Table of Contents

1. Purpose and Scope .................................................................................................................... 1
   1.1. Objectives of the Asbestos Management Plan ................................................................. 1
2. Responsibilities ........................................................................................................................... 1
3. Definitions, Abbreviations and Acronyms ................................................................................... 1
4. References .................................................................................................................................. 3
5. Introduction ................................................................................................................................. 4
6. Organisational Responsibilities .................................................................................................. 5
   6.1. Persons in Control of a Business or Undertaking (PCBU) ................................................. 5
       6.1.1 Executive General Managers (Operations/Asset Management/Employee & Shared Services) ................................................................. 6
       6.1.2 General Manager Health Safety and Environment (GMHSE) ...................................... 6
       6.1.3 Asbestos Manager ............................................................................................... 7
   6.2. Persons with Management or Control ............................................................................... 8
       6.2.1 Managers, Project Managers, Contractors, and Design Teams .......................... 8
       6.2.2 Ergon Energy representative who engages Asbestos Removal or Asbestos Related Work Contractors ................................................................. 9
       6.2.3 Licensed Asbestos Assessors ........................................................................... 10
       6.2.4 Asbestos Removal Contractors and Contractors conducting asbestos related work ........................................................................................................... 11
   6.3. Persons Carrying out Demolition or Refurbishment Work ............................................... 12
   6.4. Responsibilities of All Employees, Contractors and Visitors ............................................ 12
7. Review of the Asbestos Management Plan .............................................................................. 12
8. Principles of Asbestos Management ......................................................................................... 13
   8.1. General Principles ........................................................................................................... 13
       8.1.1 Prohibitions ........................................................................................................ 13
   8.2. Control of Asbestos Hazards ........................................................................................... 13
       8.2.1 Removal ............................................................................................................. 13
       8.2.2 Encapsulation or Sealing ................................................................................... 14
       8.2.3 Enclosure ........................................................................................................... 14
       8.2.4 Leave in Situ (defer action) ................................................................................ 14
9. Asbestos Registers and Asbestos DATABASEs ...................................................................... 14
   9.1. Asbestos Portal/Database Maintenance .......................................................................... 15
   9.2. Property and Asset Types within Ergon Energy ............................................................... 16
       9.2.1 Housing Stock ...................................................................................................... 16
       9.2.2 Asbestos Survey Approach - Commercial Buildings (Offices) and Depots ...... 16
       9.2.3 Zone Substations and Distribution (Indoor) Substations and Remote Power Generation Sites ........................................................................................................... 16
       9.2.4 Equipment .......................................................................................................... 16
# Asbestos Management Plan

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2.5</td>
<td>Leased Properties</td>
<td>17</td>
</tr>
<tr>
<td>9.2.6</td>
<td>Identification of ACM</td>
<td>17</td>
</tr>
<tr>
<td>9.3.</td>
<td>Presuming that materials contain asbestos</td>
<td>17</td>
</tr>
<tr>
<td>9.4.</td>
<td>Risk Assessment</td>
<td>18</td>
</tr>
<tr>
<td>9.5.</td>
<td>Control Measures</td>
<td>18</td>
</tr>
<tr>
<td>9.6.</td>
<td>Electronic Asbestos Portal/Database and Asbestos Registers</td>
<td>18</td>
</tr>
<tr>
<td>10.</td>
<td>Managing In situ Asbestos</td>
<td>19</td>
</tr>
<tr>
<td>10.1.</td>
<td>General</td>
<td>19</td>
</tr>
<tr>
<td>10.2.</td>
<td>Reinspections</td>
<td>19</td>
</tr>
<tr>
<td>10.3.</td>
<td>Record Keeping</td>
<td>19</td>
</tr>
<tr>
<td>10.4.</td>
<td>Signs and Labels</td>
<td>20</td>
</tr>
<tr>
<td>10.5.</td>
<td>Occupational Exposure Standards</td>
<td>21</td>
</tr>
<tr>
<td>11.</td>
<td>Health Effects Associated with Asbestos Exposure</td>
<td>22</td>
</tr>
<tr>
<td>11.1.</td>
<td>Potential Health Risks</td>
<td>22</td>
</tr>
<tr>
<td>11.2.</td>
<td>Exposure to Asbestos</td>
<td>22</td>
</tr>
<tr>
<td>12.</td>
<td>Health Monitoring</td>
<td>22</td>
</tr>
<tr>
<td>13.</td>
<td>Safe work Methods and Asbestos Awareness training</td>
<td>23</td>
</tr>
<tr>
<td>13.1.</td>
<td>Ergon Energy Asbestos Fact Sheet</td>
<td>24</td>
</tr>
<tr>
<td>13.2.</td>
<td>Working Safely with Asbestos Containing Material (ACM)</td>
<td>24</td>
</tr>
<tr>
<td>13.2.1</td>
<td>Disturbance of asbestos (Switchboards):</td>
<td>24</td>
</tr>
<tr>
<td>13.2.2</td>
<td>Disturbance of Asbestos (Overhead):</td>
<td>25</td>
</tr>
<tr>
<td>13.2.3</td>
<td>Disturbance of Asbestos (Underground):</td>
<td>25</td>
</tr>
<tr>
<td>13.3.</td>
<td>HEPA Vacuum Cleaner</td>
<td>25</td>
</tr>
<tr>
<td>13.4.</td>
<td>HEPA Vacuum Cleaner Annual Inspections</td>
<td>25</td>
</tr>
<tr>
<td>13.5.</td>
<td>HEPA Vacuum Cleaner and Asbestos Kit</td>
<td>25</td>
</tr>
<tr>
<td>14.1.</td>
<td>General</td>
<td>26</td>
</tr>
<tr>
<td>14.2.</td>
<td>Site Induction</td>
<td>26</td>
</tr>
<tr>
<td>14.3.</td>
<td>Permit to Work</td>
<td>27</td>
</tr>
<tr>
<td>15.</td>
<td>Asbestos Removal and Remediation</td>
<td>27</td>
</tr>
<tr>
<td>15.1.</td>
<td>General</td>
<td>27</td>
</tr>
<tr>
<td>15.2.</td>
<td>Asbestos Remediation</td>
<td>28</td>
</tr>
<tr>
<td>15.3.</td>
<td>Disposal of Asbestos</td>
<td>28</td>
</tr>
<tr>
<td>15.4.</td>
<td>Disposal of Asbestos Waste by Ergon Energy Employees</td>
<td>29</td>
</tr>
<tr>
<td>15.5.</td>
<td>Project Supervision</td>
<td>29</td>
</tr>
<tr>
<td>15.6.</td>
<td>Airborne Fibre Monitoring</td>
<td>30</td>
</tr>
<tr>
<td>16.</td>
<td>Asbestos Emergency Response Procedures</td>
<td>30</td>
</tr>
</tbody>
</table>
1. PURPOSE AND SCOPE

Ergon Energy is committed to working with its employees, contractors, customers and the public to achieve zero injuries both within Ergon Energy and the community. This will be achieved by identifying core hazard areas and developing and delivering health, safety and environment programs and initiatives to manage those hazards.

This document has been developed specifically for Ergon Energy and applies only to Ergon Energy sites and assets. It has been developed to minimise and manage asbestos related health risks to all personnel working on or visiting Ergon Energy sites as well as any other person that may be affected as a result of work undertaken by Ergon Energy.

This Asbestos Management Plan (AMP) is to be read in conjunction with the site specific asbestos registers generated from the Ergon Energy electronic asbestos database and existing asbestos survey reports prepared for Ergon Energy sites.

1.1. Objectives of the Asbestos Management Plan

In line with the Queensland Code of Practice for How to Manage and Control Asbestos in the Workplace 2011, the long-term goal of Ergon Energy is to achieve, as far as is reasonably practicable, an asbestos-free workplace. In the interim, Ergon Energy will identify and manage asbestos hazards based on the prioritisation and risk assessment of identified asbestos containing material (ACM) and the ongoing development and upgrade of assets.

This AMP details Ergon Energy's approach towards managing the ACM identified at its workplaces by documenting procedures and Safe Work Methods that minimise the risk of exposure to asbestos containing materials.

This AMP has been developed to align with the Queensland Work Health and Safety Regulation 2011.

The objective of this AMP is to set out the steps to be taken to eliminate or otherwise minimise the risks of exposure to airborne asbestos fibres in the workplace, including the identification of ACM, risk assessments and the development and implementation of control measures and safe working Methods.

In turn, the objective of these measures is to prevent workplace exposure to airborne asbestos fibres and thereby reduce the incidence of asbestos related diseases.

2. RESPONSIBILITIES

General Manager Health, Safety and Environment is the Process Owner responsible for approving this Reference document.

Asbestos Manager is responsible for maintaining this Reference document.

Asbestos Manager is the Subject Matter Expert (SME) for the content in this Reference document.

3. DEFINITIONS, ABBREVIATIONS AND ACRONYMS

**Accredited Laboratory:** A testing laboratory accredited by the National Association of Testing Authorities, Australia (NATA) or a similar accreditation authority, or otherwise granted recognition by NATA, either solely or in conjunction with one or more other persons.

**Air Monitoring:** Airborne asbestos fibre sampling to assist in assessing exposures and the effectiveness of control measures. Air monitoring includes exposure monitoring, control monitoring and clearance monitoring.

**Airborne Asbestos Fibres:** Means any fibres of asbestos small enough to be made airborne. For the purposes of monitoring airborne asbestos fibres, only respirable asbestos fibres (those fibres
Asbestos Management Plan

less than 3 µm wide, more than 5 µm long and with a length to width ratio of more than 3 to 1) are counted.

AMP: Asbestos Management Plan.

Appropriately Qualified Person: Means the person possesses the qualifications and experience necessary to conduct the required works.

Asbestos: Means the fibrous form of mineral silicates belonging to the serpentine and amphibole groups of rock-forming minerals, including chrysotile (white asbestos), amosite (brown asbestos), crocidolite (blue asbestos), tremolite, actinolite, anthophylite or any mixture containing one or more of the mineral silicates belonging to the serpentine and amphibole groups.

Asbestos Cement (AC): Means products consisting of sand aggregate and cement reinforced with asbestos fibres (e.g. asbestos cement pipes and flat or corrugated asbestos cement sheets).

