assumed to have a very low lead content, unless old stock or industrial specification paint was used (inappropriately).”

Although all lead in paint has not been banned via legislation, restrictions have been put in place:

- Poisons Regulations 1964 required paint products to be labelled advising the purchaser if the product contained lead.
- Toxic Substances Regulations 1983 prohibited any lead carbonate (white lead) and all other lead at levels greater than 0.5% (5000 mg/kg).
- Adoption of Australia’s Uniform Paint Standard in 1997 prohibited the manufacture, supply, sale or use of any paint with a lead content greater than 0.1% (1000 mg/kg).

Before 1945, exterior paint contained up to 50% lead as stated in *The Environmental Case Management of Lead-exposed Persons* (MoH, 2021). Due to the age of NZDF’s housing stock, it is expected that a significant number of properties contain lead paint on interior and exterior painted surfaces.

1.8 Health Risks from Exposure to Lead Paint

Lead paint in good condition that remains undisturbed presents little or no health risk. The presence of lead paint is a potential health risk if it:

- Is disturbed or removed by inappropriate methods which subsequently generate lead dust and cause lead exposure hazards;
- Is in an advanced state of deterioration such as chalking, flaking, powdering, peeling or chipping;
- Could be accessed and chewed on or ingested by children or pets;
- Is present on a friction or impact surface such as a sash window, door frame or exterior floor. On these surfaces the paint can be disturbed by daily activities such as opening and closing of windows and doors, and foot traffic on the floor.

Lead from paint can be taken into the body by inhalation and ingestion of dust, debris or fumes (caused by heat being applied to the surface). Of particular concern are children, who can absorb up to five times as much lead as adults via ingestion. Lead is a toxic substance, and it accumulates in the body over time.

Frequent exposure to lead can cause a range of conditions from affecting brain development, behaviour and intellectual ability in children, to anaemia, hypertension, renal impairment, immunotoxicity and toxicity to the reproductive organs.

2.0 Hazard and Risk Identification

This section sets out how NZDF will identify and document lead paint hazards and risks. Refer to [Section 4](#) to see how hazards and risk identification is to be integrated into works.

2.1 Assumption Approach

For all paint disturbance works on a building or structure constructed before 1 January 2000, it is to be assumed that lead paint hazards are present, unless records are available confirming the absence of lead paint. DEI and the FM Provider are jointly responsible for ensuring available lead paint hazard and risk information is provided to any workers carrying out work at a site before works commence.

2.2 Permitted Identification Techniques

If any works involving paint disturbance on a building or structure constructed prior to 2000 do not proceed on the assumption that lead paint hazards are present, and available records do not confirm the absence of lead paint in the works area, lead paint identification is to be conducted prior to work commencing. Lead paint identification is to be conducted in accordance with this section, [Section 4](#), and Section 2 of AS 4361.2.

2.2.1 Chemical Colorimetric (Colour Change) Field Tests

Chemical colorimetric (colour change) field tests are a permitted lead paint identification method for minor work (see [Section 1.1](#) for definition) on NZDF properties where records are not available to indicate the presence of lead paint.

Testing is to be conducted by a competent person on each paint layer that will be disturbed during works. Results must be documented and provided to the PM for the work for record keeping purposes. A copy of all documented lead paint results must remain on site for the duration of the work regardless of the test result.

2.2.2 Lead Paint Surveys

Lead Paint Surveys (LPS) are comprehensive assessments of the presence, absence and condition of lead paint. All LPS are to be procured using the Lead Paint Investigation Statement of Work template, included at Appendix 1 and available on DDMS [here](#).

LPS requirements:

- (1). Lead paint that is identified as part of a LPS is to have a condition assessment.
- (2). Condition assessments are to classify identified lead paint as either Very Good, Good, Average, Poor, or Very Poor. A description of these classifications is provided at [Appendix 2](#).
- (3). Condition assessments that form part of a LPS are to include recommendations for the management of the lead paint item, which are to be either:

- (a). Do nothing;
 - (b). Stabilise the paint;
 - (c). Carry out paint abatement.
- (4). For residential properties, carpet vacuum dust sampling is recommended to be conducted as part of the LPS to understand if the carpet is contaminated with lead paint dust, unless carpets have been replaced within the last 3 years and no significant paint disturbance works have been conducted since replacement.
- (5). LPS are to conduct lead paint sampling in accordance with the sampling requirements set out in the SOW.

Descriptions and criteria for acceptable management options for lead paint are set out in [Section 3](#) of this document.

Copies of all commissioned LPS are to be emailed by the PM to contaminationDEI@nzdf.mil.nz for record-keeping.

2.2.3 Vacuum Dust Sampling

Carpets and soft furnishings can act as 'dust traps' for lead dust. The amount of lead dust within a prescribed area of a carpet is called dust lead loading ($\mu\text{g lead}/\text{m}^2$). Dust lead loading is measured for initial risk assessment purposes in residential properties, and for clearance testing post lead paint abatement works (see [Section 5.5](#)).

High flow vacuum sampling is used to collect house dust from carpets in a selection of the living/dining room/kitchen, hallway, and bedrooms, depending on the accessibility of the various rooms in each house.

Sampling is to be conducted in accordance with:

- AS 4361.2 and ASTM D5438-17 Standard practice for collection of floor dust for chemical analysis.
- NZDF SOP for Collection of Indoor High Flow Vacuum Samples for Lead Analysis (see [Appendix 3](#))

Only competent consultants are to be engaged to carry out lead dust assessments, and all sampling must fulfil NZDF data and chain of custody requirements.

Carpet dust sampling should be undertaken in the following circumstances:

- a. As part of a LPS for a residential property (see section 2.2.2 above) to understand whether the existing carpet is contaminated;
- b. Where an uncontrolled release of lead paint has occurred and carpets are suspected to have been contaminated.

Carpet dust sampling should be considered in the following circumstances:

- a. Prior to redecoration or refurbishment works that involve lead paint disturbance or removal works, to establish whether pre-existing lead dust contamination is present;
- b. As a clearance activity post lead paint disturbance or removal work.

See [Section 4.8](#) for management of contaminated carpets.

2.2.4 Interior Surface Dust Wipe Sampling

Interior surface dust wipe sampling confirms the presence, concentration and distribution of lead contamination in dust. It can be sampled for initial risk assessment purposes, and for clearance testing post lead paint abatement works.

Surface dust sampling is to be conducted when:

1. Visible signs of contamination in the internal environment are present
2. When insufficient containment measures or unauthorised removal techniques may have resulted in paint contamination impacting the internal environment
3. Post lead paint abatement works, where lead paint is removed (as opposed to enclosed, or the painted item has been replaced), to confirm surfaces have been appropriately protected during works, and/or adequately cleaned post works.

Interior dust sampling is to include at least two dust wipe samples from a low surface such as flooring, and two samples from a higher hard surface such as a windowsill. Interior areas sampled should include both the area worked in and adjoining areas.

Only competent consultants are to be engaged to carry out lead dust assessments, following the methodology set out in *AS 4361.2*, and all sampling must fulfil NZDF data and chain of custody requirements.

2.2.5 Soil Sampling

Soil sampling to confirm the presence, concentration and distribution of lead contamination in soil is to be undertaken in accordance with *AS 4361.2* and commissioned with input and oversight from DEI Environmental Services. As a minimum, soil sampling is to be conducted when:

1. Visible signs of contamination in the soil are present
2. When insufficient containment measures or unauthorised removal techniques may have resulted in paint contamination impacting the external environment

Additionally, soil sampling prior to and post lead paint abatement works, where lead paint will be removed from the exterior of the property (as opposed to enclosed, or the painted item has been replaced), should be considered in conjunction with DEI Environmental Services.

