Network Standard

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NW000-S0047 NS211 WORKING WITH ASBESTOS



ISSUE

For issue to all Ausgrid and Accredited Service Providers' staff involved in working with or removal of asbestos containing materials from the workplace, and is for reference by field, technical and engineering staff.

Ausgrid maintains a copy of this and other Network Standards together with updates and amendments on www.ausgrid.com.au.

Where this standard is issued as a controlled document replacing an earlier edition, remove and destroy the superseded document

DISCLAIMER

As Ausgrid's standards are subject to ongoing review, the information contained in this document may be amended by Ausgrid at any time. It is possible that conflict may exist between standard documents. In this event, the most recent standard shall prevail.

This document has been developed using information available from field and other sources and is suitable for most situations encountered in Ausgrid. Particular conditions, projects or localities may require special or different practices. It is the responsibility of the local manager, supervisor, assured quality contractor and the individuals involved to make sure that a safe system of work is employed and that statutory requirements are met.

Ausgrid disclaims any and all liability to any person or persons for any procedure, process or any other thing done or not done, as a result of this Standard.

All design work, and the associated supply of materials and equipment, must be undertaken in accordance with and consideration of relevant legislative and regulatory requirements, latest revision of Ausgrid's Network Standards and specifications and Australian Standards. Designs submitted shall be declared as fit for purpose. Where the designer wishes to include a variation to a network standard or an alternative material or equipment to that currently approved the designer must obtain authorisation from the Network Standard owner before incorporating a variation to a Network Standard in a design.

External designers including those authorised as Accredited Service Providers will seek approval through the approved process as outlined in NS181 Approval of Materials and Equipment and Network Standard Variations. Seeking approval will ensure Network Standards are appropriately updated and that a consistent interpretation of the legislative framework is employed.

Notes: 1. Compliance with this Network Standard does not automatically satisfy the requirements of a Designer Safety Report. The designer must comply with the provisions of the Workplace Health and Safety Regulation 2017 (NSW - Part 6.2 Duties of designer of structure and person who commissions construction work) which requires the designer to provide a written safety report to the person who commissioned the design. This report must be provided to Ausgrid in all instances, including where the design was commissioned by or on behalf of a person who proposes to connect premises to Ausgrid's network, and will form part of the Designer Safety Report which must also be presented to Ausgrid. Further information is provided in Network Standard (NS) 212 Integrated Support Requirements for Ausgrid Network Assets.

2. Where the procedural requirements of this document conflict with contestable project procedures, the contestable project procedures shall take precedent for the whole project or part thereof which is classified as contestable. Any external contact with Ausgrid for contestable works projects is to be made via the Ausgrid officer responsible for facilitating the contestable project. The Contestable Ausgrid officer will liaise with Ausgrid internal departments and specialists as necessary to fulfil the requirements of this standard. All other technical aspects of this document which are not procedural in nature shall apply to contestable works projects.

INTERPRETATION

In the event that any user of this Standard considers that any of its provisions is uncertain, ambiguous or otherwise in need of interpretation, the user should request Ausgrid to clarify the provision. Ausgrid's interpretation shall then apply as though it was included in the Standard and is final and binding. No correspondence will be entered into with any person disputing the meaning of the provision published in the Standard or the accuracy of Ausgrid's interpretation.

KEY POINTS

This standard has a summary of content labelled "KEY POINTS FOR THIS STANDARD". The inclusion or omission of items in this summary does not signify any specific importance or criticality to the items described. It is meant to simply provide the reader with a quick assessment of some of the major issues addressed by the standard. To fully appreciate the content and the requirements of the standard it must be read in its entirety.

AMENDMENTS TO THIS STANDARD

Where there are changes to this standard from the previously approved version, any previous shading is removed, and the newly affected paragraphs are shaded with a grey background. Where the document changes exceed 25% of the document content, any grey background in the document is to be removed and the following words should be shown below the title block on the right-hand side of the page in bold and italic, for example, Supersedes – document details (for example, "Supersedes Document Type (Category) Document No. Amendment No.").

KEY POINTS OF THIS STANDARD

Scope and Risks Addressed

This standard applies to all work undertaken by Ausgrid staff and contractors on, or in close proximity to asbestos-containing products throughout the Ausgrid network, office/depot buildings and any other work site.

- ☐ Background information about asbestos related products, associated health risks and licensing requirements
- ☐ An Asbestos Gateway is provided on Ausgrid's internal web site to provide access to useful tools:
- ☐ Asbestos Management Strategy
- ☐ Asbestos Register - centralised source of information concerning asbestos at Ausgrid sites.
- ☐ Asbestos product guides
- ☐ Asbestos training requirements.
- ☐ SafeWork NSW asbestos licensing requirements

Where to for more information?

Section 1, 2, 3, 4, 5

Tools and Forms

Asbestos Register on The Wire
Asbestos Gateway

General requirements

- ☐ Assessing type and condition of asbestos
- ☐ Site risk assessment
- ☐ PPE Requirements
- ☐ Encapsulating/sealing of asbestos material
- ☐ Handling public enquiries relating to working on/removal of asbestos materials
- ☐ Restricting access
- ☐ Asbestos waste disposal
- ☐ HAZMAT removal/remediation form

Where to for more information?

Section 6

Tools and Forms

Asbestos Gateway
Asbestos Product Guides

Unlicensed asbestos work

- ☐ No working with friable asbestos (unless in accordance with an exemption)
- ☐ No removing more than 10m^2 or 100kg of non-friable asbestos per site.
- ☐ SafeWork NSW Code of Practice How to Safely Remove Asbestos (2022).
- ☐ Notify those in the immediate vicinity of the works.

Where to for more information?

Section 5

Tools and Forms

HazMat Remediation & Removal form

Licensed asbestos work

- ☐ Ausgrid employees should contact the Asbestos Removal Contractor Panel
- ☐ Notifications to the Regulators
- ☐ Notify SafeWork NSW in writing at least five days before the licensed asbestos removal work commences.
- ☐ Consulting with Occupants of Premises.

Where to for more information?