Asbestos-contaminated dust or debris (ACD): Means dust or debris that has settled within a workplace and is (or assumed to be) contaminated with asbestos.

Asbestos Containing Material (ACM): Means any material, object, product or debris that contains asbestos.

Asbestos Fibre: A particle of asbestos with a length to diameter ratio of greater than 3:1.

Asbestos Health Monitoring Register is a protected database containing information on employees' previous and current exposure to asbestos and any related health monitoring records or reports. It is only accessible to HSE Culture and Health on a restricted and password protected drive.


Asbestos Removalist: Means a competent person who performs asbestos removal work.

Asbestos Removal Work: Means the removal of ACM.

Asbestos Waste: Means all removed ACM and disposable items used during the asbestos work, such as plastic sheeting used to cover surfaces in the asbestos work area, disposable coveralls, disposable respirators, rags used for cleaning.

Asbestos Work Area: Means the immediate area in which work on ACM is taking place. The boundaries of the work area must be determined by a risk assessment.

Bonded (Asbestos): Means asbestos containing material in which the asbestos is firmly bound into a firm matrix (i.e. cementitious or resinous matrix).

Clearance Inspection: Means an inspection, carried out by an Asbestos Assessor or competent person, to verify that an asbestos work area is safe to be returned to normal use after work involving the disturbance of ACM has taken place. A clearance inspection must include a visual inspection, and may also include clearance monitoring and/or settled dust sampling.

Clearance Monitoring: Means air monitoring using static or positional samples to measure the level of airborne asbestos fibres in an area following work on ACM. An area is 'cleared' when the level of airborne asbestos fibres is measured as being below 0.01 fibres/mL.

Competent Person: Means a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task.

Control Monitoring: Means air monitoring using static or positional to measure the level of airborne asbestos fibres in an area during work on ACM. Control monitoring is designed to assist in assessing the effectiveness of control measures.

Friable (Asbestos): Means asbestos-containing material which, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.
Health Monitoring of a person, means monitoring the person to identify changes in the person’s health status because of exposure to particular substances. Health monitoring includes biological monitoring and medical assessments, but does not include atmospheric monitoring.

HEPA Vacuum Cleaner: Means a vacuum cleaner that is fitted with a High Efficiency Particulate Air (HEPA) Filter which complies with AS4260-1997 High efficiency particulate air (HEPA) filters – Classification, construction and performance. A domestic vacuum cleaner is not suitable for use with asbestos.


NATA National Association of Testing Authorities, Australia.

National Exposure Standard (NES): Means an airborne concentration of a particular substance, within the worker’s breathing zone, which according to current knowledge, should not cause adverse health effects or undue discomfort to nearly all workers.

Non-Friable Asbestos: Means material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound.

Occupational Hygienist: A qualified and/or experienced person with tertiary qualifications in a science or occupational health related field. To work within the asbestos industry, Occupational Hygienists should be NATA Accredited, and must be experienced in the assessment and control of asbestos, and other chemical, physical or biological hazards in the workplace.

PC: Means the appointed Principal Contractor or Project Manager of the project. This person is responsible for the co-ordination and management of all sub-contractors.

PCBU: Person conducting a business or undertaking.

Permit to Work: A formal written authority to operate a planned procedure, which is designed to protect personnel working in hazardous areas or activities. Authority for a safe system of work.

Personal Protective Equipment (PPE): Means equipment and clothing that is used or worn by an individual person to protect themselves against, or minimise their exposure to, workplace risks. It includes items such as facemasks and respirators, coveralls, goggles, helmets, gloves and footwear.

Risk: Means the likelihood of a hazard causing harm to a person. Note: In this Asbestos Management Plan, risk relates to illness or disease arising from exposure to Airborne Asbestos Fibres.

Structure: Means any construction, whether temporary or permanent. Note: A structure includes a bridge, erection, edifice, wall, chimney, fence, earth works, and reclamation, ship, floating structure or tunnel. Refer to the Workplace Health and Safety Act 1995 for a comprehensive definition.

SWMS: Safe Work Method Statement

Workplace: Is any place where work is, or is to be, performed by a worker; or a person conducting a business or undertaking.

4. REFERENCES
BS001701R100. Tools and Equipment Manual (Reference)
ES000704R100. Single Incident Management Framework (Reference)
ES000901F111. Asbestos Permit to Work (Form)
ES000901F112. Asbestos Clearance Certificate (Form)
ES000901F119. Notification of Contractor asbestos related work or asbestos removal work (Form)
ES000901F120. Asbestos Exposure Questionnaire (Form)
Asbestos Management Plan

ES000901F122. Notice that asbestos Removal work is to be carried out at the workplace (Form)
ES000901R122. Asbestos Fact Sheet (Reference)
ES000901R139. Asbestos Permit to Work (Quick Reference Guide)
ES000901R150. Contractor asbestos related work or asbestos removal work reference guide (Reference)
ES000901R152. Identifying Switchboards that may contain asbestos (Reference)
ES000901R164. Asbestos Health Monitoring (Reference)
ES000901R173. Correctly fitting half face Disposable Respirator for working with ACM (Reference)
ES000904R112. Waste Management (Field Instruction)
ES001010R100. Manage Health Monitoring (Reference)
SWMS009. Disturbance of asbestos (UG) (Safe Work Method Statement)
SWMS010. Disturbance of asbestos (Overhead) (Safe Work Method Statement)
SWMS011. Disturbance of asbestos (Switchboards) (Safe Work Method Statement)
SWMS018. Disturbance of Asbestos (Sampling) (Safe Work Method Statement)
SWMS009R01. Working with Asbestos Containing Materials (ACM) Job Safety Analysis (Reference)

Queensland Work Health and Safety Regulation 2011
AS 1319-1994 Safety Signs for the occupational environment
AS 4260 -1997 High efficiency particulate air (HEPA) filters – Classification, construction and performance
Qld Code of Practice for How to Manage and Control Asbestos in the Workplace
Qld Code of Practice for How to Safely Remove Asbestos
Queensland Environmental Protection Act 1994
Queensland Environmental Protection (Waste Management) Regulation 2000

5. INTRODUCTION

Ergon Energy, as an employer has a legal obligation to provide and maintain a safe and healthy work environment. Ergon Energy has a strategic safety goal to target zero injuries to its employees, contractors, the public and any other persons in the workplace.

To meet this goal, Ergon Energy is pro-actively addressing asbestos related issues by preparing procedures and safe work methods to effectively manage issues before and as they arise. The use of these procedures and safe work methods are for the management of its facilities and equipment that contain or may contain asbestos in a wide variety of types and applications.

Ergon Energy has a structured, risk-based approach to the management and control of asbestos containing materials (ACM) within the workplace. This approach includes the use of licensed and accredited specialists, planned surveys, inspections and the storage and maintenance of comprehensive records. ACM’s are assessed for condition status and any ACM identified as being in poor condition or deemed High Risk will be given immediate priority for remediation works.

Ergon Energy is committed to consultation, information-sharing and involvement by employers, workers, trade unions, contractors and others within the workplace, through the process of
Asbestos Management Plan

identifying ACM, maintaining this AMP, assessing the risks and developing and implementing control measures.

The purpose of this AMP is to address Ergon Energy’s legal obligation under the Queensland Work Health and Safety Regulation 2011, as it relates specifically to the presence of ACM encountered or identified during the course of Ergon Energy work and Ergon Energy workplaces that contain ACM. The AMP is a working document designed to proactively manage and minimise asbestos related health risks to personnel working on or visiting Ergon Energy sites as well as any other person that may be affected as a result of work undertaken or requested by Ergon Energy. The AMP is to be read in conjunction with the site specific asbestos registers generated from the Ergon Energy electronic asbestos database and existing asbestos survey reports that should be located at each Ergon Energy site built before 31 Dec 2003.

6. ORGANISATIONAL RESPONSIBILITIES

This AMP is designed to be integrated into the existing Ergon Energy procedures, operations and works program. This includes the development of common procedures and safe work methods relating to the management of ACM within Ergon Energy and the review of their effectiveness by monitoring and conducting regular audits.

Responsibility for the management of ACM locally, rests with the duty holder. The duty holder is the individual with responsibility for the maintenance of the premises.

6.1. Persons in Control of a Business or Undertaking (PCBU)

Chapter 8 of the Queensland Work Health and Safety Regulation 2011 prohibits work involving asbestos—that is, the manufacture, supply, sale, transport, storage, removal, use, installation, handling, treatment, disposal or disturbance of asbestos - subject to specified exceptions. The Part requires PCBUs to eliminate workers’ exposure to asbestos, and if elimination is not reasonably practicable, to minimise exposure so far as is reasonably practicable and to always ensure that workers are not exposed to asbestos above the exposure standard.

The Chapter also requires PCBUs with management or control of a workplace to manage in situ asbestos including naturally occurring asbestos at workplaces by:

- Identifying asbestos at the workplace;
- Maintaining an asbestos register and asbestos management plan;
- Conducting and reviewing risk assessments;
- Informing persons at risk from asbestos exposure;
- Providing health monitoring for certain workers;
- Ensuring relevant workers are trained about asbestos; and
- Ensuring that certain power tools and equipment are not used on asbestos.

The Code of Practice – How to Manage and Control Asbestos in the Workplace defines the following obligations for a PCBU:

<table>
<thead>
<tr>
<th>Duty holder</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| Person conducting a business or undertaking (PCBU) | • must not carry out, or direct or allow a worker to carry out, work involving asbestos unless that work involved is an exception listed in the Queensland Work Health and Safety Regulation 2011.  
• must ensure, so far as reasonably practicable, the exposure of a person at the workplace to airborne asbestos fibres is eliminated. Exposure must be minimised if elimination is not reasonably practicable.  
• must ensure the exposure standard for asbestos is not exceeded  
• must, if you reasonably believe airborne asbestos fibres have
been released or asbestos has been disturbed (other than during removal work) at the workplace:

- determine the persons who were in the affected area at the time and warn them about the possible exposure.
- determine whether the exposure standard was likely to have been exceeded.
- ensure information about exposure to airborne asbestos fibres, including results of whether or not the exposure standard was exceeded, is accessible to those persons who were in the affected area.
- must ensure health monitoring is provided to a worker who is carrying out licensed removal work or is carrying out maintenance work on asbestos and is determined to have been in an area of the workplace in which the exposure standard was likely to have been exceeded.
- must pay all expenses for health monitoring, obtain results and keep records of all health monitoring.
- must, if you are engaging workers who you believe will be carrying out removal work or maintenance work on asbestos, ensure those workers are trained in the identification and safe handling of, and appropriate controls for, asbestos, and
- must not use, or direct or allow a worker to use, certain equipment on asbestos that causes the release of airborne asbestos fibres, other than some types of equipment which may be used in controlled circumstances.

