HSE[P0924] – Asbestos Management Procedure

Tables of Tables

1. DOCUMENT CONTROL

Document Information

	Information
Document ID	HSEP0924
Document Administrator	WHS & HSE Systems Manager
Document Name	Asbestos Management Procedure
Issue Date	1 October 2015

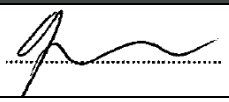
Document History

Rev No	Date	Description	Approved by
0	Original	Original document created	Mick Cuppari
1		Critical Procedure Review Update New Format	Charles Woolen
2		Legislation, training and checklist / safe work instructions.	Bruce Hill
3		Section 9.1.1 Removal of use of gloved bags by employees	Bruce Hill
4		Flow charts updated	Adam Rosevear
5		2012 Model Reg / HSE system wording review and inclusion of register disclaimer in section 6.0	Bruce Hill
6	June 2015	HSE Review	WHS & HSE Systems Manager

Document Change Summary

Date	Section	Change Description
June 2015	All	Minor updates to align with Code of Practice Changes
June 2015	5	Roles and responsibilities updated

Document Approvals

Role	Name	Signature	Date
WHS & HSE Systems Manager	Darren Pegram		29/9/15

Related Documents

Rev No	Issue Date	Document Name	Author

2. PURPOSE

To eliminate or minimise personal exposure to airborne respirable Asbestos fibres and ensure that all persons including HT Workers, Contractors and visitors are not exposed to airborne concentrations of Asbestos that exceed the Workplace exposure standard.

Principles that guide Hydro Tasmania (HT) Workers in how HT will manage Asbestos Containing Material (ACM) are:

- minimise exposure to airborne respirable Asbestos fibres;
- remove or repair ACM that has been assessed as potentially exposing any person to a moderate or greater Risk of airborne respirable Asbestos fibres;
- remove ACM from the Workplace where reasonably practicable i.e. work towards an ACM free Workplace;
- remove all ACM from structures prior to, or safely in conjunction with, demolition or refurbishment;
- effectively minimise the Risks of ACM exposure by conducting regular inspections of ACM, updating the *HSER0924.1 Asbestos Register Power Stations(s)* and maintaining the ACM in a condition of low or negligible Risk; and
- regularly review the *Asbestos Management Plan* and develop an *Asbestos Management Action and Removal Plan*.

3. SCOPE

This procedure applies to:

- all buildings, structures, Worksites, plant and equipment owned or leased by HT;
- all persons including HT Workers, contractors and visitors that may come into contact with or disturb ACM in HT premises; and
- Workers undertaking work for external clients as a minimum where the Principal does not have existing procedures.

4. DEFINITIONS

Term or Acronym	Meaning
	See *HSEREF0801.2 – Work Safe Roles and HSE Glossary*
ACD	means dust or debris that has settled within a Workplace and is (or is assumed to be) contaminated with Asbestos
ACM	Asbestos Containing Material
Asbestos Control Level	The Asbestos Control Level is 0.01 fibres per mL, the Workplace Exposure Standard for all forms of Asbestos including any mixture is 0.1 fibres per mL. **Note: this is not a ceiling level but a time weighted average.**
Asbestos Management Plan (AMP)	Where ACM is present or suspected a PCBU must prepare an AMP
Asbestos Removalist	Asbestos removalist means a person conducting a business or undertaking who carries out Asbestos Removal work
Asbestos Work Area	A work activity that is directly or indirectly involved in removing, modifying or isolating Asbestos
Certificate - AR4 Visual Clearance Certificate	Following a successful clearance inspection, an AR4 will be issued; clearance monitoring may also be needed and must be provided after a friable removal.
Competent Person (specific definition relates to ACM)	***Competent Person*** in relation to carrying out clearance inspections under regulation 473, means a person who has acquired through training or experience the knowledge and skills of relevant Asbestos removal industry practice and holds a certification in relation to the specified VET course for Asbestos assessor work or a tertiary qualification in occupational health and safety, occupational hygiene, science, building, construction or environmental health. For all other purposes, Competent Person means a person who has acquired through training, qualification or experience, the knowledge and skills to carry out the task.
Exempt Work	Under Regulation 458, no licence is required for removal of ACM: • up to 10m² of non-friable Asbestos or ACM; and • ACD that is: o associated with the removal of less than 10m² of non-friable Asbestos or ACM; and o not associated with the removal of friable or non-friable Asbestos and is only a minor contamination.

