# Lead Management Procedure

**SEQ-PR-075** 

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Review Panel					
Name		Posit	Position		
Tim Kelly		Busin	Business Development Manager		
Kate Pollock		QLD S	QLD Safety Manager		
Andrew Lynam			Environmental Manager		
Jelmer Sanders			Senior Safety Advisor		
lain Johnston			Quality Manager		
Alex Lovett			Senior Safety Advisor		
John Wetherel	II	Senic	or Safety Advisor		





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## 1. Scope

This Procedure outlines the controls required to be applied, to reduce so far as is reasonably practicable, the exposure of workers to lead dust, lead fumes, or dry lead compounds.

# 2. Application

This Procedure is applicable to all Haslin work areas and sites.

## 3. Definitions

Lead	A soft, silvery white or greyish metal which, when ingested, accumulates in the body over period of time - known as cumulative poisoning – until a lethal quantity is reached unless contact with lead substances is eliminated		
	For the purposes of this Procedure, a Lead process is:		
	<ul><li>(a) work that exposes a person to lead dust or lead fumes arising from the manufacture or handling of dry lead compounds,</li><li>(b) dry machine grinding, discing, buffing or cutting by power tools alloys containing</li></ul>		
	more than 5% by weight of lead metal,		
	<ul> <li>(c) machine sanding or buffing surfaces coated with paint containing more than 1% b dry weight of lead,</li> </ul>		
Lead Process	(d) a process by which electric arc, oxyacetylene, oxy gas, plasma arc or a flame is applied for welding, cutting or cleaning, to the surface of metal coated with lead o paint containing more than 1% by dry weight of lead metal,		
	<ul> <li>(e) hand grinding and finishing lead or alloys containing more than 50% by dry weight of lead,</li> </ul>		
	<ul><li>(f) spray painting with lead paint containing more than 1% by dry weight of lead,</li><li>(g) using a power tool, including abrasive blasting and high-pressure water jets, to remove a surface coated with paint containing more than 1% by dry weight of lead and handling waste containing lead resulting from the removal,</li></ul>		
Lead Process Area	An area where a Lead Process is taking place		
	Work carried out in a lead process that is likely to cause the blood level of a worker carrying out the work to exceed –		
Lead Risk Work	(a) For a female of reproductive capacity - $5\mu g/dL$ (0.24 $\mu$ mol/L), or (b) In any other case - $20\mu g/dL$ (0.97 $\mu$ mol/L)		
PCBU	A Person Conducting a Business or Undertaking. For the purposes of this Procedure, it shall mean Haslin Constructions		





#### 4. References

- WHS Act 2011 (NSW)
- WHS Act 2011 (Qld)
- WHS Regulation 2017 (NSW)
- WHS Regulation 2011 (Qld)
- Safe Work Australia June 2023

Part 3.1, Part 3.2-Division 5, Part 7.1-Division 6, Part 7.2 Lead Part 3.1, Part 3.2-Division 5, Part 7.1-Division 6, Part 7.2 lead Managing risks of hazardous chemicals in the workplace Code of Practice

## 5. Legal

The following legal requirements are relevant to lead process work:

- Provide information about lead process work to workers,
- Risk identification, management, control and review,
- Notification of lead risk work
- Health monitoring
- Disposal of lead contaminated material

#### 6. Procedure

#### 6.1. **Exposure**

The primary exposure pathways for lead are inhalation of contaminated dust or particles and ingestion through the skin, eves, and mouth.

#### **Information About Health Risks** 6.2.

Before commencing a lead process, information about the lead process must be supplied to workers engaged in, or prospectively engaged in, the lead process or lead risk work. This includes as a minimum the following:

- information about the health risks and toxic effects associated with exposure to lead, and
- if the lead process involves lead risk work—the need for, and details of, health monitoring under Division 4 of the WHS Regulations.

If work is identified as lead risk work after a worker commences the work, information must be given about the lead process to the worker as soon as practicable after it is identified as lead risk work and before health monitoring of the worker is provided.

#### Risk Identification - Lead Risk Work 6.3.

A risk assessment for each lead process must be undertaken to determine if lead risk work is carried out in the process with regard to the following factors:

- (a) past biological monitoring results of workers,
- (b) airborne lead levels,
- (c) the form of lead used,
- (d) the tasks and processes required to be undertaken with lead,
- (e) the likely duration and frequency of exposure to lead,
- (f) possible routes of exposure to lead,
- (g) any information about incidents, illnesses or diseases in relation to the use of lead at the workplace.

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In assessing a lead process, the risk considerations must not factor in the effect of using personal protective equipment on the health and safety of workers at the workplace. If it is unable to be determined whether lead risk work is carried out in a lead process at the workplace, the process is treated as lead risk work until this is determined.

If the workplace exposure standard is, or is likely to be exceeded, air monitoring must take place from commencement of the works by an Occupational Hygienist to determine the level of risk and controls required. Refer to SEQ-PR-021 Health Surveillance for air monitoring requirements.