6.1.1 Executive General Managers (Operations/Asset Management/Employee & Shared Services)

Responsible for ensuring that:

- Compliance requirements with Chapter 8 of the Queensland Work Health and Safety Regulation 2011 and the two Codes of Practice relevant to asbestos are understood and followed;
- Adequate resources are allocated to asbestos management;
- Workers that may be involved in carrying out asbestos related work have mandatory training in the identification and safe handling of, and suitable control measures for asbestos and ACM.
- The necessary requirements for the safe management of ACMs are fully identified and incorporated into any design or specification;
- Reinspection of sites with identified in situ asbestos containing materials are incorporated into budgets and work plans;
- Health monitoring is provided as required for employees;
- A prioritised asbestos removal program is established and funded;
- The implementation of the AMP is monitored to ensure that working arrangements and provision of financial, technical, human and other resources are suitable and sufficient to meet its requirement;

6.1.2 General Manager Health Safety and Environment (GMHSE)

Responsible for ensuring that:

- The AMP is approved;
- Establishing and maintaining communication pathways;
• Information and data is managed transparently and regularly reviewed;
• Compliance with Chapter 8 of the Queensland Work Health and Safety Regulation 2011 and the two Codes of Practice relevant to Asbestos are understood and followed;
• Adequate resources are provided and allocated to carry out the AMP;
• The necessary requirements for the safe management of ACMs are fully identified and incorporated into any design or specification;
• The implementation of the AMP is monitored to ensure that working arrangements and provision of financial, technical, human and other resources are suitable and sufficient to meet its requirement;
• Performance KPIs are established and monitored for the Asbestos Manager position; and
• The Asbestos Manager is provided with sufficient support.

6.1.3 Asbestos Manager

Responsible for ensuring that:

• Communication pathways are established and maintained between key personnel with responsibility for implementing requirements of the AMP;
• The asbestos database is fully integrated into the organisation;
• Developing and implementing asbestos processes, procedures and SWMS;
• A training program is delivered across the organisation;
• Compliance requirements are thoroughly understood and addressed in the AMP;
• Appropriate levels of investigation and/or enquiry is conducted in response to any asbestos exposures, and providing a timely documented report;
• Ensuring that ACMs are identified in all Ergon Energy assets, and subsequently assessed and regularly audited by a competent person, including updating of the Asbestos Registers;
• Monitoring Asbestos Contractors to assess their compliance with statutory requirements, reporting and discussing deficiencies with the contracts group;
• Notifying the GMHSE and relevant safety personnel of asbestos related incidents;
• The site asbestos registers and AMP are reviewed periodically and risk assessments are current;
• Management actions are assessed and reviewed in terms of their effectiveness in light of audit findings, changes in Regulations, and/or advances in industry ‘Best Practice’;
• Where necessary standards of works detailed in the general specification for works with ACMs and SWMSs are reviewed and amended;
• Specification for asbestos removal, abatement, and remedial works are prepared and standardised across all Ergon Energy departments;
• A panel of approved asbestos removal contractors is established under a specific and detailed tender brief; and
• Conduct monitoring and review activities on all aspects of the management of ACM and the removal of ACM.

The Asbestos Manager is responsible for informing, liaising and educating by:

• Reviewing proposed regulatory changes and current standards of good practice;
• Providing expert advice on ACMs and their treatment to those with responsibility under this AMP;
• Participating in the organisation and delivery of asbestos awareness seminars;
Asbestos Management Plan

- Attending Progress Meetings and circulating reports on completed and forthcoming asbestos projects;
- Maintaining regular dialogue with relevant personnel and stakeholders internally as well as externally;
- Providing details of asbestos management procedures and projects where relevant; and
- Providing specialist reports on budget, materials status, etc. as required.

6.2. Persons with Management or Control

The Code of Practice – How to Manage and Control Asbestos in the Workplace defines the following obligations for Persons with Management or Control:

<table>
<thead>
<tr>
<th>Duty holder</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons with Management or Control</td>
<td>• must ensure that all buildings and/or structures built prior to 31st December 1989 are inspected for the presence of asbestos containing materials;</td>
</tr>
<tr>
<td></td>
<td>• must ensure all asbestos at the workplace built prior to 31st December 1989 is identified by a competent person or presume its presence;</td>
</tr>
<tr>
<td></td>
<td>• may identify asbestos by arranging a sample of the asbestos to be analysed;</td>
</tr>
<tr>
<td></td>
<td>• must ensure the presence and location of the asbestos at the workplace is clearly indicated (by a label if reasonably practicable);</td>
</tr>
<tr>
<td></td>
<td>• must ensure an asbestos register for the workplace is maintained and reviewed at certain times and ensure it is readily available to workers who carry out, or intend to carry out work at the workplace, their health and safety representatives and other persons;</td>
</tr>
<tr>
<td></td>
<td>• must ensure when management or control of the workplace is relinquished by a PCBU, a copy of the asbestos register is given to the person taking over management or control;</td>
</tr>
<tr>
<td></td>
<td>• must, where asbestos has been identified at the workplace, ensure that an asbestos management plan is developed and maintained. The plan must be reviewed and revised (if necessary) every 5 years</td>
</tr>
<tr>
<td></td>
<td>• must ensure a risk assessment is undertaken and reviewed by a competent person before the work is carried out;</td>
</tr>
<tr>
<td></td>
<td>• prior to demolition and refurbishment work, must review the asbestos register and ensure all asbestos that is likely to be disturbed is identified and removed as far as is reasonably practicable. A copy of the asbestos register must be given to the person carrying out demolition or refurbishment work;</td>
</tr>
<tr>
<td></td>
<td>• must, if an emergency occurs and a building, structure or plant is to be demolished, ensure that before the demolition occurs, there is a procedure to eliminate or minimise the exposure to asbestos to below the exposure standard and notify the regulator about the emergency.</td>
</tr>
</tbody>
</table>

6.2.1 Managers, Project Managers, Contractors, and Design Teams

Are responsible for ensuring:

- Areas are assessed for ACMs at the feasibility stage of a project;
- ES000901R150. Contractor asbestos related work or asbestos removal work reference guide;
- Recommendations of the Asbestos Manager are implemented;
- Follow the Ergon Energy Notification, Permit-to-Work and Clearance Procedures;
Asbestos Management Plan

- Staff and contractors are informed of the location of any known ACMs affecting the project;
- Works are halted if suspect ACMs are discovered during the course of work and further advice is sought from the Asbestos Manager;
- The initial responsibility lies with the Design Team; this passes to the Project Manager once appointed;
- Appropriate records of asbestos works are properly kept;
- The Asbestos Register is maintained during site works;
- Following risk assessments ACMs are assigned appropriate management options and priority actions are timetabled;
- Arrangements are made so that Ergon Energy employees have the necessary facilities, training and allied competencies to discharge the duties assigned to them under the AMP;
- Arrangements are made so that all relevant personnel and organisations receive appropriate information, instruction and training related to ACMs and the existence and use of the Asbestos Register;
- Regular meetings are held with relevant parties, e.g. Progress Meetings, Trade Union Liaison Meetings;
- The performance of the AMP is annually reviewed and amended as necessary; and
- Emergency procedures are established.

6.2.2 Ergon Energy representative who engages Asbestos Removal or Asbestos Related Work Contractors

Following the delivery of initial training, and the establishment of a panel of preferred asbestos removal contractors the Ergon Energy representative engaging contractors from the panel will also be responsible for the following:

- Where ACMs are to be removed, a licensed removalist is engaged from the Asbestos Removal Preferred Contractor Panel, relevant documentation is completed e.g. Notification, Permit to Work, Clearances, Asbestos Removal Plan or SWMS in accordance with the requirements of the ES000901R150. Contractor Asbestos Related Work or Asbestos Removal Work Reference Guide, the Asbestos Register is updated and all documentation is completed and uploaded onto the asbestos database and copies of all relevant paperwork is sent to the Asbestos Manager;
- Organise for a copy of the site Asbestos Register to be provided to the Asbestos Removalist or the Contractor conducting the asbestos related work at soon as possible;
- Organise for an Independent licensed asbestos assessor to conduct a clearance inspection of the asbestos removal area to ensure that the area is safe for normal use when a licensed removalalist is engaged;
- Organise for a competent person to conduct a clearance inspection of the asbestos-related work area to ensure that the area is safe for normal use if the work is not Class A or B removal work;
- Organise for an Independent licensed asbestos assessor to conduct air-monitoring of the asbestos removal area to ensure that the area is safe for normal use when a licensed removalist is engaged and air monitoring is deemed as a requirement;
- Assessing asbestos contractors, quotations, work plans and recommending selection where applicable;
- Informing relevant Ergon Energy executives, managers, employees, project managers, contractors and alike of asbestos remedial work implications;
Asbestos Management Plan

- Organising where appropriate an asbestos contract pre-start meeting to agree on the plan of works, attended generally by the Project Manager, asbestos removal contractor;
- Ensuring site works comply with relevant permit-to-work processes;
- Notifying the Asbestos Manager and relevant safety personnel of asbestos related incidents; and
- Stopping work where an Asbestos Contractor does not perform to the required health, safety or environmental standards.

6.2.3 Licensed Asbestos Assessors

Are responsible for:

- Maintaining NATA accreditation relevant to instructed tasks; and
- Providing pro-active support to the Asbestos Manager.

