



ASBESTOS MANAGEMENT SUB-PLAN

LIDDELL POWER STATION DEMOLITION PROJECT

ASBESTOS MANAGEMENT SUB-PLAN

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Project Name	Liddell Power Station Demolition Project		
Client Name	AGLM		
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CONTENTS

1	GLOSSARY	7
2	INTRODUCTION.....	8
3	PURPOSE AND SCOPE	11
3.1	SCOPE AND OBJECTIVE OF THE AMSP	11
3.2	INDICATIVE SCHEDULE OF ACTIVITIES	13
4	STRATEGIC FRAMEWORK.....	15
4.1	RELEVANT LEGISLATION AND CODES OF PRACTICE.....	15
4.2	RELEVANT CONDITIONS AND STATEMENTS OF COMMITMENTS OF THE CONSENT.....	16
4.2.1	RELEVANT CONDITIONS OF THE CONSENT	16
4.2.2	RELEVANT STATEMENT OF COMMITMENTS.....	20
4.2.3	RELEVANT CLAUSES OF EPL 2122	20
4.3	REFERENCE DOCUMENTS.....	20
5	PROJECT TEAM, RESPONSIBILITIES AND CONTACT DETAILS	21
5.1	DEMOLITION CONTRACTOR – CMA	21
5.2	SITE OCCUPATIONAL HYGIENIST – PRENSA PTY LTD	22
5.3	LICENSED ASBESTOS REMOVAL CONTRACTORS (LARC)	22
5.4	COMPULSORY NOTIFICATIONS	23
6	POTENTIAL SOIL CONTAMINATION RESULTING FROM THE WORKS.....	24
6.1	SITE AUDIT PROCESS (C1).....	24
6.2	SAMPLING ANALYSIS AND QUALITY PLANNING (C2).....	24
6.3	DETAILED SITE INVESTIGATIONS (C4, C5)	24
6.4	HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT (C6, C7).....	25
6.5	REMEDIAL ACTION PLAN (C8, C9)	25
6.6	SITE VALIDATION REPORT (C10)	26
6.7	LONG-TERM ENVIRONMENTAL MANAGEMENT PLAN (C11, C12).....	26
6.8	SITE AUDIT STATEMENTS (C13).....	26
7	ASBESTOS MANAGEMENT	27
7.1	ASBESTOS AND ITS USES	27
7.2	CURRENT STATE OF ASBESTOS MANAGEMENT ON THE SITE.....	27
7.3	REMAINING SCOPE OF WORK IN RELATION TO ASBESTOS	27
7.4	LOCATION OF ASBESTOS-CONTAINING MATERIAL (ACM).....	28
7.5	AIR MONITORING PROGRAM.....	28
7.6	CLEARANCE INSPECTION	30
7.6.1	VISUAL CLEARANCE INSPECTION.....	30
7.6.2	CLEARANCE AIR MONITORING	30
7.6.3	CLEARANCE CERTIFICATE	30
7.7	EQUIPMENT AND RELEVANT CONTROLS	31
7.8	SITE INDUCTION CONTENT IN RELATION TO ASBESTOS MATTERS	31
7.9	PERSONNEL EMPLOYED FOR ASBESTOS REMOVAL AND REQUIRED TRAINING	31
7.10	PPE AND CONTROL MEASURES.....	32
7.10.1	FRIABLE ASBESTOS REMOVAL WORK	32
7.10.2	NON-FRIABLE ASBESTOS REMOVAL WORK.....	32
7.10.3	ADDITIONAL TESTING REQUIREMENTS	32

7.11	ON SITE LABORATORY	33
7.12	TASK MANAGEMENT PROCESSES INCLUDING ASBESTOS REMOVAL CONTROL PLANS AND SWMS	33
7.13	UNEXPECTED FINDS	33
7.14	WASTE MANAGEMENT	33
7.14.1	ONSITE TRANSPORT, DISPOSAL AND TRACKING OF ASBESTOS WASTE	34
7.14.2	ONSITE TEMPORARY STORAGE OF ASBESTOS WASTE	35
7.14.3	OFFSITE TRANSPORT, DISPOSAL AND TRACKING OF ASBESTOS WASTE	37
7.14.4	ONSITE ASBESTOS DISPOSAL FACILITY	37
8	SYNTHETIC MINERAL FIBRE MANAGEMENT	39
8.1	TYPES OF SYNTHETIC MINERAL FIBRE MATERIALS	39
8.2	CLASSIFICATION OF SMF	39
8.2.1	OLDER STYLES OF SMF	39
8.2.2	MODERN STYLES OF SMF	39
8.3	OVERALL STRATEGY	40
8.3.1	PIPEWORK HANDLING	40
8.4	HANDLING OF SMF MATERIAL	40
8.4.1	PPE AND CONTROL MEASURES	40
8.5	AIR MONITORING PROGRAM.....	40
8.6	DISPOSAL OF SYNTHETIC MINERAL FIBRE	41
9	ENVIRONMENTAL INCIDENTS	42
9.1.1	INCIDENTS	42
9.1.2	NON-COMPLIANCE	42
10	EMERGENCY PROCEDURE	43
11	RECORD KEEPING AND REPORTING.....	44
12	REVIEW AND IMPROVEMENT	45
	APPENDICIES	46
	APPENDIX A – UNEXPECTED FINDS PROCEDURE	46
	APPENDIX B - ACCEPTANCE OF ASBESTOS MANAGEMENT SUB-PLAN.....	47
	APPENDIX C – EXAMPLE ASBESTOS REMOVAL CONTROL PLAN	49
	APPENDIX D – CONSULTATION	50

REVISION REGISTER

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01	28/04/2025	Updated to address Site Auditor Comments	11, 13, 14, 15, 18, 19, 20, 21, 22, 26, 27, 28, 29, 31, 32, 33, 34, 35, 38, 39, 42, 47	TS	RZ

1 GLOSSARY

ACM	Asbestos Containing Material
AES	alkaline earth silicate
AMSP	Asbestos Management Sub Plan
ARCP	Asbestos Removal Control Plan
AS	Australian Standard
BCAR	Baseline Contamination Assessment Report Liddell Future Land Use and Enabling Works Project, (SSD 24937520) Liddell Power Station, New England Highway, Muswellbrook 24000419.001A dated 13 February 2024
CMA	CMA Contracting Pty Ltd
DEMP	Demolition Environmental Management Plan
EIS	Environmental Impact Statement
EPA	NSW Environmental Protection Authority
EPandA Act	Environmental Planning and Assessment Act 1979
HVGT	Hunter Valley Gas Turbines
HEPA	High efficiency particulate air
IBC	Intermediate Bulk Container
IWTS	Integrated Waste Tracking Solution
LAA	Licensed Asbestos Assessor
LARC	Licensed Asbestos Removal Contractor
LPS	Liddell Power Station
NEPM	National Environmental Protection Measure
PIRMP	Pollution Incident Response Management Plan
PPE	Personal Protective Equipment
Prensa	Prensa Pty Ltd
RtS	Response to Submissions
SMF	Synthetic Mineral Fibre
SSD	State Significant Development
WHS	Work, Health and Safety

2 INTRODUCTION

The Liddell Power Station (LPS) ceased power generation operation on 28th April 2023 as part of AGL Macquarie's (AGLMs) AGLMs transition towards a low-carbon future and commitment to the closure of its coal fired power stations at the end of their operating life.

The development has been declared a State Significant Development (SSD) in accordance with Section 4.36(2) of the Environmental Planning and Assessment Act 1979 (EPandA Act) and clause 2.5; 2.19 and 23(5) of Schedule 1 of State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP). It is permissible with development consent.

An Environmental Impact Statement (EIS) was prepared and submitted to the Department of Planning, Housing, and Infrastructure (DPHI), which was exhibited 4 May to 31 May 2023. A Response to Submissions (RtS) Report (GHD, 2024a) was prepared 19 February 2024 to address submissions received during exhibition. An Amendment Report (GHD, 2024b) was subsequently submitted 11 June 2024 addressing minor changes to the development including a reduction in the disturbance footprint to reduce biodiversity and cultural heritage impacts. The EIS, RtS and Amendment Report will be collectively referred to in this EMS as the 'environmental assessments'.

The development was approved by DPHI on 31 January 2025, with Development Consent SSD 24937520 (the Consent) issued.

The Development will be conducted in compliance with conditions the Consent, relevant licenses and permits. This package of work enables demolition of the structures and infrastructure within the areas outlined in Figure 1, Figure 2 and Figure 3.

To enable the demolition of LPS and associated infrastructure (the Demolition), AGLM and relevant stakeholders are required to prepare management documents, strategies and procedures to support the works, with regards to environmental approvals and legislation.

LPS is located just outside of Muswellbrook, in the New South Wales Hunter Valley along the New England Highway. The station consists of 4 x 500-megawatt steam driven turbines, 4 x coal fired boilers and 2 x reinforced concrete chimneys stacks. The site was opened for operations in May 1971 and retired from service in 2023.

LPS also comprises of associated coal handling facilities, the Hunter Valley Gas Turbines (HVGTS), Transgrid Switchyard (not owned by AGL), Liddell Ash Dam (LAD) and associated support facilities and infrastructure. The site is spread across 960 Hectares and forms part of the greater AGL Macquarie (AGLM) operations.



Figure 1 – Development Area



Figure 2 – LPS Demolition Area

3 PURPOSE AND SCOPE

Condition C19 of the Consent requires the preparation of an Asbestos Management sub-plan (AMSP) to the Demolition Environmental Management Plan (DEMP) for the Liddell Power Station (LPS) Demolition Project required under condition C16 of the Consent.

This AMSP provides an overarching understanding of how asbestos containing material (ACM) and synthetic mineral fibre (SMF) related risks will be managed throughout the demolition of LPS and associated infrastructure (the Development) by CMA Contracting Pty Ltd (CMA).

The purpose of the AMSP is to ensure that ACM / SMF is managed in a well-planned, safe and professional manner, whilst fulfilling the requirements of the NSW Work Health and Safety (WHS) Regulations 2017, the condition C19 the Consent, and relevant clauses of the Environmental Protection Licence (EPL) 2122.

In accordance with condition C19 part (a) of the Consent, this AMSP has been prepared in accordance with the SafeWork NSW Code of Practice – How to safely remove asbestos, December 2022, SafeWork NSW: guidance on managing asbestos in or on soil, March 2014, Schedule B2 of the National Environmental Protection Measure (NEPM), and any requirements of the Site Auditor.

Note: In addition to this AMSP, in accordance with the SafeWork NSW Code of Practice – How to safely remove asbestos, December 2022, a Asbestos Removal Control Plan/s (ARCP's) will be prepared for the works by the Licenced Asbestos Removal Contractors (LARCs) – refer to Appendix C for an example ARCP.

3.1 SCOPE AND OBJECTIVE OF THE AMSP

The scope of the AMSP includes management procedures and options for the removal of ACM / SMF from the Demolition area which has been segregated into the following zones, and includes the removal of both friable and non-friable ACM as well as SMF (refer to Figure 3 below):

- Zone 1 – Transformer Bay.
- Zone 2 – Turbine House.
- Zone 3 – Boiler Houses and Auxiliary Bay.
- Zone 4 – Fabric Filters.
- Zone 5 – Chimney Stacks.
- Zone 6 – Hazardous Storage Areas.
- Zone 7 – Minor Support Infrastructure.
- Zone 8 – Coal Handling Infrastructure.
- Zone 10 – Ash and Dust lines.
- Zone 11 – CW Pumping Station.
- Zone 12 – Hunter Valley Gas Turbines (HVGTS).

**Note: Zone 9 – Solar Plant is not applicable to the Development*

Collectively, the above zones are referred to as “the Site” and include, but are not limited to, the following main structures:

- Boiler Units (LD1, LD2, LD3, LD4).
- Turbine Hall (TH1, TH2, TH3, TH4).
- Water Bulk Storage Tanks.
- Administration Building.
- Workshop.
- Chimney Stack.

- PSV Workshop.
- Lime Storage Hopper.
- Flammable Gas Store.
- Ferric Chloride Water Treatment Plant.
- Cable Tunnels.
- Coal Processing.
- External Contractors and Plant Workshop.
- Canteen and Training Rooms.
- Staff Amenities.
- Diesel Generator.
- Transformer Yard Workshops.
- Transformer Yard.
- Gatehouse.
- Coal Conveyor Transfer Houses.
- Ash and Dust Plant (1-2 and 3-4).
- Stores Compounds (1, 2 and 3).
- Water Treatment Plant.

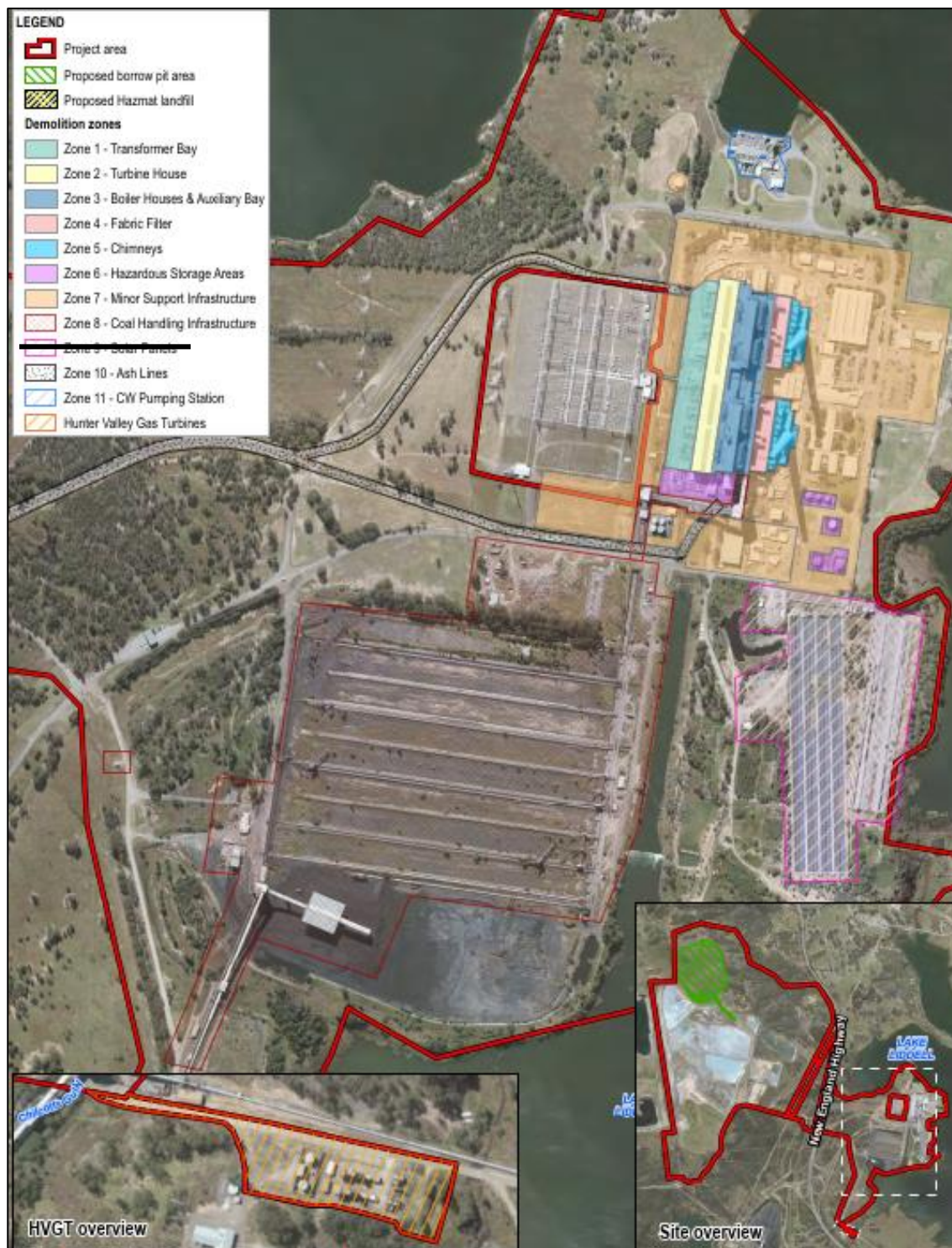


Figure 3 – LPS Demolition Zones

3.2 INDICATIVE SCHEDULE OF ACTIVITIES

Following is a high level indicative schedule of the ACM removal works:

Table 1 – High level indicative schedule of the ACM removal works

Demolition Zone	ACM Removal Indicative Start Date	ACM Removal Indicative Finish Date
Zone 1 – Transformer Bay	July 2025	November 2026
Zone 2 – Turbine House	July 2025	February 2027
Zone 3 – Boiler Houses and Auxiliary Bay	July 2025	April 2027
Zone 4 – Fabric Filters	September 2025	April 2027
Zone 5 – Chimney Stacks	July 2025	May 2027
Zone 6 – Hazardous Storage Areas	February 2026	November 2026
Zone 7 – Minor Support Infrastructure	July 2025	February 2026
Zone 8 – Coal Handling Infrastructure	May 2026	April 2027
Zone 10 – Ash and Dust lines	January 2027	May 2027
Zone 11 – CW Pumping Station	November 2026	January 2027
Zone 12 – Hunter Valley Gas Turbines (HVGTS)	August 2025	April 2027

Note: The above dates are subject to change

4 STRATEGIC FRAMEWORK

4.1 RELEVANT LEGISLATION AND CODES OF PRACTICE

The AMSP has been developed in accordance with the following legislation, industry standards, codes of practice and guidance documents:

- NSW Work Health and Safety Act, 2011.
- NSW Work Health and Safety Regulation, 2017.
- 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.
- SafeWork NSW Code of Practice: Demolition Work, 2019.
- SafeWork NSW Code of Practice: Construction Work, 2019.
- Australian Standard (AS) 2601-2001 The demolition of structures.
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)].
- AS 4964-2004 Method for the qualitative identification of asbestos in bulk samples.
- AS 2985-2009 Workplace atmospheres - Method for sampling and gravimetric determination of respirable dust.
- AS 3640-2009 Workplace atmospheres - Method for sampling and gravimetric determination of inhalable dust.
- National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].
- SafeWork Australia Guide to Handling Refractory Ceramic Fibres, 2013.
- Protection of the Environment Operations Act, 1997.
- Protection of the Environment Operations (Waste) Regulation, 2014.
- AS ISO 31000:2018 Risk Management – Guidelines.
- AS 1319-1994 Safety signs for the Occupational Environment.
- AS/NZS 60335.2.69:2017 Household and similar electrical appliances — Safety, Part 2.69: Particular requirements for wet and dry vacuum cleaners, including power brush, for commercial use
- AS 4260-1997 High efficiency particulate air filters (HEPA) - Classification, Construction and Performance.
- AS/NZS 1716-2012 Respiratory Protective Devices.
- AS/NZS 1715-2009 Selection, Use and Maintenance of Respiratory Protective Equipment.
- Schedule B2 of the National Environment Protection Measure (NEPM).
- SafeWork NSW Managing asbestos in or on soil March 2014.
- NSW Environmental Planning and Assessment Act 1979.

NSW EPA Waste Classification Guidelines, Part 1: Classifying waste, November 2014

4.2 RELEVANT CONDITIONS AND STATEMENTS OF COMMITMENTS OF THE CONSENT

4.2.1 RELEVANT CONDITIONS OF THE CONSENT

Table 2 – Conditions relevant to the AMSP

CONDITIONS OF THE CONSENT		
CONDITION		AMSP SECTION
Demolition	C19. An asbestos management sub-plan must be prepared as part of the demolition environmental management plan. The plan must: a) be prepared in accordance with the SafeWork NSW 2022 Code of practice: How to safely remove asbestos, SafeWork: guidance on managing asbestos in soil, Schedule B2 of the NEPM and any requirements of the Site auditor; b) identify any known or potential areas of concern within the approved development area for asbestos containing materials and synthetic mineral fibre; c) include: i. procedures for identifying, handling and disposing of asbestos waste, asbestos containing materials and synthetic mineral fibre; ii. procedures for interim storage of asbestos prior to disposal and disposal of asbestos; and iii. outline the relevant requirements of conditions C1 to C13 for the management of asbestos waste, asbestos containing materials and synthetic mineral fibre.	a) Whole document b) Section 7.2 c) i) Section 3(ARCP's), 7.2(Prensa), and 7.3 (LARC) ii) Section 7.14.2 iii) Refer to Conditions below
Asbestos disposal facility	A6. A maximum of 30,000 cubic metres of asbestos waste, asbestos containing material, synthetic mineral fibre and other associated wastes authorised by the Site auditor, may be disposed of at the asbestos disposal facility, unless otherwise agreed by the Planning Secretary.	Section 7.14 DEMP
Site audit process	C1. A multi-stage site audit must be undertaken for the development. The audit must: a) be undertaken by a Site auditor; b) be undertaken in accordance with the Contaminated Land Guidelines; c) include the provision of interim audit advice by the Site auditor in relation to (as applicable): i. sampling analysis and quality plans; ii. detailed site investigation reports; iii. human health and ecological risk assessment reports; iv. remediation action plan; v. site validation reports; and vi. long-term environmental management plans; d) conclude with the Site auditor issuing either a Section A1 or Section A2 audit statement for the development.	Section 6.1 Section 7.14
Sampling analysis and quality planning	C2. Sampling analysis and quality plans must be prepared for all further contamination investigations proposed within the approved development area. The plans must: a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or the CPSS CSAM scheme; b) be prepared: i. in accordance with the Contaminated Land Guidelines; ii. before sampling for contamination investigations is conducted; c) address additional investigations identified by the Stage 2 detailed site investigation, for the proposed Stage 3 investigations and any unexpected finds; d) be accompanied by interim audit advice from the Site auditor; and	Section 6.2

	e) be provided to the Planning Secretary and the NSW EPA for information prior to the commencement of the detailed site investigation/s required under condition C4.	
	C3. A sampling analysis and quality plan must be prepared for the PCB contaminated material for the testing and reuse of concrete and/or any other recycled/re-used material during the development. The plan must: a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or the CPSS CSAM scheme; b) be prepared: i. in accordance with the Contaminated Land Guidelines; and ii. prior to the re-use, recycling or burying of PCB contaminated materials within the approved development area; c) be accompanied by interim audit advice from the Site auditor.	C3 – Not applicable for asbestos (refers to PCB contamination)
Detailed site investigations	C4. A detailed site investigation must be undertaken for the development. The investigation report must: a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or CPSS CSAM scheme; b) be prepared in accordance with the relevant Contaminated Land Guidelines; c) be accompanied by interim audit advice from the Site auditor confirming the investigation report is satisfactory; d) include, but not limited to, the following: i. all works outlined by Stage 3 detailed investigation scope included in the EIS; ii. a discussion on the characterisation of groundwater across the development and the ongoing groundwater monitoring of PFAS required under the existing PFAS Management Plan for the Liddell Power Station; iii. assessment of the background concentrations of metals and other contaminants so that the contamination associated with the former Liddell Power Station (including but not limited to the ash dam) can be distinguished from other sources and addressed in the remediation works; iv. assessment of the extent of PFAS in soils and groundwater in Key Areas 1 and 3 as mapped by Figure 2 in Appendix 1, noting that high concentrations have been detected in onsite groundwater so that the feasibility and benefits of PFAS treatments can be addressed in the remedial action plan/s; v. assessment of off-site migration of contaminants in accordance with the Guidelines for the NSW Site Auditor Scheme; vi. an updated conceptual site model and a discussion on contamination migration offsite and impacts to both onsite and offsite receptors; and vii. any other matter raised by the Site auditor; e) Include the EPL premises on all relevant plans; and f) be provided to the Planning Secretary and NSW EPA for information. Note: The detailed site investigation is required to assess areas that were inaccessible prior to the determination of the application.	Section 6.3
	C5. The detailed site investigation must commence within 12 months after the completion of demolition provided that the Site auditor has issued interim audit advice for the preceding sampling analysis and quality plan and be completed within 18 months of the completion of demolition, unless otherwise agreed by the Planning Secretary.	Section 6.3
Human health and ecological risk assessment	C6. If required by the Site auditor, a human health and ecological risk assessment must be prepared for the development. The assessment must: a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or CPSS CSAM scheme; b) be prepared in accordance with the Contaminated Land Guidelines;	Section 6.4

	c) be accompanied by interim audit advice from the Site auditor confirming the assessment is satisfactory; d) address the contamination assessment findings detailed in the EIS; e) assess the onsite and offsite environmental and human health risks associated with chemical contamination; f) detail any mitigations required to manage the identified risks; g) include a strategy detailing the actions to be taken based on the findings of the assessment; and h) be provided to the Planning Secretary and NSW EPA for information. Note: The human health and ecological risk assessment is required consider areas that were inaccessible prior to the determination of the application.	
	C7. The human health and ecological risk assessment must be completed following the completion of demolition and prior to the site validation report required by condition C10, unless otherwise agreed by the Planning Secretary.	Section 6.4
Remedial Action Plan	C8. If the Site auditor considers that remediation is required and feasible to make any areas of the approved development area suitable for an intended land use, a Remedial Action Plan/s must be prepared and implemented for the development. The plan must: a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or CPSS CSAM scheme. b) be prepared in accordance with the Contaminated Land Guidelines; c) include a remedial options assessment and provide the rationale for the selected remediation strategy; d) as a minimum, unless otherwise agreed by the Site auditor, include: i. an assessment of the suitability of the borrow pit material as remediation capping material ii. information on the leachability of contaminants in soils and assess if there is potential for contaminants to leach into groundwater; iii. an investigation of remediation options to mitigate and manage contaminated groundwater and ongoing seepage from the Liddell Ash Dam and within the Liddell Power Station; iv. an investigation of PFAS (including within Lake Liddell) to be undertaken concurrently with the remedial action plans to address onsite sources of PFAS within Key Area 1 and Key Area 3 identified by the EIS; and v. the remediation of previously unvalidated areas including, the former USTs in Key Area 3 and the former UST in Key Area 5.	Section 6.5
	C9. A remedial action plan must be prepared for all remediation undertaken as part of development. The remedial action plan/s must: a) be prepared prior to commencing the remediation identified in the plan; b) be submitted to the Planning Secretary and NSW EPA for information; and c) be accompanied by a Section B2 or B5 Site Audit Statement;	Section 6.5
Site Validation Report	C10. A site validation report detailing the outcome of any remediation must be prepared at the completion of remediation works undertaken in accordance with a remedial action plan and prior to the issue of a Section A1 or A2 site audit statement. The report must: a) be prepared, or reviewed and approved, by consultants certified under either CEnvP(SC) or CPSS CSAM scheme; b) be prepared in accordance with the Contaminated Land Guidelines; c) be accompanied by interim audit advice from the Site auditor confirming the report is satisfactory; d) include the validation of the former UST pits in Key Area 3 and the former UST in Key Area 5; and e) be provided to the Planning Secretary and NSW EPA for information.	Section 6.6

Long-term environmental management plan	C11. Where required by a site audit statement issued by the Site auditor, a long-term environmental management plan/s must be prepared for the development. The plan must: a) be prepared, or reviewed and approved, by consultants certified under CEnvP(SC) or CPSS CSAM scheme; b) be prepared in accordance with the with the Contaminated Land Guidelines; c) be accompanied by interim audit advice from the Site auditor confirming the plan is satisfactory; d) address the risks to human health and environment (onsite and offsite); e) include the asbestos disposal facility and other existing asbestos landfills within the approved development area; f) any other issue the Site auditor considers necessary; and g) be provided to the Planning Secretary and NSW EPA for information.	Section 6.7
	C12. If required by a Section A2 Site Audit Statement, the long-term environmental management plan must be implemented as required by the site audit statement.	Section 6.7
Site audit statements	C13. A Section A1 or Section A2 Site Audit Statement (accompanied by an Environmental Management Plan) and its accompanying Site Audit Report must be obtained for the development. The site audit statement(s) must: a) certify that the site is suitable for an intended land use; and b) be submitted to the Planning Secretary within 12 months of completing remediation and no later than one month prior to any post-remediation land use within the approved development area subject to the site audit statement. Note: Contaminated land must not be used for the purpose approved under the terms of this the SSD until a Section A1 or Section A2 Site Audit Statement is obtained which states that the land is suitable for that purpose.	Section 6.8
Demolition	C15. Prior to the commencement of demolition works, a clearance certificate from an occupational hygienist to certify that asbestos containing materials, PBC capacitors, and transformers have been removed before demolition work must be provided to the Department. Any hazardous materials that cannot be removed should be assessed in consultation with SafeWork NSW.	Section 5.1, 7.6.3
Asbestos disposal facility	C23. The asbestos disposal facility must be designed and constructed in accordance with the relevant requirements of the NSW EPA Environmental Guidelines Solid Waste Landfills (2016), unless otherwise agreed by the Site auditor and the Planning Secretary.	Section 7.14.4
	C24. A final design for the asbestos disposal facility must be prepared for the development. The design must: a) be accompanied by interim audit advice from the Site auditor; b) be prepared in consultation with the NSW EPA; c) be submitted to the Planning Secretary for approval prior to the commencement of construction of the asbestos disposal facility; and d) be implemented, as approved, by the Planning Secretary.	Section 7.14.4
	C25. A construction quality assurance plan must be prepared for the asbestos disposal facility. The plan must: a) be provided to the NSW EPA for review prior to the commencement of the construction of the asbestos disposal facility; and b) be prepared in accordance with the relevant requirements of the NSW EPA Environmental Guidelines Solid Waste Landfills (2016).	Section 7.14.4
	C26. A construction quality assurance report must be prepared for the asbestos disposal facility. The report must: a) be provided to the NSW EPA for review prior to the commencement of the operation of the asbestos disposal facility; and b) be prepared in accordance with NSW EPA Environmental Guidelines Solid Waste Landfills (2016).	Section 7.14.4