Licenced Asbestos Assessor	The WHS Regulations require that a person must hold an Asbestos assessor licence to conduct the following: • air monitoring for Class A Asbestos removal work; • clearance inspections for Class A Asbestos removal work; and • issuing clearance certificates in relation to Class A Asbestos removal work. A licensed assessor can also carry out a number of other tasks including identifying Asbestos, carrying out a Risk Assessment or reviewing *HSER0924.1 Asbestos Register Power Stations*
NATA	National Association of Testing Authorities
Type of Bonded (Non-Friable) ACM	e.g. vinyl tiles, gaskets, bituminous boards, flat and moulded Asbestos cement products.
Type of Friable ACM	Friable Asbestos means material that is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry and contains Asbestos e.g. lagged pipework, boilers and furnaces, lagging on exhaust manifolds and trunking.

5. ROLES AND RESPONSIBILITIES

Work Requestor	Work Planner	Work Authoriser	Work Supervisor	Specialist Worker Roles	Workers	Advice / Support	Comments
Asset Owner (officer) = Prod Mgr	Planner / Scheduler	HT Job Mgr	Person in Control or Management of the Workplace (PCMW)	N/A	Work party members	HSE Team	

Asset Owner
shall:

- ensure that Asbestos is identified with registers and Asbestos management plans, compiled and in place for all required sites;
- ensure that HT Safety Standards, Procedures and Statutory Requirements relating to Asbestos are adhered to;
- ensure required periodic inspections and reviews are performed and required corrective actions taken;
- review and maintain all required documentation relating to Asbestos management including registers, Risk Assessments, management plans etc.; and
- plan and coordinate the removal of ACM as determined necessary by Risk Assessment or if not practicable to remove, ensure that ACM is maintained in a condition that prevents exposure;

Work Planner
shall:

- plan and schedule the work

HT Job Manager
shall:

- authorise the work to be done

Person responsible for Control or Management of the Workplace (PCMW)
shall:

- ensure work that may involve Asbestos is adequately planned and executed to prevent exposure to Asbestos fibres;
- ensure workplace Hazards relating to Asbestos are identified and that the Risk is assessed and Control Measures are implemented and monitored;
- ensure consideration is given to the removal of ACM prior to work commencing where the work is likely to disturb the ACM or will increases the Risk of exposure and the asset manager is advised;

- ensure personnel or contractors performing work involving Asbestos are adequately trained, competent and qualified to perform the work;
- work involving ACM is performed by Competent Persons and controlled by safe work practices and a safe work method statement;
- ensure all work is carried out in accordance with HT Safety Standards, Procedures and Statutory Requirements relating to Asbestos;
- ensure all injuries and incidents are reported, using the Accident and Incident Notification Form, and recommended Control Measures are implemented; and
- ensure appropriate training is provided to all required personnel.

Workers

shall:

- comply with the HT's AMP;
- follow ACM Standard Work Instructions at all times;
- comply with access restrictions including signage and barriers of all ACM work areas;
- report any damaged ACM to their Work Supervisor or Line Manager;
- report material suspected of containing Asbestos to their Work Supervisor or Line Manager. Work on suspect ACM must cease until the material has been checked to verify the material is not ACM;
- notify their Work Supervisor or Line Manager of any uncontrolled potential exposure to airborne respirable Asbestos fibres; and
- be aware of subcontractor requirements

HSE Team

The HSE team shall:

- provide advice on WHS matters including those relating to Asbestos;
- provide incident reports to relevant stakeholders for review;
- coordinate the *Asbestos Exposure Register*;
- coordinate health monitoring as required; and
- undertake periodic audits of the management of Asbestos.

