


<b>STANDARD OPERATING INSTRUCTION</b>	<b>SOI-GVW-310</b>
<b>Safe Removal of Asbestos Cement Pipes</b>	

## 1.0 PURPOSE AND SCOPE

To detail the health and safety requirements for GVW employees carrying out the repair and removal of non friable asbestos cement water and waste water pipes and to ensure compliance with legislative requirements of the Occupational Health and Safety (Asbestos) Regulations 2003.

This SOI applies to all GVW employees who repair, connect to or remove asbestos cement pipes.

## 2.0 REFERENCES AND RELEVANT LEGISLATION

- Occupational Health & Safety (Asbestos) Regulations 2003
- Victorian Occupational Health & Safety Act 1985
- Environment Protection Act 1970
- Environment Protection (Prescribed Waste) Regulations 1998.

## 3.0 DEFINITIONS

PPCE	Personal Protective Clothing and equipment
AC	Asbestos Cement
GIS	Geographic Information System

## 4.0 RESPONSIBILITIES AND AUTHORITIES

### 4.1 HR Officer

- Ensure prospective applicants, who may be required to remove asbestos cement pipe as part of their work, are provided with information about medical examinations and the risks of asbestos exposure.
- Coordinate asbestos training and refresher training for all relevant employees.
- Maintain records of training for individuals and update the training data base.

### 4.2 OH&S Coordinator

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- Coordinate initial and follow up asbestos medical examinations for all relevant employees every 2 years.
- Maintain and review Goulburn Valley Water's "Register and Risk Assessment of Asbestos Containing Materials" (not including asbestos cement water pipes).
- Liaise with WorkSafe regarding Goulburn Valley Water's asbestos removal licence.

#### 4.3 District Manager / Manager

- Ensure new employees attend an asbestos medical examination before any asbestos removal work is undertaken for the first time.
- Ensure employees attend an update asbestos medical examination every 2 years.
- Ensure employees who cease asbestos removal (including employees who have resigned) are offered an asbestos medical examination within 30 days of ceasing asbestos removal activities unless the employee has had a medical examination in the last 12 months.
- Provide a visible commitment to the program by undertaking regular on-site visits and participating in checking on-site conditions;
- Ensure employees have completed authorised asbestos removal training including training in this procedure before any asbestos removal work is undertaken for the first time.
- Once trained authorise employees to carry out asbestos removal works.
- Ensure all records of asbestos removal are accessible and retained for a minimum of 12 months. Ensure records are made available on request to a WorkSafe Inspector.
- Discipline employees who do not follow the correct procedures.

#### 4.4 Work Coordinator / Supervisor

- Monitor to ensure employees follow the procedure for safe removal of asbestos cement water pipes and refer any failure by a staff member to follow the procedure to the District Manager/Manager.
- Ensure new staff members do not carry out asbestos removal without completing the appropriate training and medical examination.
- Ensure that safety training and equipment checks are carried out and arrange for equipment maintenance and repair.
- Ensure an approved "Asbestos Supervisor" has been nominated for each asbestos removal activity.

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- Liaise with Senior Draftsman – Development and where required complete the “GIS As Constructed Advice”, for GIS updates and amendments to asbestos cement pipe locations.
- Forward relevant AM 11 form to Asset Coordinator – Development for updating on Hansen system for asbestos cement pipe removal.
- Ensure a copy of Goulburn Valley Water’s Asbestos Removal Licence is readily accessible at each asbestos removal site.
- Carry out periodic audits of asbestos removal activities to ensure employees are following Goulburn Valley Water’s asbestos removal procedures.

#### 4.5 Asbestos Supervisors

- Participate in initial and refresher asbestos training.
- Ensure compliance with the Regulations at individual work sites.
- When requested visit the asbestos removal site to provide assistance on asbestos removal matters.

