

# GUIDANCE NOTE FOR CEILING DUSTS CONTAINING LEAD

Contractors and workers involved in the cleaning, repairing, or demolition of ceilings should be aware of the information contained within this guidance note. Developing systems of work that addresses the information contained within this guidance note will assist employers in meeting the requirements of the *NSW Occupational Health and Safety Act 2000* (the Act) and the *NSW Occupational Health and Safety Regulation 2001* (the Regulation).

## Preamble

Lead is a hazardous substance. Contractors and workers involved in the cleaning, repairing or demolition of ceilings should be aware that lead is found everywhere in the urban environment, resulting from air, water and soil pollution from industrial processes, house renovations (from the use of leaded paint before 1976) and as a by-product from the combustion of leaded petrol.

Over an extended period of time, the lead from these sources may have contaminated the dust found in the ceiling voids of most houses. Significant lead levels are likely to occur in the ceilings of older homes, near major roads or highly industrialised areas. With the phase out of leaded paints and lead in petrol, lead in ceiling dust may not be a significant issue in domestic dwellings built since the 1990s.

## Risk assessment

To comply with the Regulation a risk assessment must be carried out for all hazards in the workplace.

For the removal of ceiling dust containing lead from domestic (ie excluding industrial) premises, the risk assessment should include, but not be limited to:

- Lighting levels
- Working at heights including falling through ceilings
- Heat stress
- Electrical safety
- Heavy metals
- Synthetic Mineral Fibre (SMF) from ceiling insulation batts
- Asbestos debris (from existing or previous asbestos cement roofs)
- Bird and rodent droppings, animal dander, bird lice, molds and other biologically active agents.

The risk assessment should consider personal air monitoring of the worker's breathing zone to select the most appropriate controls, including Personal Protective Equipment (PPE). The national occupational exposure standard for lead is  $0.15 \text{ mg/m}^3$ . Any health surveillance and biological monitoring should be carried out in accordance with the WorkCover *NSW Code of Practice for the Control of Workplace Hazardous Substances* and *NOHSC Guidelines for Health Surveillance [NOHSC: 7039 (1995)]*. Blood lead levels must be below those listed in Clause 203 of the Regulation.

**Note:** The Australian Safety and Compensation Council (ASCC) publish exposure standards in the document *National Exposure Standards for Atmospheric Contaminants in the Occupational Environment 3rd Edition [NOHSC: 1003 (1995)]*. Values for the exposure standards can be found online in the Hazardous Substances Information System (HSIS) database ([www.ascc.gov.au](http://www.ascc.gov.au)) and interpretation of these standards can be found in the *Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment 3rd Edition [NOHSC: 3008 (1995)]*.

## Safe work procedures

Contractors and workers involved in the cleaning, repairing or replacement of ceilings are advised to consider the following procedures, in order to minimise health risks from ceiling dust.

These procedures include:

### 1. Working in ceilings

- Ceiling voids must be cleaned of accumulated dust before commencing any work involving partial or complete removal of the ceiling itself and householders advised to clear or cover personal effects in adjoining living spaces as much as is practicable.
- The sealing of any openings between living areas of the dwelling and the ceiling void prior to the commencement of any work to prevent dust entering the living area.
- The use of vacuum cleaners which comply with *AS/NZS 3544 Industrial vacuum cleaners for particulates hazardous to health*, to prevent the release of lead containing dust while it is being removed.
- To minimise contamination of living areas of the dwelling, airless spraying with PVA to seal the cleaned surfaces is recommended whenever the ceiling is removed.

### 2. Personal Protective Equipment (PPE)

The use of Personal Protective Equipment, including:

1. Respirators complying with *AS/NZS 1716 Respiratory Protective Devices* and used according to *AS/NZS 1715 Selection, use and maintenance of respiratory protective devices*. If the results of the risk assessment identify significant chemical contamination, a full-face respirator may be required to provide the needed level of respiratory protection. **Note:** A respiratory protection program should be set up by management in accordance with *AS/NZS 1715*.
2. Where respirators relying on facial fit are being used, workers should shave daily as beard and stubble can interfere with the facial fit, which could result in exposure to lead containing dust.
3. Eye protection, complying with *AS/NZS 1336* and *AS/NZS 1337* whenever full-face respirators are not worn.
4. Disposable coveralls with fitted hood (the type suitable for use in agricultural spraying and asbestos removal work, changed at regular intervals).

### **3. Decontamination and Personal Hygiene**

The adoption of thorough decontamination procedures before each work break, including the observance of a high standard of personal hygiene. This can be achieved by:

- provision of soap and adequate washing facilities
- washing of hands before eating, drinking and smoking
- employers providing laundering of work clothes
- placing any used disposable overalls into marked bags, which should be sealed for disposal with other waste
- the containment and disposal of the removed dust and any contaminated clothing, rags and other waste should be in accordance with any NSW Department of Environment and Conservation (NSW DEC) (formerly the NSW EPA) requirements
- after the work has been done, all equipment must be decontaminated and the area cleaned of dust. Use wet methods to dampen down dust material before wiping up, or use industrial vacuum cleaners.

### **4. Training**

Workers should be provided with training that includes:

1. the hazards associated with this type of work
2. an understanding of the health risk assessment process
3. an understanding of the results of health surveillance and biological monitoring
4. the selection, use and maintenance of respirators
5. safe work methods
6. Acceptable personal hygiene for this type of work.

All training should be documented and a register of training kept.

## References

### WorkCover NSW website

- *The NSW Occupational Health and Safety Act 2000*
- *The NSW Occupational Health and Safety Regulation 2001*. (Particularly Ch 6 Hazardous substances, Ch 7 Hazardous processes, Part 7.6 Lead processes and lead risk work and Ch 2 Places of work – risk management and other matters)
- *WorkCover NSW Code of Practice for the Control of Workplace Hazardous Substances*
- *WorkCover NSW Safe working at heights Guide 2004*

### Standards Australia (fee involved) website [www.saiglobal.com](http://www.saiglobal.com)

- *AS/NZS 1336 Recommended practices for occupational eye protection*
- *AS/NZS 1337 Eye protectors for industrial applications*
- *AS/NZS 1715 Selection, use and maintenance of respiratory protective devices*
- *AS/NZS 1716 Respiratory protective devices*
- *AS/NZS 2601 Demolition of Structures*
- *AS/NZS 3544 Industrial vacuum cleaners for particulates hazardous to health*
- *AS/NZS 4361.2 Guide to paint management – Residential and commercial buildings*

### NOHSC Website [www.ascc.gov.au](http://www.ascc.gov.au)

- *Guidelines For Health Surveillance [NOHSC: 7039 (1995)]*
- *Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment 3rd Edition [NOHSC: 3008 (1995)]*
- *National Code of Practice for the Control and Safe Use of Inorganic Lead Work [NOHSC: 2015 (1994)]*

### Other Sources of Information

- NSW Department of Environment and Conservation (formerly NSW EPA) *Lead Safe Fact sheet Lead in ceiling dust*
- *Code of Practice for Ceiling Dust Removal from Australian Dust Removalists Association (ADRA)*  
(<http://www.adra.com.au/cop.html>)

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