#### 6.4. Notification of Lead Risk Work

If it is determined that work at the workplace is lead risk work, or a determination is unable to be made, the regulator must be given written notice within 7 days that the work is lead risk work stating the kind of lead process being carried out that includes the lead risk work. Written notice of any change in the information given in the notification must be given to the regulator before the change or as soon as practicable after the person becomes aware of the change.

A copy of any notice given to the regulator must be kept while the lead risk work is carried out at the workplace and be readily accessible to a worker who is likely to be exposed to lead and to the worker's health and safety representative.

Emergency service organisations must also notify the regulator if they rescue a person or provide first aid where lead risk work is being undertaken.

#### 6.4.1. Lead Risk Work Notification to the Regulator

#### **New South Wales**

- 1. Obtain Form SW08127-0418-407204\_INT from <a href="https://www.safework.nsw.gov.au/home">https://www.safework.nsw.gov.au/home</a>
- 2. Complete Form SW08127-0418-407204\_INT and email to <a href="mailto:chemicals@safework.nsw.gov.au">chemicals@safework.nsw.gov.au</a>

#### Queensland

- 1. Obtain the relevant notification form from <a href="https://www.worksafe.gld.gov.au/resources">https://www.worksafe.gld.gov.au/resources</a>
  - Form 23 New Notification of Lead Risk Work
  - Form 23 Amended Notification of Lead Risk Work
  - Form 23 Removal of Worker from lead Risk Work
  - Form 86 Lead Health Monitoring Report
- 2. Complete the applicable form and email to OHHA@oir.gld.gov.au

**NOTE**: The forms, websites, and email addresses listed above may change without notice and should be verified before submitting any notifications.

#### 6.5. Risk Management and Control

#### 6.5.1. Containment

So far as is reasonably practicable, contamination by lead must be confined to a lead process area at the workplace.

#### 6.5.2. Personal Protective Equipment

All workers performing lead risk work or working in the lead process area must wear the following PPE:

- A disposable, fit tested P2 particle / dust filter or half face respirator with equivalent cartridge;
- Tyvek type suits taped at the wrist and ankles;
- Steel toed safety gumboots, or other approved appropriate footwear;
- Nitrile gloves, under cut resistant gloves, if required, otherwise just nitrile gloves, and
- General PPE as outlined in 'General Site Rules'.

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#### 6.5.3. Cleaning Methods

The methods used to clean a lead process area must not create a risk to the health of persons in the immediate vicinity of the area or have the potential to spread the contamination of lead.

#### 6.5.4. Eating, Drinking, and Smoking

All reasonable steps must be taken to ensure that a person does not eat, drink, chew gum, smoke, or carry materials used for smoking in a lead process area at the workplace. A separate work area must be provided for workers for eating and drinking that cannot be contaminated with lead from a lead process.

Workers at the workplace must remove clothing and equipment that is or is likely to be contaminated with lead and wash their hands and face, before entering an eating or drinking area at the workplace.

#### 6.5.5. Provision of Changing and Washing Facilities

Where lead risk work is being performed, changing rooms and washing, showering and toilet facilities must provide and maintained in good working order at the workplace, so as to:

- (a) minimise secondary lead exposure from contaminated clothing,
- (b) minimise ingestion of lead, and
- (c) avoid the spread of lead contamination.

#### 6.5.6. Laundering, disposal and removal of personal protective equipment

Personal protective equipment that is likely to be contaminated with lead dust must be sealed in a container before being removed from the lead process area and be disposed of on the completion of the lead process work at a site equipped to accept lead contaminated equipment.

If it is not reasonably practicable to dispose of personal protective equipment that is clothing, it must be laundered at a laundry, whether on site or off-site, equipped to launder lead contaminated clothing. If it is not practicable to launder the clothing it must be kept in a sealed container until it is re-used for lead process work, and

If it is not reasonably practicable to dispose of personal protective equipment that is not clothing, it must be decontaminated before it is removed from the lead process area or if it is not practicable to decontaminate the equipment in the lead process area, it must be kept in a labelled, sealed container until it is re-used for lead process work.

#### 6.5.7. Atmospheric Monitoring

Atmospheric monitoring involves the periodic and/or continuous sampling of workplace atmospheres to derive a quantitative estimate of the exposure of employees to lead by inhalation. The results of atmospheric monitoring must be compared with the lead exposure standard. Atmospheric monitoring may be required as part of the risk assessment to obtain a quantitative estimate of exposure, or to determine the effectiveness of measures introduced to control exposure to lead.

Monitoring is to be only carried out by a competent person who has sufficient knowledge, skills and experience in appropriate atmospheric monitoring techniques and procedures using appropriate and calibrated equipment. Where the results of atmospheric monitoring indicate that the atmospheric lead level is routinely at or above the exposure standard, control measures should be reviewed in consultation with employees and employees' representatives.

This review should include, but is not limited to:

- Engineering controls, such as process enclosure, exhaust ventilation;
- Cleaning of workplaces and regular plant maintenance; and
- Safe work practices, such as wetting of surfaces.