#### 4.6 Employees

- Participate in asbestos training and medical examinations when required.
- Follow all requirements within this procedure and the Regulations.
- Ensure that safety equipment is working in the appropriate manner.
- Ensure that the safety equipment is only used for the designed task.
- Report any defective safety equipment to the Work Coordinator or Asbestos Supervisor and not use this equipment until it is made good.
- Ensure that records of asbestos training (employees training record card) is readily accessible at the asbestos removal site.

### 5.0 OHS HAZARDS AND CONTROLS

#### 5.1 Hazards

- Plant and Equipment Hazards: Nil
- Hazardous Materials Hazards: Exposure to Asbestos Fibres
- Dangerous Goods Hazards: Nil
- Environmental Hazards: Nil
- Atmospheric Hazards: Exposure to Asbestos Fibres

#### 5.2 Controls to Consider

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- Engineering controls: Use of Non Powered Tools to cut asbestos pipe, wetting down of pipe.
- Administrative controls: Safe Removal of Asbestos Cement Water Pipes
- Personal Protective Equipment: P2 Disposable Mask, Disposable Coveralls, Disposable Gloves, Gum Boots
- Other Safety Equipment: Nil

## 6.0 PRELIMINARY MATTERS

### 6.1 Training

- No employee is permitted to remove or repair AC Pipes without completing an approved training course on Asbestos Removal. Employees must also be authorised by the District Manager to carry out asbestos removal works.
- Records of Training shall be included on an employee's personnel file. A summary listing of the training is maintained on the Training Records Data Base located on the Intranet - Sharepoint.
- A training record card will be issued by the training provider to all employees who complete asbestos removal training. This card must be readily accessible at the asbestos removal site.

### 6.2 Asbestos Medical Surveillance and Information to Job Applicants

- All employees who have been or are likely to be involved in work with asbestos or asbestos based products shall undergo an Asbestos Medical Examination in accordance with the recommendations of the National Health and Medical Research Council's (NHMRC) guidelines for asbestos/silica medical examinations.
- Asbestos medical examinations shall be provided before an employee commences asbestos removal work for the first time.
- Ongoing medical assessments shall be provided every 2 years.
- An exit asbestos medical examination is required to be provided to employees within 30 days after they cease asbestos removal works unless a medical examination was completed in the last 12 months.
- Examinations shall be carried out at the Authority's expense and during normal working hours (further information is available in SOI OH&S-GVW-311 – Occupational Health Monitoring).
- A copy of the results of the medical examination shall be provided by the medical practitioner to each employee. A summary of the results is required to be kept by GVW on the employee's personnel file.

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- Information about the risks associated with exposure to asbestos and the need for and details of asbestos medical examinations will be provided to new job applicants who may be required to remove asbestos as part of their work with Goulburn Valley Water. For further details refer to Quality Form: QF-OH&S-310 (a) – “Information Sheet – Asbestos Removal”

### 6.3 Asbestos Supervisors

- As per Regulation 703 an “Asbestos Supervisor” must be nominated for each asbestos removal job. This person must be trained to oversee AC removal work and provide additional guidance to work crews as required.
- An “Asbestos Supervisor” must be accessible by telephone during removal works and where assistance is required attend the removal site.
- Asbestos Supervisors will receive additional training on their roles and responsibilities under the OH&S Asbestos Regulations.
- District Managers are required to nominate asbestos supervisors to WorkSafe via the OH&S Coordinator. All asbestos supervisors are listed on Goulburn Valley Water’s Asbestos Removal Licence and the Asbestos Risk Control Plan form.

### 6.4 Notification of Asbestos Removals to WorkSafe

- Unplanned Works (includes, breakages and burst mains) - A condition of Goulburn Valley Water’s asbestos removal licence allows exemption from the usual notification to WorkSafe of unplanned removal works.
- Planned works >10 square metres – Notification to WorkSafe must be made at least 5 days before removal works are undertaken.
- Planned works < 10 square metres – Notification to WorkSafe must be made at least 2 days before removal works are undertaken.

Important notes: 10 square metres is approximately 17.9 linear metres of 150mm pipe, less for greater diameter pipes.