When requested by the Asbestos Manager:

- Reviewing and commenting on asbestos works specifications and, prior to start of the works, on the Contractors Plan of Work;
- Providing quotations which reflect the anticipated project site and analytical requirements;
- Attending meetings, including but not restricted to, Pre-start, Project Progress and Handover Meetings;
- Completing check lists, warning and advisory signs etc. as drawn up by the Asbestos Manager;
- Assisting with the application and completion of Ergon Energy specified permits and warning signs relevant to the asbestos remedial project, including hot works permits isolations etc.;
- Carrying out analytical works and inspections as agreed with the Asbestos Manager;
- Where site conditions alter, and the Asbestos Manager is not immediately available, occupational licensed assessors are required to adjust the level of testing and inspection to ensure that all information relevant to the continued health and safety of the Contractor and building occupants is obtained;
- Reporting to the Asbestos Manager any defects or non-compliances relating to the Contractors performance, including suitability of the work areas, adherence to the Plan of Work, SWMS, Statutory Instruments and the AMP;
- Where the Asbestos Manager is not immediately available the licensed assessors are to take any measures necessary to ensure the health and safety of the Contractor and building occupants;
- Checking areas on completion of asbestos remedial works to ensure that the Contractor has completed his scope of works and all affected areas have been left in a satisfactory condition;
- Reporting to the Asbestos Manager any aspects of asbestos management encountered on site which could give rise to health risks, for example, breaches of Asbestos Management Procedures, suspect or damaged ACMs;
- Providing written reports on project progress as requested; the reports to include such information, in excess of accreditation requirements, as requested by the Asbestos Manager;
- Issuing formal Reports, including ‘Occupational Clearance Certificates’ and ‘Air Monitoring’ reports to the Asbestos Manager on completion of site works; and
- Implementing NATA accredited and endorsed supplementary field laboratories on-site where possible and ensuring that all analysts are NATA accredited, and
6.2.4 Asbestos Removal Contractors and Contractors conducting asbestos related work

Are responsible for:

- Complying with all current legislation and associated Approved Codes of Practice;
- Ensure that all Asbestos HEPA Vacuum Cleaners are inspected and tested in accordance with AS/NZ 60335-2-69 Household and similar electrical appliances – safety-Part 2.69: Particular requirements for wet and dry vacuum cleaners, including power brush, for industrial and commercial use and the requirements of the manufacturer;
- Follow the process outlined in the ES000901R150, Contractor Asbestos Related Work or Asbestos Removal Work Reference Guide, Obtaining a copy of the site asbestos register prior to commencement of work;
- Complying with all SWMS and relevant asbestos procedures;
- Complete Ergon Energy’s Permit To Work processes as a minimum;
- Providing copies of all documentation including Permit to Work documentation with original signatures where possible;
- Attending site to assess and prepare quotations against asbestos remedial works specifications, the Contractor to raise any issues relating to the health and safety aspects or potential costs of a project;
- Providing an Asbestos Removal Plan or SWMS to the Ergon Energy contact. This is to include details of project resources and timetable and an emergency procedure;
- Providing Statutory Notice to the Statutory Authority prior to commencing Licence asbestos removal works, or, by agreement and at the request of the Asbestos Manager, applying for a waiver from the minimum notice;
- Attending the asbestos contract pre-Start meeting, Progress Meetings, and handover meeting as required;
- Carrying out regular inspections of the work environment, any defects found by or reported to the Asbestos Manager to be rectified by the Contractor immediately;
- Complying with all reasonable requests from the Asbestos Manager and Licensed Asbestos Assessor;
- Complying with site wide Ergon Energy or site specific asbestos Permits to Work;
- Liaising with the Licensed Asbestos Assessor and Ergon Energy contact person to ensure the satisfactory progress of the works;
- Providing copies of notification and consignment notes and other relevant documentation with final account;
- Compliance with the Ergon Energy AMP and relevant procedures, and where acting as sole, main or principal contractor to have a thorough understanding of these procedures;
- Ensuring that all subcontractors are informed of the AMP and relevant procedures, in particular the location of ACMs within the project area;
- Recognising their enhanced duty of care regarding effective communication with those employees and sub-contractors whose first language is not English;
- Co-operating with the Asbestos Manager and any Licensed Asbestos Removal Contractors or associated contractors working within or adjacent the known or intended project area;
- Ensuring that emergency measures are in place for any suspected or known exposure to ACMs and that these are in line with Ergon Energy procedures;
Asbestos Management Plan

- Forwarding samples of suspected asbestos containing materials/products for laboratory analysis;
- Maintaining suitable asbestos liability insurance from a reputable and approved insurance provider; and
- Ensuring that the Asbestos Removal Company has a certified Workplace Health and Safety Management System in place as per the requirement of the WHS Regulation 2011.
- Ensuring that all employees and subcontractors are clean shaven when required to wear either a half face or full face respirator.
- Ensure that health monitoring is provided in accordance with the requirements of the WHS Regulation 2011.

6.3. Persons Carrying out Demolition or Refurbishment Work

The Code of Practice – How to Manage and Control Asbestos in the Workplace defines the following obligations for persons carrying out demolition or refurbishment work:

6.4. Responsibilities of All Employees, Contractors and Visitors

The responsibilities include:

- Informing the Asbestos Manager of the presence of any previously unknown asbestos hazard or a suspected asbestos hazard on site. This may require reference to the on-site asbestos register;
- Ensuring that you are clean shaven when required to wear either a half face or full face respirator.
- Complying with the AMP to ensure yourself, other staff, contractors or visitors are not at risk of exposure to airborne asbestos fibres; and
- Ensuring any contractors that work on Ergon Energy facilities involving asbestos is conducted under the ES000901F111. Asbestos Permit to Work procedure.
- Ensure Ergon Energy staff that are carrying out asbestos related work, that the work is conducted in accordance with the Job Safety Analysis (JSA) and the relevant Safe Work Method Statements (SWMS) pertaining to the asbestos related task.
- Participate in health monitoring as per ES000901R164. Asbestos Health Monitoring (Reference) where suspected exposure to asbestos has occurred or is likely to occur.

7. REVIEW OF THE ASBESTOS MANAGEMENT PLAN

The Ergon Energy AMP will be reviewed in accordance with paragraph 430 of the Queensland Work Health and Safety Regulation 2011. This will include a review process at least annually or sooner if required, due to amendments in legislation or changes to internal processes and procedures within Ergon Energy or a Health and Safety Representative requests a review.

These reviews will critically assess all asbestos management processes and safe work methods and their effectiveness in:

- preventing exposure to airborne asbestos fibres;
- controlling of maintenance workers and contractors;
- highlighting the need for action to maintain or remove ACM;
- raising awareness and the provision of training among all workers; and

---

1 Based on the roles and responsibilities defined under the Code of Practice – How to Manage and Control Asbestos in the Workplace, Ergon Energy defines asbestos removal contractors, demolishers and associated persons as both ‘Persons with Management or Control’ and ‘Persons Carrying Out Demolition or Refurbishment Work’.
8. PRINCIPLES OF ASBESTOS MANAGEMENT

8.1. General Principles

Ergon Energy's asbestos management principles have been adapted from The Queensland Work Health and Safety Regulation 2011. The principles are summarised below:

- The ultimate goal is for all workplaces to be free of ACM. Accordingly, Ergon Energy has implemented a prioritised removal program to remove high risk ACM from its facilities by 2016/2017 and moderate risk ACM by 2027;
- Reasonable steps have been taken to label all identified ACM at Ergon Energy sites and assets. Where ACM’s are identified or presumed, the locations have been recorded in the site asbestos register;
- Ergon Energy has completed a process of identifying, labelling and recording switchboards that may contain Asbestos in over 700,000 customers' premises, the labelling of these switchboards is another control measure for Ergon Energy workers, electrical contractors and members of the public to mitigate the risk of inhaling asbestos fibres.
- Risk assessments of all identified or presumed ACM in Ergon Energy’s used in the construction of facilities has been conducted and risked rated;
- Control measures have been established to prevent exposure to airborne asbestos fibres and have taken into account the results of risk assessments conducted for the identified or presumed ACM;
- When ACM’s are identified or presumed, there is full consultation, involvement and information sharing during each step of the development of the AMP i.e. during the identification, risk assessment and establishment of control measures;
- The identification of ACM and associated risk assessments have been undertaken by competent persons; and
- All workers and contractors on premises where ACM are present or presumed to be present, and all other persons who may be exposed to ACM as a result of being on the premises, are provided with full information on the health and safety consequences of exposure to asbestos and appropriate control measures. The provision of this information is recorded during the site induction process.

8.1.1 Prohibitions

The Queensland Work Health and Safety Regulation 2011 prohibit the use or re-use of ACM. The Regulation also prohibits cleaning ACM with a power tool, power appliance, high pressure water process, compressed air or abrasive blasting. Cleaning any surface where ACM is present by these methods is also prohibited.

8.2. Control of Asbestos Hazards

The control of asbestos hazards must consider the nature and condition of the material and the potential for exposure. After this is determined, the following control strategies may be applied:

- Removal;
- Encapsulation;
- Enclosure;
- Leave in situ (defer action).

8.2.1 Removal

Removal of ACM must be performed under specified controlled conditions, depending on the type of ACM to be removed.

There are two basic forms of ACM:
Friable – Materials such as sprayed insulation, lagging to pipe work, etc in which the asbestos fibres are loosely held together in a soft matrix. The Queensland Work Health and Safety Regulation 2011 states a friable ACM is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry.

Bonded or Non-friable – Materials such as asbestos cement sheeting, bituminous membranes etc in which the asbestos fibres are firmly bound into a cementitious or resinous matrix. These ACM’s are usually considered a low level risk as the firm matrix prevents the asbestos fibres from becoming detached and entering the airborne environment.

Removal is considered preferable to the other abatement options such as enclosure or encapsulation, as it eliminates the hazard from the workplace. The removal process does pose an increased risk to personnel engaged in the removal, and may result in increased airborne fibre levels in adjacent occupied areas if the removal program is not strictly controlled. Asbestos removal is generally an expensive exercise, and can cause major disruptions to building occupants.

8.2.2 Encapsulation or Sealing

Encapsulation refers to the coating of the outer surface of the ACM by the applying some form of sealant compound that penetrates to the substrate and hardens the product. Sealing is the process of covering the surface of the ACM with a protective coating impermeable to asbestos. Encapsulation or sealing helps protect the ACM from mechanical damage, and is designed to reduce the risk of exposure by preventing the release of asbestos fibres into the airborne environment. This method increases the length of serviceability of the material.

The use of encapsulation or sealing may be of limited application. It is not considered to be an acceptable alternative to repairing or removing severely damaged ACM.