4.2.2 RELEVANT STATEMENT OF COMMITMENTS

Table 3 – Statement of Commitments relevant to the AMSP

STATEMENT OF COMMITMENTS OF THE CONSENT		
STATEMENT OF COMMITMENT		AMSP SECTION
Demolition		
DM1	- Use licenced Asbestos removal contractor -Class A licence. - Implement Asbestos Management Plan. - Complete Hazardous Materials survey. - Remove asbestos from structures in accordance with Division 8.6 of the NSW Work Health and Safety 2017 Regulation, where not safely possible to remove asbestos a risk assessment will be undertaken.	Section 5 Section 3 Section 7.4 Section 5.1
DM2	- Complete Hazardous Material Survey - Develop removal and handling plan	Section 7.4 Section 7.12
DM3	- Complete contamination assessment - Develop plans to control impact of contamination and demolition activities	Section 0 Section 6
Hazard and Risk		
HR6	The asbestos management plan will include information about the following: - The identification of asbestos and ACM, for example a reference or link to the Hazmat Audit for the site and locations of signs and labels - Decisions, and reasons for the decisions, safe work procedures and control measures - Procedures for detailing accidents, incidents or emergencies involving asbestos - Workers carrying out work involving asbestos, for example consultation, information and training responsibilities	Section 7.2, 7.4 Section 5, 5.1, 0, 7.8, 7.12 Section 9, 10 Section 5.1, 0, 7.9
HR7	Prior to any demolition or work being carried out that may impact on asbestos, ACM, the responsible individual for management or control of a workplace will: - Review the HAZMAT Audit Report—if the register is considered inadequate for the proposed demolition, then it will be revised. - Provide a copy of the HAZMAT Audit Report to the contractor carrying out the demolition or refurbishment work. - Ensure asbestos or ACM that is likely to be disturbed is identified and so far, as is reasonably practicable, removed before the demolition or refurbishment commences. Where this may not be possible e.g., in the stacks, an alternative control will be implemented. Where asbestos cannot be safely removed an asbestos removal control plan will be developed.	Section 5, 7.2, 7.4 Section 5.1 Section 5.1

4.2.3 RELEVANT CLAUSES OF EPL 2122

Table 4 – EPL Clauses relevant to the AMSP

EPL CLAUSES RELEVANT TO THE AMSP		
EPL Clause		AMSP SECTION
L4 Waste		
L4.3	Clause L4.3 of EPL 2122 is in the process of being updated to include disposal of ACM within the onsite asbestos disposal facility.	Section 7.14

4.3 REFERENCE DOCUMENTS

The following Table 5 lists the reference documents that are stated throughout the AMSP:

Table 5 – Reference documents throughout the AMSP

Document Title	AMSP reference	Document Location
Asbestos Register (online asbestos register prepared and maintained by Prensa)	Sections 7.2, 7.4	Online: https://liddellps.prensa.com.au/ Access has to be provided on a user by user basis and can be provided on request.
Destructive Hazardous Building Materials Assessment, Liddell Power Station, Musswellbrook, NSW, prepared by Prensa for CMA Contracting Pty Ltd, dated November 2024	Section 7.2	To be provided on request.
Demolition Environmental Management Plan	Sections 3, 4.2.1, 11	Main Management Plan that this AMSP is a sub-plan to.
Environmental Impact Statement	Sections 2, 4.2.1, 6.3, 6.4	https://www.planningportal.nsw.gov.au/major-projects/projects/liddell-future-land-use-and-enabling-works-project
Pollution Incident Response Management Plan	Sections 9.1.1, 10	To be provided on request.
Example Asbestos Removal Control Plan	Section 3	Appendix C

5 PROJECT TEAM, RESPONSIBILITIES AND CONTACT DETAILS

CMA is the Principal Contractor and licenced demolition contractor and has the overall management and control of the Site. CMA must therefore maintain an up to date “ACM register” for the Site under the NSW WHS Regulations 2017. During demolition works, controls must be implemented by CMA for the reduction of risk relating to disturbing materials containing ACM / SMF that have been assessed as not reasonably practicable to remove prior to demolition.

The asbestos removal license holder is the Licensed Asbestos Removal Contractor (LARC) who holds a ‘Class A (Friable & Non-friable)’ and/or ‘Class B (Non-friable only)’ license and they are required to conform to the licensing requirement under the NSW WHS Regulations 2017 and SafeWork NSW who is the state regulator.

The on-site Occupational Hygienist Prensa Pty Ltd (Prensa) who is engaged by CMA will provide a Licensed Asbestos Assessor (LAA) for Class A ACM removal work and a Competent Person for Class B ACM removal work and will perform asbestos air monitoring, visual clearances and provide clearance certification for the ACM removal works, in accordance with the NSW WHS Regulations 2017, and the guidance provided by SafeWork NSW.

5.1 DEMOLITION CONTRACTOR – CMA

CMA has several requirements and responsibilities under this AMSP. The following provides a summary of these requirements to be implemented at the Site:

- Ensuring this AMSP meets the requirements of the conditions of the Consent, requirements set by the nominated NSW Environment Protection Authority (EPA) Accredited Contamination Site Auditor (Site Auditor), and SafeWork NSW.
- Ensuring that this AMSP is implemented and maintained during the course of the project.
- Engagement of competent and licensed contractors, as required by the NSW WHS Regulations 2017, to undertake licensed ACM removal work.
- Inform employees, contractors and subcontractors of the typical locations of ACM at the Site through the implementation of Asbestos Awareness training, as part of the site specific induction process.

- Ensuring that identified ACM / SMF waste that may be impacted by the demolition works are removed prior to the commencement of works, so far as reasonably practicable. Where deemed not reasonably practicable other controls must be considered, in accordance with the hierarchy of controls, as defined in the NSW WHS Regulations 2017, and in consultation with SafeWork NSW in accordance with condition C15 of the Consent.
- Ensure that air monitoring is undertaken for ACM/SMF removal tasks in accordance with the NSW WHS Regulations 2017, and that site personnel are notified of air monitoring results during removal works:
 - For ACM removal, as required for background monitoring for friable work, clearance monitoring for friable work, exposure monitoring for risk assessments, and any other times as determined by the LAA.
 - For SMF removal, as required for exposure risk assessment only (exposure monitoring).
- Prior to commencing demolition works in a specific area, ensuring that the ACM register is read and understood by workers involved in the task prior to the commencement of the task.
- Ensure that ACM material related records are maintained and archived indefinitely. These records must be made available to SafeWork NSW, as the State Regulator, if requested.
- Provide the LARC access to the ACM register for the Site.

5.2 SITE OCCUPATIONAL HYGIENIST – PRENSA PTY LTD

The Occupational Hygienist will be appointed directly by CMA and will provide a LAA for Class A ACM removal works and a Competent Person for Class B ACM removal work. The following provides a summary of the work to be carried out by the LAA / Competent Person:

- Inspect the ACM /SMF removal work site prior to commencement of the removal works.
- Inspect and smoke test containments prior to works commencing to confirm containment is suitable for the removal works to commence.
- Daily checks of the negative air units and pressure differential in the containment to ensure adequate negative air pressure.
- Collect and analyse samples of materials suspected of being ACM during the course of the works.
- Prepare daily site diary to record events occurring during the works.
- Undertake air monitoring for ACM/SMF removal tasks in accordance with the NSW WHS Regulations 2017:
 - For ACM removal, as required for background monitoring for friable work, clearance monitoring for friable work, exposure monitoring for risk assessments, and any other times as determined by the LAA.
 - For SMF removal, as require for exposure risk assessment only (exposure monitoring).
- Undertake visual inspection in the areas where ACM has been removed and cleaned and provide clearance certificates.
- Maintain and update the ACM register on behalf of CMA during the course of the removal works.

The LAA / Competent Person has the right to stop works if prescribed air monitoring (ACM) results are exceeded. The LAA / Competent Person may also assist in the conduct of inductions, preparation of procedures and risk advice relating to the management of ACM /SMF at the Site.

5.3 LICENSED ASBESTOS REMOVAL CONTRACTORS (LARC)

CMA holds a current Friable Asbestos Removal Licence (Licence Number WUA166) with WorkSafe Western Australia which is recognised by SafeWork NSW under Automatic Mutual Recognition, and may employ other licenced asbestos removal contractors on the project to perform the licenced asbestos removal work. Such personnel will collectively be referred to in this document as the LARC.

The following summarises the duties of the LARC.

- Submit to SafeWork NSW a notification of asbestos removal work.
- Preparation of an ARCP in accordance with the SafeWork NSW Code of Practice – How to safely remove asbestos, December 2022
- Preparation of Safe Work Method Statements (SWMS).
- ACM work site establishment (i.e. installation of appropriate signage, barricades, etc.).
- Determination of removal methods which will reduce risk so far as is reasonably practicable and comply with the SafeWork NSW Code of Practice: How to Safely Remove Asbestos, December 2022.
- Removal of ACM under controlled conditions.
- Compliance with the LAA / Competent Person's requirements.
- Transportation and disposal of waste in accordance with applicable standards and guidelines.
- Compliance with all legislative requirements for the project.

5.4 COMPULSORY NOTIFICATIONS

The LARC will submit works notifications in accordance with SafeWork NSW requirements. The work is to be notified to SafeWork NSW a minimum of five (5) days prior to commencing licensed ACM removal work. CMA will maintain records of each notification submitted.

6 POTENTIAL SOIL CONTAMINATION RESULTING FROM THE WORKS

During both the demolition and ACM removal works, there is potential to contaminate soils with ACM in the vicinity of the works – examples below:

- Chimney Stacks are planned to be demolished with asbestos in place with potential to cause ACM contamination of the soil in the landing zone.
- During the removal of the ACM dust pipelines there is potential to contaminate the surrounding soil with ACM.

In the event the demolition or ACM removal works results in contaminated soil, it will be managed in accordance with the following sections.

6.1 SITE AUDIT PROCESS (C1)

In accordance with condition C1 of the Consent, an audit of the ACM contaminated area will be undertaken. The audit must:

- a) be undertaken by the Site Auditor;
- b) be undertaken in accordance with the Contaminated Land Guidelines;
- c) include the provision of interim audit advice by the Site Auditor in relation to (as applicable):
 - i. sampling analysis and quality plans;
 - ii. detailed site investigation reports;
 - iii. human health and ecological risk assessment reports;
 - iv. remediation action plan;
 - v. site validation reports; and
 - vi. long-term environmental management plans;
- d) conclude with the Site auditor issuing either a Section A1 or Section A2 audit statement that includes the ACM contaminated area.

6.2 SAMPLING ANALYSIS AND QUALITY PLANNING (C2)

In accordance with condition C2 of the Consent, a sampling analysis and quality plans will be prepared for investigations proposed within any ACM contaminated area. The plans will:

- a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or the CPSS CSAM scheme;
- b) be prepared:
 - i. in accordance with the Contaminated Land Guidelines;
 - ii. before sampling for contamination investigations is conducted;
- c) address additional investigations identified by the Stage 2 detailed site investigation, for the proposed Stage 3 investigations and any unexpected finds;
- d) be accompanied by interim audit advice from the Site Auditor; and
- e) be provided to the Planning Secretary and the NSW EPA for information prior to the commencement of the detailed site investigation/s required under condition C4.

6.3 DETAILED SITE INVESTIGATIONS (C4, C5)

In accordance with condition C4 of the Consent, a detailed site investigation must be undertaken for any ACM contaminated area. The investigation report will:

- a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or CPSS CSAM scheme;

- b) be prepared in accordance with the relevant Contaminated Land Guidelines;
- c) be accompanied by interim audit advice from the Site Auditor confirming the investigation report is satisfactory;
- d) include, but not limited to, the following:
 - i. all works outlined by Stage 3 detailed investigation scope included in the EIS;
 - ii. assessment of off-site migration of contaminants in accordance with the Guidelines for the NSW Site Auditor Scheme;
 - iii. an updated conceptual site model and a discussion on contamination migration offsite and impacts to both onsite and offsite receptors; and
 - iv. any other matter raised by the Site auditor;
- e) Include the EPL premises on all relevant plans; and
- f) be provided to the Planning Secretary and NSW EPA for information.

In accordance with condition C5 of the Consent, the detailed site investigation will commence within 12 months after the completion of demolition provided that the Site Auditor has issued interim audit advice for the preceding sampling analysis and quality plan and be completed within 18 months of the completion of demolition, unless otherwise agreed by the Planning Secretary.

6.4 HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT (C6, C7)

In accordance with condition C6 of the Consent, if required by the Site Auditor, a human health and ecological risk assessment will be prepared for any ACM contaminated area. The assessment will:

- a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or CPSS CSAM scheme;
- b) be prepared in accordance with the Contaminated Land Guidelines;
- c) be accompanied by interim audit advice from the Site auditor confirming the assessment is satisfactory;
- d) address the contamination assessment findings detailed in the EIS;
- e) assess the onsite and offsite environmental and human health risks associated with chemical contamination;
- f) detail any mitigations required to manage the identified risks;
- g) include a strategy detailing the actions to be taken based on the findings of the assessment; and
- h) be provided to the Planning Secretary and NSW EPA for information.

In accordance with condition C7 of the Consent, the human health and ecological risk assessment will be completed following the completion of demolition and prior to the site validation report required by condition C10 of the Consent, unless otherwise agreed by the Planning Secretary.

6.5 REMEDIAL ACTION PLAN (C8, C9)

In accordance with condition C8 of the Consent, if the Site auditor considers that remediation any ACM contaminated area is required and feasible to make the area suitable for an intended land use, a Remedial Action Plan/s will be prepared and implemented for the ACM contaminated area. The plan will:

- a) be prepared, or reviewed and approved, by consultants certified under either the CEnvP(SC) or CPSS CSAM scheme.
- b) be prepared in accordance with the Contaminated Land Guidelines;
- c) include a remedial options assessment and provide the rationale for the selected remediation strategy;
- d) as a minimum, unless otherwise agreed by the Site Auditor, include:
 - i. an assessment of the suitability of the borrow pit material as remediation capping material

In accordance with condition C9 of the Consent, a remedial action plan will be prepared for all remediation undertaken in ACM contaminated areas. The remedial action plan/s will:

- a) be prepared prior to commencing the remediation identified in the plan;
- b) be submitted to the Planning Secretary and NSW EPA for information; and
- c) be accompanied by a Section B2 or B5 Site Audit Statement;

6.6 SITE VALIDATION REPORT (C10)

In accordance with condition C10 of the Consent, a site validation report detailing the outcome of any remediation must be prepared at the completion of remediation works undertaken in accordance with a remedial action plan and prior to the issue of a Section A1 or A2 site audit statement. The report must:

- a) be prepared, or reviewed and approved, by consultants certified under either CEnvP(SC) or CPSS CSAM scheme;
- b) be prepared in accordance with the Contaminated Land Guidelines;
- c) be accompanied by interim audit advice from the Site auditor confirming the report is satisfactory;
- d) be provided to the Planning Secretary and NSW EPA for information.