Tappings – Do not need to be notified to WorkSafe where the tapping is completed “under pressure”.

Notification for planned works must be made by fax to the Shepparton WorkSafe office using Goulburn Valley Water’s Notification Form – See Appendix 1 “Asbestos Removal Risk Control Plan & WorkSafe Notification Form”

### 6.5 Asbestos Control Plans and Records or Removal

- As per the Asbestos Regulations an “Asbestos Removal Control Plan” must be completed prior to each asbestos removal job. The asbestos control plan form is attached as Appendix 1.

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- This plan summarises the safety controls listed in this SOI. Control Plan records must be kept for a minimum of 12 months by the local District, and be able to be provided to WorkSafe on request.

## 6.6 Asbestos Risk Assessments

- In accordance with the Asbestos Regulations, Goulburn Valley Water will examine all of its assets to locate and identify any asbestos containing materials. The location of AC water pipes will be identified on the GIS and other in-situ asbestos (for example: contained in buildings) will be listed on a register maintained by the OH&S Coordinator and recorded in TRIM File No: 025/050/22-03 Asbestos Risk Assessment Survey.
- These documented lists will be the basis of Goulburn Valley Waters “Register and Risk Assessment of Asbestos Containing Materials”.
- The Asbestos Register will be updated as asbestos materials are removed or identified and the risk associated with any identified material assessed. Appropriate control measures shall be implemented to ensure the workplace is safe.
- As per Regulation 502 Asbestos containing building products must be, where practicable, identified by labelling.

## 6.7 Use of Contractors

- Contractors may not be used by GVW to remove asbestos cement pipes unless the contractor has an asbestos removal licence or engages a licenced asbestos removalist to carry out the works.

## 6.8 Personal Protective clothing and Equipment

Employees involved in the cutting, removal, bagging and wrapping of asbestos cement pipe must wear the following PPCE:

- A correctly fitted disposable Half Face Mask with P2 rating or Disposable “P2” Respirator as per Australian Standard AS 1715. No employee shall commence any asbestos removal works unless they have achieved a satisfactory fit test with the respirator correctly positioned on the face. It is not possible to obtain a satisfactory fit test if there is excessive facial hair present. Personnel who wear glasses should ensure that the glasses do not interfere with the respirator fit.
- Disposable coveralls
- Disposable gloves
- Safety Gumboots

## 7.0 PROCEDURE

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## 7.1 Pre Work

- 7.1.1** Notify WorkSafe (as per Clause 6.4) for planned removal works. For unplanned work proceed to 7.1.2.
- 7.1.2** At the worksite Complete Asbestos Risk Control Plan and Record.
- 7.1.3** Erect adequate barricades and signage to protect the public from excavation and asbestos hazards. Where practicable this will be at a minimum distance of approximately ten metres from the process. Ensure persons not involved in the asbestos removal process do not enter the area.
- 7.1.4** Ensure all equipment including the following is on hand for the removal works:
- Adequate water for decontamination;
  - All PPCE required;
  - Asbestos waste bags and plastic for disposal of asbestos waste and discarded PPCE.
- 7.1.5** Carry out safe excavation as per GVW Excavation – Trenches and Shafts Procedure OH&S-GVW-308.
- 7.1.6** Carefully uncover pipe to remove or repair section. Once exposed manual excavation should be used to minimise further damage to the pipe.

## 7.2 Cutting and Disposal

- 7.2.1** Wear PPCE before commencing any works that may release asbestos fibres or create AC dust or AC pipe fragments.
- 7.2.2** Prepare asbestos waste bags and/or plastic for the disposal of contaminated PPCE and asbestos waste.
- 7.2.3** Thoroughly wet area to be cut to further reduce the release of dust containing fibres when cutting (ie before cutting starts and during cutting ensuring it is wet at all times). Where there is an interruption to normal water supplies, sufficient water may need to be transported to the site.
- 7.2.4** Only use non-powered hand tools, such as Reed cutters, chain cutters and hand saws as these generate a smaller quantity of predominately coarser dust or waste chips. Power tools and abrasive cutting or sanding discs must not be used on asbestos cement products. Alternatively, break AC pipe collar with a hammer or similar implement.
- 7.2.5** Remove section of pipe from trench including all off-cuts, residue and any collected dust before disposal as asbestos waste. Where practical, plastic drop sheets should be used to collect the asbestos waste, or if not practicable, collect any residue AC pipe material that is obvious and bag accordingly.