8.2.3 Enclosure

Enclosure involves installing a barrier between the ACM and adjacent areas. This is effective in preventing further mechanical damage to the ACM and friable materials such as calcium silicate pipe lagging or sprayed asbestos which may be targeted for enclosure where removal is not an option. The type of barrier installed may include plywood or sheet metal products, constructed as boxing around the ACM.

8.2.4 Leave in Situ (defer action)

The identification of ACM in a building, structure or equipment does not automatically require immediate removal. ACM in a stable condition and not prone to mechanical damage can generally remain in situ. The ACM will need to be inspected on a regular basis to verify its integrity. If demolition or refurbishments will potentially disturb the asbestos, it must be removed under controlled conditions prior to the works being carried out. If on inspection, the condition of the ACM has changed, the risk must be reassessed and the appropriate action taken. On the completion of every inspection, the asbestos database must be updated accordingly.

9. ASBESTOS REGISTERS AND ASBESTOS DATABASES

Ergon Energy has an Asbestos Portal/database for managing ACM in its properties and assets. A standard asbestos report can be generated from this database providing consistent reporting of information when Ergon Energy properties are surveyed for asbestos. The asbestos database records the date of inspection, location, position, type of ACM and its condition identified during the survey. The database includes a qualitative risk assessment. Each asbestos situation identified is given a risk rating and recommended control measure based on the extent, type, condition and accessibility of the asbestos at the time of the survey. Where applicable, laboratory analysis
certificates, air monitoring certificates, photographs, drawings and details of asbestos removal can be attached to the database and form part of the asbestos register for each individual property or asset.

The database Portal can be found on the Ergon Energy Intranet site under the letter A on the Toolbox Tab under Asbestos Management. The user name is \textit{hosting\ergongeneral} and the password is \textit{general}.

Ergon Energy has a prioritised audit management process in place to review asbestos registers for each property, including any risk assessments. The risk assessment indicates the need for reassessment or if any of the ACM identified have been disturbed or removed. Visual inspection of any identified ACM will be undertaken during the review process.

This process exceeds the requirements mandated in the Queensland \textit{Work Health and Safety Regulation 2011}.

To align with this requirement, the Ergon Energy asbestos portal/database allows for each assessment of any ACM identified to be archived when a reassessment is conducted. This allows for the assessments for each ACM to be ‘tracked’ over the period of its life until it is removed from the site or asset. The asbestos database allows for either:

1. The generation of an asbestos report containing only the current (i.e. latest) assessment details; or
2. All of the preceding assessments relating to the ACM for auditing and tracking requirements.

The asbestos portal/database is currently owned by the HES team. The Asbestos Manager is responsible for the development and auditing of the asbestos portal/database in accordance with current legislation.

Specific personnel from individual Business Units require full access to the asbestos portal/database, i.e. read and write capabilities, to update and amend the data appropriately. Sufficient controls will be developed for consistency and quality of survey information and data entry.

A physical copy of each asbestos register should be held on the respective site or asset. It must be noted that once an asbestos register is printed from the portal/database, it becomes an uncontrolled copy.

All employees, contractors and others at the workplace must be informed about the location of each asbestos register within the premises. Prior to the commencement of any work that may disturb ACM, the asbestos register must be made available for review by:

- Employees, contractors and their representatives;
- Any other employers within the premises;
- Any person removing ACM;
- Any person engaged to perform work that may disturb ACM, including any presumed (suspect) ACM; and
- Any other person who might be exposed to airborne asbestos fibres.

Please refer to \textit{Section 15 Asbestos Removal and Remediation} for further information relating to asbestos remediation works.

\textbf{9.1. Asbestos Portal/Database Maintenance}

The asbestos database is used predominantly by Property Services and Asset Management. Property Services is responsible for the day-to-day maintenance of the asbestos data relating to all Ergon Energy properties.
9.2. Property and Asset Types within Ergon Energy

Ergon Energy owns and controls a large number of properties and assets across Queensland, which can be divided by property types and the identified duty holders.

<table>
<thead>
<tr>
<th>Property/Asset Type</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Stock</td>
<td>Property Services</td>
</tr>
<tr>
<td>Commercial Buildings (Offices) and Depots</td>
<td>Property Services</td>
</tr>
<tr>
<td>Zone Substations, Distribution (Indoor) Substations and Remote Power Generation Sites</td>
<td>Property Services</td>
</tr>
<tr>
<td>Equipment</td>
<td>Operations</td>
</tr>
</tbody>
</table>

9.2.1 Housing Stock

Ergon Energy currently owns a number of dwellings to house employees across Queensland. Although there is currently no requirement under the Queensland Work Health and Safety Regulation 2011 for asbestos audits to be conducted and an asbestos register produced for domestic properties, Ergon Energy are taking a proactive approach by conducting audits of these houses for the presence of ACM where practicable. Asbestos registers are supplied to potential vendors at point of sale.

9.2.1.1 Asbestos Audit Approach - Housing

The Ergon Energy housing stock is surveyed for ACM as part of the Property Services building survey programme. All asbestos audit information will be incorporated into the Ergon Energy electronic asbestos portal/database, which can generate an asbestos register for each property. The hard copy of the Asbestos Register should be located at the closest Ergon Energy depot.

9.2.2 Asbestos Survey Approach - Commercial Buildings (Offices) and Depots

Ergon Energy properties are audited for ACM as part of the Asbestos survey programme. All asbestos survey information will be incorporated into the Ergon Energy electronic asbestos portal/database, which can generate an asbestos register for each property. A copy of the current asbestos register should be kept at the premises.

9.2.3 Zone Substations and Distribution (Indoor) Substations and Remote Power Generation Sites

Ergon Energy Zone Substations and Distribution (indoor) Substations, Communication sites and Remote Power Generation sites are audited for ACM as part of the Asbestos programme. All asbestos audit information will be incorporated into the Ergon Energy electronic asbestos database, which can generate an asbestos register for each site. A copy of the current asbestos register must be kept at the premises.

9.2.4 Equipment

Ergon Energy owns and is in control of a large number of electrical installations and equipment both within buildings and properties and standalone installations (i.e. pad mounts, meter cupboards, poles, etc). Ergon Energy should conduct inspections and may collect samples (if appropriately trained) for analysis of any suspect materials contained within equipment to identify ACM. This information should be entered into the site specific asbestos register located in the portal/database along with supporting photographs and any sample analysis laboratory results.

Ergon Energy is committed to fulfilling its obligations under the Queensland Work Health and Safety Regulation 2011 and wherever possible any faulty equipment that contains ACM will be removed completely and replaced with modern non-asbestos components.
9.2.5 Leased Properties

Where applicable, Ergon Energy has consulted with its landlords or agents in order to meet their obligations under the Queensland Work Health and Safety Regulation 2011. To fulfil these obligations the following information has been requested:

- Confirmation that an Asbestos Register has been or is being produced in accordance with the Management Code for the leased property;
- Details of where the Asbestos Register is located and how it can be viewed; and
- Where an asbestos register is not available, what steps are being taken to comply with obligations under the Management Code?

Ergon Energy will review the information provided by landlords or agents to ensure their obligations under the Queensland Work Health and Safety Regulation 2011 are fulfilled.

9.2.6 Identification of ACM

Each asbestos survey will be completed by performing a visual assessment of the building or structure identified as requiring an audit. Such assessments will only be performed by persons/organisations that hold as a minimum an Asbestos Assessor licence. All visible and accessible sources of asbestos identified are documented in accordance with the Ergon Energy asbestos portal/database format to allow the asbestos registers to be generated. Those areas not able to be accessed during the course of the site assessment are also documented.

Representative samples of materials suspected of containing asbestos should be collected during the survey in accordance with Best Practice Guidelines. The samples will be adequately labelled to clearly identify its location, along with the date of sampling and a unique identification number and use a “chain of custody system to ensure integrity of the sample.

Analysis of these samples will be by Polarised Light Microscopy (PLM), supplemented with dispersion staining techniques and is only conducted by a NATA accredited laboratory. Other analytical techniques, such as scanning electron microscopy (SEM), may be required where PLM does not provide a definitive result.

All survey data plus supporting documentation (sample analysis certificates, a photographic record of high risk situations and plans where applicable) will be entered into the asbestos database.

As a minimum, all Ergon Energy field employees are provided with Asbestos Awareness training including basic identification of asbestos where there is a need to work with potential ACM. (Refer to Section 13 SWMS Training and Asbestos Awareness for further information).

9.3 Presuming that materials contain asbestos

Ergon Energy aims to undertake representative sampling wherever practicable however, in certain circumstances, the person conducting audits may presume the material contains asbestos.

In some locations it may not be possible for suspect material to be sampled due to inaccessibility or risk of injury to the auditor by taking a sample (i.e. risk of electrocution when inspecting live equipment). In these circumstances, it will be necessary to presume that ACM is present in these areas or within the materials that form part of the electrical installations. Once this presumption is made, the material must be treated as ACM and all work practices and procedures apply as positively identified ACM. This protocol must remain until the material is removed or sampling confirms that it does not contain asbestos.
9.4. Risk Assessment

The asbestos risk assessment process identifies, evaluates, controls and monitors sources of asbestos within buildings, other structures and equipment.

It is necessary to differentiate between 'asbestos hazard' and 'asbestos risk'. 'Hazard' indicates potential for harm, while 'risk' refers to the probability of that harm becoming a reality. For example, the presence of asbestos in a building is a hazard, but while that asbestos remains in sound condition and does not release fibres into the air, the risk is negligible. A health risk exists only when the asbestos fibres are airborne and can be inhaled.

A qualitative risk assessment is undertaken each time an asbestos survey of Ergon Energy buildings or structures is conducted. Ergon Energy has adopted the following risk assessment system for each asbestos situation identified within the building or structure. Each situation is allocated either an 'Extreme', 'High' or 'Medium' risk rating. These ratings are defined as follows:

**Extreme:** ACM is in poor or significantly deteriorated condition and elevated levels of respirable airborne fibre are probable with minimal disturbance. The ACM is readily accessible, prone to further disturbance and poses an immediate health risk to personnel. The area should be isolated immediately and removal or repair required as soon as practicable.

**High:** ACM shows moderate signs of deterioration and is unsealed. Elevated levels of respirable airborne fibres are possible and further disturbance due to routine building activity and/or maintenance is likely.

**Medium:** ACM shows minor signs of deterioration and is unsealed. Low levels of respirable asbestos fibres are possible and further disturbance due to routine building activity and/or maintenance is likely.