2.3 Clearance Standards

2.3.1 Lead in Dust

The following clearance levels for lead in dust are from the New Zealand Ministry of Health document *The Environmental Case Management of Lead-exposed Persons* and are based on the U.S. Environmental Protection Agency's clearance standards:

- **110 µg/m²** for interior floors including carpeted floors.
- **1080 µg/m²** for interior window sills.

2.3.2 Lead in Soil

DEI Environmental Services are to be consulted for the appropriate soil guideline value to use for the site being assessed.

NZDF has developed a lead in soil contaminant standard for its residential sites in accordance with the Ministry for the Environment *Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health*, 2011. NZDF's specific soil contaminant standard for lead in soil for residential sites with no consumption of home grown produce (other than in raised beds which are constructed according to the specifications set out in NZDF tenancy agreements), is **570 mg/kg**. This contaminant standard, along with the soil guideline value applicable to current land use and future land use (where applicable) should be used when reviewing soil sampling results.

2.4 Identification Work Streams

NZDF will identify and manage lead paint hazards on the Estate through the following work streams:

WORK STREAM 1: Routine building inspections

Routine building condition inspections of NZDF properties will incorporate internal and external paint condition assessments. Where paint is assessed as requiring maintenance, and the building was constructed prior to the year 2000, lead paint identification is to be conducted before paint maintenance is carried out. See [Section 4.4 Workflow 2 – Routine Building Inspection](#) for further details.

WORK STREAM 2: Property refurbishments and redecorations.

NZDF will eliminate or minimise (where elimination is not reasonably practicable) the risks posed by lead paint, by identifying lead paint and lead paint hazards in NZDF properties constructed prior to the year 2000, prior to any refurbishment or redecoration. Identification will be conducted to identify the presence and extent of any lead paint and lead paint hazards present. This will be used to assess the potential risk to

workers, to ensure appropriate control measures are implemented to prevent the uncontrolled release of lead paint and dust, and to manage any potential lead exposure hazards for building occupants.

For further information see [Section 4 Workflows](#).

2.5 Identification Record Keeping

A copy of all LPS and dust sampling reports are to be sent to contaminationDEI@nzdf.mil.nz to be saved in [NZDF's DDMS lead paint investigation library](#).

A copy of all available records regarding lead paint presence, management and abatement for a property are to be provided to contractors by DEI Delivery during the scoping phase of works so that hazards and risks can be assessed.

All lab results will be uploaded to ESDat via NZDF Chain of Custody lab processes and can be viewed via NZDF's ArcGIS online (AGOL) tool. Where XRF testing is conducted, results must be documented and provided to contaminationDEI@nzdf.mil.nz for record keeping purposes.

3.0 Lead Paint Management

This section sets out how DEI will control and manage lead paint and lead paint hazards once they have been identified. The goal of the safe management of lead paint is the long term, sustainable reduction of interior settled dust lead loading, while minimising any short-term increase in environmental lead contamination (MoH, 2021).

3.1 Lead Paint Management Options

Once lead paint or a lead paint hazard has been identified and assessed, an appropriate management option must be applied.

If lead is identified in paint that is still in sound condition, and is not a friction or impact surface, it is not likely to present a health hazard unless disturbed. However, if the paint is in poor condition, e.g. flaking, peeling or badly chalking, it may be a risk to those touching it, or through disturbance from friction or weathering.

If a property contains lead paint and/or lead paint contamination, the paint and/or contamination needs to be managed to prevent it becoming a health hazard.

Options for the management of lead paint include-

- a. Do nothing (see section 3.1.3);
- b. Stabilise the paint (see section 3.1.4) ;
- c. Carry out abatement (see section 3.1.5);

All LPS will contain recommendations for the management of all identified lead paint. DEI Delivery is responsible for reviewing and actioning the recommendations. DEI Delivery and Project teams must consider the condition of the paint, location and long term effects of the available options, occupancy nature, and long term plan for the property when deciding how to manage identified lead paint and lead paint hazards. The protection of the health of all building occupants is to be the primary objective when DEI reviews and responds to all lead paint assessments.

Options for lead paint contamination are covered in [Section 3.2](#).

3.1.1 Priority Action

Where a LPS identifies multiple or extensive Poor or Very Poor lead painted areas, DEI Delivery is to prioritise actioning the recommended lead paint management actions if children are tenants in the property, or the paint condition poses a health risk to the occupants of the property.

3.1.2 Alternative Accommodation

Where extensive lead paint management works are required for tenanted properties, alternative accommodation is to be provided to the tenants until all remedial works are complete and clearance testing confirms the property meets clearance standards.

3.1.3 Do Nothing

Do nothing is only permitted as a management option for lead paint assessed to be in **very good** condition. However, it must not be applied to friction or impact surfaces, or if the surface is able to be chewed on or disturbed by children and pets. Examples of such surfaces include window sills, door architraves and door handles.

3.1.4 Lead Paint Stabilisation and Encapsulation

Lead paint stabilisation is a non-removal method permitted for the management of lead paint that is in **good to average** condition. Stabilisation involves over-painting existing lead paint with paint, or by covering it with an encapsulant (encapsulation). This can provide an interim or long term solution to a lead paint hazard.

Over-painting is an option if the existing paint is tightly adhering, is in generally sound condition and free from defects such as peeling, flaking or delamination. Small areas of deterioration can be repaired for over-painting, but if the paint is breaking down over a significant portion of the surface, other options for managing the hazard will need to be considered.

Over-painting is most applicable where the lead is present in the underlying layers of the existing paint system, with only small areas of damage or breakdown in the upper layers of paint that are essentially lead free. Over-painting has very low potential for dust generation making it especially suitable for interior work.

Encapsulation is a method that can also be applied to paint that is in **poor** condition. Encapsulation is different to over-painting as it involves applying a special liquid coating over lead painted surfaces, which as it dries bonds to the surface and forms a physical barrier preventing lead dust or paint chips from escaping.

Over-painting and encapsulation must not be applied to friction or impact surfaces, or to surfaces which are able to be chewed on or disturbed by children and pets. Examples of such surfaces include window sills, door architraves and door handles.

3.1.5 Lead Paint Abatement

Lead paint that has been assessed as being in “**poor**” or “**very poor**” condition must be abated. Abatement is necessary because the lead paint presents a hazard in its present state. Lead paint abatement involves the suppression, reduction or elimination of the hazard from a building. Abatement is a permitted option for all identified lead paint regardless of the condition.

The three approaches for lead paint abatement are outlined below.

a. REPLACEMENT OF PAINTED ITEMS

Replacement of lead painted items is the least hazardous way of dealing with lead paint. Replacement involves components with lead paint being removed in large pieces and replaced with new materials. This may be a viable option for removable articles such as timber architraves, doors and windows, cupboards, gutters and downpipes, and exterior cladding weatherboards.

b. ENCLOSURE

Enclosure has a low potential for hazardous dust generation, thus minimizing the risk of exposure to the contractor and to the occupants. With enclosure, the lead paint remains in position. Materials used to enclose lead paint surfaces need to be durable, and should be non-toxic and safe to install. Seams must be dust tight. Conspicuous signs warning of the presence of lead paint must be placed on the surfaces before installing the enclosure. Enclosure is not usually an option with interior timber trim. Windows and other woodwork in poor condition should be replaced.

c. REMOVAL OF LEAD PAINT

Removal of lead paint is the most effective option for removing lead paint as a hazard, but has the greatest potential to create dust, which poses a risk to human health. Removal activities require appropriate containment and ventilation control measures, as well as safe work practices.

The following paint removal methods are permitted on NZDF-owned or managed properties where lead paint is assumed or confirmed as present:

1. Wet scraping
2. Chemical strippers
3. Wet hand-sanding
4. Dry power sanding with a HEPA attachment*

* Dry power sanding with a HEPA attachment is permitted only if no visible release of dust occurs outside of the containment system. To ensure adequate dust control is achieved, dust and/or soil sampling should be conducted in the vicinity of the works area prior to and post works to confirm lead contamination has not been generated (for refurbishments and redecorations only).