6. PROCESS DETAILS

6.1 Asbestos – Risk and Control

Prior to Asbestos Products and Asbestos Materials being banned in Australia, these products were widely used in many industries. Buildings that were built prior to 1990 may have used Materials Products that contain Asbestos in their construction. Industrial uses of Asbestos continued through the 1990's until it was banned in 2003.

ACMs that are in good repair and remain undisturbed, do not necessarily present an increased Risk to Workers in their vicinity.

6.1.1. Risk

The primary Risk associated with Asbestos relates to the inhalation of the airborne Asbestos fibres. The Risk increases when ACMs are damaged or disturbed due to or by:

- weathering;
- aging;
- drilling;;
- sawing;
- vibration;
- chipping;
- grinding;
- filing;
- use of compressed air; and
- high pressure water cleaning

When damaged or disturbed, small fibres of Asbestos are released from ACM into the atmosphere. If these fibres are inhaled or in rare cases swallowed they can cause conditions such as:

- Asbestosis;
- Lung Cancer; and
- Mesothelioma

These conditions can take between 15 and 40 years to develop after exposure.

6.1.2. Risk Assessment

A Risk Assessment is to be performed by a Competent Person for all confirmed or presumed ACM. The Competent Person shall assess the Risk of exposure and provide

clear recommendations in regard to actions required in the management of the identified or presumed ACM.

6.1.3. Control

HT shall develop measures to remove ACM or to otherwise minimise the Risks and prevent exposure to Asbestos.

The identification and recording of Asbestos locations along with the development of an Asbestos Management Plan shall be the responsibility of the Worker that manages the HT asset (Asset Manager).

The presence and location of ACM, when it has been identified or suspected, shall be indicated through the development and maintenance of *HSER0924.1 Asbestos Register Power Stations*, warning signs and labels (where practicable).

Workers that perform work on HT assets shall be advised of the existence of ACM and the Hazards associated with ACM. This will be performed through Induction or training prior to performing work at a HT Site or as identified and communicated to Contractors through the specification for contract.

6.1.4. Removal

Where practicable, consideration should be given by the Worker that manages the asset where ACM is present (Asset Manager) to the removal of ACM in preference to other Control Measures such as encapsulation or sealing. The advice of a Competent Person supported by a Risk Assessment will assist in determining if ACM should be removed.

Asbestos removal must only be performed by licensed Asbestos removalist in accordance with Work Health & Safety Legislation and relevant State and Federal Codes of Practice (see Section 7 Reference Materials).

Following the licensed removal of any Asbestos, a clearance certificate must be obtained prior to the work area being reoccupied for use. *HSER0924.1 Asbestos Register Power Stations* and Asbestos Management Plans must be reviewed and revised / updated to reflect the removal or disturbance of Asbestos where it occurs.

6.1.5. Isolation

If removal is not immediately practicable, any work that disturbs Asbestos must be completed in a way that reduces the Risk of Asbestos fibres being released into the atmosphere. Further details to control Asbestos can be found in Work Health & Safety

Legislation and relevant State and Federal Codes of Practice (see Section 7 Reference Materials).

6.1.6. Modify

When work is to be performed at a Site where ACM is known or suspected to be present, prior to work commencing, it must be determined if the work has the potential to disturb the ACM. Work planning and methods should be adopted to ensure that ACM is avoided and not disturbed e.g. instead of drilling through a wall containing ACM, consideration should be given to routing around the wall.

6.1.7. Personal Protective Equipment

Personal Protective Equipment should be selected and used based on a Risk Assessment. It should be considered as the last line of defence and must be used to support and not in substitution for other Control Measures.