Section 6

Tools and Forms

HazMat Remediation & Removal form

Network Standard
NS211
Working with Asbestos

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HazMat Remediation & Removal Form

Email to: hazmat@ausgrid.com.au

Remediate by trained and competent Ausgrid staff

☐ Encapsulation (sealing) of asbestos and/or lead containing products

Unlicensed Removal by trained and competent Ausgrid staff

☐ Removal of non-friable asbestos less than 10m²	☐ Removal of LV HRC fuses as per SafeWork NSW Exemption Order No. 009/21

Notification of Removal by independent Licensed Asbestos Removalist (non Ausgrid)

☐ Non-Friable Asbestos of greater than 10m² ☐ Friable Asbestos ☐ Lead containing dust and or paint

Licenced Asbestos Removalist (LAR) / Company:	
LAR Licence Number:	
Has the control plan been sighted prior to start?	
Licenced Asbestos Assessor (LAA) / Company	

Removal Date(s)	**Substation No. / Sub Name / Pit No.**	**Street Address / Suburb**

Duration of works	Start time:	End time:
Ausgrid staff / co-ordinator names:		

Occurrence No. or *Action No.* *(as per Asbestos Register)*	**Description of Asbestos / Lead containing materials remediated and / or removed**	**Approx. quantity**	**Task Completed**	**Described unremoved or residual material** *(eg. Floor tiles under equipment remain)*
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	

Asbestos Waste Disposal Method

☐	Ausgrid Waste Bin *(state Depot location)*
☐	Licenced Waste Facility *(state name and address)*

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1.0 PURPOSE

The purpose of this document is to provide the minimum requirements for working in close proximity to, or disturbing and/or removing. Asbestos Containing Materials (ACM) from the workplace.

2.0 SCOPE

This document applies to all Ausgrid staff, ASP's and contractors, when working on, or in close proximity to, asbestos-containing materials. This includes all electrical network assets and non-network areas including office/depot facilities When Ausgrid staff are working at non Ausgrid sites, the general requirements of this Network Standard are still to be applied.

3.0 REFERENCES

3.1 General

All work covered in this document shall conform to all relevant Legislation, Standards, Codes of Practice and Network Standards. Current Network Standards are available on Ausgrid's Internet site at www.ausgrid.com.au.

3.2 Ausgrid documents

- Asbestos Management Strategy
- Asbestos Register
- HazMat Remediation and Removal Form
- Ausgrid Safe Work Method Statements & Hazard Assessment Conversation procedures
- Electrical Safety Rules
- Electricity Network Safety Management System Manual
- NS001 Glossary of Terms
- NS156 Working Near or Around Underground Cables
- NS181 Approval of Materials and Equipment and Network Standard Variations
- NS211 Annexure F - Asbestos Product Guide
- NS211 Annexure G – LV HRC Fuse Asbestos Product Guide
- NS212 Integrated Support Requirements for Ausgrid Network Assets

3.3 Other standards and documents

- ENA Doc 001-2008 National Electricity Network Safety Code
- SafeWork NSW Code of Practice: How to Manage and Control Asbestos in the Workplace (2022)
- SafeWork NSW Code of Practice: How to Safely Remove Asbestos (2022)
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC:3003 (2005)]
- Workplace Exposure Standards for Airborne Contaminants 2018, Safework Australia.
- Respiratory protection devices, AS/NZS 1716:2012
- Selection, Use and Maintenance of Respiratory Protective Devices, AS/NZS 1715:2009
- National Environment Protection (Assessment of Site Contamination) Measure 1999

3.4 Acts and regulations

- Electricity Supply (General) Regulation 2014 (NSW)
- Electricity Supply (Safety and Network Management) Regulation 2014 (NSW)
- Protection of the Environment Operations Act 1997 (NSW)
- Protection of the Environment Operations (Waste) Regulations 2014
- Work Health and Safety Act 2011 (NSW) (WHSA) and Work Health and Safety Regulation 2017 (NSW) (WHS Regulation)

4.0 DEFINITIONS

Refer to NS001 Glossary of Terms

5.0 GENERAL

5.1 Asbestos background

Asbestos dust contains tiny, almost indestructible, fibres, which can cause damage when they are breathed into the lungs. The most dangerous are the smallest ones, which are invisible to the naked eye, but which can penetrate the lungs most deeply. The amount of asbestos dust in the air people breathe and the duration of exposure are the important factors in determining the level of risk.

Asbestos fibres are hazardous if the fibres become airborne and can be inhaled. Breathing in asbestos fibres can cause asbestosis, lung cancer and mesothelioma. The risk of contracting these diseases increases with the number of fibres inhaled, and the risk of lung cancer from inhaling asbestos fibres is also greater if you smoke.

If asbestos fibres are in a stable material, such as asbestos fibre cement, they pose little health risk. However, when the asbestos fibre cement is damaged or disturbed in some way, fibres can become loose and airborne, and pose a risk to someone's health.

5.2 Asbestos exposure

Asbestos fibres pose a risk to health if airborne, as inhalation is the predominant route of entry into the body. The effect of asbestos on health is dependent on:

- Length of duration of exposure.
- The concentration of airborne asbestos fibres.
- The size and form of the fibre.

People who suffered health effects from exposure to asbestos have generally worked in either the asbestos mining or milling industry, worked in industries involved in making, installing or servicing asbestos products, or are from the immediate families of these people. In all these situations there was exposure to high levels of airborne dust, from either the processes involved or from the clothes of the workers. These exposures occurred over a number of years and at levels many times higher than allowed by present day exposure standards.

The exposure standard sets out the maximum allowable time-weighted average (TWA) fibre concentration of the air breathed by the worker, without using any Personal Protective Equipment (PPE). This is calculated from measurements taken over a sampling period of not less than four hours using the Membrane Filter Method, (Guidance Note [NOHSC:3003 (2005)]). The TWA airborne concentration for asbestos is 0.1 fibres per millilitre of air.

Although 0.1 fibres per millilitre of air is the maximum allowable exposure for airborne asbestos fibres, work practices should be designed to minimise exposure to airborne asbestos fibres.

Clearance or air monitoring measures the level of airborne asbestos fibres in an area following work on ACM. An area is "cleared" when the level of airborne asbestos is measured below 0.01 fibres/ml. It should be noted that 0.01 fibres/ml is the lowest measurement that can be obtained through normal detection by the Membrane Filter Method of measurement.