Detailed guidance for the application of these methods is given in *AS 4361.2*.

3.1.6 Prohibited Lead Paint Removal Methods

The following removal methods, along with any not included in the previous list, are not permitted at NZDF sites:

1. Blow torches (direct flame)
2. Hot air blower
3. Infra-red (recessed flame)
4. Dry hand-sanding
5. Water blasting
6. Abrasive blasting.

3.2 Lead Paint Contamination Management

The following section covers the requirements for the management of lead paint contamination.

3.2.1 Lead Dust Contaminated Carpet Removal

Where a lead dust assessment of a carpet exceeds the clearance standard, it is recommended that, as a minimum, the carpet in high traffic areas and child play areas is removed. Replacement with hard flooring is recommended, as this prevents future lead dust accumulating in carpet and enables easier cleaning of the floor, however new carpet may be preferred for warmth purposes. Carpet removal must only occur after all paint removal works have been completed, to prevent new flooring becoming re-contaminated.

Contaminated carpet should be lightly dampened before it is removed to prevent lead dust escaping during removal. Carpet should be very slowly loosened from the floor, immediately wrapped and sealed in polyurethane, and disposed of as contaminated waste.

3.2.2 Lead Paint Contaminated Soil - Disturbance and Remediation

Lead paint disturbance activities and degradation of exterior lead based paint over time can cause contamination of the soil around a building. Contaminated soil can become a risk if:

- a. It's contamination concentration exceeds relevant soil guideline values; and
- b. It is left bare or without adequate vegetation or soft covering; and
- c. Tenants, workers or children disturb the soil and can ingest or inhale hazardous quantities of it.

Removal of soil with contamination levels **below 1000 mg/kg** is not recommended by MoH.

All proposed soil remediation and soil disturbance activities on sites where lead contamination is possible or confirmed are to be discussed with DEI Environmental Services during the scoping phase, in case resource consent or local regulatory requirements are relevant to the proposed works.

Where DEI Environmental Services assess soil as requiring remediation, any remediation is to occur once all building remedial and lead paint disturbance works have been completed, to prevent re-contamination of the soil occurring.

The objective of soil remediation is to implement appropriate measures to protect occupants from the risk of ingesting and inhaling hazardous levels of contaminated soil and prevent the contaminated soil from being tracked into the building. Soil remediation options include:

- a. Grassing bare soil and maintaining vegetation cover.
- b. Covering the contaminated area with decking.
- c. Excavating soils out to 1.5m from the side of the building, down to 0.3-0.5m below ground level, disposing of the soil as contaminated waste, covering the excavated area with a geotextile cloth that is printed with a warning of potentially contaminated soil underneath, and either covering the cloth with clean imported soil and grass or bark or a suitable soft permeable covering.
- d. Excavating soils out to 1.5m from the side of the building, down to 0.3-0.5m below ground level, disposing of the soil as contaminated waste, and covering the excavated area with an impermeable covering such as concrete.

3.3 Paint Condition Monitoring and Inspections

Once a property has been identified as containing lead paint and management actions have been implemented, all remaining identified lead paint items and associated management measures are to be inspected during routine property inspections for condition monitoring purposes.

During routine property inspections, any damaged or deteriorated paint on the exterior and interior of a pre-2000 property is to be recorded in the inspection report and provided to the local DEI Delivery team. All remediation to address identified lead paint deterioration is to follow the requirements of Section 3 of this document.

Paint deterioration includes chalking, flaking, powdering, peeling or chipping. Holes or cracks larger than a nail hole or hairline should be treated as deteriorated paint.

See [Section 4.4 Workflow 2 – Routine Building Inspection](#) for further information.

3.4 Management and Monitoring Record Keeping

Copies of work orders to address lead paint management recommendations are to be forwarded to contaminationDEI@nzdf.mil.nz so that they can be stored in the [NZDF Lead Paint Investigation Library](#). The library acts as a comprehensive record of all investigated lead paint risks on the NZDF Estate.

All lead in soil remediation is to be shown on NZDF's AGOL site.

4.0 Workflows

This section sets out how works that may or will interact with lead paint hazards are to be conducted on the Defence Estate, and how the requirements of the *Construction Health, Environment and Safety Specification (CHESS), Chapter 13, Section 13.5* will be implemented.

4.1 Disturbance of Lead Paint - Risk and Permit to Work

Lead is a class 6.1 hazardous substance which is toxic to humans and aquatic life. There is no “safe” level of lead exposure for humans. Children and women are most susceptible to the health risks of lead exposure. Lead in paint poses very low health, safety or environmental risk when left undisturbed and in good condition. However, disturbance of lead paint has the potential to generate lead dust, which is very hazardous as it is easily inhaled and ingested and can readily become airborne and contaminate neighbouring environments. It is therefore critical that work that may or will involve disturbance of lead paint hazards on the Defence Estate is carefully controlled to manage all potential lead exposure risks.

The Defence Estate and Infrastructure (DEI) *Construction Health, Environment and Safety Specification (CHESS)* document is part of DEI’s Health and Safety Management System that focusses on keeping people safe. The CHESS requirements for the different levels of risk associated with works on the Estate are shown below.

RISK REQUIREMENTS			
LOW	MEDIUM	HIGH	VERY HIGH
<ul style="list-style-type: none"> Contractor induction for participants conducting work activities. Reliance on trained competent persons for the safe completion of work. Routine activities covered by a Standard Operating Procedure (SOP). 	<ul style="list-style-type: none"> Routine activities must be covered by a Standard Operating Procedure (SOP). Non-routine activities must be covered in a risk assessed safe work planning document, such as a Job Safety Analysis (JSA) – NZDF template. 	<ul style="list-style-type: none"> All activities must be covered by a Job Safety Analysis (JSA) – NZDF template. NZDF Permit must be applied for with the JSA. Evidence of Permit receiver training and hazard specific training. Provide Emergency Rescue Plan for as required (subject to specific permits). 	<ul style="list-style-type: none"> Stop work immediately – further control required. <p>Control guidance:</p> <ul style="list-style-type: none"> CHESS Legislation Regulations. ACOP’s. Best/Good Practice Guidelines. AS/NZ Standards. Industry Standards. Specific NZQA training. Consultation with your H&S resource.



Safe Place, Safe People, Safe Estate



UNCLASSIFIED

The DEI Permit to Work (PTW) system is a documented process designed to provide assurance of safe systems of work to NZDF for contractors undertaking work identified by the NZDF as HIGH RISK, to reduce the opportunity for human error or systemic failures. As the uncontrolled disturbance of lead paint is very likely to

generate lead dust, which poses a high risk to the health of workers, building occupants, and the receiving environment, lead paint disturbances require a **“Hazardous Substances” PTW**.