6.7 LONG-TERM ENVIRONMENTAL MANAGEMENT PLAN (C11, C12)

In accordance with condition C11 of the Consent, where required by a site audit statement issued by the Site Auditor, a long-term environmental management plan/s must be prepared for relevant areas of the site such as the asbestos disposal facility. The plan must:

- a) be prepared, or reviewed and approved, by consultants certified under CEnvP(SC) or CPSS CSAM scheme;
- b) be prepared in accordance with the Contaminated Land Guidelines;
- c) be accompanied by interim audit advice from the Site auditor confirming the plan is satisfactory;
- d) address the risks to human health and environment (onsite and offsite);
- e) include the asbestos disposal facility and other existing asbestos landfills within the approved development area;
- f) any other issue the Site Auditor considers necessary; and
- g) be provided to the Planning Secretary and NSW EPA for information.

In accordance with condition C12 of the Consent, if required by a Section A2 Site Audit Statement, the long-term environmental management plan must be implemented as required by the site audit statement.

6.8 SITE AUDIT STATEMENTS (C13)

In accordance with condition C13 of the Consent, a Section A1 or Section A2 Site Audit Statement (accompanied by an Environmental Management Plan) and its accompanying Site Audit Report must be obtained for the ACM contaminated areas. The site audit statement(s) must:

- a) certify that the ACM contaminated area is suitable for an intended land use; and
- b) be submitted to the Planning Secretary within 12 months of completing remediation and no later than one month prior to any post-remediation land use within the ACM contaminated area subject to the site audit statement.

7 ASBESTOS MANAGEMENT

7.1 ASBESTOS AND ITS USES

Asbestos is defined as the fibrous form of mineral silicates. There are two major groups of asbestos:

- Serpentine group of minerals: chrysotile (white asbestos).
- Amphibole group of minerals: amosite (brown asbestos), crocidolite (blue asbestos) and within less commercially used forms including actinolite, tremolite and anthophyllite.

Asbestos minerals can be split into elongated long fibres that are strong, flexible and heat resistant. Because of these characteristics, asbestos has been historically used for a wide range of manufactured goods, mostly in building materials, friction products, heat-resistant fabrics, gaskets, and coatings.

ACM can be classified into two main groups, **friable** and **non-friable**. ACM considered to be **friable** can be crumbled, pulverised or reduced to powder by hand pressure when dry. Friable ACMs are considered higher risk materials as they are more readily damaged, and thus have a greater potential to release fibres into the air.

All other ACM are considered to be **non-friable** and are generally considered to be 'low' risk if properly handled. Non-friable ACM are bound in a matrix such as cement (e.g. cement sheeting) or various resins/binders (e.g. vinyl floor tiles).

For ACM requiring removal, the ACM removal works must be completed by an appropriately licensed asbestos contractor. The following licences will apply for the following types of ACM:

- Friable – Class A licensed asbestos contractor is licensed to remove both friable and non-friable ACM.
- Non-friable – Class B licensed asbestos contractor is licensed to remove non-friable ACM only.

7.2 CURRENT STATE OF ASBESTOS MANAGEMENT ON THE SITE

The Site is currently non-operational and an intrusive Asbestos Audit has been completed by Prensa in 2024 (*Destructive Hazardous Building Materials Assessment, Liddell Power Station, Muswellbrook, NSW prepared by Prensa for CMA Contracting Pty Ltd, dated November 2024*). The audit found that friable and non-friable ACM is currently either enclosed or deemed to be in a condition that does not pose a risk to Site occupants provided the materials are not disturbed.

The current Asbestos Register is managed by Prensa and is accessible via an on-line database system. The database system allows the register to be updated as additional items are identified by CMA during the demolition process, as well as to be noted as removed once Clearance certification is issued for each line item.

The Asbestos Register includes, but not limited to, the following:

- Material sample item number
- Location
- Feature
- Item Description
- Hazard Status (Asbestos)
- Photo (where applicable)
- Friability
- Approximate Quantity Inspection Date

7.3 REMAINING SCOPE OF WORK IN RELATION TO ASBESTOS

In accordance with condition C15 of the Consent, prior to demolition, all identified ACM will be removed, so far as is reasonably practicable, by the LARC and cleared by the LAA / Competent Person. This will allow for demolition materials to be recycled or disposed of off-site. ACM risks will be managed together with other demolition risks in developing appropriate demolition methods. In particular a full analysis of whole of process risks will be undertaken to ensure the most practicable demolition method is selected for the following items:

- Chimneys.
- Boilers.
- Pipework / Ductwork.

SafeWork NSW will be consulted in the early stages of the planning and analysis of risks associated with the demolition of these structures and items of plant.

Each of the defined work areas will be provided with a Clearance Certificate in accordance with the standard described in *NSW WHS Regulations 2017*, and the *SafeWork NSW Code of Practice: How to Safety Remove Asbestos, December 2022*.

In addition, the LAA / Competent Person will conduct inspections of items where historical ACM removal is known to have been undertaken to validate the standard of removal prior to off-site disposal or recycling of demolition materials.

7.4 LOCATION OF ASBESTOS-CONTAINING MATERIAL (ACM)

A hazardous materials survey has been undertaken by Prensa in 2024. Due to the extensive number of samples (over 6,000), and an online register has been developed that is compliant to the CoP has been and will be managed by Prensa throughout the course of the works.

The location of known ACMs has been identified in the Prensa managed on-line asbestos register for the Site (over 6000 samples).

Prior to any demolition or work being carried out that may impact ACM, CMA will review the asbestos register and where considered inadequate for the proposed demolition, the asbestos register will be revised.

Locations of asbestos-containing soils

As detailed in the Baseline Contamination Assessment Report Liddell Future Land Use and Enabling Works Project, (SSD 24937520) Liddell Power Station, New England Highway, Muswellbrook 24000419.001A dated 13 February 2024 (BCAR), within the 4 km corridor of the Liddell ash pipeline, ACM contaminated soil has been identified and will be managed during Stage 3 in accordance with conditions C1, C2, C4, C6, C8, C9, C10, C13 of the Consent.

No other known locations for ACM relevant to the Demolition works have been identified at the Site to date. Should such locations be uncovered during the demolition works in previously inaccessible areas, such as subfloors below buildings, the Site's unexpected finds protocol will be implemented and the area isolated for further investigation. All unexpected finds will be managed in accordance with the unexpected finds protocol (refer to Section 5.13 and Appendix A) and added to the asbestos register.

7.5 AIR MONITORING PROGRAM

As ACM poses a risk to health by inhalation when asbestos fibres are airborne, all exposure should be prevented. The current workplace exposure standard for all forms of Amphibole (brown and blue) and Serpentine (white)

asbestos fibres is 0.1 fibres/mL of air as per Safework Australia Workplace Exposure Standard for Airborne Contaminants dated January 2024.

This workplace exposure standard should **never** be exceeded outside an ACM work area.

The membrane filter method (Guidance note on the membrane filter method for estimating airborne asbestos fibres 2ND Edition [NOHSC:3003(2005)]) is used throughout Australia for conducting airborne asbestos fibre monitoring. The detection limit for this method is 0.01 fibres/mL of air. This detection limit is also the primary control level in relation to asbestos removal and abatement works. Control measures should be reassessed whenever air monitoring indicates that control levels of 0.01 fibres/mL or above have been reached. Refer to **Section 11.1.6** for further information.

In accordance with the NSW WHS Regulations 2017, during Class A ACM Removal Work (friable) airborne asbestos fibre monitoring (air monitoring) is required to be conducted before the work commences and for the duration of the work.

An LAA will undertake air monitoring during all friable works to validate the implemented control measures outlined in this AMSP and the ARCP. As a minimum, air monitors will be set up in the following locations:

- Along each boundary of the ACM work areas.
- Within/adjacent the decontamination area (where applicable).
- Adjacent negative air unit outlets (where applicable).
- Within the floors/levels directly above/below the ACM Work Areas (where applicable).
- Within the lunch room and site shed area (i.e. asbestos worker facilities).

This monitoring will validate the adequacy of controls in place and highlight any areas where controls may need to be increased. The air monitoring results will be obtained and reported daily.

Air monitoring during the removal of non-friable ACM is not mandatory, and the requirements for any such programs will be determined by the LAA / Competent Person in conjunction with CMA, and LARC as part of regular risk assessments of work areas.

All asbestos air monitoring analysis will be conducted by a NATA accredited laboratory in accordance with *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*. 2nd Edition. [NOHSC:3003(2005)];

Where air monitoring control levels are exceeded during ACM removal works, it indicates that there is a need to review the LARC's control measures. The control levels are occupational hygiene 'best practice' and are not health-based standards i.e. they are more prudent than the Workplace Exposure Standard for asbestos (Reference SafeWork Australia: *Workplace exposure standards for Airborne Contaminants*, 2024).

The control levels provided below in **Table 6** should be used for the purposes of determining the effectiveness of control measures:

Table 6 – Control Levels and Required Actions

Control Level (fibre/mL)	Control/Action
< 0.01	Continue with control measures

≥ 0.01 and ≤ 0.02	Investigate the cause of asbestos fibre levels; Implement further controls to prevent exposure of any worker to asbestos; Prevent the further release of respirable asbestos fibres
> 0.02	Immediately halt asbestos removal works; Notify SafeWork NSW of exceedance of the respirable asbestos fibre level; Investigate the cause of asbestos fibre levels; Implement further controls to prevent exposure of any worker to asbestos; Prevent the further release of respirable asbestos fibres

7.6 CLEARANCE INSPECTION

7.6.1 VISUAL CLEARANCE INSPECTION

At the conclusion of any ACM removal/remedial works, a visual clearance inspection must be conducted. It is mandatory that a visual clearance inspection is undertaken for any friable ACM remedial works and that this inspection is conducted by a LAA (as per *NSW Work Health and Safety Regulation, 2017*). For non-friable removal works, the mandatory visual clearance inspection may be undertaken by a Competent Person.

The visual clearance inspection will determine whether the ACM remedial works have been completed to a satisfactory standard, in accordance with relevant legislation, and there is no visual evidence of dust and debris throughout the work area.

7.6.2 CLEARANCE AIR MONITORING

The need for clearance air monitoring should be assessed by a LAA / Competent Person prior to the commencement of ACM removal/remedial works. It is also a mandatory requirement that clearance air monitoring is undertaken for any friable ACM remedial works and that this must be conducted by a LAA (as per *NSW Work Health and Safety Regulation, 2017*). However, it is at the discretion of the Competent Person/LAA whether clearance air monitoring is undertaken for any non-friable ACM remedial works.

Clearance air monitoring will be undertaken after the removal/remedial works have been completed and the work area is dry i.e. representing a normal workplace.

The air monitoring equipment should be placed in the ACM work area. For jobs involving a temporary enclosure, air monitoring equipment should be placed within the enclosure, following the completion of work, but prior to the enclosure being removed.

The removal/remedial works enclosure is only considered to be cleared and completed once an airborne fibre result of <0.01 fibres/mL is achieved. When airborne fibre results ≥ 0.01 fibres/mL are returned for a clearance monitoring shift, the work area is to be re-cleaned by the LARC and another clearance monitoring shift shall be undertaken until an airborne fibre result of <0.01 fibres/mL is achieved.

7.6.3 CLEARANCE CERTIFICATE

Following the successful completion of a visual clearance inspection and/or clearance air monitoring, a clearance certificate will be issued by the person performing the clearance work. The clearance certificate will be generally in accordance with the SafeWork NSW Code of Practice – How to safely removal asbestos, December 2022 and should state:

- That the ACM have been removed to the appropriate legislative requirements;

- All air monitoring results below the reporting limit have been achieved;
- The name of the LARC that removed the asbestos materials; and
- That the area is safe for re-occupation by unprotected personnel.

The clearance certificate should include a description of all the ACM removed, together with a unique description of the area from where they were removed.

In accordance with condition C15 of the Consent, the clearance certificates will be provided to the Department prior to commencement of the demolition works in the relevant area pertaining to the clearance certificate (note: clearance certificates will be issued progressively to facilitate progressive demolition).

7.7 EQUIPMENT AND RELEVANT CONTROLS

The works will involve the use of heavy equipment including excavators, boom lifts and scissor lifts. All equipment used within an ACM removal area will be thoroughly decontaminated by the LARC prior to leaving the area and will be inspected and issued with a Clearance Certificate prior to leaving the work area. All personnel operating the above mentioned equipment will be suitably trained and licensed to operate such equipment.

In addition to the abovementioned heavy equipment, the removal works will involve the use of the following equipment:

- Wet decontamination unit(s).
- Negative Air Pressure Units (NPU's).
- Mobile Scaffolding.
- Platform ladders.
- 200 micron plastic.
- HEPA vacuums.
- Hand tools.

Where plant operators do not have SafeWork NSW certified training for asbestos removal, they will require a minimum of asbestos awareness training (refer to section 5.8) from a Competent Person and respirator fit test (where respirator required to be used), and are required to work under the supervision of the Asbestos Supervisor (i.e. Asbestos Supervisor must be present when plant is operating in their work area and must provide direction on fitting of PPE, decontamination process, access and egress of asbestos work areas).

7.8 SITE INDUCTION CONTENT IN RELATION TO ASBESTOS MATTERS

CMA will develop and deliver Site Induction training for all personnel entering the Site. Site specific Asbestos Awareness Training that incorporates example materials from the Site will be provided by a Competent Person. The following topics will be covered in the CMA induction for all personnel involved in the demolition:

- Nature of the ACM materials at the Site.
- Roles and Responsibilities of various stakeholders.
- Health Risks associated with ACM Removal activities.
- Controls used to mitigate the risk associated with ACM Removal activities.
- Location of ACM Removal Work Areas.
- CMA unexpected finds procedure (refer to section 5.14 and Appendix A).
- Air monitoring and reporting.

7.9 PERSONNEL EMPLOYED FOR ASBESTOS REMOVAL AND REQUIRED TRAINING

The LARC will employ personnel who are suitably trained and experienced to perform the ACM removal work. Personnel involved in the removal works will operate in accordance with the Class A and/or Class B Asbestos Removal License and legislative requirements. All personnel will have received suitable training by their LARC employer to ensure the work is performed in a safe manner. Training records for all LARC personnel will be made available on request.

7.10 PPE AND CONTROL MEASURES

The use of Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE) is mandatory for personnel entering the work area during active ACM removal works.