5.3 Asbestos in Ausgrid's network

Prior to the 1980s, asbestos was in common use as a building and insulating material throughout Ausgrid's electricity network. It was the main insulating material for high temperature electrical wiring. It was also used in cable bandages, joints, pit lids, busbar trunking, phase barriers,

switchboards and LV Boards and was routinely installed in substation buildings in the form of asbestos cement sheeting or floor tiles. In NSW, the use of asbestos was discontinued in flat fibrous cement sheeting by 1982, in corrugated sheets by 1984 and in all other fibrous cement products by 1986. The manufacture, use and importation of asbestos-containing products was banned in Australia from 31 December 2003. Examples of products in which asbestos has been used in the Ausgrid workplace include:

- Fire stopping material, lagging and sprayed insulation.
- Asbestos cloth, tapes and rope.
- Asbestos cement sheets and asbestos cement pipes.
- Friction materials such as brake and clutch linings.
- Rubber, plastic, thermosetting resins, adhesives and cements, paints, coatings, caulking compounds and sealants.
- High Rupturing Capacity (HRC) Fuses.
- Filter papers and gasket materials.

At Ausgrid ACM is most commonly found in asbestos cement products. A number of products made from asbestos cement are still found on the network and in buildings. These products include:

- flat, corrugated or compressed asbestos cement sheeting; and
- asbestos cement pipes such as water, drainage, flue pipes and electricity conduits.

For a list of asbestos-containing material types that have been identified in Ausgrid's assets, see *NS211 Annexure F Asbestos Product Guide*.

5.4 Asbestos Gateway

Ausgrid maintains a central location on the company's intranet 'The Wire' called the Asbestos Gateway. This gateway provides access to internal and external resources to aid in the management of asbestos at Ausgrid sites. The Asbestos Gateway provides access to:

- Ausgrid's Asbestos Management Strategy
- The Asbestos Register
- Asbestos Product Guides (NS211 Annexure F - Asbestos Product Guide and NS211 Annexure G – LV HRC Fuse Asbestos Product Guide)
- Asbestos waste bin locations
- Asbestos training information
- Details of PPE and equipment requirements
- Access to Ausgrid's asbestos related procedures and other documentation
- Supporting survey and safety forms
- SafeWork NSW Codes of Practice for managing and removing asbestos

Workers who do not have access to the Ausgrid intranet (i.e. contactors and ASPs) must request a copy of the Asbestos Register information for Ausgrid sites through their Ausgrid point of contact.

5.5 Asbestos Management Strategy

Ausgrid's Asbestos Management Strategy sets out the steps to be taken to eliminate or otherwise minimise the risks of exposure to airborne asbestos fibres, including the identification of ACM, risk assessments and the implementation of control measures. The objective of these measures is to prevent workplace exposure to airborne asbestos fibres and thereby reduce the incidence of asbestos related diseases such as mesothelioma, asbestosis and lung cancer.

5.6 Asbestos Register

Ausgrid's Asbestos Register identifies work locations where asbestos may be present and provides details of what may be found at a location. It contains a comprehensive record of asbestos present (either suspected or confirmed through audits) in Ausgrid premises, including office and depot buildings and network assets.

The register is accessible via the Asbestos Gateway. Workers who do not have access to the Ausgrid intranet (i.e. contactors and ASPs) must request a copy of the Asbestos Register information for an Ausgrid site via their Ausgrid point of contact.

The register can be searched by asset number or location and provides hyperlinked access to site plans, surveys and audit reports conducted on the asset or at the nominated location.

Authorised ASP/3 designers have access to the locations of known Hazardous Materials on the Ausgrid Network via the WebGIS. The extracted report is incorporated into the Environmental SER which forms part of the certified design package that is used by the ASP/1 to construct the contestable works.

If materials suspected of containing asbestos are encountered whilst carrying out or planning works that are not listed in the Asbestos Register must be referred to the Facilities Management Hazmat section for further investigation to confirm the nature of the material.

5.7 Asbestos Product Guides

NS211 Annexure F - Asbestos Product Guide is a collection of data sheets describing ACM products which have been found on Ausgrid assets and worksites (noting this is a separate attachment to this document).

Each data sheet contains a description, identification, common names used to describe these products and photographs for an easy identification of the products.

There is also a safety section, in the guide, describing the level of Personal Protective Equipment required, procedures, precautions and regulations relating to working in the vicinity of, or removing those products.

NS211 Annexure G - LV HRC Fuse Asbestos Product Guide is a collection of photos and safety instructions for managing HRC Fuses (noting this is a separate attachment to this document).

5.8 Asbestos training

Asbestos training must be completed in accordance with Ausgrid's Asbestos Training Strategy. If an Ausgrid employee has not completed asbestos training or the training has expired, that person is not authorised to work on asbestos-containing materials or access areas where the use of PPE is mandated.

Training needs are assessed based on the workers role, including:

- Level 1 - The Asbestos Awareness Training e-learning course (SSAB1001) is mandatory for all Ausgrid employees and is a pre-requisite for additional modules. This training is refreshed annually.
- Level 2 – This training is for Ausgrid employees who are largely office-based, but on occasion go into the field. This training is refreshed annually.
- Level 3 - In addition to Level 1 and 2 training, Ausgrid employees who undertake field work must complete Level 3 task specific training which includes additional practical demonstrations and a respirator 'fit' test. Level 3 training is refreshed annually and initial training modules must also be retrained every three years.
- Level 4 - Ausgrid employees who require a non-disposable respirator must complete Level 4 training. This training has an initial training module only. A 'fit' test for the non-disposable respirator is undertaken as part of Level 3 refresher training.

Workers engaged as contractors to work on or around the network must, as a minimum, complete Asbestos Awareness Training (AAT) in accordance with the SafeWork NSW Code of Practice *How to Safely Remove Asbestos* (2022).

5.9 SafeWork NSW asbestos licence requirements

The SafeWork NSW licensing system protects asbestos workers, building occupants and the public by ensuring that contractors have the appropriate skills, training and experience in asbestos work to prevent occupational and environmental contamination.

Class A Licensed Asbestos Removalists can remove both friable and non-friable asbestos.

Class B Licenced Asbestos Removalists can only remove non-friable asbestos. A list of licenced asbestos removalists is available via the SafeWork NSW website.