Note 1: The *Tasmanian Workplace Health & Safety Regulations 2012*, Chapter 8 sets out the specific legal obligations for the management of ACM in Workplaces

Note2: Victoria is a separate legal jurisdiction and uses different codes – see *WorkSafe Victoria – A Handbook for Workplaces - Asbestos* and *Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002(2005)]*

6.2 Objective

The broad legal obligations within Tasmania are to:

- eliminate Asbestos fibre exposure, and where this is not possible, minimise exposures so far as is reasonable practicable;
- take all reasonably practicable steps to identify the presence of Asbestos Containing Materials (ACM);
- make *HSER0924.1 Asbestos Register Power Stations* available and inform parties of the location of Asbestos and precautions to minimise Risk;
- prepare and maintain *HSER0924.1 Asbestos Register Power Stations*;
- regularly inspect the Asbestos and record findings;
- make *HSER0924.1 Asbestos Register Power Stations* available and inform potentially affected parties;
- fix signs or labels to ACM where regular maintenance of repair work is likely to be carried out;
- inform parties of the location of ACM and precautions to minimise Risk;
- so far as is reasonable practicable ensure all ACM is removed prior to demolition and prior to refurbishment;

- ensure HT Workers are not directly engaged in Asbestos related work unless they have been trained;
- ensure health monitoring for HT Workers who are carrying out ongoing Asbestos removal work and who are at Risk of exposure to Asbestos when carrying out their work; and
- provide information, instruction and training to any person who may be exposed to airborne Asbestos fibres; and
- ensure any Asbestos removal work is undertaken by a Competent Person and in accordance with this procedure and the *Code of Practice on How To Safely Remove Asbestos CP113*

The *Tasmanian Workplace Health & Safety Regulations 2012* require Hazards to be controlled as far as is reasonably practicable and the Hierarchy of Control to be progressively applied. HT will apply the Hierarchy of Control to minimise personal Risk from exposure to airborne respirable Asbestos fibres.

Table 1: Likely Sources of Asbestos

Stations and general buildings	▪ External cladding (corrugated sheet, galbestos, hardieplank) ▪ Internal cladding (flat sheet, can look like hardieflex, villaboard, versilux fibre cement sheets) ▪ Floor tiles (vinyl) and adhesive ▪ Floor Compressed Sheeting (Hardiepanel compressed sheeting) ▪ Ceiling panels ▪ Control Room panels and noise insulated panels ▪ Electrical cabinets (zelemite sheet) ▪ Cable trays (flat sheet) ▪ Busbar duct panels (flat sheet) ▪ Fuse linings (woven tape) ▪ Down pipes and gutters
Workshop / store	▪ External & internal cladding ▪ Floor tiles ▪ Spares e.g. gaskets, arc shields
Crane	▪ Fuse switches (arc shield) ▪ Resistor banks ▪ Brakes ▪ Drum controllers (millboard) ▪ Internal walls or panels
Switchyard / transformer	▪ Pipe flange gaskets ▪ Insulated pipework (possibly oil, water, air) ▪ Cable ducts (TAsbestos)
Machine – mechanical	▪ Piping flange gaskets ▪ Bearing cooler flanges ▪ Bearing / bearing housing (e.g. shell type turbine bearings) ▪ Pump gland packing ▪ Brake pads ▪ Insulated pipework containing hot material (possibly oil, water, air) ▪ Consider valve spindle packing and gaskets
Machine – electrical	▪ Field switch (arc shield) ▪ Heater mounting blocks (fibre cement) ▪ Circuit breakers (arc shield) ▪ CFS units (arc shields and rope seals) ▪ Alternator winding cover gaskets ▪ Wrapping / Tape on old Alternator coils & end windings

Note: This table is a mixture of trade named products and types of ACM

6.3 Working With Asbestos

6.3.1. Training for Working with Asbestos

Training for HT Workers who undertake Asbestos related work but not licenced Asbestos removal work must include:

- the health Risks of Asbestos;
- the types, uses and occurrence of ACM in the Workplace;
- the National Exposure Standard and Control Levels for Asbestos;
- roles and responsibilities;
- Standard Work Instructions to minimise exposure to Asbestos fibres;
- where applicable, the correct use of maintenance and Control Measures, PPE and Standard Work Instructions to minimise Risk; and
- the purpose of monitoring and visual inspections

6.3.2. The Identification and Labelling of Asbestos

- The identification of Asbestos must be carried out by a Competent Person;
- all identified ACM must be included in *HSER0924.1 Asbestos Register Power Stations* for all HT assets and Worksites containing ACM detailing as far as reasonably possible the type, locations and Risk of ACM; and
- where new assets are acquired or projects identify the Risk of ACM, a survey shall be undertaken by a Competent Person. The surveys shall include a Risk Assessment of the ACM condition, disturbance potential and Risk rating.