7.10.1 FRIABLE ASBESTOS REMOVAL WORK

In accordance with the SafeWork NSW Code of Practice: How to Safety Remove Asbestos, December 2022, AS/NZS 1715 *Selection, use and maintenance of respiratory protective equipment* and AS/NZS 1716 *Respiratory protective devices*, workers involved with the removal of **friable** ACM must adopt the following PPE and RPE:

- Disposable category 3, type 5/6 polyethylene coveralls.
- RPE options:
 - Full face, powered air purifying particulate respirator with P3 filter.
 - Full face, positive pressure demand air-line respirator with P3 filter.
 - Negative pressure full-face, P3 particulate filter (cartridge) respirator.
- Safety gloves (disposable nitrile as a minimum, and where high protection is required non-disposable style which are not removed from the ACM work area and disposed of at the completion of works).
- Footwear that can be appropriately decontaminated prior to removal from the work area (i.e. gumboots without laces, disposable boot covers disposed of as ACM waste, etc.).
- Only where a risk assessment, undertaken by the LAA / Competent Person has shown it safe to do so, can the abovementioned PPE requirements be altered.

7.10.2 NON-FRIABLE ASBESTOS REMOVAL WORK

In accordance with the SafeWork NSW Code of Practice: How to Safety Remove Asbestos, December 2022, AS/NZS 1715 *Selection, use and maintenance of respiratory protective equipment* and AS/NZS 1716 *Respiratory protective devices*, workers involved with the removal **non-friable** ACM must adopt the following PPE and RPE:

- Disposable category 3, type 5/6 polyethylene coveralls.
- Half face (non-disposable) respirator with P2 particulate filter.
- Safety glasses.
- Safety gloves (disposable nitrile gloves) (where applicable).
- Footwear that can be appropriately decontaminated prior to removal from the work area (i.e. gumboots that are lace less, disposable boot covers disposed of as ACM waste, etc.).

7.10.3 ADDITIONAL TESTING REQUIREMENTS

All PPE and RPE (most notably respirators) will be used in accordance with the manufacturer's specifications. Additionally, a quantitative fit test will be undertaken on an annual basis for all personnel required to wear respirators to ensure the effectiveness of the respirator to the individual. The results of the fit tests for persons performing ACM removal work will be kept on site and will be available to demonstrate that such testing has been successfully undertaken. If an individual has previously completed quantitative fit testing within twelve (12) months,

the results will be considered valid and documentation should be kept on-site. Fit testing will be undertaken by a Competent Person for those contactors who have not completed quantitative fit testing within the past twelve (12) months.

7.11 ON SITE LABORATORY

Prensa, who hold a NATA accreditation to ISO 17025 Testing and calibration laboratories, will provide an on-Site laboratory which is capable of performing NATA endorsed asbestos in air analysis. The establishment of the on-site laboratory will be in accordance with Prensa's NATA accreditation.

7.12 TASK MANAGEMENT PROCESSES INCLUDING ASBESTOS REMOVAL CONTROL PLANS AND SWMS

The LARC will prepare an ARCP for the ACM removal works which will include removal methods of the different types of ACM that are to be removed from the Site and will also progressively develop SWMSs for the ACM removal work.

7.13 UNEXPECTED FINDS

It is possible that ACM may be identified which may have been concealed within inaccessible areas/voids, or which may not have been located during previous inspections. During the course of any works that uncover any materials that are suspected of being ACM, works in that area will cease **immediately** and the Unexpected Finds Procedure described in **Appendix A** should be enacted immediately.

Where ACM products are suspected to be contaminated, a process will be developed in consultation with the NSW EPA accredited Site Auditor. This will include a Sampling Analysis Quality Plan (SAQP) in accordance with condition C3 of the Consent to confirm if the waste is suitable for disposal in the onsite asbestos disposal facility. Where the waste is deemed unsuitable, the waste will be classified in accordance with the NSW EPA Waste Classification Guidelines, Part 1: Classifying waste, November 2014 for offsite disposal at an appropriately licensed facility.

7.14 WASTE MANAGEMENT

During the removal of ACM, where practical, systems of work/procedures will be implemented to separate non-porous inert material such as concrete, bricks, metal etc. from the ACM. The ability to separate waste streams will assist CMA in achieving a sustainable waste management outcome in accordance with NSW EPA Waste Hierarchy.

The ability for material to be separated will be determined by the LAA / Competent Person following visual inspection of the work area and inert materials during removal works. If it is deemed practicable by the LAA / Competent Person to recover inert material, the material must undergo suitable clearance inspection and/or decontamination. Where decontamination of any inert materials, the material will be inspected by the LAA / Competent Person in accordance with the *NSW WHS Regulations 2017* and the *SafeWork NSW Code of Practice: How to Safely Remove Asbestos, December 2022*.

ACM waste will be suitably packaged and inspected by the LAA (for Class A work) or Competent Person (for Class B work) prior to removal from the ACM Removal Area so far as reasonably practicable.

Examples of suitable packaging include the following (note: the examples generally apply to both friable and non-friable ACM and will be assessed on a case by case basis in consultation with the LAA):

- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed in an asbestos waste Bulka Bag (HAZIBAG) and sealed.
- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed into an open top Intermediate Bulk Container (IBC) and sealed (IBC top removed, single bagged ACM placed inside, top replaced and sealed with tape) – IBC to be inspected prior to use and any debris inside removed.
- Double wrapped and sealed in 200µm polyethylene sheet and placed on a pallet
- Placed in asbestos waste bags and sealed and then placed in another asbestos waste bag and sealed and secured onto pallets.
- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed into polyethylene sheet lined skip and sealed.
- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed into a metal drum and sealed.
- Place directly into a skip bin lined with 2 x layers of 200µm polyethylene sheet, and once the bin is full, the sheets are individually folded over and sealed to wrap the ACM waste.
- Using a pre-lined Bulka Bag (HAZIBAG), an additional layer of 200µm polyethylene sheet is placed inside, and the ACM material is placed directly into the bag.

7.14.1 ONSITE TRANSPORT, DISPOSAL AND TRACKING OF ASBESTOS WASTE

Condition C23 of the Consent includes for the construction of an onsite asbestos disposal facility to dispose of ACM waste from the works. In accordance with condition A6 of the Consent, a maximum of 30,000 cubic metres of ACM, SMF, and other associated wastes authorised by the Site auditor, may be disposed of at the asbestos disposal facility, unless otherwise agreed by the Planning Secretary.

Once the construction of the onsite asbestos disposal facility is completed, all ACM waste deemed suitable, will be disposed of permanently within the onsite asbestos disposal facility.

While it is anticipated that the majority of ACM will be packaged prior to transport, some materials may require transport without fully contained packaging, for example:

- Asbestos containing concrete waste and impacted soils generated from the chimney stack felling.
- Duct flanges from large ductwork.

The transport of un-packaged ACM waste will be subject to an exposure risk assessment that considers the route of the waste transport, as well as the workers involved in the task, other workers and the general public. Where this is required, documented controls will be implemented to reduce the risk of airborne asbestos fibres, so far as reasonably practicable (e.g. PVC tarpaulin to cover the loads, wet dust controls during loading, etc.).

Waste transport that uses public access roads will be undertaken by a company holding a NSW EPA environment protection licence for the transport of Category 1 trackable waste.

A material tracking system shall be implemented to track the ACM waste from the source location to the onsite asbestos disposal facility, with a material tracking register set up and progressively populated throughout the ACM

removal works (note: NSW EPA Integrated Waste Tracking Solution (IWTS) is not intended to be used for tracking waste to the onsite asbestos disposal facility). The following minimum detail will be collected:

- Date ACM package is transported
- Work Area from which ACM originated.
- Package type (e.g. pallet, lined skip bin, IBC).
- Number of packages transported.
- Destination (onsite asbestos disposal facility).

Table 7 – Example of the material tracking register

Date	Asbestos Removal Work Area (Origin)	Package Type	# Packages	Destination
15/08/2025	Transformer Yard	IBC	3	Onsite asbestos disposal facility
15/08/2025	Transformer Yard	Pallet	5	Onsite asbestos disposal facility
15/08/2025	Transformer Yard	Skip Bin	1	Onsite asbestos disposal facility

7.14.2 ONSITE TEMPORARY STORAGE OF ASBESTOS WASTE

Subject to approval by SafeWork NSW, the ACM waste generated from the ACM removal works undertaken prior to the construction of the onsite asbestos disposal facility that is not disposed of offsite will be temporarily stored onsite in the former Main Store warehouse (refer to marked up site map below) until the onsite asbestos disposal facility is available to facilitate permanent disposal.

Asbestos warning signage will be installed around the Main Store building, and the temporary storage facility will be secured so that only authorised personnel wearing the required PPE can enter the area.



Figure 4 – Main Store location

Once the onsite asbestos disposal facility has been constructed, all ACM waste that has been placed in the former Main Store warehouse for temporary storage will be transported for permanent disposal in the onsite asbestos disposal facility (refer to section 7.14.1 above for Transport, disposal and tracking of ACM Waste).

Similar to the ACM transported directly to the onsite asbestos disposal facility, a material tracking system shall be implemented to track the ACM waste from the source location to the Main Store, with a material tracking register set up and progressively populated throughout the ACM removal. The following minimum detail will be collected:

- Date ACM package is transported
- Work Area from which ACM originated.
- Package type (e.g. pallet, lined skip bin, IBC).
- Number of packages transported.
- Destination (onsite asbestos disposal facility).

Table 8 – Example of the material tracking register

Date	Asbestos Removal Work Area (Origin)	Package Type	# Packages	Destination
15/08/2025	Transformer Yard	IBC	3	Main Store
15/08/2025	Transformer Yard	Pallet	5	Main Store
15/08/2025	Transformer Yard	Skip Bin	1	Main Store

Inspections

The LARC will undertake a documented weekly inspection of the temporary storage facility to confirm the security, vandalism or other damage of the facility.

The LARC will undertake a documented monthly inspection of the packages within the temporary storage facility to confirm the secureness of packaged asbestos.

The LARC will undertake documented event-based inspections of the temporary storage facility and the packages within following adverse weather events to assess if any damage to the building or packaging, and if any stormwater leaks or inflows occurring. Events that would trigger these inspections would include rain events greater than 10mm in 24 hours; strong winds greater than 50km/h; recorded earthquake/tremor; or any other natural disasters as applicable.

In the event that observations of concern are identified, the LAA and LARC will be consulted for direction.

Clearance Inspection and Clearance Certificate

Following the relocation of all ACM from the Main Store to the onsite asbestos disposal facility, the LAA will complete a visual inspection and prepare a Clearance Certificate.

Contingency Plan

The contingency plan is outlined in the table below and would only be applied in the event unexpected or scenarios occur at the Site and require that a contingency mechanism to be implemented to achieve asbestos management.

Table 9 –Contingency Plan

Scenario	Contingency Response
Deterioration of packaging occurs whilst asbestos is still in temporary storage	CMA shall inspect the stored packaged asbestos monthly. CMA shall assess packaging materials that are deteriorating and identify a solution, such as additional packaging surrounding deteriorating packaging or placement of asbestos into new packaging.
Vandalism of the Main Store building or packaged asbestos within the Main Store occurs	CMA will have sufficient controls in place to deter vandals from entering the Site and the Main Store. In the unlikely instance that vandalism does occur, CMA shall assess the damage, re-package materials as required and decontaminate the floor or other areas where vandalism has occurred and secure the temporary storage area in the facility.
Damage to the Main Store building or packaged asbestos in the Main Store due to adverse weather, unexpected structural failure, or natural disaster (such as an earthquake)	CMA will inspect the temporary storage facility after a rain event greater than 10mm, strong winds (greater than 50km/h) or a recorded earthquake/ tremor to assess if any damage to the building or packaging, and if any stormwater leaks/ inflow occurring. If damage and/ or stormwater leaks/ inflow identified, CMA shall assess the damage, re-package materials as required, clean areas impacted by building damage, and resolve how to address building damage.
Unforeseen emergency	CMA will follow the Unexpected Finds Procedure (Appendix A) in consultation with the LAA.

7.14.3 OFFSITE TRANSPORT, DISPOSAL AND TRACKING OF ASBESTOS WASTE

The transportation and disposal of ACM waste is regulated and must be disposed of at an appropriately licenced facility. ACM transporters and facilities in NSW receiving ACM waste weighing more than 100 kilograms, or consisting of more than 10 square metres of ACM sheeting in one load must track and report this waste to the NSW EPA using Integrated Waste Tracking Solution (IWTS).

Companies transporting ACM waste must hold a NSW EPA Environment Protection Licence for Transport of Category 1 trackable waste. Tipping receipts must be retained and maintained with the Site's ACM records.

7.14.4 ONSITE ASBESTOS DISPOSAL FACILITY

Condition C23 of the Consent includes for the construction of an onsite asbestos disposal facility to dispose of ACM waste from the works which will be located as detailed in Figure 1 in Section 2 above (refer to "Containment Cell" in Figure 1).

In accordance with condition A6 of the Consent, a maximum of 30,000 cubic metres of ACM, SMF, and other associated wastes authorised by the Site auditor, may be disposed of at the asbestos disposal facility, unless otherwise agreed by the Planning Secretary.

In accordance with condition C23 of the Consent, the asbestos disposal facility will be designed and constructed in accordance with the relevant requirements of the NSW EPA Environmental Guidelines Solid Waste Landfills (2016), unless otherwise agreed by the Site auditor and the Planning Secretary.

In accordance with condition C24 of the Consent, a final design for the asbestos disposal facility will be prepared for the development. The design will:

- a. be accompanied by interim audit advice from the Site auditor;
- b. be prepared in consultation with the NSW EPA;
- c. be submitted to the Planning Secretary for approval prior to the commencement of construction of the asbestos disposal facility; and
- d. be implemented, as approved, by the Planning Secretary.

In accordance with condition C25 of the Consent, a construction quality assurance plan will be prepared for the asbestos disposal facility. The plan will:

- a. be provided to the NSW EPA for review prior to the commencement of the construction of the asbestos disposal facility; and
- b. be prepared in accordance with the relevant requirements of the NSW EPA Environmental Guidelines Solid Waste Landfills (2016).

In accordance with condition C26 of the Consent, a construction quality assurance report will be prepared for the asbestos disposal facility. The report will:

- a. be provided to the NSW EPA for review prior to the commencement of the operation of the asbestos disposal facility; and
- b. be prepared in accordance with NSW EPA Environmental Guidelines Solid Waste Landfills (2016).

8 SYNTHETIC MINERAL FIBRE MANAGEMENT

Synthetic mineral fibre (SMF) is a generic term used to collectively describe a number of amorphous (non-crystalline) fibrous materials, commonly referred to as “man-made mineral fibres” (MMMF).

8.1 TYPES OF SYNTHETIC MINERAL FIBRE MATERIALS

As per the *National Code of Practice for the Safe Use of Synthetic Mineral Fibres* [NOHSC: 2006 (1990)], SMF materials include fibreglass, Rockwool and ceramic fibre based products. These products are used in a number of areas throughout buildings. These materials are generally used as insulation within ceilings and walls, as well as heating hot water heaters, pipework and associated mechanical equipment.

8.2 CLASSIFICATION OF SMF

SMF materials are classified as bonded and un-bonded materials.

Bonded SMF materials contain adhesives, cements or other bonding agents and have a set form or shape, these materials include sectional fibreglass and Rockwool pipe insulation; ceiling batts, duct blankets (lined and unlined with mesh/foil), dry wall batts insulation and acoustic mineral fibre ceiling tiles etc.