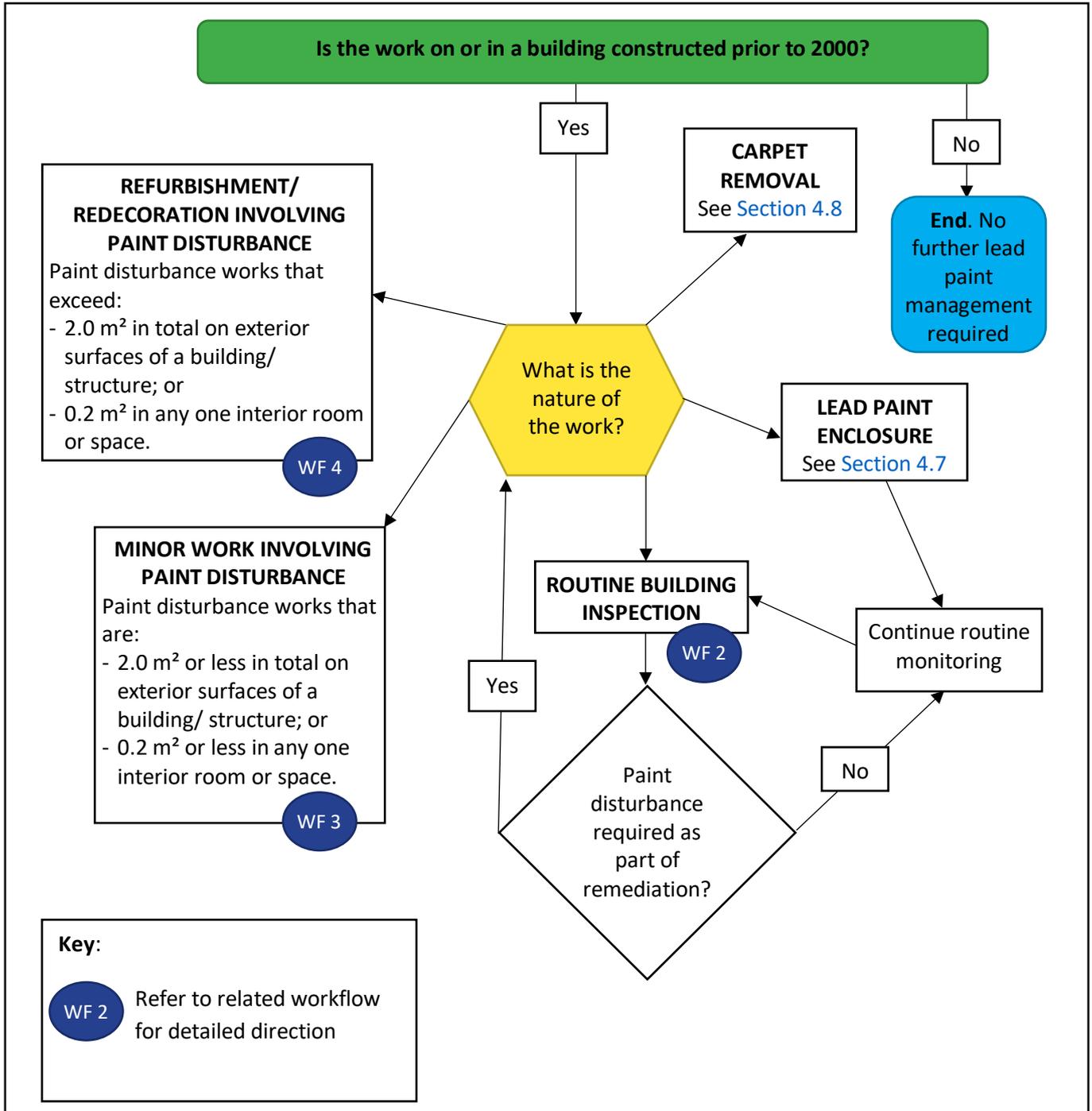
The **Hazardous Substances** permit category definition includes *“...work involving the clean up or removal of hazardous substances or remediation work which may create hazardous dusts or vapours, such as lead based contaminates, or paint.”*

4.2 Where to Start

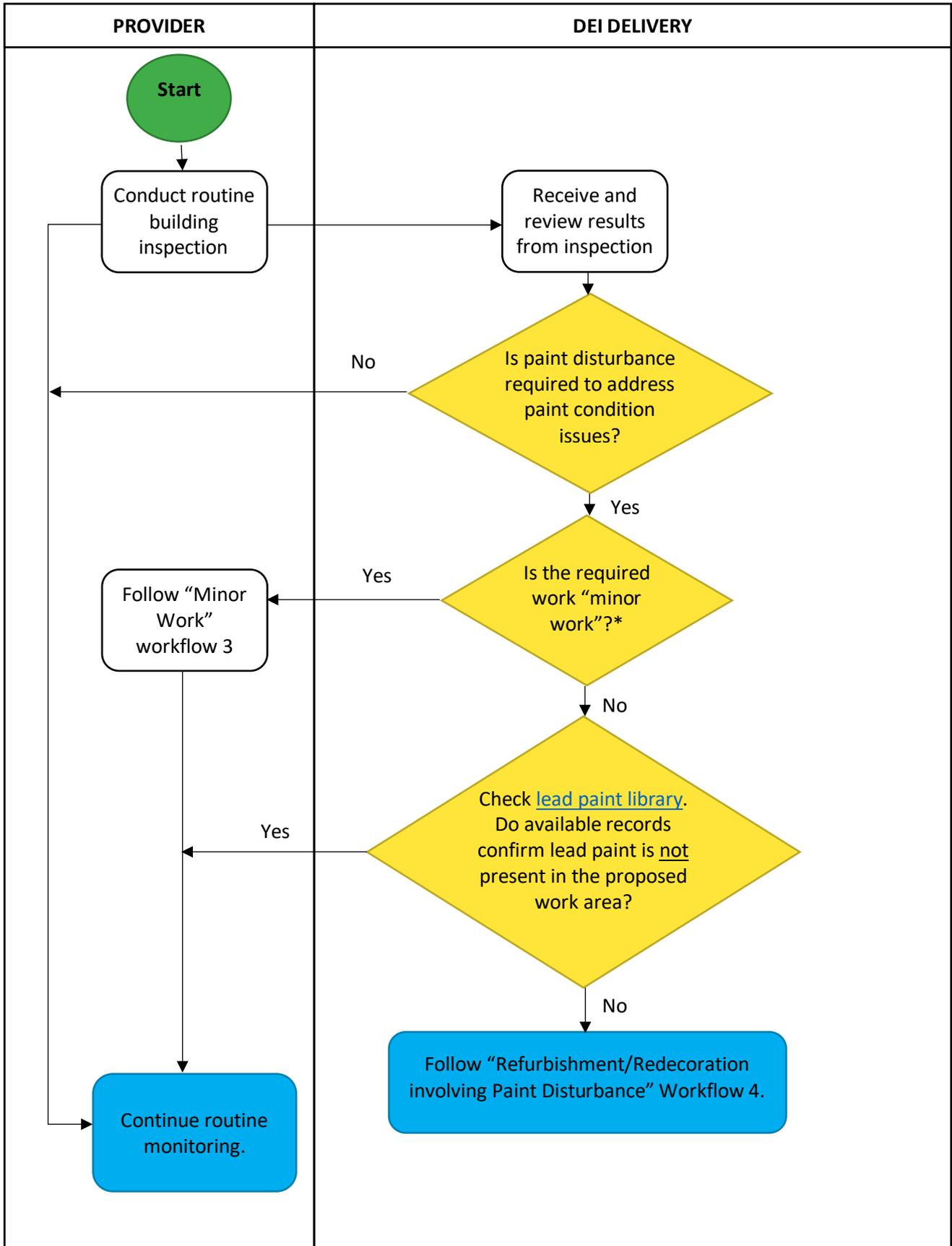
Start by reviewing **Workflow 1** in [Section 4.3](#) to identify which detailed workflow/s apply to the proposed works. The subsequent detailed workflow/s must then be followed and read in conjunction with the detail provided in each workflow explanation.

4.3 Workflow 1 – Overview of Lead Paint Related Workflows

Use Workflow 1 below to establish which workflow/s to follow for your proposed works.