Note: Analysis for the presence of ACM in suspect materials must be undertaken by a laboratory accredited in this procedure by the National Association of Testing Authorities (NATA)

6.3.3. Types of ACM

- **Bonded (Non-Friable) ACM**

  see Section 4 Definitions

- **Friable ACM**

  see Section 4 Definitions

As Asbestos products were very versatile they could be easily moulded, shaped, cut drilled or painted. There is no conclusive on-site testing for the presence of Asbestos. Asbestos products can only conclusively be determined through NATA accredited laboratory testing.

Note: if you think the material is Asbestos – you must treat it as if it is Asbestos until proven otherwise through laboratory testing (see *How to Manage and Control Asbestos in the Workplace, Code of Practice CP111 December 2011 Regulation 422)*

6.3.4. Standard Work Instructions and Checklists for Handling Asbestos

Appropriate Standard Work Instructions and Checklists including the use of Personal Protective Equipment (PPE) must be implemented wherever there is the potential to disturb ACM.

Standard Work Instructions and Checklists complemented with a JHA or SWMS (see *HSEP0301 – Hazard Identification and Operational Risk Management Procedure*) shall be developed for all routine tasks involving work on ACM. Instructions shall include disposal procedures.

Checklists available at HT are listed *in* Section 7 Reference Materials.

6.4 Managing Asbestos on Sites

6.4.1. Asbestos Register – HT Sites

All HT assets containing Asbestos are listed in *HSER0924.1 Asbestos Register Power Stations*.

HSER0924.1 Asbestos Register Power Stations enables the business to show that it:

1. is in a position to advise Workers of the presence of ACM prior to maintenance, construction or demolition works;
2. undertakes regular ACM condition inspections and records their findings, as determined by a Risk Assessment but no greater than:
   - 3 years by a Competent Person; and
   - 6 yearly by Asset / Building Manager and / or HSE Consultant;
3. effectively programs work activities for maintenance, repair or replacement of components and equipment containing ACM; and
4. prioritises and programs removal of ACM where there is a potential to generate airborne fibres level.

The *HSER0924.1 Asbestos Register Power Stations* must be readily accessible to all personnel and in particular:

- a Worker who has carried out, carries out or intends to carry out work at the Workplace;
- Health and Safety Representatives (HSERs) who represent Workers that carry out or intend to carry out work at the Workplace;
- a person conducting a business or undertaking (PCBU) who has carried out, carries out or intends to carry out work at the Workplace; and
- a PCBU, who has required, requires or intends to require work to be carried out at the Workplace.

HSER0924.1 Asbestos Register Power Stations shall contain the following information:

- the date of the inspection / identification was made and details of the Competent Person(s) who carried out the inspection / identification;
- type of ACM (sheeting, insulation etc.);
- the location of the material or description of the plant / equipment;
- the quantity / percentage of ACM present;
- the ACM condition;
- ACM disturbance potential;
- a Risk Assessment of the ACM;
- recommended actions; and
- any maintenance or service work on Asbestos, including details of the competent companies or Workers involved, the date and scope of the work undertaken, Asbestos removal control plans, *WorkSafe Tasmania* notification and copies of any Clearance Certificates.

Following any re-inspection, removal or maintenance activity involving or identifying new ACM, the Site Tab in *HSER0924.1 Asbestos Register Power Stations* shall be updated by the Asset Owner. Any associated documents shall be saved in the management system location with the *HSER0924.1 Asbestos Register Power Stations*. Links to the latest reports shall be added to the bottom of the register as a Hyperlink for ease of access.