ACM shows very minor or no signs of damage/deterioration. Routine accessibility is unlikely to cause significant deterioration, or the ACM is adequately sealed. In the event that demolition or refurbishment works are to be carried out in areas previously not inspected for the presence of ACM, such as inaccessible wall cavities or beneath floors, an inspection and risk assessment will be performed by a suitably qualified person prior to the commencement of the planned demolition/refurbishment works.

9.5. Control Measures

Please refer to Section 8.2 Control of Asbestos Hazards of this document.

9.6. Electronic Asbestos Portal/Database and Asbestos Registers

In accordance with The Queensland Work Health and Safety Regulation 2011, the following information is available in the site asbestos registers for Ergon Energy owned facilities or equipment:

**Identification:**
- The date(s) on which the inspection/identification was made and details on the competent person(s) who carried out the inspection/identification;
- Details on the locations, types (i.e. friable or non-friable) and condition (i.e. damaged or intact) of any ACM identified on the premises, including ACM in items of plant and equipment, and the type of asbestos involved;
- Details on any material presumed to contain asbestos;
Asbestos Management Plan

- Any inaccessible areas that are likely to contain ACM;
- The results of any analysis that has confirmed a material in the workplace is or is not an ACM.

**Risk assessment:**
- The date when the risk assessment was made, and details on the competent person(s) who carried out the assessment;
- The findings and conclusions of the risk assessment, including any reviews or revisions of the risk assessment;
- The results of any air monitoring for airborne asbestos fibres and an assessment of these results.

**Control measures:**
- The control measures recommended and decided upon as a result of the risk assessment;
- Any maintenance or service work on an ACM, including the company or persons involved, the date and scope of the work undertaken and details on clearance certificates.

10. MANAGING IN SITU ASBESTOS

10.1. General

Management of in situ ACM requires monitoring of the condition of the materials so they do not deteriorate to such an extent that Ergon Energy employees, contractors, visitors or members of the public are unnecessarily exposed to airborne asbestos fibres.

Ergon Energy also requires contractors working with ACM to implement a safe system of work, including site inductions, SWMS and PTW systems. These requirements are included in contracts covering construction and maintenance works.

10.2. Reinspections

Resurveys of ACM remaining within Ergon Energy properties will only be conducted by qualified Asbestos Assessors. Such resurveys will comprise a risk assessment of the condition of the ACM to determine whether the material remains in a satisfactory condition, or if deterioration has occurred since the previous inspection.

Generally, re-sampling of ACM will not be required during these reinspections. If previously unidentified or undocumented suspect ACM is encountered during the resurvey process, sampling and analysis will need to be performed by the Asbestos Assessor. The asbestos register will be updated and issued on the completion of the reinspection work.

Using a prioritised risk base approach the following timelines are used as a guideline for reinspections:

- ACM that is risk assessed as Extreme or High  Annual Audits conducted;
- ACM that is risk assessed as Medium  Audits conducted every three (3) years;

This process exceeds the requirements mandated in the Queensland Work Health and Safety Regulation 2011.

10.3. Record Keeping

Ergon Energy will maintain detailed records of all activities relating to asbestos works which have been undertaken on Ergon Energy premises in line with all current legislation and codes of practice. The records kept will include:
10.4. Signs and Labels

The use of warning signs and labels to indicate the presence of ACM is one of many recognised management controls. Such systems are designed to alert personnel to the presence of asbestos, thereby reducing the risk of inadvertent damage to the ACM (which may cause the release of asbestos fibres into the airborne environment).

**Warning Signs**

A warning sign will be positioned in a prominent place so it can be easily viewed within each building or facility (i.e. on the front door, within the entrance lobby, at a reception desk or in the area where contractors report prior to commencing any building or maintenance works) that was constructed prior to 31 December 1989. In Ergon Energy domestic premises the sign will be located in the meter box.

Any areas of a workplace which contain ACM, including plant, equipment and components, should be signposted with warning signs to adequately ensure that the asbestos is not unknowingly disturbed without the correct precautions being taken.

These signs should be placed at all of the main entrances to the work areas where asbestos is present.

Ergon Energy has completed a process to identify, label and record switchboards that may contain asbestos in over 700 000 customers' premises, the labelling of these switchboards is another control measure for Ergon Energy workers, electrical contractors and members of the public to mitigate the risk of inhaling asbestos fibres.

Examples of warning signs are shown below:

![Example of a warning sign](image)

**Labels**

Labels should be places as close to the ACM location recorded in the ACM register. The location and number of labels should be determined by a competent person.

Examples of labels are shown below:

![Example of a label](image)
10.5. Occupational Exposure Standards

It is the aim of Ergon Energy to keep personal exposure to asbestos as low as is reasonably practicable. Where occupational exposure to asbestos may occur, exposure is never to exceed the occupational exposure standards for asbestos published by the National Occupational Health and Safety Commission. Occupational exposure must be measured by a competent person in accordance with Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust 2nd Edition [NOHSC:3003(2005)].

Analysis of any samples shall be undertaken by a NATA accredited laboratory in accordance with Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust 2nd Edition [NOHSC:3003(2005)].

The occupational exposure standards for asbestos fibres as per Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment 3rd Edition [NOHSC:3008(1995)] are detailed in the table below:

<table>
<thead>
<tr>
<th>Asbestos Type</th>
<th>National Exposure Standard TWA (Time-weighted average values) fibres per mL of air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrysotile</td>
<td>1.0</td>
</tr>
<tr>
<td>Amosite</td>
<td>0.1</td>
</tr>
<tr>
<td>Crocidolite</td>
<td>0.1</td>
</tr>
<tr>
<td>Other Forms of Asbestos (Tremolite, Anthophylite, Actinolite)</td>
<td>0.1</td>
</tr>
<tr>
<td>Any mixture of the above asbestos types or where the asbestos composition is unknown</td>
<td>0.1</td>
</tr>
</tbody>
</table>
11. HEALTH EFFECTS ASSOCIATED WITH ASBESTOS EXPOSURE

The health effects associated with asbestos exposure have been studied for many years. Results of these studies show that inhalation (breathing in) of asbestos fibers leads to increased risk of developing several asbestos related diseases. It is important to note that asbestos related illnesses are dose-response related (i.e. the greater the exposure to airborne asbestos fibers, the greater the risk of developing an illness).

11.1. Potential Health Risks

Asbestos is a known carcinogen and inhalation of these fibres can cause mesothelioma, lung cancer and asbestosis after a long latency period. It also poses other health risks whenever asbestos fibres become respirable and people are exposed to these fibres.

- **Malignant mesothelioma** is a cancer of the outer covering of the lung (the pleura) or the abdominal cavity (the peritoneum). It is usually fatal. Mesothelioma is caused by the inhalation of needle-like asbestos fibres deep into the lungs where they can damage mesothelial cells, potentially resulting in cancer. The latency period is generally between 35 and 40 years, but it may be longer, and the disease is very difficult to detect prior to the onset of illness.

- **Lung cancer** has been shown to be caused by all types of asbestos. The average latency period of the disease, from the first exposure to asbestos, ranges from 20 to 30 years. Lung cancer symptoms are rarely felt until the disease has developed to an advanced stage. People who smoke may have a greater risk of developing lung cancer from inhaling airborne asbestos fibres.

- **Asbestosis** is a form of lung disease (pneumoconiosis) directly caused by inhaling asbestos fibres, causing a scarring (fibrosis) of the lung tissue which decreases the ability of the lungs to transfer oxygen to the blood. The latency period of asbestosis is generally between 15 and 25 years.

11.2. Exposure to Asbestos

When asbestos is processed and disturbed, the fibre bundles become progressively finer and more hazardous to health as they can become airborne and breathed in. Small fibres, known as respirable fibres, are invisible to the naked eye and when inhaled can penetrate the deepest part of the lungs.

Asbestos can release airborne fibres whenever it is disturbed, particularly during the following:

- direct action on asbestos, such as drilling, boring, cutting especially with power tools, filing, brushing, grinding, sanding, breaking, smashing or blowing with compressed air;
- removing asbestos from workplaces;
- maintaining or servicing materials containing asbestos from vehicles, plant, equipment or workplaces, or
- renovating or demolishing workplaces (or a part of a workplace) that contains asbestos.

Exposure to airborne asbestos fibres for workers and other people must be either eliminated or minimised as far as is reasonably practicable, and kept below the exposure standard.

12. HEALTH MONITORING

Ergon Energy has a duty to provide health monitoring to workers who are engaged in processes and work practices that may expose them to asbestos.

Ergon Energy has established health monitoring processes, ES000901R164. Asbestos Health Monitoring and ES001010R100 Manage Health Monitoring, to manage employees who believe
they have been exposed to asbestos as a result of their work practices. Health monitoring is managed by the HSE Culture and Health team.

Employees who believe they have been exposed to asbestos while performing work are invited to complete ES000901F120 Asbestos Exposure Questionnaire. This questionnaire will be assessed by an Occupational Physician to determine whether health monitoring is recommended.

Ergon Energy maintains and stores all health monitoring records in a confidential Asbestos Health Monitoring Register.

13. SAFE WORK METHODS AND ASBESTOS AWARENESS TRAINING

Ergon Energy is committed to providing information and training to workers that may be involved in asbestos related work, depending on the circumstances this asbestos training may include:

- the purpose of the training;
- the health risks of asbestos;
- the types, uses and likely occurrence of ACM in buildings, plant and/or equipment in the workplace;
- the trainees’ roles and responsibilities under Ergon’s AMP;
- where the workplace’s register of ACM is located and how it can be accessed;
- the processes, procedures and safe work methods to be followed to prevent exposure, including exposure from any accidental release of asbestos dust into the workplace;
- where applicable, the correct use of maintenance and control measures, personal protective equipment and safe work methods to minimise the risks from asbestos, limit the exposure of workers and limit the spread of asbestos fibres outside any asbestos work area;
- the National Exposure Standard (NES) and control levels for asbestos; and
- the purpose of any air monitoring or health monitoring that may occur.