4.4 Workflow 2 – Routine Building Inspection

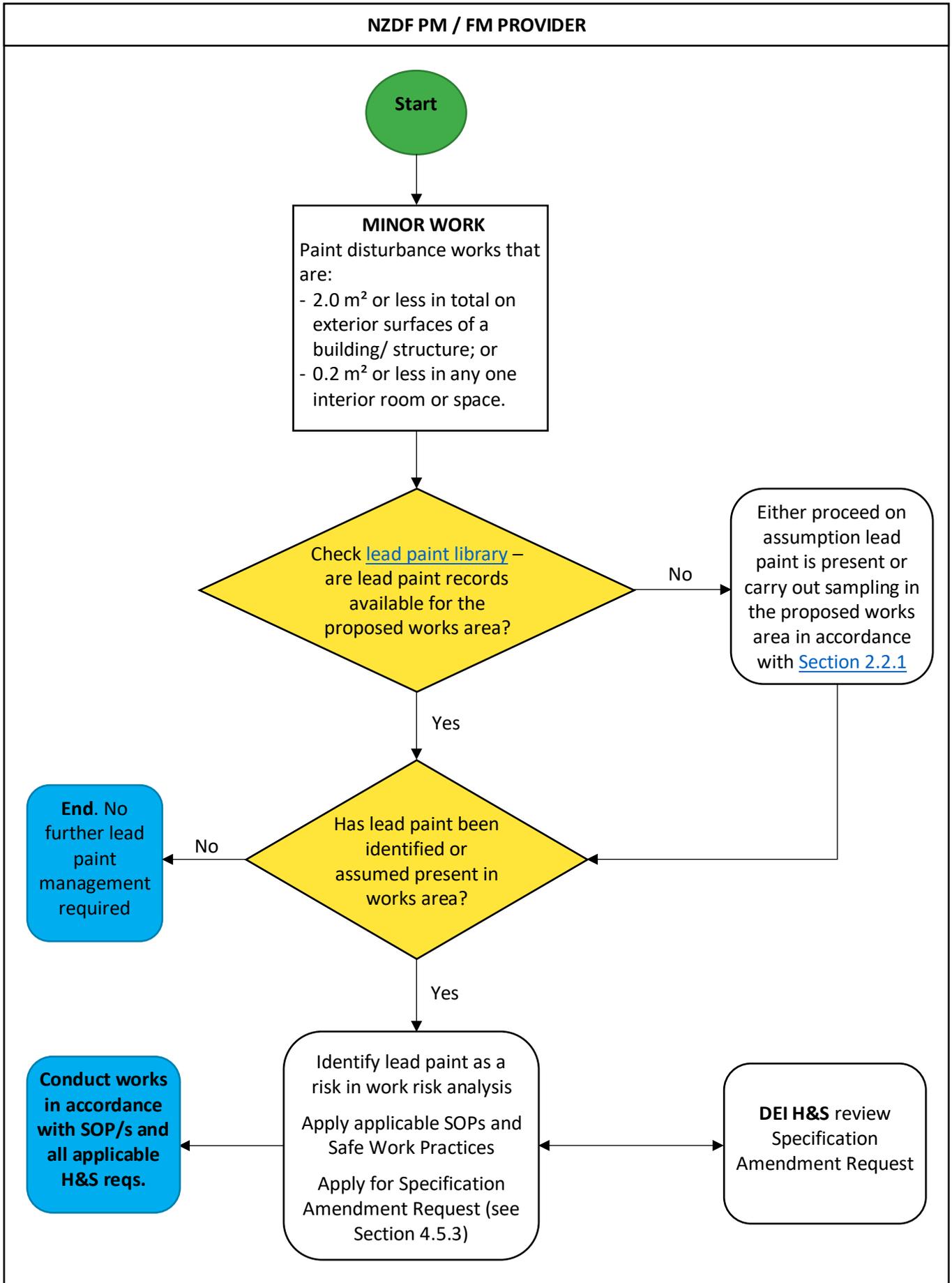


* Disturbance of 2.0 m² or less in total on exterior painted surfaces of a building/ structure; or 0.2 m² or less in any one painted interior room or space.

4.4.1 Routine Building Inspection Workflow Summary

1. A competent person conducts the routine building inspection, which includes interior and exterior paint condition assessments. The inspection report is provided to DEI Delivery.
2. DEI Delivery review the inspection findings and any recommendations. If no paint condition issues have been identified, no further lead paint management is required and routine monitoring continues.
3. If paint condition issues have been identified on a property constructed prior to the year 2000, and paint disturbance is required to address the issues, the PM is to assess whether the work required is “minor”. Minor work is 2.0 m² or less in total on exterior surfaces of a building/ structure; or 0.2 m² or less in any one interior room or space. If the work fits the minor definition, follow Workflow 3 in [Section 4.5](#).
4. If the paint disturbance required is more than “minor”, review the [NZDF Lead Paint Investigation library](#) to confirm whether records are available for the proposed work area.
5. If records confirm lead paint is not present in the works area, no further lead paint management controls are required.
6. If no records are available, or the records do not confirm lead paint is not present in the proposed work area, Workflow 4 - “Refurbishment/Redecoration involving paint disturbance” in [Section 4.6](#) is to be followed.

4.5 Workflow 3 - Minor Work Involving Paint Disturbance



4.5.1 Minor Work Definition

NZDF has adopted the US Department of Housing and Urban Development “De minimis levels” for minor work on buildings constructed prior to the year 2000. Minor work is an isolated paint disturbance task that is either (converted from imperial to metric):

- 2.0 m² or less in total on exterior surfaces of a building/structure; or
- 0.2 m² or less in any one interior room or space.

Note – minor works can only consist of isolated pieces of work. Larger projects or areas of work are not to be divided into small works orders for the purposes of meeting the minor works definition, as this approach undermines the protection of the human health and safety purpose of this document.

4.5.2 Minor Work Workflow Summary

The following steps are to be followed for minor work:

1. NZDF PM / FM Provider confirms the proposed works fit the definition of “minor work” in Section 4.5.1 above.
2. NZDF PM / FM Provider reviews the [NZDF Lead Paint Investigations library](#) to confirm whether records are available for the proposed work area.
3. If no records are available, the NZDF PM / FM Provider can either proceed on the basis of assuming lead paint is present, or sample the proposed works area in accordance with [Section 2.2.1](#)
4. If records or sampling confirm lead paint is not present, no further lead paint management controls are required.
5. If lead paint is identified or assumed present in the proposed works area, the NZDF PM / FM Provider is to ensure the health and safety requirements set out in Section 4.5.3 below are followed and implemented prior to works commencing.
6. Once all requirements of Section 4.5.3 have been fulfilled, the work can be conducted.

4.5.3 Minor Work Health & Safety Requirements

Where works are required for a building constructed prior to the year 2000, and:

- a. Lead paint has been confirmed or assumed present in the works area; and
- b. The proposed scale of works on the property is in total no more than the “Minor Work” definition above.

The work is considered LOW RISK because the work is of a small enough scale that the potential release of hazardous quantities of lead paint dust is low, and any potential risks can be safely managed using a safe work

practice or Standard Operating Procedure (SOP). These works are considered to be routine tasks, of a short duration. The work can be undertaken without a Hazardous Substances Permit to Work by applying for a Specification Amendment Request (SPAR). Specifications from CHES that are not considered practical for the completion of minor lead paint disturbance work are as follows:

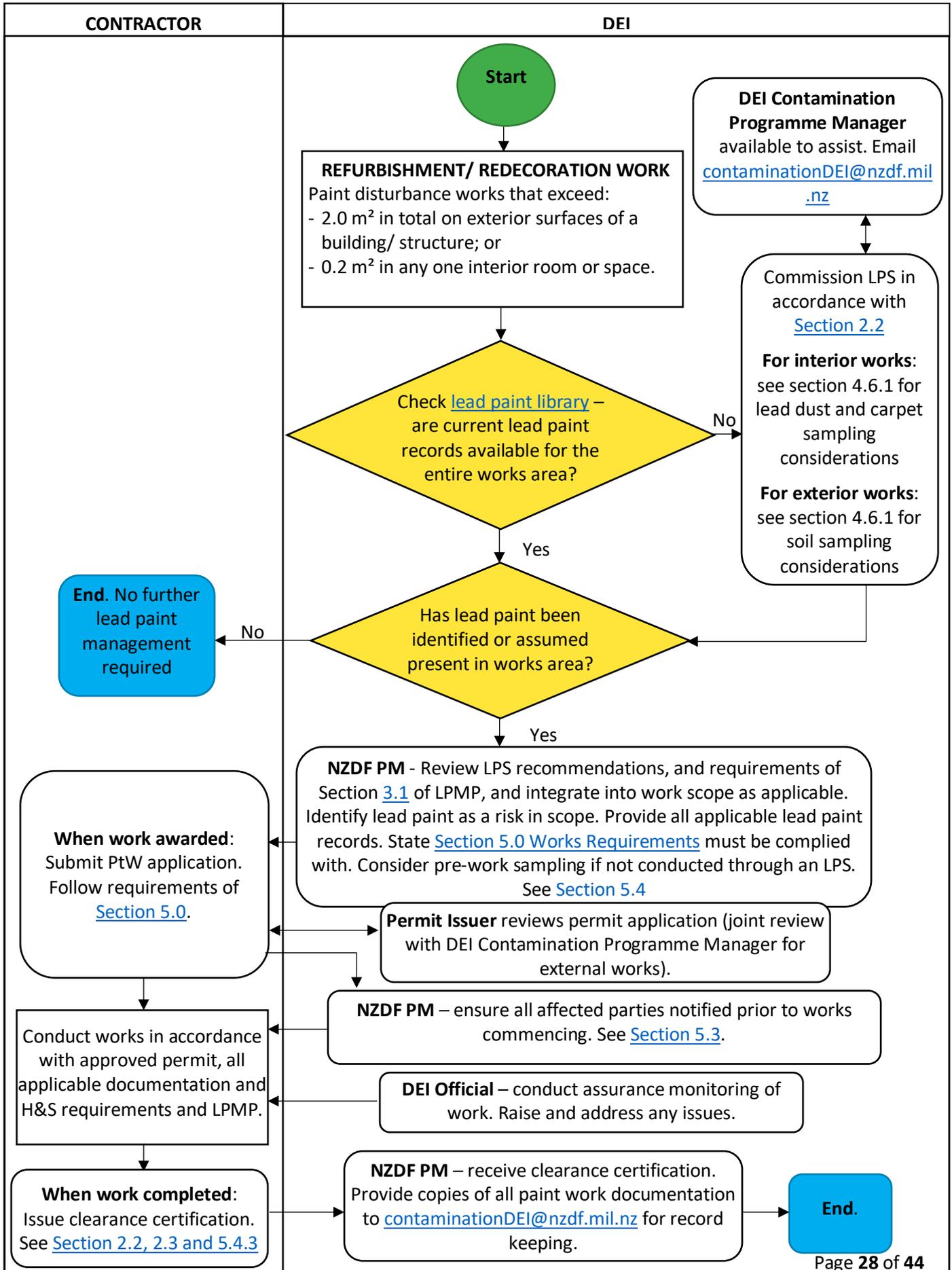
- **Section 13.5, para 655** – *“Contractors must be a Lead Based Paints Accredited Contractor through the Master Painters Association New Zealand to where lead paint is identified or suspected.”*

For minor work, the contractor does not need to hold the above certification. The works can be safely conducted using an SOP for the task. The contractor is to supply a copy of the applicable SOP/s with the SPAR application.

Only permitted paint removal methods may be used if lead is detected. See [Sections 3.1.5 and 3.1.6](#).

The NZDF PM or FM Provider is responsible for submitting the SPAR to the DEI Regional Health and Safety Specialist (RHSS) for review and approval.

4.6 Workflow 4 - Refurbishment/ Redecoration Involving Paint Disturbance



4.6.1 Refurbishment/Redecoration Involving Paint Disturbance Workflow Summary

Where refurbishment/redcoration, or more than minor work (see [Section 4.5.1](#)), is required on a building constructed prior to the year 2000, the following workflow is to be followed:

1. NZDF PM to review the [NZDF Lead Paint Investigations library](#) to confirm whether records are available for the proposed work area.
2. If no records are available for the proposed works area, the NZDF PM is to commission an LPS for either the works area only or the full property, depending on the scale of works. The NZDF PM can email contaminationDEI@nzdf.mil.nz for assistance. The LPS must be commissioned in accordance with [Section 2.2.2](#). Where interior works are required for a house, consideration should be given to including carpet vacuum dust sampling as part of the survey (see [Section 2.2.3](#)). Where initial carpet sampling results exceed the clearance standard, carpet replacement should be considered - see Carpet Replacement workflow under [Section 4.7](#). Where exterior works are required for a house, the NZDF PM is to consult with DEI Environmental Services to confirm whether soil sampling is required prior to works commencing (see [Section 2.2.5](#)). This will provide a baseline for assessing whether works have impacted the soil surrounding the house.
3. Where records confirm lead paint is not present in the works area, no further lead paint management controls are required.
4. If lead paint is identified or assumed present in the proposed works area, the NZDF PM is to ensure that the following is integrated into the scope of work provided to the FM Provider or contractor:
 - a. The applicable LPS recommendations
 - b. The works are to be conducted in accordance with Section 3 and 5 of this LPMP.
 - c. Lead paint is identified as a hazard and all applicable lead paint records are provided.
 - d. Contractors will be required to confirm they have a qualified and competent “certified lead abatement contractor” overseeing the works.
5. The successful contractor is to, prior to works:
 - a. Provide evidence confirming they meet the requirements of [Section 5.1 "Contractor Competency"](#)
 - b. Apply all applicable Safe Work Practices
 - c. Prepare a Hazardous Substances Permit to Work application. All documentation is to be reviewed by the PM to confirm completeness prior to being submitted to the permit issuer.

(Note: this is not an exhaustive list and is only related to the lead paint element of the work)

6. The Permit Issuer will review the permit application and associated documentation (in combination with the DEI Contamination Programme Manager for all external paint disturbance works) and approve the permit once all documentation is accepted.

7. Prior to works commencing, the NZDF PM is to ensure that:
 - a. All affected parties, neighbours and stakeholders are notified of the intention to carry out work, in accordance with [Section 5.3](#), and any temporary accommodation or relocation of the building occupants/tenants is organised.
 - b. Any additional pre-work sampling is conducted and recorded (see [Section 5.4.1](#))
8. The contractor conducts the works in accordance with all NZDF requirements and submitted documentation.
9. As set out in CHES, a DEI Official may conduct assurance monitoring of the works, and will document, photograph and address any issues identified through the appropriate channels.
10. Once work is completed, the contractor is to provide clearance certification to the party directly engaging them (either FM Provider or DEI). See [Section 5.5](#) for more details. The NZDF PM is to ensure DEI Delivery receive a copy of all clearance certification and a copy is forwarded to contaminationDEI@nzdf.mil.nz for record keeping.
11. If any signs of insufficient controls or prohibited paint removal methods have been observed during the work, DEI may, prior to reoccupation of the property, conduct independent clearance testing once clearance has been received from the contractor. See [Section 5.5.4](#) for more details.
12. If independent clearance testing exceeds the clearance standards set out in [Section 2.3](#), and pre-work sampling results were below the clearance standard, an SEMT is to be raised, and an appropriate course of action agreed to by DEI and the contractor.

4.6.2 Health & Safety Requirements

Where works are required for a building constructed prior to the year 2000, and:

- a. Lead paint has been confirmed or assumed present in the works area; and
- b. The proposed scale of paint disturbance works on the property is more than:
 - (1). 2.0 m² in total on exterior surfaces of a building/ structure; or
 - (2). 0.2 m² in any one interior room or space.

The work is considered HIGH RISK because of the potential release of hazardous quantities of lead paint dust, and the potential exposure risk associated with the lead paint disturbance. The work requires a Hazardous Substances Permit to Work.