#### 6.6. Health Monitoring

#### 6.6.1. General

Health monitoring must be provided to a worker in accordance with Workplace Health and Safety Regulation and as detailed in SEQ-PR-021 Health Surveillance Procedure.

A worker must immediately be removed from carrying out lead risk work if:

- biological monitoring of the worker shows that the worker's blood lead level is, or is more than:
  - o for females not of reproductive capacity and males—30  $\mu$  g/dL (1.45  $\mu$  mol/L), or
  - o for females of reproductive capacity—10  $\mu$  g/dL (0.48  $\mu$  mol/L)
- the registered medical practitioner who supervised the health monitoring recommends that the worker be removed from carrying out the lead risk work, or
- there is an indication that a risk control measure has failed and as a result, the worker's blood lead level is likely to reach or exceed the levels above.

The regulator must be notified as soon as practicable if a worker is removed from carrying out lead risk work because of the above conditions. Within 7 days of the worker being removed from carrying out lead risk work, they must be medically examined by a registered medical practitioner with experience in health monitoring. The affected worker must be consulted on the selection of the medical practitioner.

Any measures implemented to control health risks from exposure to lead at the workplace must be reviewed and as necessary revised if a worker is removed from carrying out lead risk work or any advice that test results indicate that a worker may have contracted a disease, injury or illness as a result of carrying out the lead risk work that triggered the requirement for health monitoring.

#### 6.6.2. Return to Lead Risk Work After Removal

A worker must not return to carrying out lead risk work until the workers blood lead level is less than:

- For females not of reproductive capacity and males 20μg/dL (0.97 μmol/L), or
- For females of reproductive capacity 5μg/dL (0.24 μmol/dL), and
- A registered medical practitioner with experience in health monitoring is satisfied that the worker is fit to return to carrying out lead risk work.

If a worker who was removed from carrying out lead risk work chooses to return to carrying out lead risk work, health monitoring must be provided under the supervision of a registered medical practitioner with experience in health monitoring at a frequency decided by the practitioner to determine whether the worker's blood lead level is low enough for the worker to return to carrying out lead risk work.

#### 6.6.3. Health Monitoring Records

Health monitoring reports in relation to a worker carrying out work for the business or undertaking must be kept as a confidential record identified as a record in relation to the worker for at least 30 years after the record is made.

Records including health monitoring reports and associated results of a worker are not to be disclosed to another person without the worker's consent unless the records are provided to the worker, to the regulator or to persons who have a duty to provide health monitoring for the worker.

#### 6.6.4. Review of Control Measures

Any measures implemented to control health risks from exposure to lead at the workplace must be reviewed and as necessary revised in the following circumstances when:

• a worker is removed from carrying out lead risk work

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- test results indicate that a worker may have contracted a disease, injury or illness as a result of carrying out the lead risk work that triggered the requirement for health monitoring.
- any recommendation that the person conducting the business or undertaking take remedial measures,
- the control measure does not control the risk it was implemented to control so far as is reasonably practical,
- before a change at the workplace that is likely to give rise to a new or different risk to health or safety that the measure may not effectively control including a change in:
  - a. the workplace itself, or
  - b. any aspect of the work, or any system, process or procedure,
- a new relevant hazard or risk is identified,
- the results of consultation indicate that a review is necessary,
- the regulator requires the review,
- at least once every 5 years.

The health and safety representative for workers at the workplace may request a review of a control measure if the representative believes that a circumstance exist which affects or may affect the health and safety of a member of the work group represented by the health and safety representative and the duty holder has not adequately reviewed the control measure in response to the circumstance.

#### 6.7. Working Near and Handling Lead

The following areas, or zones, must be established when workers are required to work near or handle lead, or material containing lead:

- An Exclusion Zone delineating lead process areas from other safe access areas.
- A Contamination Reduction Zone which is an area surrounding the lead process area where personnel and
  equipment transition between the clean area and the contaminated area. Decontamination of personnel,
  equipment and plant must occur in this zone. A decontamination unit in a designated area must be set up
  containing showers, wash basins, boot scrub, bins for contaminated suits and PPE. This zone is where
  personnel must suit up in the appropriate PPE to enter the Exclusion Zone and may also serve as a plant lay
  down area for plant to be used in the lead risk work.

Between each of these work zones, pathways, barricading, temporary fences and signage directing and restricting personnel and equipment not associated with the lead risk work away from the work zone must be established and maintained.

#### 6.8. Removing Lead Paint

Only professionally trained and qualified personnel experienced in safe lead paint removal practices should be engaged to remove lead paint. Open-flamed torches are not to be used to remove lead paint. Task specific works methodologies shall be developed to detail paint removal activities, waste disposal requirements, and risk management measures.

#### 6.9. Disposal of Lead Contaminated Material

Waste material containing lead should be disposed of in accordance local environmental regulations.

## 7. Training

All Haslin personnel must be trained in the content of this SEQ-PR-075 Lead Management Procedure.

# 8. Relevant Templates, Procedures & Policy

SEQ-PR-021 Health Surveillance.