Work requiring a license must only be performed by persons holding the appropriate license. Ausgrid uses licensed asbestos removal contractors for licensed asbestos removal work.

A licence is required for the removal of asbestos containing material unless the asbestos to be removed is:

- non-friable asbestos with a total surface area of less than 10m^2 and/or less than 100kg per site. The job **must not** be split into multiple removals to avoid licencing requirements;
- friable asbestos removed for the purpose of collecting a sample; or
- an exemption has been authorised by SafeWork NSW.

6.0 WORK PROCEDURES GENERAL

6.1 Limit on the use of equipment

At Ausgrid sites the following equipment types are prohibited for use on asbestos or ACM:

- high pressure water spray, and
- compressed air.

The following equipment is not to be used at Ausgrid sites on asbestos or ACM unless the equipment is controlled by being enclosed, or is designed and or is used in a way to capture or suppress airborne asbestos fibres:

- power tools including drilling, cutting and abrading tools,
- brooms, and.
- any other equipment that when used can cause the release of airborne asbestos.

Only vacuum cleaners that comply with the Class H requirements in Australian Standard '*AS/NZS 60335.2.69 Industrial vacuum cleaners*' and fitted with a HEPA filter are to be used during asbestos removal and decontamination when working with asbestos. Filters for the Class H vacuum cleaners must conform to the requirements of '*AS4260-1997 High efficiency particulate air (HEPA) filters – Classification, construction and performance*'.

6.2 Assessing asbestos type and condition

Before commencing any work on or adjacent to an asbestos product, it is essential to determine the type and condition of the material. The result of the assessment will determine:

- if a licensed removalist is required,
- type of PPE required, and
- work procedure to be used.

A flowchart detailing the steps required to manage work involving disturbance of asbestos at Ausgrid is attached at Annex A.

The assessment should include a check of the asbestos register and a determination of the asbestos classification.

6.2.1 Check asbestos register

Check the Asbestos Register (or the WebGIS) to determine whether asbestos has been identified at the work location and whether it has been classified as non-friable or friable. Ausgrid staff allocating work to contractors or coordinating access to the Ausgrid network for ASPs, must check the register and pass on information relating to hazardous materials for the site. The WebGIS provides an indication of the presence of asbestos at a site and the detail relating to the type and condition of the asbestos material is contained in the asbestos register.

6.2.2 Determine the classification of the asbestos material

If asbestos is located at a site and it is not listed in the Asbestos Register an assessment shall be made as to how the material is classified, using the following information as a guide for classifying asbestos material.

Non-friable asbestos material - Is any material that contains asbestos fibres in bonded material. The asbestos fibres are typically contained within the matrix of the material and do not easily become airborne. This is the most common form of asbestos product used on the Ausgrid network and examples include:

- asbestos cement products such as flat, moulded and corrugated sheeting, piping used in conduits, busbar trunking, joint troughing, building eaves, walls, and ceiling linings;
- vinyl floor tiles;
- bituminous based electrical switchboards; and
- phase barriers.

Friable asbestos material - Is any material that contains asbestos in the form of powder or can be crushed, pulverised, or reduced to powder by hand pressure when dry. Examples of friable asbestos materials found on the Ausgrid network include:

- sprayed asbestos insulation;
- pipe and boiler insulation; and
- friable asbestos fabric (asbestos cable bandage and rope gaskets fall into this category).

A list of known asbestos product types and minimum controls for working on or near the asbestos materials that can be found in Ausgrid workplaces is contained in NS211 Annexure F Asbestos Product Guide.

Asbestos in soil - Asbestos contaminated soil comprises pieces of asbestos cement products and material containing asbestos that is uncovered in soil during other work activities. Management options that minimise soil disturbance and therefore public risk are preferred.

Where appropriate, the management of asbestos in situ is encouraged and this may include covering the contamination with uncontaminated fill or other protective or warning layers. The common alternative of complete removal of asbestos from a site often involves extensive and costly investigative and validation sampling and may not be effective or necessary for the protection of human health.

A risk assessment by an independent Licensed Asbestos Assessor or competent person should be used to determine whether management of asbestos in situ is appropriate. The risk assessment should determine the control measures and remediation strategies for the asbestos on the site.

6.3 Site risk assessment

A risk assessment must be carried out to determine how to proceed with the removal and this may include engaging a Licenced Asbestos Assessor for the purpose of classifying asbestos on the site, and to assist with the risk assessment process and advise on appropriate control measures.

6.4 Notifications to the Regulator

When a licenced asbestos removal is being undertaken (friable ACM or >10m^2 and/or 100kg or greater of non-friable ACM) there is a requirement for the removalist to notify SafeWork NSW in writing at least five days before the licensed asbestos removal work commences.

6.5 Consulting with occupants of Premises

When asbestos removal work is to be carried out at a workplace, the person with management or control of the workplace (generally Ausgrid) will notify:

- the person's workers and any other people at the workplace, and
- the person who commissioned the asbestos removal work

Ausgrid will also take all reasonable steps to notify anyone who is:

- conducting a business at or in the immediate vicinity of the workplace, and

- occupying a premise in the immediate vicinity of the workplace.

Additional notification requirements apply if the asbestos removalist if undertaking licensed asbestos work at residential premises and these requirements, set out in section 467 of the WHS Regulation, must be adhered to.

A notice should, so far as is reasonably practicable, be provided in the form of a letter and include the following information:

- the work being undertaken;
- when the work is to start and be completed;
- that the removal will be undertaken in accordance with the SafeWork Code of Practice 'How to Safely Remove Asbestos', and
- A point of contact for questions and/or additional information.

An example of the type of notice is attached at Annexure B.

6.6 Personal Protective Equipment (PPE)

When working on or near asbestos, selection of PPE must be undertaken as part of the prework risk assessment. Refer to Section 6.2 when assessing asbestos type and condition.

Only approved PPE items may be used. Additional detail in relation to Asbestos PPE is at Annexure C.

6.6.1 Respirators

Good respiratory protection is vital, and respirators used when working on or around asbestos must comply with the requirements of *AS/NZS 1716:2012 Respiratory protection devices*. It is essential that every person who relies on respirators for protection has a thorough understanding of how they work, how to check for best fit, their limitations and the maintenance requirements of the respirators.