Due to the day to day activities of certain Ergon Energy field personnel and contractors the type of equipment they are required to work with, it is possible that ACM will be encountered. Where it is necessary for asbestos related work to be undertaken by Ergon Energy employees or contractors working on Ergon Energy’s behalf, they must receive training on the legislative requirements, health risks associated with asbestos exposure, safe working methods, and the proper use and maintenance of personal protective equipment (PPE) and respiratory protective equipment (RPE), prior to commencing any such works. Ergon Energy has developed specific SWMS relating to asbestos related work which include as a control measure, the requirement to be clean shaven when required to wear disposable/reusable half face or full face respirators. The level of training required will be dependent upon the tasks performed by the individual (i.e. a field employee who regularly works with asbestos contained in electrical switchboards will undergo a much higher level of asbestos awareness and training than an office based administration officer).

All training undertaken by Ergon Energy employees shall be recorded on the individuals training records and any necessary refresher training is flagged when required.
Ergon Energy is committed to delivering 2 levels of asbestos awareness and training packages throughout the business. These are outlined below:

<table>
<thead>
<tr>
<th>Training to be Implemented</th>
<th>Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos awareness information provide in the &quot;Managing Workplace Health and Safety Risks in the Office&quot; Course</td>
<td>All Office Staff as part of induction process</td>
</tr>
<tr>
<td>Working Safely with Asbestos Containing Materials TO495</td>
<td>All Field Staff, Technical Service Persons, Power Workers, Line Managers, Apprentices, nominated WHSR, Apprenticeship Trainers, Health &amp; Safety Coordinators/Advisors, T&amp;D Trainers and any further staff identified that may be required to conduct asbestos related work conducted as part of the Generic Field Induction process</td>
</tr>
</tbody>
</table>

13.1. Ergon Energy Asbestos Fact Sheet

ES000901R122. Asbestos Fact Sheet (Reference) provides a general overview about asbestos, its uses and the potential health risks of exposure to asbestos. The fact sheet forms part of employee inductions. Access to the fact sheet is readily available to all Ergon Energy employees through either the Process Zone or the Asbestos Management SharePoint site.

13.2. Working Safely with Asbestos Containing Material (ACM)

This online training course (T0495) covers information on the physical properties of asbestos and related health effects, products and materials in the workplace that may contain asbestos and statutory and organisational requirements for controlling asbestos exposure risks in the workplace.

The online training also covers SWMS specifically produced for those activities involving asbestos related work. These are specialised procedures/methods that can only be carried out by trained, competent staff and are outlined below. Refresher training is to be conducted each 36 months.

Face to face training is conducted as part of the 6 monthly Statutory Training and Assessment course. The training consists of risk assessing tasks that Asbestos may be disturbed, reviewing Asbestos related SWMS and demonstrating the use of P2 Disposable respirators.

Training videos relating to each Safe Work Method has been developed by Energy Network Services and are available to all field staff, technical service persons, power workers, line managers and any further staff identified as requiring this training. The training includes an on-line assessment that must be passed. All Training Videos can be accessed by all staff via the Asbestos Management SharePoint sites.

SWMS have been developed to allow Ergon Energy employees to conduct the following works in accordance with the guidelines set out within the Queensland Work Health and Safety Regulation 2011.

13.2.1 Disturbance of asbestos (Switchboards):

This SWMS covers the following procedures:

- Required PPE and equipment;
- Preliminary site set up;
- Drilling or cutting suspected asbestos switchboard panels;
- Testing;
- Decontamination of equipment and person; and
- Disposal of asbestos waste.
13.2.2 Disturbance of Asbestos (Overhead):

This SWMS covers the following procedures:

- Required PPE and equipment;
- Preliminary site set up;
- Removal of streetlight units
- Silva Link Fuses;
- Decontamination of equipment and person; and
- Disposal of asbestos waste.

13.2.3 Disturbance of Asbestos (Underground):

This SWMS covers the following procedures:

- Required PPE and equipment;
- Preliminary site set up;
- Breaking AC conduit, Pulling cables through AC conduit and working with AC pillars;
- Decontamination of equipment and person; and
- Disposal of asbestos waste.

13.3. HEPA Vacuum Cleaner

As part of the online course - Working Safely with Asbestos Containing Material, a training video covering information on the requirements to use a HEPA vacuum cleaner and storage, decontamination and disposal of asbestos waste has been developed. Only approved Asbestos HEPA vacuum cleaners issued through the store system are to be used. HEPA asbestos vacuum cleaners are to meet the requirements of the relevant Work Health and Safety Regulation 2011, Code of Practice, Australian Standard and Manufacturers Manual in regards to maintenance, inspection, testing and storage of that equipment.

13.4. HEPA Vacuum Cleaner Annual Inspections.

It is a requirement to register HEPA Vacuum Cleaners on the AMPRO System so that it can be flagged for its 12-monthly tests and inspection. This consists of an inspection of filters for damage, air tightness of the machine, proper function of the control mechanism and testing of the efficiency of the filters. For more information, go to the Asbestos Management SharePoint site and click on the Asbestos vacuum link on the right hand side of the page.

13.5. HEPA Vacuum Cleaner and Asbestos Kit

In conjunction with the SWMSs that outline the safe systems of work when conducting Asbestos related work, Ergon Energy has developed an ‘Asbestos Handling Kit’ which is used when carrying out any works that has the potential to disturb ACM. Equipment contained with the asbestos kit includes, but is not limited to:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2441350</td>
<td>HANDLING KIT,ASBESTOS Complete</td>
</tr>
<tr>
<td>2434868</td>
<td>Asbestos Vacuum Cleaner, H Class, Numatic Model c/w Drill Nozzle, Decal 150 W x 75mm H 'For Asbestos Use Only</td>
</tr>
</tbody>
</table>

**HEPA Vacuum - Individual Items**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2434876</td>
<td>FILTER CARTRIDGE,ASBESTOS, Element, Main, to suit Numatic HZQ 200, H Class Vacuum Cleaner</td>
</tr>
<tr>
<td>2434884</td>
<td>FILTER CLOTH, Tritex, to suit Numatic HZQ 200, H Class Vacuum Cleaner. (Supplied1 per Pack)</td>
</tr>
<tr>
<td>2434892</td>
<td>DUST BAG, to suit Numatic HZQ 200, H Class Vacuum Cleaner. (Supplied as a 10 pack)</td>
</tr>
</tbody>
</table>
KIT Contents List

<table>
<thead>
<tr>
<th>Stock Code</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2441343</td>
<td>1</td>
<td>A-Frame Sign “ASBESTOS WORK IN PROGRESS”</td>
</tr>
<tr>
<td>1837403</td>
<td>1</td>
<td>Gloves Vinyl Disposable GDPV0005:L - Box of 100 pairs</td>
</tr>
<tr>
<td>1843587</td>
<td>1</td>
<td>Respirator, Dust, Mist &amp; Fume Disposable Type P2 C/W Valve (Pk 10)</td>
</tr>
<tr>
<td>2407087</td>
<td>1</td>
<td>Wipes Isowipe Bacterial Kleenex 6835</td>
</tr>
<tr>
<td>2407086</td>
<td>1</td>
<td>Roll Barrier Tape &quot;Asbestos Removal in Progress&quot;</td>
</tr>
<tr>
<td>2407084</td>
<td>2</td>
<td>Coveralls &amp; Hood Disposable TYVEK WHITE IDO:SIZE XL</td>
</tr>
<tr>
<td>2454494</td>
<td>20</td>
<td>Bag SMALL printed Asbestos Waste Disposal 600mm X 450mm</td>
</tr>
<tr>
<td>2407073</td>
<td>5</td>
<td>Bag MEDIUM printed Asbestos Waste Disposal 915mm X 610mm</td>
</tr>
<tr>
<td>2407072</td>
<td>1</td>
<td>Bag LARGE printed Asbestos Waste Disposal 1100mm X 700mm</td>
</tr>
<tr>
<td>2406032</td>
<td>1</td>
<td>Petroleum Jelly Vaseline 50g</td>
</tr>
<tr>
<td>2405158</td>
<td>1</td>
<td>Tape PVC Ducting TESA 4258 48mm x 30m</td>
</tr>
<tr>
<td>2401722</td>
<td>1</td>
<td>Rag cotton coloured premium 1kg slab</td>
</tr>
</tbody>
</table>

More information can be found in BS001701R100. *Tools and Equipment Manual* under the “Height, Safety and Rescue” tab.

As part of the Work Safely with Asbestos Containing Material training, Ergon Energy staff will be trained in the correct use of this PPE, RPE and equipment.

14. CONTRACTOR SAFE WORK PRACTICES

14.1. General

Prior to commencing any works on Ergon Energy premises or Assets, such as demolition, refurbishment or maintenance, or conducting asbestos related work on Ergon Energy’s behalf the asbestos register for the particular property or asset and this document must be consulted to determine if any ACM are present. If it is documented that ACM are present in the area and may be impacted upon by the proposed works, an assessment must be conducted by the person who commissioned the work whether there is a requirement for the ACM to be removed by a licensed asbestos removalist, prior to the commencement of any building or maintenance works and the process outlined in Contractor asbestos related worker or asbestos removal work Reference Guide; ES000901R150. Contractor Asbestos Related Work or Asbestos Removal Work Reference Guide is to be followed.

If unknown materials, or undocumented materials suspected of containing asbestos are encountered during maintenance works, such materials are to be treated as if they contain asbestos and any work that would impact on that material must immediately cease, pending sampling and analysis by a qualified, competent person. This will allow Ergon Energy to determine what control measures are required, prior to works recommencing. This is particularly relevant to Ergon Energy’s assets such as live electrical components and underground services where it is not practicable to conduct an asbestos survey prior to the commencement of works.

14.2. Site Induction

Any external contractor engaged by Ergon Energy to perform works on or in a property or asset must, prior to commencing work, undergo an Ergon Energy Generic Contractor Induction as well as individual site inductions. This induction includes alerting the contractor to the possible presence of asbestos and the various issues associated with working with ACM. The asbestos register shall be reviewed by the contractor during the site induction and it will be determined if any ACM are at risk of being disturbed as a result of the intended works. If this is the case, the contractor engaged to perform work on site will be required to read and comply with this AMP and the Ergon Energy Permit to Work system. Individuals
Asbestos Management Plan

must also be aware of their legal obligations in relation to health and safety specified in the Queensland *Work Health and Safe Regulation 2011*.