Un-bonded SMF materials contain no binding agent and include loose fill fibreglass or Rockwool dry wall or ceiling insulation, and sprayed Rockwool to structural steel and acoustic finishes e.g. Roberts M34.

Further classification is based on the bio-persistence of the fibres within the organs of the body, which can be generally derived from the manufacture date.

- Older styles of SMF – typically developed and installed prior to early 1990’s.
- Modern styles of SMF – typically developed and installed post early 1990’s, with a higher percentage of lower bio-persistence types.

8.2.1 OLDER STYLES OF SMF

Older styles of SMF can be further delineated into two groups, ‘Continuous Fibre’ and ‘Mineral Wool’. Mineral wool is further subdivided based on their composition and use:

- Continuous Filaments – thine drawn continuous strands usually of glass or alumina silicate. Typical mean diameters of 6 – 15 μm . Typical uses include reinforcing filaments, spinning and weaving applications.
- Mineral Wool – randomly oriented SMF fibres, used for insulation and fire protection:
 - Glass Wool Fibre – blown or spun from molten glass. Typical mean diameters of 3 - 5 μm .
 - Rock Wool Fibre – blown or spun from molten rock, and for products manufactured in Australia, this was typically basalt with minor amounts of slag and ceramic wastes. Typical mean diameters of 2 -7 μm .
 - Slag Wool – blown or spun from metallurgical furnace slag. Typical mean diameters of 2-7 μm .
 - Refractory Ceramic Fibre – High temperature performance SMF, blown or spun from the aluminosilicate mineral kaolin or synthetic mix of alumina and refined beach sand. Typical mean diameters of 1 μm .

8.2.2 MODERN STYLES OF SMF

Developments in industry through the 1980’s and 1990’s lead to the use of high temperature alkaline earth silicate (AES) materials in the manufacture of SMF. Additional requirements were also introduced in Europe, regarding the bio-persistence properties of SMF, which resulted in the widespread adoption of these materials.

By 2002, the vast majority of forms of SMF manufactured in Australia met the requirements of the European Standards for low bio-persistence properties. Exceptions include speciality high temperature performance products.

8.3 OVERALL STRATEGY

Action should be taken on a continuing basis to achieve the lowest workable exposure levels of SMF. The provision of engineering controls, and the containment of waste material may achieve this. Additionally, the use of binders or work practices which reduce the liberation of fibres (e.g. water mist during removal) and the provision of appropriate PPE can help reduce SMF levels to personnel and the environment.

8.3.1 PIPEWORK HANDLING

Due to the risks of unsatisfactory ACM removal undertaken previously, the pipework beneath the SMF lagging may potentially contain asbestos residues.

The SMF lagged pipework is separated from the surrounding structure by mechanical demolition or oxy cutting, minimising the disturbance of the SMF lagging. These works are undertaken under standard demolition practices (not an asbestos removal work area or under asbestos removal conditions) and the materials picked up by an excavator with grab attachment and placed in a designated area (this designated area becomes an ACM removal work area with associated asbestos removal controls in consultation with the LAA).

SMF products will be stripped by a combination of mechanical and manual means within the ACM removal work area, and the item inspected by the LAA / Competent Person for residues representative of unsatisfactory ACM removal works undertaken previously in the plant's history.

If asbestos residues are found to pipework, the residue is either removed under asbestos conditions or the pipe disposed of as ACM waste (refer to Section 7.14). Where the residue is removed, the steel is inspected by the LAA and ACM clearance issued prior to removal from the work area and offsite recycling.

SMF waste will be packaged, transported and disposed of in the same manner as ACM waste (refer to section 7.14).

8.4 HANDLING OF SMF MATERIAL

Caution is required when handling SMF products in order to minimise airborne SMF levels. It is recommended that the *Code of Practice for the Safe Use of Synthetic Mineral Fibres* [NOHSC:2006(1990)] and *SafeWork Australia Guide to Handling Refractory Ceramic Fibres*, 2013 be closely adhered to when handling such materials.

Essentially, SMF materials should be handled in such a way as to minimise dust and disturbance of the materials. Where SMF materials are installed or removed, then suitable controls and appropriate personal protection are to be provided. Consultation should be sought from the LAA / Competent Person with regard to appropriate procedures prior to the handling of such materials.

8.4.1 PPE AND CONTROL MEASURES

Same PPE and control measures can be implemented as for friable or non-friable ACM works (See **Section 7.10**).

8.5 AIR MONITORING PROGRAM

An air monitoring program will be implemented to determine the exposure risk to workers during demolition tasks where SMF materials are deemed not practical to remove prior to the demolition of the item (personal exposure monitoring). During removal of SMF materials, the following workplace exposure standards must be adhered to:

Table 10 – Workplace Exposure Standards for SMF

SMF Type	Exposure Standards
Refractory Ceramic Fibres	0.5 fibres/mL - <i>Method for Estimating Airborne Asbestos Fibres</i> . 2nd Edition. [NOHSC:3003(2005)] And 2 mg/m³ - <i>Workplace Atmospheres – Method for sampling and gravimetric determination of inhalable dust (AS3640-2009)</i>
Special Purpose Glass Fibres	
High Bio-persistence SMF	
Glass Wool	
Rock Wool	2 mg/m³ - <i>Workplace Atmospheres – Method for sampling and gravimetric determination of inhalable dust (AS3640-2009)</i>
Slag Wool	
Continuous Filament	
Low Bio-persistence SMF	

The two complimentary methods will be used until it can be shown with confidence that the worker will not be exposed at more than half of the relevant exposure standard for the tasks being undertaken.

8.6 DISPOSAL OF SYNTHETIC MINERAL FIBRE

Typically, uncontaminated SMF products can be disposed of as General Solid Waste (Non-Putrescible) so long as the material is packaged securely to prevent dust emissions. All uncontaminated SMF materials will be disposed of at the onsite asbestos disposal facility.

Where SMF products are suspected to be contaminated, a process will be developed in consultation with the NSW EPA accredited Site Auditor. This will include a Sampling Analysis Quality Plan (SAQP) in accordance with condition C3 of the Consent to confirm if the waste is suitable for disposal in the onsite asbestos disposal facility. Where the waste is deemed unsuitable, the waste will be classified in accordance with the NSW EPA Waste Classification Guidelines, Part 1: Classifying waste, November 2014 for offsite disposal at an appropriately licensed facility.

9 ENVIRONMENTAL INCIDENTS

9.1.1 INCIDENTS

Incidents involving ACM that are deemed notifiable in accordance with the POEO Act must be reported to the NSW EPA immediately. These incidents are those that cause or threatening to cause material harm to the environment, as per section 148 of the POEO Act, the AGLM PIRMP and the site EPL. CMA will report Environmental ALL incidents to AGLM who will then report to the Regulatory body as required.

Incidents are to be reported as per Conditions R2 of EPL2122. Condition R2 requires notification to all relevant authorities of incidents causing, or threatening to cause material harm to the environment, immediately after becoming aware of the incident, by phoning 131555. A written report must then be provided to the EPA within 7 days of the date on becoming aware of the incident.

In accordance with D5 of the Consent, the Applicant (AGLM) must notify the DPHI within 24 hours of becoming aware of an incident. A notification must be made via the NSW planning portal (Major Projects) and address details of the incident including:

- Date, time and location.
- A brief description of what occurred and why it has been classified as an incident.
- A description of what immediate steps were taken in relation to the incident.
- Identifying a contact person for the further communication regarding the incident.

In accordance with D6 of the Consent, the Applicant (AGLM) must provide DPHI with a subsequent incident report in accordance with the nominated incident notification and reporting requirements.

9.1.2 NON-COMPLIANCE

In accordance with D4 of the Consent, within seven days of becoming aware of a non-compliance, the Applicant (AGLM) must notify DPHI of the non-compliance. The notification must:

- Be in writing.
- Submitted via the NSW planning portal (Major Projects).
- Identify the development (including the development application number and name).
- Set out the condition of this consent that the development is non-compliant with.
- Why it does not comply.
- The reasons for the non-compliance (if known).
- What actions have been undertaken, or will be undertaken; and when, to address the non-compliance.

Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

10 EMERGENCY PROCEDURE

Environmental emergencies will be dealt with in accordance with AGLM's Pollution Incident Response Management Plan (PIRMP).

Where an incident occurs during ACM removal works in an ACM removal area, the Asbestos Supervisor is the first point of contact.

If an incident occurs within a non-friable ACM removal work area, the injured person is to be removed from the ACM removal area as soon as possible and first aid is to be administered. If required, emergency services will be contacted.

If the incident occurs within a friable containment, it may be necessary to cut/dismantle a containment wall to get the injured person out. Repairs should be carried out immediately after the person has been removed.

Minor incidents within an asbestos containment:

- If the injury is of a minor nature the injured person with/without the assistance of a co-worker should undertake the full decontamination procedure and proceed to the first aid room for treatment.

If a worker MUST be removed from the asbestos containment due to a major incident:

- If the determination is a major incident, the injured person is to be removed from the containment (if safe to do so).
- If the containment has to be breached all action must be taken to ensure unprotected persons are kept away from the area.
- Once the injured person has been removed to a safe location for decontamination and medical treatment the breached containment is to be repaired.
- Ensure the repaired containment is visually checked. The LAA will determine whether any further containment integrity tests (i.e. smoke test) are required.
- To decontaminate the injured worker and if safe to do so remove coveralls by either rolling in a downwards manner or if impracticable use a scissors to cut away the coveralls. Place the coveralls in a labelled waste bag.
- Use care to thoroughly wash and rinse the contaminated skin of the injured person.
- Wet wipe the respirator and dispose of pre-filters before removing.
- Move the injured person to a clean area where emergency medical treatment can be provided.
- If not safe to remove the injured person from the containment or to decontaminate the person due to the injury sustained, notify emergency services on arrival that the person is situated within an asbestos containment. Provide the necessary PPE for the emergency services personnel to enter the area.
- The area surrounding the breach should not be occupied by unprotected personnel where reasonably practicable and not impacting the care of the injured worker, until such time as the area can be inspected by the LAA, any clean-up/make safe works undertaken by the LARC, and a clearance certificate (including air monitoring) is provided by the LAA.

11 RECORD KEEPING AND REPORTING

CMA will maintain all records associated with ACM removal work in accordance with the NSW Work Health and Safety Regulation 2017 and the SafeWork NSW Code of Practice – How to safely remove asbestos, December 2022.

In addition to the above, refer to section 6 of the DEMP for environmental reporting requirements.

12 REVIEW AND IMPROVEMENT

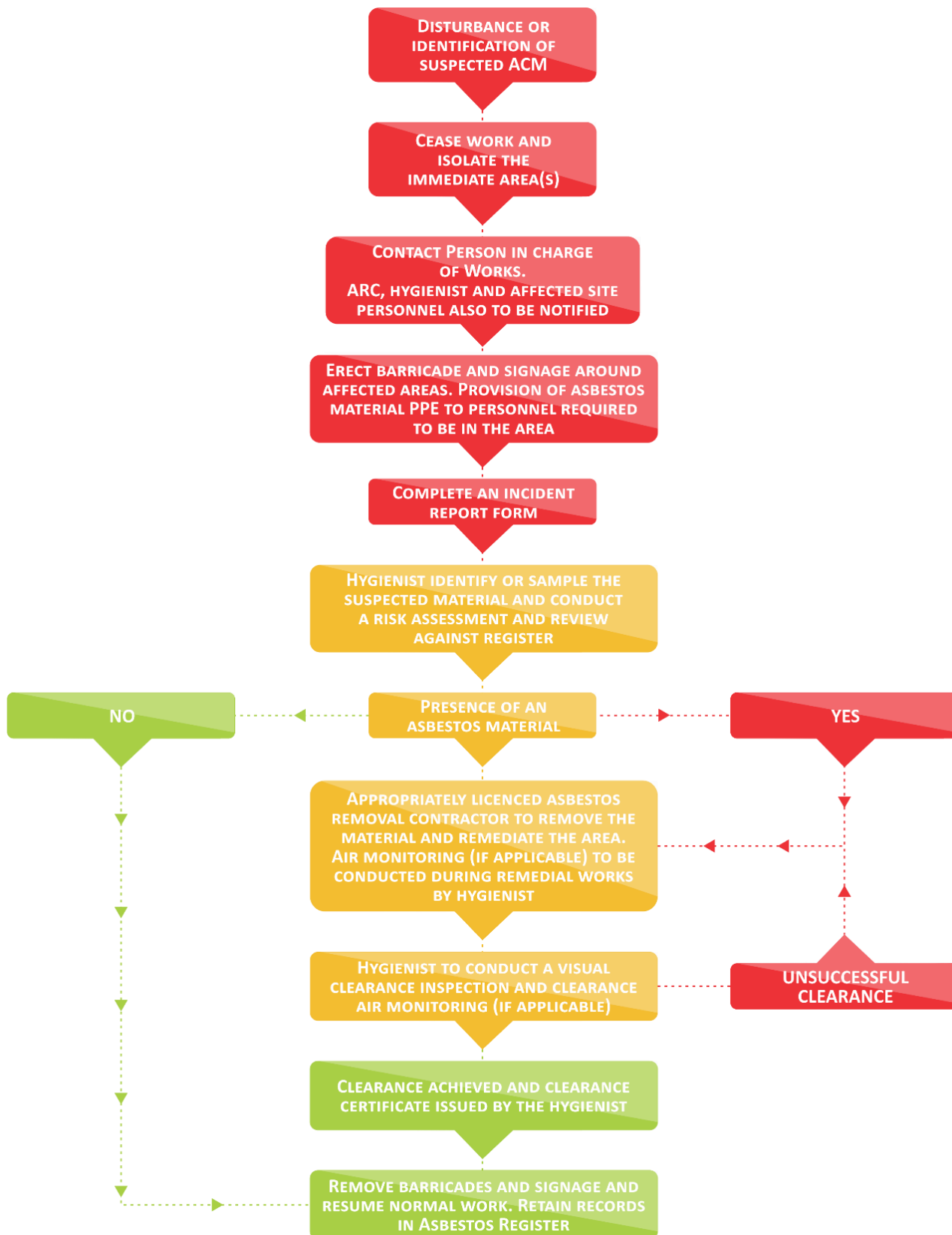
The AMSP will be reviewed for effectiveness and updated when / if the following occur:

- a significant incident.
- completion/change of a significant part of the work.
- a significant change in Site Conditions.
- a change in the applicable legislation.

Further, refer to section 7.5 of the DEMP.

APPENDICIES

APPENDIX A – UNEXPECTED FINDS PROCEDURE



APPENDIX B - ACCEPTANCE OF ASBESTOS MANAGEMENT SUB-PLAN

This Asbestos Management sub-plan has been developed and viewed in consultation with the workers and it is read and signed by all persons involved in the plan. If a variation occurs to this Asbestos Management sub-plan, then management will communicate and re-induct the change to the work group whilst adjusting the work method methodology accordingly.