For people with facial hair a full face or powered air purifying respirator may be required. A fit test must be undertaken to ensure chosen respirator is adequate.

6.6.2 Precautionary Asbestos PPE (Level 1 Asbestos PPE)

Level 1 Asbestos PPE is used as a precautionary control against the unintended release of airborne asbestos fibres, that may be created as a result of the work activity. It is a minimum level of control that can be selected during the risk assessment process when asbestos is known to be present and the unintended disturbance of the asbestos is possible. Examples of situations when Level 1 Asbestos PPE may be selected for use include:

- asbestos-containing materials are present but are not being directly worked on but there is a potential to disturb the asbestos by cutting, drilling, abrading or otherwise disturbing;
- asbestos-containing dust and debris are likely to be present, however, is unlikely to be disturbed by the work. (Note for asbestos-containing dust to be considered a hazard, there must be a source of asbestos fibres, such as friable asbestos, asbestos-containing materials that are damaged or in poor condition, or evidence of asbestos-containing materials that have been worked on without appropriate decontamination following the previous work); or
- when indicated by the Safe Work Method Statement for the task

Level 1 PPE consists of:

- P2 Disposal Respirator (or P2 Non-Disposal Half-Face or Full-Face Respirator when facial fit is not achievable); and
- disposable Nitrile or cleanable gloves.

6.6.3 Working with Asbestos PPE (Level 2 Asbestos PPE)

Level 2 PPE is the general requirement for use when the risk assessment undertaken prior to the work, identifies that the work activity will result in the disturbance of asbestos. Examples of when Level 2 Asbestos PPE must be selected during the risk assessment include when:

- asbestos-containing materials are present and are likely to be disturbed by the work;
- asbestos-containing dust and debris are likely to be present and are likely to be disturbed by the works;
- carrying out work on asbestos-containing materials AND the work disturbs the material by cutting, drilling or abrasion; or
- removing non-friable (bonded) asbestos material.

Level 2 PPE consists of:

- P2 Disposal Respirator (or P2 Non-Disposal Half-Face or Full-Face Respirator when facial fit is not achieved);
- disposable Nitrile or cleanable gloves;
- Type 5 – Category 3 Particulate Resistance Coveralls (Tyveck) [✗ Do not use where ignition source present] or Type 5 – Category 3 Particulate Resistance Coveralls Flame Retardant (Pyrolon); and
- Safety Gum Boots, or Lace-less boots only [Laced style boots and Suede boots are ✗ Not Allowed / Suitable - as laces and eyelets can be contaminated and are difficult to clean].

Level 2 PPE flame retardant coveralls (Type 5 – Category 3 Particulate Resistance Coveralls Flame Retardant (Pyrolon) **must** be used when:

- working live,
- where exposed conductors are present in the work area, or
- where there is an ignition source within the work area.

6.6.4 Emergency Response Asbestos PPE – (Level 3 Asbestos PPE)

Level 3 PPE must be used when responding to a network emergency such as:

- substation fire;
- substation flood; or
- substation structural failure (e.g. building collapse).

Level 3 PPE is to be used until such time as it is proven that there are no asbestos containing materials on site (e.g. through checking of the asbestos register) or until air monitoring has been undertaken and a clearance is issued by a Licenced Asbestos Assessor.

Level 3 PPE Consists of:

- P2 Non-Disposable Full-Face Respirator [P2 Disposable and Half-Face ✗ Not Allowed];
- disposable Nitrile or cleanable gloves;
- Type 5 – Category 3 Particulate Resistance Coveralls Flame Retardant (Pyrolon) [Type 5 – Category 3 Particulate Resistance Coveralls (Tyveck) ✗ Not Allowed]; and
- Safety Gum Boots only [Boot Covers and Lace-Less Boots ✗ Not allowed].

***Major depots and DOp's stores should have Level 3 Asbestos PPE Kits for Network Emergency Response scenarios**. A list of sites and points of contact to access the kits are listed on the Asbestos Gateway under PPE & Equipment and on the Asbestos Register Useful Links tab.*

6.7 Encapsulation/sealing of asbestos material

Encapsulation or sealing of asbestos material is often required to minimise the generation of dust during the removal or work process or to stabilise material that is to be left on site. Painting with a suitable sealant and wrapping in plastic sheeting are the two methods used. These methods are described in this section.

Encapsulation or sealing of non-friable ACM requires workers to have current asbestos training for the task (see Section 5.8). Encapsulation or sealing of friable ACM requires a Class A Licenced Asbestos Removalist (see Section 5.9).

Sealant (e.g. Emerclad or like product) may be used to seal broken or damaged non-friable asbestos materials and for asbestos products that are to remain in-situ.

Sealant is to be applied with a paintbrush or roller. Once the sealant paint tin and paintbrush/roller have been used they are to be considered as asbestos contaminated. The paintbrush/roller must be disposed of as asbestos waste. The sealant must only be used for asbestos encapsulation activities and be marked as such. The paint tin/container must be wet wiped as part of the site decontamination after use.

For asbestos encapsulation applications, a primer or standard drying times may not be required for some sealants, refer to the manufacturer instructions for drying time). The fibres are sealed when the product is first applied. Allow for a touch drying time if there is the potential to brush against the material, as the paint will stick to clothes. Where work is urgent, plastic sheeting can be placed over the painted surface to protect clothes. When the work is complete, remove the plastic and reapply the sealant to the asbestos surface again to ensure encapsulation.

6.7.1 Temporary encapsulation

Temporary encapsulation may be achieved by wrapping the asbestos material in 200μm thick builders' plastic. This method may be considered appropriate where maintenance activities are proposed in the vicinity of the asbestos material of concern. This method is not acceptable for longer term risk management (greater than six months).

Asbestos cable bandages are friable and encapsulation is to be undertaken by a Class A Licenced Asbestos Removalist.

6.8 Dealing with public enquiries

Due to the presence of ACM on the network asbestos removal work is at times undertaken in or adjacent to public areas. Public enquiries in relation to asbestos removal work should be responded to with courtesy and the provision of relevant information.