14.3. Permit to Work

- The Asbestos Permit to Work (PTW) system is designed to ensure appropriate work practices are employed in the vicinity of ACM. The asbestos Permit to Work system consists of four main documents, there are:
  - ES000901R150. Contractor Asbestos Related Work or Asbestos Removal Work Reference Guide (Reference);
  - ES000901F119. Notification of Contractor asbestos related work or asbestos removal work (Form);
  - ES000901F111. Asbestos Permit to Work (Form) and
  - ES000901F112. Asbestos Clearance Certificate

The Asbestos PTW system will document what, where and how ACM is to be removed, encapsulated or otherwise protected or removed prior to the contracted maintenance or building/removal works proceeding.

When the work is completed, the permit will be signed and returned to the Ergon Energy person who commissioned the work who will cancel it after ensuring that a clearance certificate is provided. Ergon Energy will retain copies of all Asbestos Removal Control Plans, JSEAs/Risk Assessments and SWMSs on the asbestos database and the site asbestos register will be updated to reflect the work conducted.

14.4. Contractors conducting asbestos related work on Ergon Energy's Behalf

Contractors conducting asbestos related work, including working on switchboards containing asbestos must have been trained in Asbestos Awareness and the relevant SWMS relating to the work being conducted. All equipment including RPE and HEPA asbestos vacuum cleaners are to meet the requirements of the relevant *Work Health and Safety Regulation 2011*, Code of Practice Australian Standard and Manufacturers Manual in regards to maintenance, inspection, testing and storage of that equipment.

Contractors must have developed SWMS for the Asbestos Related Work that they are performing and must be clean shaven when required to use either a half face or full face respirator.

15. ASBESTOS REMOVAL AND REMEDIATION

15.1. General

It must be noted that only trained, competent Ergon Energy staff or contractors are permitted to work with or remove selected bonded ACM in accordance with approved SWMSs. It is important to stress that these SWMSs relate only to bonded ACM and are restricted to the removal of less than 10m² of bonded ACM. For any other works involving ACM outside the scope of an approved SWMS, Ergon Energy will only engage licensed asbestos removalists to conduct these works.
A detailed site specific work scope and asbestos removal control plan will be developed prior to the removal of more than **10m²** ACM or any amount of friable asbestos from any Ergon Energy properties or assets. The removal of ACM shall only be performed by a reputable, specialised asbestos removalist who must:

- Hold a valid ‘A’ class Asbestos Removal Business Certificate to perform asbestos removal work issued by Workplace Health and Safety Queensland. This certificate allows the contractor to remove friable ACM or any quantity of bonded ACM.
  
  OR
- Hold a valid ‘B’ class certificate issued by Workplace Health and Safety Queensland. This certificate allows the individual holder to remove ‘non-friable’ asbestos (bonded materials such as asbestos cement sheeting) in quantities greater than 10m². The removal of ACM in quantities less than 10m² must still comply with all relevant legislation.

The Contractor shall ensure that a ‘competent person directly supervises all aspects of the asbestos removal work, and is present at the asbestos removal site at all times when asbestos removal and decontamination work is in progress.

Proof of the qualifications of the Asbestos Removalist and the ‘competent person’ must be kept on site at all times any asbestos removal and decontamination work is being performed.

**15.2. Asbestos Remediation**

ACM remediation works (bonded or friable) on Ergon Energy sites shall be undertaken in accordance with the Queensland *Work Health and Safety Regulation 2011* and the *How to Safety Remove Asbestos Qld Code of Practice 2011*.

The preparation works required prior to the removal of asbestos materials and techniques used for the actual removal works will be dependent on the types of materials being removed and their location. It is crucial that a detailed and site specific work scope and asbestos removal control plan or SWMSs are developed prior to any works commencing in accordance with the above legislation.

**15.3. Disposal of Asbestos**

Ergon Energy have documented “Agents Agreements” with suitable qualified and certified contractors to remove, transport and dispose of asbestos waste. These agreements are in accordance with the provisions under s35 of the Environmental Protection (Waste Management) Regulation 2000. Copies of the completed Waste Transport Certificates should be sent to the Asbestos Manager.

The disposal of removed ACM and all associated waste, including contaminated disposable PPE will be the responsibility of the contractor engaged by Ergon Energy to perform any asbestos related works. The disposal of all asbestos waste off site will be in accordance with the *How to Safety Remove Asbestos Qld Code of Practice 2011*, local authority and legislative requirements.

All asbestos waste, including contaminated disposable PPE shall be double bagged prior to its removal from site, using 200μm thick polyethylene bags. Asbestos waste shall be bagged once at the workface and double bagged away from the workface but prior to leaving the removal area or enclosure. Bags should be filled to no more than 50 per cent capacity, and contents should be wet before sealing.

Consistent with good manual handling practice, bags should not exceed 16 kg in weight.

Alternatively, other approved containers may be used. In the case of non-friable materials such as asbestos cement, such materials can be placed into a plastic lined industrial waste bin or like container.
Each bag or container shall be labelled on its outermost surface, with the following warning statement or a similar statement to alert people to the asbestos hazard:

<table>
<thead>
<tr>
<th>CAUTION – ASBESTOS WASTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO NOT DAMAGE OR OPEN BAG</td>
</tr>
<tr>
<td>DO NOT INHALE DUST</td>
</tr>
<tr>
<td>CANCER AND LUNG DISEASE HAZARD</td>
</tr>
</tbody>
</table>

Transport and final disposal of asbestos waste material shall be carried out in a manner that complies with all legislative requirements, including methods that will prevent asbestos dust being released into the atmosphere (i.e. through puncturing of the bags). All asbestos waste material shall be disposed of at an approved landfill site and in a manner that complies with all legislative requirements, including but not limited to the Queensland Environmental Protection Act 1994 and Queensland Environmental Protection (Waste Management) Regulation 2000. Prior to payment of invoices, Ergon Energy must receive copies of waste disposal receipts, as provided by the approved landfills. Waste disposal receipts should be attached to the relevant Asbestos register as evidence of removal until such time as the register is updated to reflect the current state. Ergon Energy Environmental staff may be contacted regarding waste tracking of Asbestos waste.

15.4. Disposal of Asbestos Waste by Ergon Energy Employees

Ergon Energy staff trained and competent to conduct works involving ACM as per the approved SWMS’s will generate small quantities of asbestos waste. All procedures are specified within the individual SWMS’s regarding the disposal of asbestos waste must be followed.

All waste will be sealed (double bagged/wrapped) in at least 200μm thick polyethylene bags and appropriately labelled as stated above. Ergon Energy provide two options for the disposal of asbestos waste, which are used dependent on the amount of waste generated and the location of the works. The asbestos waste can be disposed of using either of the two options detailed below (refer to ES000904W101. Management of Disposal of Regulated Waste Work Instruction (Manual) for disposal requirements):

- **Option 1** - Disposal at a Local Authority Waste Disposal site that accepts asbestos waste; or

- **Option 2** - On return to the local Ergon Energy Depot, sealed asbestos waste will be placed directly into designated asbestos waste disposal bins (this is for smaller quantities of asbestos waste only).

The existing Ergon Energy procedure detailing the requirements for the disposal of regulated and trackable waste are specified within ES000904W101. Management of Disposal of Regulated Waste Work Instruction (Manual) and ES000904R112. Waste Management (Field Instruction). Ergon Energy Environmental staff may be contacted regarding waste tracking of Asbestos waste.

15.5. Project Supervision

All works carried out by asbestos removalists engaged by Ergon Energy will be supervised and monitored by the identified Ergon Energy personnel or their representative (i.e. Occupational Hygienist).

Prior to the removal of any friable asbestos, an appropriately qualified person with experience in asbestos related works shall be engaged to work independently of the asbestos removalist. The appropriately qualified person will be responsible for ensuring the asbestos removalist achieves a satisfactory level of workmanship and complies fully with statutory requirements and the requirements of the technical specification. Depending on
the nature of the work, Ergon Energy may also engage this appropriately qualified person to oversee the removal of certain bonded asbestos materials.

Commensurate with the above requirements, the specific duties of the supervising, appropriately qualified person may include:

- Inspection of the integrity of the containment prior to commencement of asbestos removal works;
- Inspection of the asbestos removalist's equipment, including decontamination and negative air units, water filtration systems, vacuum equipment, personal protective equipment (PPE) etc;
- Assessment of the asbestos removalist's work methods, use and maintenance of PPE and decontamination procedures;
- Clearance visual inspection of the work area after the removal of asbestos to verify the asbestos has been removed to a satisfactory standard; and

15.6. Airborne Fibre Monitoring

Ergon Energy will, where deemed necessary by an appropriate risk assessment, organise for air monitoring to be conducted during asbestos works in accordance with all current codes of practice and legislation.

Air monitoring refers to airborne asbestos fibre sampling to assist in assessing exposures and the effectiveness of control measures. Air monitoring includes exposure monitoring, control monitoring and clearance monitoring.

Clearance monitoring refers to air monitoring using static or positional samples to measure the level of airborne asbestos fibres in an area following the removal ACM. An area is “cleared” when the level of airborne asbestos fibres is measured as being <0.01 fibres/mL.

The need for clearance monitoring will be assessed as part of the planning and conduct of asbestos removal works. Clearance monitoring must be undertaken by a competent person who is independent from the person responsible for the removal work. Preparation and analysis of these air samples will typically be by phase contrast microscopy (PCM) and will only be undertaken by a NATA accredited laboratory.

Air monitoring must be undertaken in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)].

16. ASBESTOS EMERGENCY RESPONSE PROCEDURES

Asbestos response procedures may be required to be followed where existing ACM have been inadvertently disturbed through actions of Ergon Energy employees, maintenance personnel, contractors, visitors, members of the public or damage by severe weather conditions (e.g. hail damage to a corrugated asbestos cement roof). Where such damage has occurred, the relevant line manager and/or Safety Coordinator shall be notified immediately.

It must be noted that these procedures do not directly apply to Ergon Energy staff working with ACM where the risk has been assessed and the operative is trained and competent in the use of the SWMSs.

Ergon Energy uses a Single Incident Management Framework (SIMF) to record and categorise all incidents using a single system. All incidents are recorded, categorised and notified to relevant positions in a timely and efficient manner. Refer to ES000704R100, Single Incident Management Framework (Reference).
Asbestos Management Plan

Any incidents involving ACM and the possible exposure to airborne asbestos fibres shall be reported into eSafe.