Only permitted lead paint removal methods may be used. See [Sections 3.1.5 and 3.1.6](#).

LPS are to be used as the primary means of lead paint identification. LPS are comprehensive assessments of the presence, absence and condition of lead paint.

All contractors conducting lead paint disturbance and removal work are to prepare permit application documentation that demonstrates compliance with the NZDF requirements set out in [Section 5.0 Works Requirements](#).

DEI Environmental Services are to be involved in the scoping of all soil remediation projects, to ensure all environmental regulatory matters are complied with and all applicable Remedial Action Plans (RAPs) and Site Management Plans (SMPs) are developed and reviewed prior to contractors being engaged to conduct the works.

4.7 Workflow Summary for Lead Paint Enclosure

Where a lead painted surface has been identified via a LPS as suitable for enclosure, the requirements of [Section 3.1.5](#) must be followed. Lead paint enclosure does not typically disturb the underlying lead paint, so unless disturbance to the underlying lead paint is planned, enclosure does not require a Permit to Work for lead paint disturbance. Contractors must ensure that the preparation and containment precautions set out in [Section 5.4.2](#) of this document and the requirements of AS 4361.2 are followed for the works.

4.8 Workflow Summary for Carpet Removal

Lead paint disturbance activities, wear and tear of existing lead paint, and tracking lead contaminated soil into a property, can contribute to lead dust becoming embedded within a carpet. Over time this can lead to carpets becoming a source of lead dust. Young children are particularly vulnerable to exposure to leaded dust in contaminated carpets.

Where refurbishments and redecorations are planned for a pre-2000 residential property, consideration should be given to assessing the carpets for lead dust contamination prior to and after the works. [See Section 2.2.3](#) for more details.

Dust sampling of carpets is to be commissioned using the SOW template at [Appendix 1](#).

Where a lead dust assessment of a carpet exceeds the USEPA's clearance value, it is recommended that the carpet is removed. Removal of lead dust contaminated carpets can disturb embedded lead dust, creating a potential hazard to workers and building occupants. Carpet removal must only occur after all paint removal works have been completed, to prevent new flooring becoming re-contaminated. Contaminated carpet should be lightly dampened before it is removed to prevent lead dust escaping during removal. Carpet should be very slowly loosened from the floor, immediately wrapped and sealed in polyurethane, and disposed of as contaminated waste.

4.9 Workflow Summary for Demolition

New Zealand legislation does not currently require buildings to be surveyed for lead paint prior to demolition. If a building or structure was constructed before 1980 and is identified for demolition, and records do not confirm the absence of lead paint, it is likely lead paint is present in and on the building, which may cause a health and safety hazard to workers, the environment, and anyone in the general vicinity of the works. The minimum NZDF H&S requirements for demolition of these buildings are that contractors use lead safe practices for the demolition process. This is to minimise the generation of lead dust from lead paint, which can be picked up by the wind and deposited into nearby working and living environments.

Lead safe practices include:

- containing dust inside the work area

- using dust-minimizing work methods
- conducting a careful cleanup during the demolition.

Building materials are to be wetted when possible, to control the spread of leaded dust into the air.

Demolition waste is to be treated as contaminated waste and handled and disposed of in accordance with Section 7 of AS 4361.2 and any receiving landfill requirements.

5.0 Works Requirements

5.1 Contractor Competency

Due to the likely presence of lead paint across NZDF buildings constructed prior to the year 2000, and the potential health risks of lead paint disturbance, only contractors who are suitably qualified and competent as “certified lead abatement contractors” or equivalent are to be commissioned to oversee more than minor lead paint disturbance or removal work. Examples of relevant qualifications are *Lead Paint Management certification*, as provided by the Master Painters NZ Association, or *Unit Standard 27413 Demonstrate knowledge of removing lead-based paint and lead-based contaminated materials*.

Contractors will be required to confirm they meet this requirement and may be asked for evidence of compliance and currency. The FM Provider is to ensure they hold up-to-date records and evidence of staff and contractors that fulfil this requirement.

5.1.1 Contractor Health Monitoring

It is the responsibility of the PCBU directly employing the workers conducting lead paint disturbance works to ensure they have in place appropriate health monitoring measures such as blood lead level monitoring.

5.2 Contractor SOPs

All contractor SOPs related to lead paint work are to be consistent with the key reference material in [section 1.5](#) and the requirements of this document.

Contractor SOPs are to be reviewed by the contractor whenever a lead paint incident occurs and should otherwise be reviewed at a regular frequency to ensure they are current with the most recent versions of the key reference material of this document.

5.3 Notification to Stakeholders and Potentially Affected Parties

NZDF PMs must ensure that any person or party that may be affected by any of the works set out in this document receive adequate notification of the proposed works. This includes:

1. Occupants of the affected structure or site (as applicable).
2. Anyone occupying premises in the immediate vicinity of the affected structure/site or in some cases who may be in view of the proposed work.

Stakeholders who should be involved in consultation include:

1. NZDF personnel with management responsibilities for occupants of the building.
2. Contractors.

3. Non-NZDF personnel including nearby third-party occupants, community stakeholders such as schools, childcare centres, immediate neighbours and in some cases media representatives for high-profile buildings with public access such as museums, office buildings etc.

Key messages to convey include:

1. The purpose of the proposed work activity.
2. Description of what is involved and when the work will start and finish.
3. Summary of the safety measures in place that will prevent lead paint contamination escaping the works area.
4. Project point of contact (such as the NZDF Project Manager) for any further details.

Communications should be issued as early as possible, between 2-3 weeks ahead of the work commencing for multi-day or high profile projects, and at least 5 working days prior to work commencing for small projects.

5.4 Preparation, Clean-up and Clearance for Disturbance and Removal Works

All contractors conducting more than minor lead paint disturbance and removal work are to complete a Job Safety Analysis (JSA) and demonstrate how they will comply with [Section 5.0 Works Requirements](#) of this document. The documentation is to be submitted to DEI for review and approval before works commence.

Preparation, clean-up and clearance activities are to be undertaken in accordance with AS 4361.2. and the outline below.

It is mandatory that contractors ensure works do not cause any health and safety hazards to workers, occupants, neighbouring properties and the general public.

5.4.1 Dust and soil sampling prior to lead paint removal

To assess whether lead paint disturbance/removal work has been conducted without causing contamination of the surrounding areas, soil and interior surface dust samples should be collected prior to starting paint disturbance/removal activities. This would typically occur as part of the lead paint survey. The DEI PM is to discuss whether soil sampling is necessary with DEI Environmental Services.

A copy of all results is to be provided to the DEI PM and contractor prior to works commencing.

Where pre-existing contamination is identified, DEI Delivery (and DEI Environmental Services for soil contamination) are to review whether the scope of works needs to incorporate appropriate remediation of the internal and/or external contaminated environments ie. internal surfaces, carpets and halo soils. See Section 3 for details regarding remediation options.

5.4.2 Lead paint disturbance/removal preparation and containment precautions

As a minimum, the following precautions are to be integrated into lead paint disturbance works:

Communication Preparation

1. Provide communications to all affected tenants/building occupants of the planned works, safety measures in place, timings of works, and POC. Advise occupants to store all food and medicines in cupboards or containers or remove them from rooms where works are planned.
2. Provide communications to any neighbours in close proximity to the works site of the planned works, control measures, and measures they can put in place to protect themselves.
3. Ensure all tenants, the general public and pets are excluded from paint removal areas. For paint removal work where measures to protect the occupants cannot be adequately managed on site, temporary relocation of the occupants may be required.

Interior Works Preparation

1. Remove all furniture and all soft furnishings where practicable.
2. Use thick impervious plastic sheeting to cover and seal any items that cannot be removed and all floors in the works area. Sheeting must be of a sufficient size to contain all paint waste generated below the works area.
3. Check the weather forecast in advance and avoid working during windy conditions (including interior work if draughts are present).
4. Seal all openings to and from the work area including windows, doors and air ducts.