The type of information to be provided should include:

- Who is undertaking the removal — trained workers at the site or licenced asbestos removalists.
- That the workers have been trained and are using safe working practices to manage the risks of working on materials containing asbestos.
- The work will be undertaken in accordance with the SafeWork Code of Practice 'How to Safely Remove Asbestos'.
- The practices include assessing any risk, wearing appropriate safety equipment, using special vacuum cleaners to clean up any dust, and establishing a perimeter to prevent exposure to anyone in the immediate area.

- For further information, members of the public can call the Hazardous Materials Hotline 02 9394 6961 or email hazmat@ausgrid.com.au.

6.9 Restricting access to the asbestos removal area

Barricades, signage and other means must be used to alert people to the presence of asbestos removal work, delineate the removal area and as far as reasonably practical, restrict access to only those associated with the removal works.

6.10 Waste disposal

Asbestos waste must be correctly labelled and disposed of as soon as practicable.

Asbestos waste must be double bagged in heavy duty low density 200μm thick clear polythene bags. All bags must be labelled as containing asbestos waste. Suitably labelled asbestos waste bags are available from the Ausgrid store.

Where asbestos waste does not fit into an asbestos waste bag, two layers of 200μm thick plastic sheeting must be used to wrap the waste. All joins must be overlapped by 300mm and taped. The plastic must be labelled as containing asbestos waste (CAUTION-ASBESTOS). This may be achieved by taping an asbestos waste bag to the outside of the plastic.

Asbestos waste bags **must not** be overfilled so as to make them too heavy or risk the chance of waste escaping from the bags. Any sharp edged or pointed items should be adequate protected prior to placing them into the waste bag.

The bags should be closed in the following manner: excess air should be gently expelled from the bag ('H' Class vacuum cleaners **must not** be used to expel air from bags); the bag should be twisted closed and the twisted neck taped firmly, and the taped neck should then be folded over onto itself and firmly taped down (goose necking). The bag is to be placed in asbestos bin at depot or disposed of as 'Special Waste - Asbestos' at a licensed waste facility.

Where any asbestos removal involves transport of >100kg of ACM the transport and disposal are subject to the waste tracking requirements of the EPA. In order to transport >100kg of ACM a consignment authorisation (CA) must be obtained prior to transporting the waste and a transport certificate (TC) must be created. The EPA has developed the online waste tracking system to enable creation of consignment authorisations and transport certificates. A single printed copy of the TC must accompany the waste during transport. The certificate can be created online and printed when needed. The waste tracking requirements are normally undertaken by a licenced asbestos removalist through the online waste tracking system.

6.11 HazMat Remediation & Removal Forms

A removal form needs to be completed for every asbestos removal task. This includes tasks where asbestos is left in situ and encapsulated with plastic or a sealant. Asbestos is left in situ needs to be recorded in the asbestos register.

The latest version HazMat Remediation & Removal Form is located in the Tools section on the Asbestos Gateway. The completed form along with tipping dockets, waste tracking, and clearance certificates should be emailed to Hazmat@ausgrid.com.au.

A copy of the HazMat Remediation & Removal Form is attached at Annexure D.

7.0 ASBESTOS MANAGEMENT PROCEDURE FOR INCIDENTS

If an activity involves the accidental disturbance of asbestos containing materials such as faults on cables with asbestos bandages, substation fire, or explosion in which asbestos fibres may have been released, the following steps must be followed:

Step	Action Required	Responsible person	Outcomes Required
1	Remove personnel from area	Workers with control of the site	Remove personnel from areas considered to be at risk to asbestos exposure and don Level 3 'Emergency Response' Asbestos PPE as per Section 6.3.4 of this Standard. **← Go to Step 2**
2	Restrict access to area, inform manager*, workers at the site and the relevant Health & Safety Advisor	Workers with control of the site	Access to the area should be controlled and signs posted to warn unauthorised persons against entering the disturbance area. Inform appropriate personnel. Conduct emergency repair work (if required) using Level 3 'Emergency Response' Asbestos PPE as per Section 6.3.4 of this Standard. **← Go to Step 3**
3	Shut down air handling system (if present)	Workers with control of the site	The air handling system should be shut off and/or temporarily modified to prevent the distribution of fibres from the area or other areas in the building. **← Go to Step 4**

4	Contact Senior Project Officer Hazmat on **02 9394 6961** to arrange for Licenced Asbestos Assessor to attend scene	Supervisor of workers on site	Contact Senior Project Officer Hazmat to organise a Licenced Asbestos Assessor to confirm the presence of ACMs and to advise of appropriate control strategies. Following advice from the Licensed Asbestos Assessor, Senior Project Officer Hazmat to engage a Licensed Asbestos Removalist to undertake asbestos remediation works. **← Go to Step 5**
5	Undertake air monitoring	Licenced Asbestos Assessor	Asbestos fibre air monitoring is required outside the area of asbestos contamination while clean up works are being conducted to ensure that dust levels do not exceed acceptable levels. **← Go to Step 6**
6	Conduct clearance inspection, clearance and provides clearance certificate	Licenced Asbestos Assessor	After clean-up works have been completed, asbestos fibre air monitoring (where applicable) shall be conducted in the affected area to ensure that asbestos fibre levels are at an acceptable level. Only when the asbestos level is acceptable and the remediation works have been conducted to a satisfactory standard, and a clearance certificate has been issued, shall personal be allowed to reoccupy the affected area. **← Go to Step 7**
7	Notify SafeWork NSW	Licensed Asbestos Removalist	The Licensed Asbestos Removalist is to notify SafeWork NSW of the emergency asbestos removal work in accordance with the WHS Regulation.

*ASPs and contractors must contact their Ausgrid point of contact and inform them of the incident.

8.0 AUSGRID RECORDKEEPING

The table below identifies the types of records relating to the process, their storage location and retention period.