Warning: HT cannot guarantee that all ACM will be individually listed or identified in its registers due to not having access to, or the ability to enter areas within its facilities or infrastructure.

Areas listed of similar construction that are not in the *HSER0924.1 Asbestos Register Power Stations* shall be treated as ACM until proven otherwise.

Persons accessing HT's *HSER0924.1 Asbestos Register Power Stations* shall have training in the identification and management of ACM and shall consult with experienced Workers and Health and Safety Representatives as part of assessing the Risks associated with the disturbance and management of ACM.

6.4.2. ACM Risk Assessment

Risk Assessments will be undertaken by a Competent Person with HT Workers experienced with the Site. Assessments shall be on all buildings and plant suspected of containing ACM and will take into consideration:

- age of building or plant;
- old or existing reports;

- Registers;
- experienced Workers on Site;
- the type of Asbestos (Friable or Bonded);
- the nature of the ACM;
- the ACM condition
- the ACM disturbance potential; and
- Workers' exposure.

Where there is uncertainty about suspected ACM, the Risk Assessment will be validated by an Occupational Hygienist.

ACM that is identified and is to remain in place shall be added to the *HSER0924.1 Asbestos Register Power Stations* and where required, an ongoing plan in place to monitor its condition.

6.4.3. Repair & Maintenance of ACM

- All tasks involving the disturbance of ACM shall only be conducted after an appropriate Risk Assessment and Control procedure has been identified and implemented; and
- a Competent Person shall be available to supervise work during all activities involving ACM.

Whenever maintenance or service work is carried out on ACM the following shall be recorded in maintenance management system or project documentation and linked back to the *HSER0924.1 Asbestos Register Power Stations* if applicable:

- the name of the Competent Person(s) who performed the work;
- the date the work was undertaken;
- the scope of the work undertaken;
- the JHA or SWMS or Standard Work Instruction (SWI) applied; and
- any clearance and disposal certificates.

During all engineering, maintenance and construction projects with the potential to disturb ACM, the Risk of exposure to airborne Asbestos fibres shall be assessed by a Competent Person and included in the Safety & Environmental Management Plan (SEMP) and control strategies implemented.

The potential for ACM disturbance will be considered during the preparation stage of all maintenance and refurbishment work. For all demolition work the Asbestos must be removed in accordance with the relevant requirements. Where it is identified that

there is a Risk of exposure, work activities and / or projects shall include ACM notification and control procedures as a component of the Permit to Work, SEMP and / or Project Plan.

Note: Prior to demolition, all ACM must be removed

6.5 ACM Removal and Disposal

Removal is not always the best action. The decision to remove ACM should be made on the basis of a Risk Assessment given the actual activity to remove ACM is considered higher compared to the Risk of ACM in situ. *HSER0924.1 Asbestos Register Power Stations* shall contain this Risk profile and should indicate if removal is warranted and what the timeline for removal. *The Code of Practice for How to Manage and Control Asbestos in the Workplace* provides guidance on when the removal of ACM is required.

- ACM removal shall not commence until written acknowledgement of the *Asbestos Removal Start Work Notification (AR1)* and *Asbestos Removal Control Plan (AR2)* have been received by WorkSafe Tasmania. This is only required for non-exempt removal i.e. HT may require these forms to be completed but they do not have to be submitted to unless the removal is non-exempt work;
- whenever a licensed Asbestos removalist is engaged to undertake work, a SWMS (see *HSEP0301 – Hazard Identification and Operational Risk Management Procedure*) shall be completed and approved by the manager responsible for organising the work in consultation with a member of the HSE Team;
- ACM must be removed from Site and HT will ensure that clean-up is properly completed and that there is no contamination of ACM left at a Site;
- ACM must be disposed of in a manner that satisfies the requirements detailed in the *Environmental Management Pollution and Control Act 1994 (Controlled Waste Regulations); and*
- disposal can only be done after approval is given to dispose of ACM at an approved Site and or the disposal activity is contracted to an approved licensed waste disposal contractor

The options for disposal are quite limited. Most local disposal Sites do not take ACM. However, ACM waste can be disposed at licensed Local Council waste facilities. (Contact your Local Council for information on approved dump Sites in your area). As this is classed the same as all HT waste it must be recorded for sustainability purposes using a *HSEF0914.3 - Waste Disposal / Recycling form*. This form must be filled out and kept with project documentation and a copy forwarded to an Environmental Advisor for record keeping.