Exterior Works Preparation

1. Check the weather forecast in advance and avoid working during windy conditions.
2. Seal all openings to and from the work area including windows, doors and air ducts.
3. Use thick impervious plastic sheeting to cover the ground and capture all paint waste generated. The sheeting edges must be turned by 100 mm or greater to capture any water runoff. Containers must be available to capture and contain water from paint processes and must not enter stormwater or wastewater networks. Process water must be treated as contaminated waste.

Minimum Personal Protection

1. An appropriate respirator in accordance with *AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment* is to be worn, and disposable PPE including boot covers and overalls which are to be removed prior to leaving the work area.

During Works

1. Immediately repair or replace plastic sheeting as any tears occur.
2. Remove waste and debris on a frequent basis (as a minimum at least daily on completion of works, but preferably more frequently). Dust is to be collected using a vacuum with a HEPA filter.
3. Wipe down all surfaces with a damp cloth and detergent following vacuuming.
4. Collect water from wet processing and dispose of as contaminated waste.

Interior Works Final Clean Up

1. Use a vacuum with a HEPA filter on all surfaces first.
2. Deposited dust is to be removed from picture rails and other ledges, windows, floors, walls and other surfaces by HEPA vacuuming. These areas are then to be wiped down using cloths dampened with a sugar soap solution, followed by wiping down with cloths dampened with fresh water, finishing with a clean dry cloth.
3. The prepared surfaces and other affected surfaces are to be cleaned with a disposable cloth to remove any remaining dust traces. Wipe all shelves, walls and windows where dust may have settled. Dispose of the cloth along with the paint waste.
4. Double bag disposable items and waste.
5. A final vacuum with a HEPA filter is to be conducted before leaving the works site.

Exterior Works Final Clean Up

1. Use a vacuum cleaner fitted with a HEPA filter to remove any settled dust and particulates from the surrounding ledges, windows and walls. This is to be followed by wiping with a damp cloth, and disposing of this along with other paint waste, or wet-washing with a sugar soap solution and rinsing with clean water. Contain, collect and properly dispose of wash water as hazardous waste.
2. Dispose of plastic sheeting, or wash them down, and collect the residue for proper disposal as hazardous waste.

Waste Disposal

1. Ensure all paint debris and associated items are removed from the property and disposed of as contaminated waste to an appropriate landfill as per Local Authority guidelines. Waste must not be burnt.
2. Provide evidence of the waste disposal to the party directly engaging the contractor (either FM or DEI).

Equipment Required for Clean Up

1. Impervious work gloves.
2. Disposable overalls.
3. Respirator.
4. Spray bottle with water.
5. Heavy duty plastic sheets.
6. Sugar soap cleaning solutions (tri-sodium phosphate), available as a powder or liquid concentrate—use in accordance with the manufacturer’s instructions.
7. Disposable cleaning items, such as lint-free towels, rags, sponges and mops.
8. A HEPA filter vacuum cleaner

5.4.3 Clearance Testing

On completion of all lead paint disturbance or removal work requiring a permit, the certified lead abatement contractor shall provide lead clearance sampling and certification. See [Section 2.2](#) for testing requirements.

If signs of insufficient controls have been identified during works, DEI should consider commissioning independent lead clearance testing.

Where work is to be carried out on a site that is identified during planning as high risk or technically challenging by the certified lead abatement contractor, an independent lead specialist should be engaged to provide clearance.

The DEI PM can email contaminationDEI@nzdf.mil.nz or consult DEI Environmental Services regarding commissioning independent lead sampling specialists.

Clearance certification is to be provided to the party directly engaging the contractor and a copy sent to contaminationDEI@nzdf.mil.nz for record-keeping.

5.5 Assurance Monitoring

5.5.1 Onsite assistance

A certified lead abatement contractor does not need to be on site at all times. However, it is expected they will be readily available to assist and provide guidance to the competent person onsite (under AS4631.2 this person is called a responsible person). The duties of the responsible person include the following:

- Ensuring the adequacy of any employee exposure assessments and monitoring data

- Ensuring that all employees wear required protective clothing and equipment and are trained in and use appropriate exposure control methods
- Ensuring that proper hygiene facilities are provided and that employees are trained in and use those facilities.

5.5.2 Assurance monitoring by DEI

For paint disturbance and removal works that require a permit, assurance monitoring should be undertaken by the DEI PM (where works are non-routine) or the DEI Site Supervisor (where works are routine). The FM Provider are also to conduct assurance monitoring on contractors directly engaged by them.

For minor removal works, assurance monitoring should be undertaken on a targeted basis.

Assurance monitoring must include an assessment of whether:

- a. Methods not permitted by NZDF have been used
- b. Methods that generate dust have been used
- c. Visible signs of insufficient containment are present, such as unrepaired tears in plastic sheeting and lack of opening seals
- d. Visible signs of contamination are present such as chips, dust, debris, spills or stains from paint removal.

If signs of insufficient controls have been identified during assurance monitoring activities, these are to be photographed and reported to DEI and the certified lead abatement contractor as soon as possible. The controls must then be checked by the certified lead abatement contractor and corrective action implemented, with additional assurance checks carried out by the DEI representative.

Where it is identified that insufficient controls are likely to have caused contamination of the property, decontamination will need to be conducted. The scope of the decontamination work will need to be agreed between DEI and the contractor and may include (but not be limited to):

1. Deep cleaning of the property (including professional cleaning of the carpets – only suitable where it has been established through sampling or carpet age that the lead dust loading of the carpets was below the clearance standard prior to the works)
2. Replacement of significantly impacted carpets and other soft furnishings
3. Removal and replacement of any significantly impacted soil.

6.0 Relevant legislation, regulations and standards

- Australian Standard AS 4361.2 1997 *Guide to lead paint management. Part 2: Residential and commercial buildings*
- *Australia's Uniform Paint Standard*
- *Building Act 2004*
- *Department of Labour Guidelines for the Medical Surveillance of Lead Workers – 2nd Edition, August 2011.*
- *Health and Safety at Work Act 2015*
- *Poisons Regulations 1964*
- *Section Four of the WorkSafe New Zealand Workplace Exposure Standards and Biological Exposure Indices, June 2016*
- *Toxic Substances Regulations 1983*

Appendices

Appendix 1 – Lead Paint Investigation Statement of Work Template

Appendix 2 – NZDF Paint Condition Assessment Matrix

Appendix 3 – NZDF SOP for Collection of Indoor High Flow Vacuum Samples for Lead Analysis

Appendix 1 – Lead Paint Investigation SoW Template

Available through DDMS here <http://ddms-r/ds/D4-0350/03/Lead%20Paint%20Investigation%20SOW%20-%202024.docx?Web=1>

Appendix 2 – NZDF Paint Condition Assessment Matrix

CONDITION	DESCRIPTION	EXAMPLE PHOTOS	
C1	Very good condition		
C2	Good condition – minor defects only		
C3	Fair/ moderate condition – maintenance required to return to acceptable level of service		
C4	Poor condition – in need of servicing		
C5	Very poor condition, unserviceable or almost unserviceable		

Appendix 3 - NZDF SOP for Collection of Indoor High Flow Vacuum Samples for Lead Analysis

Available through DDMS here <http://ddms-r/ds/D4->

[0350/03/NZDF%20SOP%20for%20Collection%20of%20Indoor%20High%20Flow%20Vacuum%20Samples%20for%20Lead%20Analysis.pdf?Web=1](http://ddms-r/ds/D4-0350/03/NZDF%20SOP%20for%20Collection%20of%20Indoor%20High%20Flow%20Vacuum%20Samples%20for%20Lead%20Analysis.pdf?Web=1)