Table 1 – Recordkeeping

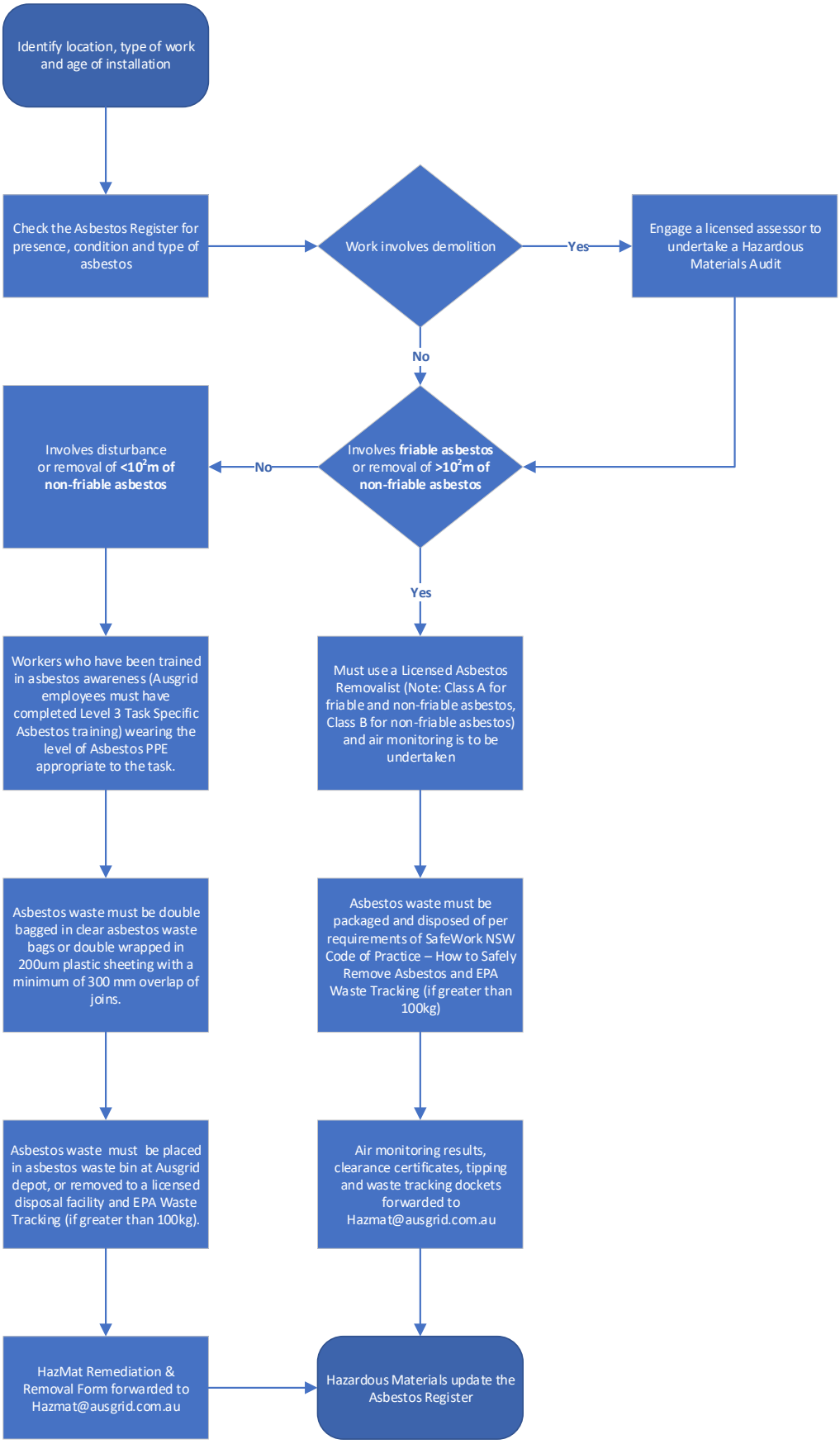
Type of Record	Storage Location	Retention Period*
Approved copy of the network standard	Document repository Network sub process Standard – Company	Unlimited
Draft Copies of the network standard during amendment/creation	Work Folder for Network Standards (HPRM ref. 2014/21250/323)	Unlimited
Working documents (emails, memos, impact assessment reports, etc.)	Records management system Work Folder for Network Standards (HPRM ref. 2014/21250/323)	Unlimited

*The following retention periods are subject to change if the records are required for legal matters or legislative changes. Before disposal, retention periods should be checked and authorised by the Records Manager.

9.0 AUTHORITIES AND RESPONSIBILITIES

For this network standard the authorities and responsibilities of workers and managers in relation to content, management and document control can be obtained from the Company Procedure (Network) – Production/Review of Network Standards. The responsibilities of persons for the design or construction work detailed in this network standard are identified throughout this standard in the context of the requirements to which they apply.

ANNEXURE A – PROCESS FOR WORKING WITH ASBESTOS



ANNEXURE B – SAMPLE ASBESTOS REMOVAL NOTICE

Asbestos removal work

Ausgrid

What work is Ausgrid conducting?

Ausgrid has become aware of asbestos containing equipment on parts of the electricity network in your local area.

Crews will be safely removing the equipment from:
(insert location)

We will take precautions for public safety during the removal works.

This type of work includes setting up an exclusion zone and may require the establishment of a decontamination area.

Crews will remove the material using approved methods and all waste will be disposed of appropriately.

Crews will be wearing appropriate protective clothing.

All asbestos removal work is conducted by trained staff and licensed asbestos removalist's following safe work procedures in accordance with SafeWork NSW requirements.

When is the work happening?

- Crews will start work on (insert date)
- It is expected the work will be completed that day.
- The work will require access to the footway.

What is asbestos?

Asbestos is a naturally occurring mineral that was used in the manufacturing of building materials and other products in many industries because of its resistance to fire, heat, electrical and chemical damage.

Asbestos was commonly used in building materials prior to 1988.

It was banned from all uses in 2003.

It is a known carcinogen and the inhalation of airborne asbestos fibres may cause asbestosis, lung cancer ormesothelioma.

When non-friable[1] asbestos-containing materials are maintained in good condition, then they present a negligible health risk.[2] Nevertheless, safety precautions must be taken when working on any material that contains asbestos.

Asbestos safety procedures

For this work, Ausgrid staff and contractors may apply the following asbestos safety controls

Site setup

- Barricading the work area to prevent unprotected persons from entering.
- Establish a decontamination area.

Undertaking work

- Conduct work in accordance with Safe Work Procedures.
- Wear personal protective equipment (PPE) including a P2 rated respirator and disposable coveralls.