6.5.1. Removal Work by HT Workers

Removal of ACM can be carried out by HT Workers only if:

- the person has undertaken competency training;

Note: Under Regulation 445, it is not enough for a Worker to be supervised by a Competent Person

- the HSER09 forms for safe ACM removal are used; and
- work is carried out in accordance with Regulation 458 for Exempt Work – see Section 4 Definitions and with an approved Standard Work Instruction or procedure.

6.5.2. Removal of ACM

Irrespective of the type of ACM, where it is not reasonably practicable to remove it, Control Measures must be put in place to eliminate any exposure, so far as is reasonably practicable, or to minimise exposure so far as is reasonably practicable, but always ensuring the Exposure Standard is not exceeded.

The ultimate goal is to have a Workplace free from ACM. Removal may be the most appropriate way to achieve this e.g.

- **Friable Asbestos**: If there is a Risk of airborne fibre being generated (not contained) the removal of Asbestos should be initiated. Removal must only be completed by a Class A Licensed Asbestos Removalist as soon as reasonably practicable.
- **Non-Friable or Bonded Asbestos**: If Asbestos is Bonded, is more than 10m² and has been determined that it should be removed, it must be removed by a Licensed Asbestos Removalist as soon as reasonably practicable.

How to Safely Remove Asbestos Code of Practice CP113 December 2011 provides detailed guidance on appropriate work methods and additional Controls for the removal of ACM.

For all Asbestos work, a *HSEF0914.3 - Waste Disposal / Recycling form* shall be completed and kept with the project documentation as well as sending a copy to an Environmental Advisor for Sustainability reporting.

Where ACM is removed by a Class B Licensed Asbestos Removalist, a Licenced Asbestos Assessor must conduct a visual clearance inspection of the Asbestos work area prior to the removal of the access restrictions. A Visual Clearance Certificate for Class A work must be issued by the Licenced Asbestos Assessor prior to the re-occupation of the area for normal use.

Note: This must be done independently of the Licensed Asbestos Removalist and, although this can be arranged by the removalist, this person *should* be employed directly by HT to avoid any conflict of interest in assessing the cleanliness of the Site

For all Asbestos removal projects:

- all project documentation must be retained and recorded with the project; and
- maintenance files along with a reference to these files being updated in the *HSER0924.1 Asbestos Register Power Stations* against the asset or area.

Information and forms regarding Asbestos removal requirements and licensing can be found on the *Safework Tasmania website*.

6.6 Air Clearance Monitoring

Workplace airborne respirable fibre monitoring will be conducted where the Asbestos Removal Control Plan requires air clearance monitoring to be conducted.

All air monitoring shall be conducted by an independent Competent Person (Class B) or Licenced Asbestos Assessor (Class A work) in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC: 3003 (2005)]*.

Where the results of air clearance monitoring are satisfactory, the independent Competent Person / Licenced Asbestos Assessor must issue an Air Clearance Certificate. Air Clearance Certificate(s) must be issued and received prior to the removal of barriers, signs and the re-occupation of the area.

6.6.1. Exposure Standards

Adopted National Exposure Standards For Atmospheric Contaminants In The Occupational Environment [NOHSC: 1003 (1995)] states the time weighted average Workplace exposure standard for all Asbestos types and any mixture of Asbestos is 0.1 fibres per mL.