I hereby confirm that I have read and understand this Asbestos Management sub-plan and I will ensure my work process is completed accordingly.

[illegible]

APPENDIX C – EXAMPLE ASBESTOS REMOVAL CONTROL PLAN

ASBESTOS REMOVAL CONTROL PLAN LIDDELL POWER STATION (WHOLE OF SITE)



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"Safety is no accident!"



Project Name	Liddell Power Station Demolition Project		
Client Name	AGLM		
Project Address	Liddell Power Station, New England Highway, Muswellbrook NSW 2333		
Project Description/ Scope	Liddell Power Station – Removal of Asbestos from Liddell Power Station (Whole of Site)		
Document Number	C0269-LPS-WOP-P-Asbestos Removal Control Plan (Whole of Site)-LPS		
Prepared By	Todd Solomon	Signature:	Date: 25/03/2025
Authorised By	Aaron Britt	Signature:	Date: 25/03/2025
Project Manager	Ruan Zaayman	Signature:	Date: 25/03/2025

TABLE OF CONTENTS

REVISION REGISTER	5
1.0. INTRODUCTION	6
2.0. SCOPE OF WORK	6
3.0. IDENTIFICATION	8
3.1. Verification of Asbestos Register	8
3.2. Unexpected finds	8
4.0. LICENSING AND COMPETENCY REQUIREMENTS.....	9
4.1. Licencing for asbestos removal works	9
4.2. Asbestos Supervisor	9
4.3. Licenced Asbestos Assessor	9
4.4. Asbestos Removal Workers	9
5.0. ROLES & RESPONSIBILITIES	11
5.1. Person Conducting Business or Undertaking (PCBU).....	11
5.2. Licenced Asbestos Assessor (LAA) / Competent Person	11
5.3. Asbestos Project Manager	11
5.4. Asbestos Supervisor	11
6.0. NOTIFICATIONS	12
6.1. Notification to SafeWork NSW	12
6.2. Notification to stakeholders.....	12
7.0. CONSULTATION.....	13
8.0. PROGRAM OF WORKS	14
9.0. HEALTH MONITORING	15
9.1. Baseline Health Monitoring	15
9.2. Ongoing Health Monitoring	15
10.0. EMERGENCY PROCEDURE	16
10.1. Site Emergency Evacuation Procedure	16
10.2. Asbestos Removal area Emergency Evacuation Procedure	16
11.0. CONTROL OF HAZARDS.....	17
12.0. ASBESTOS REMOVAL BOUNDARIES – BARRICADES & SIGNAGE.....	18
13.0. PERSONAL PROTECTIVE EQUIPMENT	19
13.1. Respiratory Protection:	19
13.2. Fit Testing and clean shaven policy.....	20
13.3. Coveralls	21
13.4. Gloves.....	21
13.5. Safety footwear.....	21
14.0. ASBESTOS CLEARANCE INSPECTIONS AND CERTIFICATES	23
15.0. ASBESTOS AIR MONITORING	24
15.1. Air Control Monitoring	24
15.2. Calibration	24
15.3. Action Levels	25
15.4. Air Exposure Monitoring	25

16.0. TOOLS, PLANT & EQUIPMENT	27
16.1. Indicative tools used for removal.....	27
16.2. Maintenance:	27
16.3. Electrical equipment	27
16.4. HEPA Vacuums	27
17.0. ENCLOSURE FOR FRIABLE ACM REMOVAL	29
17.1. Designing and installing an enclosure.....	29
17.2. Testing and enclosure	30
17.3. Negative pressure exhaust units.....	31
17.4. Dismantling an asbestos removal enclosure.....	31
17.5. Security and checks when using an enclosure	32
18.0. DECONTAMINATION	33
18.1. Decontamination Units (For specific Friable Asbestos removal only) – “Wet Decontamination”	33
18.2. Remote Decontamination units.....	34
18.3. Equipment, Tools & Plant.....	34
18.4. Personal Decontamination – Decontamination Unit (Specific Friable works).....	35
18.5. Personal Decontamination – Dry Decontamination (Non-Friable works and specific Friable works)	35
19.0. ASBESTOS WASTE	37
19.1. Asbestos Waste Bags	37
19.2. Polyethylene sheeting for containing asbestos waste.....	37
19.3. Labels for waste containers and drums	37
19.4. Packaging of ACM Waste	37
19.5. Offsite transport, disposal & tracking of packaged ACM waste	38
19.6. Onsite transport, temporary storage, disposal & tracking of packaged ACM waste	38
19.6.1. Onsite temporary storage and disposal.....	38
19.6.2. Tracking of onsite packaged ACM waste	38
19.6.3. Onsite transport of packaged ACM waste	39
20.0. SITE SPECIFIC ACM REMOVAL	40
20.1. Typical Site Setup Plan for Asbestos Removal Works.....	40
20.2. Site Establishment & Asbestos Removal Area Set Up.....	41
20.3. Plant decontamination.....	41
20.4. Clearance inspection & certificate	41
20.5. ACM Removal Methods	42
Appendices	43
Appendix A - HEPA Vacuum Maintenance Procedure.....	43
Appendix B – Delta Friable Asbestos Licence	45
Appendix C- Asbestos Register	46
Appendix D - Acceptance of ARCP.....	47

DISCLAIMER

This document has been developed to assist Delta Pty Ltd and any related entities to better understand and manage quality issues in the workplace. While every effort has been made to ensure the accuracy of the material in this document, this publication is not meant to substitute for the legislation. For the specific requirements on an issue covered in this document, persons should refer directly to the relevant legislation in their location.

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REVISION REGISTER

REV	DATE	DESCRIPTION OF CHANGE	PAGE/S	REVIEWED BY	APPROVED BY
0	25/03/2025	Document prepared for Whole of Project – supersedes all previous ARCP's for CDC works	All	RZ	TS

1.0. INTRODUCTION

Delta has been engaged by CMA Contracting to carry out the removal of Asbestos Containing Material (ACM) from the former Liddell Power Station which is licenced asbestos removal work (Class A and Class B asbestos).

This Asbestos Removal Control Plan (ARCP) identifies the specific control measures that will be implemented to ensure workers and other people are not at risk when the licenced asbestos removal work is being undertaken and helps ensure the asbestos removal work is well planned and carried out in a safe manner and has been developed in accordance with the following:

- + NSW Work Health & Safety Regulation 2017 (NSW WHS Reg 2017)
- + SafeWork NSW Code of Practice "How to safely remove asbestos" dated December 2022;
- + SafeWork NSW Code of Practice "How to manage and control asbestos in the workplace" dated December 2022;
- + SafeWork NSW Code of Practice "Demolition Work" dated August 2019

2.0. SCOPE OF WORK

This ARCP covers the removal of ACM from all areas of the Liddell Power Station site including:

- + Zone 01 – Transformer Bay
- + Zone 02 – Turbine House
- + Zone 03 – Boiler House & Auxiliary Bay
- + Zone 04 – Fabric Filters
- + Zone 05 – Chimney Stacks
- + Zone 06 – Hazardous Storage Areas
- + Zone 07 – Minor Support Infrastructure
- + Zone 08 – Coal Handling Infrastructure
- + Zone 09 – Solar Plant (previously demolished as pre works for the LD BESS project)
- + Zone 10 – Ash and Dust Lines
- + Zone 11 – CW Pumping Station
- + Zone 11 – CW Outlets and Outfall Canal
- + Zone 12 – Hunter Valley Gas Turbines

Zones 1 to 11 (Excluding Zone 9) Power Station Overview



Zone 9 – Solar Plant



Zone 12 – Hunter Valley Gas Turbines



3.0. IDENTIFICATION

The Asbestos Register for the Liddell Power Station demolition works is an online register that has been prepared and maintained by Prensa and is updated following any material sampling from the site:

- <https://liddellps.prensa.com.au>

3.1. Verification of Asbestos Register

Prior to the commencement of ACM removal works to a specific area of the site, an inspection of the specific area shall be undertaken by the nominated Asbestos Supervisor to identify the location of all ACM detailed in the Asbestos Register.

3.2. Unexpected finds

If during the ACM removal works, any material encountered that is not identified in the Asbestos Register that is suspected of containing asbestos (unexpected find), the following procedure is to be adhered to:

1. Immediately make safe and notify the Asbestos Supervisor and Client (CMA Contracting).
2. LAA (Class A) or Competent Person (Class B) to inspect/sample the material to confirm if ACM or not.
3. If suspicious material confirmed to be ACM, Delta will continue to remove the ACM (once all hazards & risks assessed), decontaminate area, obtain clearance certificate from LAA (Class A) or Competent Person (Class B) and dispose of material in accordance with this ARCP.
4. Following issue of a clearance certificate, workers can resume work under normal conditions.

4.0. LICENSING AND COMPETENCY REQUIREMENTS

4.1. Licencing for asbestos removal works

Delta holds a Class A asbestos removal license issued by SafeWork NSW which allows removal of Class A and Class B ACM (refer to Appendix B for copy of licence).

4.2. Asbestos Supervisor

The nominated Asbestos Supervisor undertaking the ACM removal work must hold the appropriate certification to supervise the type of licensed ACM removal work being undertaken (i.e. Class A or Class B) and must be attached to the SafeWork NSW Asbestos Removal Licence.

Where the asbestos removal work being undertaken requires a Class A licence (e.g. Friable asbestos), the nominated Asbestos Supervisor must be present at the Class A asbestos removal area whenever the work is being undertaken.

Where the asbestos removal work being undertaken requires a Class B licence (e.g. non-friable asbestos), the nominated Asbestos Supervisor must be readily available to any personnel undertaking the Class B asbestos removal works being undertaken (i.e. within 20 minutes from the asbestos removal area).

The nominated Asbestos Supervisor for the works is:

- + Aaron Britt - Class A & B

Where the nominated Asbestos Supervisor is not available for any reason during licenced asbestos removal work, another Asbestos Supervisor that holds the appropriate certification and named on Delta's SafeWork NSW Class A asbestos licence to supervise the type of licensed ACM removal work being undertaken will be readily available.

4.3. Licenced Asbestos Assessor

In accordance with the NSW WHS Reg 2017, a Licenced Asbestos Assessor (LAA) is required to carry out the following:

- + air monitoring during Class A asbestos removal work;
- + clearance inspections for Class A asbestos removal work;
- + issuing clearance certificates in relation to Class A asbestos removal work;

The nominated LAA's for the ACM removal work are as follows:

- + Jack Barlow (Prensa) – Licence No. LAA002119
- + Jack Wearne (Prensa) – Licence No. LAA001469
- + Will Chandler (Prensa) – Licence No. LAA001580
- + Dylan Burdett (Prensa) – Licence No. LAA002130

Note: If the above LAA's are unavailable, another LAA shall be used in their place.

4.4. Asbestos Removal Workers

All workers undertaking asbestos removal work must hold a certification in relation to the specified VET course for asbestos removal relevant to the class of licensed asbestos removal work being undertaken by the worker (i.e. Class A or Class B asbestos removal).

Prior to commencing asbestos removal work, the Asbestos Supervisor will provide all asbestos removal workers training to ensure the work is carried out in accordance with this ARCP which is additional training to the general training that is provided on the identification, safe handling and appropriate controls for asbestos referred to in section 6.3 of the Code of Practice: How to manage and control asbestos in the workplace. This training must be provided prior to commencement of asbestos removal work and includes:

- + the nature of the hazards and risks

- + how asbestos can affect a person's health
- + the risks arising from exposure to airborne asbestos
- + the control measures in place and maintenance of the asbestos removal control plan for that job
- + the methods and equipment that will be used to do the job properly
- + choosing, using and caring for PPE and RPE
- + decontamination procedures
- + waste disposal procedures
- + emergency procedures, and
- + any other legal requirements (for example contaminated sites).

Records of certification and induction training shall be readily accessible at the asbestos removal area and will be available for inspection in accordance with the NSW WHS Reg 2017.

Where plant operators do not have SafeWork NSW certified training for asbestos removal, they will require a minimum of asbestos awareness training from a Competent Person and respirator fit test (where respirator required to be used), and are required to work under the supervision of the Asbestos Supervisor (i.e. Asbestos Supervisor must be present when plant is operating in their work area and must provide direction on fitting of PPE, decontamination process, access and egress of asbestos work areas).

5.0. ROLES & RESPONSIBILITIES

5.1. Person Conducting Business or Undertaking (PCBU)

The Person Conducting Business or Undertaking (PCBU) is responsible for:

- + Informing employees, contractors and subcontractors of the locations of the ACM at the site through the implementation of awareness training, as part of the induction process etc
- + Engaging an appropriately licensed removal contractor, as required by legislative requirements, to conduct ACM abatement works and notify site personnel of air monitoring results (if applicable) during abatement or refurbishment works;
- + Ensuring ACM related records are maintained. Documentation must be archived indefinitely and be accessible to any government health and safety regulatory representatives, if requested. Records such as the ACM register updates, ACM removal specifications, contractor licences, SWMS, air monitoring reports, clearance inspection certificates and waste disposal documents are to be included in documents to be retained.

5.2. Licenced Asbestos Assessor (LAA) / Competent Person

The Licenced Asbestos Assessor (LAA) / Competent Person is responsible for:

- + Being appropriately trained for the tasks undertaken, and hold appropriate licence for Class A works
- + Submitting air monitoring samples to a NATA accredited laboratory for Analysis
- + Providing hygiene services during abatement works
- + Providing written asbestos clearance certificates in accordance with the minimum requirements of the NSW Code of Practice: How to Safely Remove Asbestos 2022

5.3. Asbestos Project Manager

The Asbestos Project Manager is responsible for:

- + Ensuring the overall smooth running of the asbestos removal works.
- + Client liaison.
- + Safety management.
- + Ensuring the works are carried out in accordance with the relevant Codes of Practice and Regulations.

5.4. Asbestos Supervisor

The Asbestos Supervisor is responsible for:

- + Overall control and responsibility of the asbestos removal works.
- + Ensuring works are undertaken in accordance with the ARCP
- + Ensuring the works are carried out in accordance with the relevant Codes of Practice and Regulations.
- + Safety management
- + Consultation with the LAA (Class A) or Competent Person (Class B)

6.0. NOTIFICATIONS

6.1. Notification to SafeWork NSW

SafeWork NSW shall be notified in writing at least five days before the licensed asbestos removal work commences, and a copy of the notification shall be held onsite.

SafeWork NSW will issue acknowledgement that they have received the notification, and the work can commence 5 calendar days after the notification was issued and not before.

The following information shall be included in the notification:

- name, registered business name, Australian Business Number, licence number and business contact details
- name and business contact details of the supervisor who will oversee the removal work
- name of the licensed asbestos assessor or competent person engaged to carry out a clearance inspection and to issue a clearance certificate for the work
- client name and contact details
- name, including registered business or corporate name, of the person with management or control of the workplace
- address of the workplace, including the specific location if it is a large workplace
- kind of workplace where the removal work will be performed (for example an office building or construction site)
- date of notification
- the start date of the removal work and an estimation of how long it will take
- whether the asbestos to be removed is friable or non-friable
- if the asbestos is friable, the way the asbestos removal area will be enclosed
- estimated quantity of asbestos to be removed
- number of workers who will perform the removal work, and
- details of each worker's competency to carry out removal work.