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- 7.2.6** Double wrap large quantities of asbestos cement pipe in plastic sheeting and collect small quantities and place into approved plastic bags (labelled “Asbestos Waste”). Ensure plastic sheeting and bags are fully sealed with duct tape and labelled “Asbestos Waste” before transport back to the depot.
- 7.2.7** Dispose of disposable clothing, respirators, gloves etc by wetting down before placing into asbestos waste bags. All disposable PPCE shall be used once only and disposed of after use.
- 7.2.8** Non-disposable PPCE eg gumboots shall be rinsed clean preferably with the person still in the trench to prevent runoff.
- 7.2.9** All tools and equipment shall be washed down prior to removing them from the excavation.
- 7.2.10** Wash hands immediately after handling AC pipe. Following work with AC pipe , employees should shower at the end of the working day.
- 7.2.11** After the AC pipe removal the water main must be flushed clean regardless of the amount of residue left in it.
- 7.2.12** All double wrapped asbestos waste shall be securely loaded onto a Goulburn Valley Water vehicle and transported from the work site to the depot. The material must be transported directly from the work site to the depot and not to another location except in accordance with EPA requirements for transport and disposal of Asbestos.
- 7.2.13** At the depot the waste shall be stored in a secure skip bin for disposal.
- Each depot shall contain a dedicated and secure skip bin that shall hold the appropriately wrapped bundles of waste. The skip shall be labelled “Asbestos Waste”. No other material may be disposed inside the skip.
- Disposal of stored material shall occur by transferring to an EPA approved Waste Disposal Site by an approved and permitted waste disposal contractor. The waste will be removed from the storage containers at each depot on as needs basis.
- 7.2.14** Pass on information to Work Coordinator so that update to GIS and Hansen Systems can be made regarding changes to location of asbestos cement pipes .
- 7.2.15** Place Asbestos Control Plan and Record of Removal, on job file.

## APPENDICES

Appendix 1 – “Asbestos Removal Risk Control Plan and WorkSafe Notification Form”

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# APPENDIX 1 - ASBESTOS REMOVAL RISK CONTROL PLAN and WORKSAFE NOTIFICATION FORM



**ASBESTOS REMOVAL RISK CONTROL PLAN – NON FRIABLE ASBESTOS CEMENT PIPES**  
 As per OH&S Asbestos Regulation 710  
 &  
**WORKSAFE NOTIFICATION FORM** Quality Form: OH&S-GVV-310

Goulburn Valley Region Water Authority ABN No: 84 578 076 056 Ph: 1800 454 500 Asbestos Removal Licence Number: 03/02825	WorkSafe 148 – 150 Welsford St, Shepparton Ph: 5831 8260 Fax: 5831 1508
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Type of Notification: Planned Removal > 10 m2  Planned Removal < 10 m2  (No Notification required for emergency works)

Date of Notification: ...../...../..... Site Address / Location: .....

Date of Removal: ..... Duration of Removal (hours): ..... Quantity to be Removed (diameter and length): .....