Workplace Exposure Standards represent airborne concentrations which, according to current knowledge, should neither impair the health of, nor cause undue discomfort to nearly all Workers. However it should be noted that the Workplace Exposure Standards do not represent `no-effect' levels which guarantee protection to every Worker. The above Exposure Standards apply to long-term exposure to a substance over an eight-hour day, for a five-day working week.

6.6.2. Air Monitoring to Determine Exposure Levels

Airborne Asbestos monitoring must be undertaken by a qualified NATA accredited Occupational Hygienist and follow the procedures under the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust (NOHSC 1988)*.

6.6.3. Medical Surveillance Program

Where it is determined that a Worker, who undertakes ACM related work and is at Risk of exposure, HT must implement a Health Surveillance program.

Health Surveillance includes:

- consideration of the Worker's demographic, medical and occupational history;
- consideration of records of the Worker's personal exposure; and
- a physical examination of the Worker with emphasis on the respiratory system, including standardised respiratory function tests, unless another form of health monitoring is recommended by an Occupational Physician.

Health surveillance must be carried out under the supervision of an Occupational Physician and fully funded by HT.

Where Health Surveillance is conducted, records will be kept for 40 years from date the record is made.

A copy of the Health Surveillance Report, as soon as reasonably possibly after obtaining it from the Occupational Physician must be given to:

- the Worker;
- the Regulator, if the report contains:
  - any test results that indicate the Worker may have contracted a disease, injury or illness as a result of the work that triggered the need for health monitoring; or
  - any recommended remedial measures, including whether the Worker can continue to carry out the work; and
- all other PCBUs who have a duty to provide health monitoring for that Worker.

6.7 Asbestos Clean Up and Disposal

ACM must be removed from Site and HT will ensure that clean-up is properly completed and that there is no contamination of ACM left at a Site.

ACM must be disposed of in a manner that satisfies the requirements detailed in the *Environmental Management Pollution and Control Act 1994 (Controlled Waste Regulations).*

Disposal can only be done after approval is given to dispose of ACM at an approved Site and or the disposal activity is contracted to an approved Licensed Waste Disposal Contractor (see Section 6.5 ACM Removal and Disposal*).*

A *HSEF0914.3 - Waste Disposal / Recycling form* must be filled out and kept with project documentation and a copy forwarded to an Environmental Advisor for record keeping.

7. REFERENCE MATERIALS

The following manuals and references are used to provide a safe system of work. These requirements are a minimum standard and shall not be compromised under any circumstances.

- *Adopted National Exposure Standards For Atmospheric Contaminants In The Occupational Environment [NOHSC: 1003 (1995)]*
- *Environmental Management and Pollution Control (Controlled Waste Tracking) Regulations 2010)*
- *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC: 3003 (2005)]*
- *National Association of Testing Authorities (NATA)*

Relevant to Tasmania

- *Tasmanian Workplace Health and Safety Act 2012*
- *How to Safely Remove Asbestos Code of Practice CP113 December 2011*
- *How to Manage and Control Asbestos in the Workplace, Code of Practice CP111 December 2011*

Relevant to Victoria

- *Asbestos Victorian Government*
- *WorkSafe Victoria – A Handbook for Workplaces - Asbestos*
- *Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002(2005)]*
- *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018(2005)]*

The following is a list of commonly referenced material used on Hydro Tasmania Sites.

- *HSEREF0801.2 – Work Safe Roles and HSE Glossary*
- *HSEF0303.1 - JHA template*
- *HSEF0303.2 – SWMS Template*
- *HSEF0914.3 Waste Disposal / Recycling form*
- *HSEF0924.3 Asbestos Drilling into Bonded Material checklist*
- *HSEF0924.4 Asbestos Sheeting Removal Less than 10 Square Metres*
- *HSEF0924.5 Asbestos Gasket and Packing Removal checklist*
- *HSEF0924.6 Asbestos Meter Panel Removal checklist*
- *HSEP0301 – Hazard Identification and Operational Risk Management Procedure*
- *HSER0924.1 Asbestos Register Power Stations*

8. ATTACHMENTS