Decontamination

- Decontaminating all PPE and tools.
- Disposing of waste as double bagged asbestos waste in accordance with the NSW *Work Health and Safety Regulation 2011*

Keeping you informed

Further information on Ausgrid's asbestos risk management can be found on our website ausgrid.com.au/asbestossafety.

If you have any questions you can contact us on

(02)9394 6961 or email hazmat@ausgrid.com.au

Interpreter service 131 450

[1] Non-friable asbestos-containing materials cannot be broken by hand pressure.

[2] SafeWork NSW: Working with Asbestos, Guide 2008.

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ANNEXURE C – ASBESTOS PPE GUIDE

Asbestos Personal Protective Equipment Guide

This is a PPE guide only and is not intended to replace information contained in Ausgrid's Asbestos Safety Management Plan or NS211 Working with Asbestos Products or Safe Work Method Statements.



Respiratory PPE



Hand Protection



Protective Clothing



Protective Footwear

Ausgrid

Precautionary Asbestos PPE

(Level 1 Asbestos PPE)

SHOULD BE USED WHEN

- Asbestos-containing materials are present but are not being worked on by cutting, drilling, abrading or otherwise disturbing.
- Asbestos-containing dust and debris are likely to be present but are unlikely to be disturbed by the work. (note for asbestos-containing dust to be considered a risk, there must be a source of asbestos fibres, such as friable asbestos, asbestos-containing materials in poor condition or evidence of asbestos-containing materials that have been worked on without appropriate decontamination following the previous work).
- Not directly contacting asbestos-containing materials.
- If indicated by the task Safe Work Method Statement.



P2 Disposable Respirator
✕ Do not use if facial fit cannot be achieved.



P2 Non-Disposable Half-Face Respirator
☑ Use when a facial fit is not achieved with a disposable mask.
☑ Usage training required.



P2 Non-Disposable Full-Face Respirator
☑ Use when a facial fit is not achieved with a non-disposable half face mask.
☑ Usage training required.



Disposable Nitrile Gloves



Type 5 – Category 3 Particulate Resistant Coveralls (Tyvek)



Type 5 – Category 3 Particulate Resistant Coveralls Flame Retardant (Pyrolon)



Safety Gum Boots



Boot Covers
✕ Do not use if a slip hazard is present

Working with Asbestos PPE

(Level 2 Asbestos PPE)

MUST BE USED WHEN

- Asbestos-containing materials are present and may be disturbed by the work.
- Asbestos-containing dust and debris are likely to be present and are likely to be disturbed by the works.
- Carrying out work on asbestos-containing materials AND the work disturbs the material by cutting, drilling or abrasion.
- Removing quantities of non-friable (bonded) asbestos material less than 10m² associated with electrical work.
- If indicated by the task Safe Work Method Statement.



P2 Disposable Respirator
✕ Do not use if facial fit cannot be achieved.



P2 Non-Disposable Half-Face Respirator
☑ Use when a facial fit is not achieved with a disposable mask.
☑ Usage training required.



P2 Non-Disposable Full-Face Respirator
☑ Use when a facial fit is not achieved with a non-disposable half face mask.
☑ Usage training required.



Disposable Nitrile Gloves



Type 5 - Category 3 Particulate Resistant Coveralls (Tyvek)
✕ Do not use where ignition source present



Type 5 – Category 3 Particulate Resistant Coveralls Flame Retardant (Pyrolon)

Flame Retardant overalls must be used when:
☑ Working live.
☑ Working where exposed conductors are present in the work area.
☑ Working where there is an ignition source within the work area.



Safety Gum Boots



Boot Covers
✕ Do not use if a slip hazard is present



☑ Lace-less boots preferred
✕ Suede boots not allowed

Emergency Response Asbestos PPE

(Level 3 Asbestos PPE)

MUST BE USED WHEN

- Responding to a network emergency such as:
  - Substation fire.
  - Substation flood.
  - Substation structural failure (eg building collapse)
- Until such time as an asbestos hygienist provides a risk assessment of the site and asbestos controls are modified in accordance with the hygienist's recommendations.

All major depots should have Level 3 asbestos PPE kits for network emergency response scenarios.



P2 Disposable Respirator
✕ NOT ALLOWED



P2 Non-Disposable Half-Face Respirator
✕ NOT ALLOWED



P2 Non-Disposable Full-Face Respirator



Disposable Nitrile Gloves



Type 5 – Category 3 Particulate Resistant Coveralls (Tyvek)
✕ NOT ALLOWED



Type 5 – Category 3 Particulate Resistant Coveralls Flame Retardant (Pyrolon)



Safety Gum Boots



Boot Covers
✕ NOT ALLOWED



Lace-less boots
✕ NOT ALLOWED

ANNEXURE D - HAZMAT REMEDIATION & REMOVAL FORM

HazMat Remediation & Removal Form

Email to: hazmat@ausgrid.com.au

Remediate by trained and competent Ausgrid staff

☐ Encapsulation (sealing) of asbestos and/or lead containing products

Unlicensed Removal by trained and competent Ausgrid staff

☐ Removal of non-friable asbestos less than 10m²

☐ Removal of LV HRC fuses as per SafeWork NSW Exemption Order No. 009/21

Notification of Removal by independent Licensed Asbestos Removalist (non Ausgrid)

☐ Non-Friable Asbestos of greater than 10m² ☐ Friable Asbestos ☐ Lead containing dust and or paint

Licenced Asbestos Removalist (LAR) / Company:	
LAR Licence Number:	
Has the control plan been sighted prior to start?	
Licenced Asbestos Assessor (LAA) / Company	

Removal Date(s)	**Substation No. / Sub Name / Pit No.**	**Street Address / Suburb**

Duration of works	Start time:	End time:
Ausgrid staff / co-ordinator names:		

Occurrence No. *or* ***Action No.*** *(as per Asbestos Register)*	**Description of Asbestos / Lead containing materials remediated and / or removed**	**Approx. quantity**	**Task Completed**	**Described unremoved or residual material** *(eg. Floor tiles under equipment remain)*
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	
			☐ *Encapsulate* ☐ *Partial Removal* ☐ *Full Removal*	

Asbestos Waste Disposal Method

☐	Ausgrid Waste Bin *(state Depot location)*
☐	Licenced Waste Facility *(state name and address)*