**Indicate "Nominated Asbestos Supervisor"**

<b>Central District</b> Jeff Campbell <input type="checkbox"/> Jason Gladman <input type="checkbox"/> David Heritage <input type="checkbox"/> Mark Law <input type="checkbox"/> Phil Powell <input type="checkbox"/> Nigel Roberts <input type="checkbox"/> Brett Sharp <input type="checkbox"/> Other.....	<b>Northern District</b> Bruno Spiller <input type="checkbox"/> Ron Bartley <input type="checkbox"/> Michael Mc Shane <input type="checkbox"/>  <b>South East District</b> Carl Brookmann <input type="checkbox"/> Tim Tanner <input type="checkbox"/> Peter Mc Nair <input type="checkbox"/> Other.....	<b>South West District</b> Rod Kerris <input type="checkbox"/> Peter Huggins <input type="checkbox"/> John Callaghan <input type="checkbox"/> William O'Reilly <input type="checkbox"/> Ben Harris <input type="checkbox"/> Adrian Voogt <input type="checkbox"/> Other .....
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Phone Number of Nominated Asbestos Supervisor: ..... (must be accessible by phone)

**Risk Controls** (Each of the following risk control measures shall be implemented. Mark the controls before the works commence)

<b>Training</b> <ul style="list-style-type: none"> <li>▪ Employees trained in asbestos removal <input type="checkbox"/></li> <li>▪ Employees trained in GVW Asbestos removal procedure <input type="checkbox"/></li> </ul> <b>Personal Protective Clothing and Equipment (PPCE)</b> <ul style="list-style-type: none"> <li>▪ Disposable Coveralls to be worn <input type="checkbox"/></li> <li>▪ P2 respiratory masks to be worn <input type="checkbox"/></li> <li>▪ P2 masks to be fit tested prior to removal <input type="checkbox"/></li> <li>▪ Safety Footwear to be worn <input type="checkbox"/></li> <li>▪ Disposable Gloves to be worn <input type="checkbox"/></li> </ul> <b>Security of Removal Area Site</b> <ul style="list-style-type: none"> <li>▪ Barricades to be in place <input type="checkbox"/></li> <li>▪ Warning signs to be in place <input type="checkbox"/></li> <li>▪ Pedestrians to be controlled by observer <input type="checkbox"/></li> </ul> <b>Asbestos Removal Method</b> <ul style="list-style-type: none"> <li>▪ Only Reed / Chain Cutter or hand saws to be used <input type="checkbox"/></li> <li>▪ Adequate water to be used during cutting <input type="checkbox"/></li> </ul>	<b>Asbestos Waste Disposal Method</b> <ul style="list-style-type: none"> <li>▪ Small pieces of asbestos to be bagged <input type="checkbox"/></li> <li>▪ All bagged asbestos to be labelled asbestos <input type="checkbox"/></li> <li>▪ Pipes to be wrapped in heavy duty plastic <input type="checkbox"/></li> <li>▪ Plastic wrapped pipes to be labelled asbestos <input type="checkbox"/></li> <li>▪ Visual inspection carried out of site to identify any residual asbestos <input type="checkbox"/></li> <li>▪ Asbestos waste to be transferred to depot <input type="checkbox"/></li> <li>▪ Asbestos waste to be placed into plastic lined skip <input type="checkbox"/></li> </ul> <b>Decontamination Procedures</b> <ul style="list-style-type: none"> <li>▪ Tools and Equipment to be rinsed <input type="checkbox"/></li> <li>▪ After works operators wash hands, boots etc. or shower <input type="checkbox"/></li> <li>▪ Disposable Coveralls to be removed safely <input type="checkbox"/></li> </ul> <b>Disposal of PPCE</b> <ul style="list-style-type: none"> <li>▪ Coveralls to be bagged <input type="checkbox"/></li> <li>▪ P2 masks to be removed and bagged <input type="checkbox"/></li> <li>▪ Safety Footwear to be cleaned <input type="checkbox"/></li> <li>▪ Gloves to be removed and bagged <input type="checkbox"/></li> <li>▪ All PPCE to be treated as asbestos waste <input type="checkbox"/></li> <li>▪ All waste to be labelled as asbestos <input type="checkbox"/></li> </ul>
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Employees carrying out asbestos removal:

1. Name.....Signature..... Date:.....
2. Name.....Signature..... Date:.....
3. Name.....Signature..... Date:.....
4. Name.....Signature..... Date:.....
5. Name.....Signature..... Date:.....