The notification may also include information on:

- the type of work that is carried out at the workplace, and
- the type of asbestos or ACM that are being removed (for example, asbestos cement (AC) sheeting, vinyl tiles, lagging, gaskets).

6.2. Notification to stakeholders

In accordance with the Cl 467 of the WHS Reg 2017, Delta shall inform the person with control and management of the workplace (CMA Contracting) about the asbestos removal work and the date it is to commence.

In accordance with the Cl 468 of the WHS Reg 2017, the person with management or control of workplace must inform persons about asbestos removal work

- (1) The person must ensure that the following persons are informed that asbestos removal work is to be carried out at the workplace and when the work is to commence, before the work commences:
 - a. the persons workers and any other persons at the workplace,
 - b. the person who commissioned the asbestos removal work.
- (2) The person must take all reasonable steps to ensure that the following persons are informed that asbestos removal work is to be carried out at the workplace and when the work is to commence, before the work commences:
 - a. anyone conducting a business or undertaking at, or in the immediate vicinity of, the workplace,
 - b. anyone occupying premises in the immediate vicinity of the workplace.

7.0. CONSULTATION

Delta will keep all stakeholders advised on the works to be undertaken and the associated program. Consequently Delta will ensure that the following people are regularly consulted with:

- Client (CMA Contracting) site team must be advised of all details of the work, the steps taken to ensure the safety of personnel, the anticipated program of the works, and status of the asbestos removal areas.
- LAA (Class A) or Competent Person (Class B) for implementation of necessary site set up inspections including decontamination units (if required) prior to commencement of asbestos removal works, asbestos control monitoring to parameters of the site and access routes where necessary during remediation activity, visual clearance inspection, sampling and monitoring following completion of removal activity per site area. Co-ordination shall be at the discretion of the Asbestos Supervisor.
- Delta and Client (CMA Contracting) site personnel by means of a documented daily toolbox talk prior to start of works each day.

8.0. PROGRAM OF WORKS

Program	Date
Planned ACM removal start date	17 March 2025
Planned ACM removal completion date	16 March 2027

9.0. HEALTH MONITORING

In accordance with the NSW WHS Reg 2017 and SafeWork NSW CoP – ‘How to safely remove asbestos’, health monitoring shall be provided to all asbestos removal workers:

- + prior to the worker undertaking asbestos removal work
- + at regular intervals (at least once every two years) after the worker commences asbestos removal

Health monitoring forms part of administrative controls to ensure workers are able bodied for the intended work and to measure and identify changes that may indicate injury or disease. Early identification can assist in limiting injury or disease and provide remedial measure or exclude workers from the environment to limit and prevent further aggravation and development of respiratory disease.

Records shall be kept as a confidential record for at least 40 years and be made available to parties under a duty of professional confidentiality, where required to ensure protection of worker health.

9.1. Baseline Health Monitoring

Prior to commencement of first asbestos removal works, Delta shall ensure that asbestos workers undertake baseline health monitoring by a registered medical practitioner, which shall include:

- Collection of demographic data;
- Work history;
- Medical History including standardised respiratory questionnaire based on the MRC (UK) Respiratory Questionnaire 1986;
- Physical Examination;
- Investigation including, standardised respiratory function tests will be conducted to determine the worker’s baseline respiratory function. Current evidence does not support screening for lung cancer with chest radiography or sputum cytology;
- Advice as to the frequency of health monitoring.

9.2. Ongoing Health Monitoring

Delta shall ensure that workers undertake ongoing health monitoring by a registered medical practitioner that shall not exceed a period of two years. Reports provided by the registered medical practitioner shall include:

- The name and date of birth of the worker;
- The name and registration number of the registered medical practitioner;
- The name and address of the person conducting the business or undertaking who commissioned the health monitoring;
- The date of the health monitoring;
- Any advice that test results indicate the worker may have contracted a disease, injury or illness as a result of carrying out the work that triggered the need for health monitoring;
- Any recommended remedial measures, including whether medical counselling is required for the worker;

10.0. EMERGENCY PROCEDURE

10.1. Site Emergency Evacuation Procedure

Delta will follow the client's (CMA Contracting) Emergency Response Management Plan for the site.

10.2. Asbestos Removal area Emergency Evacuation Procedure

Where an incident occurs during asbestos removal works in an asbestos removal area, the Asbestos Supervisor is the first point of contact.

If an incident occurs **within a non-friable asbestos removal work area**, the injured person is to be removed from the asbestos removal area as soon as possible and first aid is to be administered. If required, emergency services will be contacted.

If the incident occurs **within a friable containment**, it may be necessary to cut/dismantle a containment wall to get the injured person out. Repairs should be carried out immediately after the person has been removed.

Minor incidents within an asbestos containment:

- If the injury is of a minor nature the injured person with/without the assistance of a co-worker should undertake the full decontamination procedure and proceed to the first aid room for treatment.

If a worker **MUST** be removed from the asbestos containment due to a major incident:

- If the determination is a major incident, the injured person is to be removed from the containment (if safe to do so).
- If the containment has to be breached all action must be taken to ensure unprotected persons are kept away from the area.
- Once the injured person has been removed to a safe location for decontamination and medical treatment the breached containment is to be repaired.
- Ensure the repaired containment is visually checked and air monitoring is undertaken by the nominated asbestos assessor.
- To decontaminate the injured worker and if safe to do so remove coveralls by either rolling in a downwards manner or if impracticable use a scissors to cut away the coveralls. Place the coveralls in a labelled waste bag.
- Use care to thoroughly wash and rinse the contaminated skin of the injured person.
- Wet wipe the respirator and dispose of pre-filters before removing.
- Move the injured person to a clean area where emergency medical treatment can be provided.
- If not safe to remove the injured person from the containment or to decontaminate the person due to the injury sustained, notify emergency services on arrival that the person is situated within an asbestos containment. Provide the necessary PPE for the emergency services personnel to enter the area.

11.0. CONTROL OF HAZARDS

Delta will work in accordance with CMA Contracting's Integrated Management System (IMS) including CMA Contracting's Health & Safety Management Plan for the Liddell Power Station project.

Site and task specific hazards (WHS and Environmental), including those not specifically relating to control of exposure to asbestos, are to be identified, managed and documented within Safe Work Method Statements (SWMS's).

At the start of each shift, the Asbestos Supervisor will assess, in consultation with the asbestos removal workers, the adequacy of the SWMS's in use with respect to current site conditions and will update the SWMS's accordingly with any additional hazards not documented or detailed within the existing SWMS.

It is the responsibility of the Asbestos Supervisor to ensure that the control measures adopted are monitored in both their implementation and also their ongoing adequacy for the activity. It is also the responsibility of all workers undertaking the asbestos removal work to inform the Asbestos Supervisor if the proposed controls are inappropriate.

Safe Work Method Statements (SWMS) to be developed to cover all hazards associated with the specific works (including overhead hazards, underground services, electrical services, etc) and all workers to be inducted into the SWMS's prior to commencing the works.

12.0. ASBESTOS REMOVAL BOUNDARIES – BARRICADES & SIGNAGE

The site is not considered to be under normal occupation and is a secure demolition site. Access into the asbestos removal areas is controlled by Delta in consultation with the Client (CMA Contracting), subsequently hard barriers are not required to each asbestos removal area within the site.

All people who have access to the asbestos removal area shall comply with any reasonable direction given by Delta. Delta shall also ensure that access to the asbestos removal area/s is limited to the following people:

- Designated asbestos workers who are engaged to carry out the removal work
- Other people who are associated with the removal work and appropriately trained
- People who are allowed under the NSW WHS Reg 2017 or another law to be in the asbestos removal area (e.g. inspector, emergency service workers, etc)

The boundary of each asbestos removal area shall have asbestos awareness signage installed to alert all personnel of the asbestos removal activity. Asbestos danger tape shall be utilised as required to around the perimeter of each asbestos removal area to provide a barricade between the general demolition area and the specific asbestos removal area/s.

Signs and barricades are to remain, until an asbestos clearance certificate has been issued for the asbestos removal area/s.



13.0. PERSONAL PROTECTIVE EQUIPMENT

13.1. Respiratory Protection:

A respirator shall be selected and maintained in accordance with *AS/NZS 1716-2012 Respiratory Protective Devices*, and *AS/NZS 1715-2009 Selection, use and maintenance of respiratory equipment*.

For **Class A** asbestos removal works, a minimum of P3 filter type full-face, particulate filter (cartridge) respirator shall be worn.

For **Class B** asbestos removal works, a minimum of P2 filter type half-face particulate respirator shall be worn.

Maintenance of RPE to be conducted by trained/competent persons only. Examinations and tests should be carried out at regular intervals in line with the manufacturers specifications.

Basic checks to ensure that the RPE is fit for use:

- Inspect respirator before & after use and during routine cleans
- Replace all components that are cracked, torn, broken, missing or worn
- Ensure there are no visible holes or tears
- Clean/disinfect according to manufacturer's instructions
- Replace filters before end of service life or when the filter is visibly dirty or damaged

Records of RPE inspection/issues, uses and maintenance, shall be kept up to date and be made available complete with fit testing records (refer to Appendix C of the SafeWork NSW CoP – '*How to safely remove asbestos*').

The figures below provide examples of some respirators that can be used. The protection afforded by each device depends not only on the design and fit of the respirator but also upon the efficiency of the filters (for instance P1, P2 or P3). These figures are indicative only. In order to show the correct respirator fit, they do not show the use of hoods. Respirators must always be worn under a hood.



Disposable, half-face particulate respirator



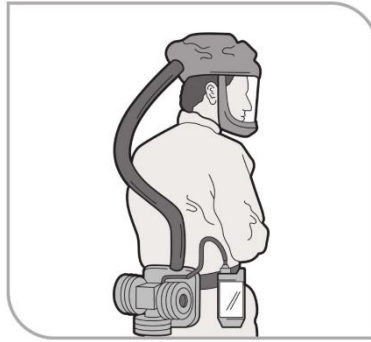
Half-face particulate filter (cartridge) respirator



Powered, air purifying ventilated respirator



Full-face particulate filter (cartridge) respirator



Full-face, powered air purifying particulate respirator



Full-face, positive pressure demand air-line respirator

13.2. Fit Testing and clean shaven policy

Where wearing a negative-pressure respirator, to gain an adequate seal around the respirator, the wearer must undertake fit testing and be clean shaven whilst wearing the mask.

All project personnel required to wear respiratory protection that relies on a positive seal against the wearers face shall participate in quantitative fit testing in accordance with the requirements specified in AS/NZS1715:2009 and shall include each RPE type and size selected for use by the individual.

Results of all fit tests, along with RPE issued for use shall be recorded in Delta's online training matrix, with records maintained with the individuals' personal records.

Quantitative fit testing shall be conducted by persons deemed competent to do and reassessed on a yearly basis.

To conduct a full- or half-face respirator fit check:

- close off inlet to filter
- inhale gently
- hold for 10 seconds, and
- check that the face piece remains slightly collapsed, as it should be.



Conducting a fit check for a full-face, particulate filter (cartridge) respirator

13.3. Coveralls

Delta shall provide asbestos workers with disposable coveralls, which are:

- disposable coveralls rated type 5, category 3 (EN ISO 13982–1)
- one size too big, to prevent ripping at the seams, and
- fitted with hood and cuffs, ensuring that:
 - if cuffs are loose, they are sealed with adhesive (cloth or duct) tape
 - coverall legs are worn over footwear as tucking them in lets the dust in, and
 - the fitted hood is worn over the respirator straps.

Coveralls should:

- not be made of material that is easily torn
- not have external pockets or Velcro fastenings because these are easily contaminated and difficult to decontaminate
- never be taken home
- never be reused, and
- be disposed of as asbestos waste after a single use.

13.4. Gloves

Single-use disposable gloves shall be worn for asbestos removal works when undertaking removal works.

Gloves used for asbestos removal work should be disposed of as asbestos waste.

Workers should clean their hands and fingernails thoroughly whenever leaving the asbestos removal area.

13.5. Safety footwear

Steel-capped, rubber-soled work shoes (either lace less or with overboot covers) or gumboots shall be worn by all asbestos removal workers when undertaking removal works.

The footwear should remain inside the barricaded area or dirty decontamination area for the duration of the asbestos removal work and should not be shared for hygiene reasons.

When safety footwear is not in use, it should be stored upside down to minimise asbestos contamination inside the footwear.

Storage facilities shall be provided for the shoes and the end of the removal work, and each time the worker leaves the asbestos removal area, safety footwear shall be:

- decontaminated
- sealed in containers (e.g. double bags) for use on the next asbestos removal area (but not for any other type of work), or
- sealed in containers (e.g. double bags) and disposed of as asbestos waste.

14.0. ASBESTOS CLEARANCE INSPECTIONS AND CERTIFICATES

In accordance with the NSW WHS Reg 2017, when the licensed asbestos removal work is completed in any area, a clearance inspection of the asbestos removal area is carried out by:

- a) if the asbestos removal work must be carried out by the holder of a Class A asbestos removal licence—an independent LAA, or
- b) in any other case—an independent Competent Person.

Each asbestos removal area is not to be re-occupied for normal use, demolition, or other work, and all signs and barricades are to remain in place, until an asbestos clearance inspection and certification is received.

Clearance certificates are to be issued by the LAA (Class A) or Competent Person (Class B) and will clearly state the specific ACM removed and the specific location it was removed from that corresponds to the site asbestos register.

The site asbestos register shall be progressively updated as each asbestos clearance is received.

15.0. ASBESTOS AIR MONITORING

15.1. Air Control Monitoring

Air monitoring involves collecting air samples to assist in assessing the levels of airborne asbestos fibres present in either:

- the asbestos removal area to assess the effectiveness of controls (control monitoring), or
- the worker's breathing zone to assess exposures to asbestos (exposure monitoring).

Air monitoring must be conducted in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC: 3003 (2005)]. (the membrane filter method) via a NATA accredited laboratory.

Control monitoring requirements will vary depending on the type of asbestos being removed, the location and position of the asbestos, if an enclosure is used and whether the asbestos removal work is within a building or outside, with the extent and location to be determined by an LAA (Class A removal works) or a Competent Person (Class B removal works):

- Friable asbestos removal—control monitoring is mandatory for all friable asbestos removal. This includes prior to dismantling an enclosure and for the purposes of the clearance inspection.
- More than 10 m² of non-friable asbestos removal—control monitoring is not required but may be carried out by an independent licensed asbestos assessor or competent person to ensure that controls being used to eliminate or minimise exposure to airborne asbestos are effective.
- Public location—Air monitoring should be considered where the asbestos removal work is being undertaken in or next to a public location.

Control monitoring must be conducted immediately before and during Class A asbestos removal work however, is not required immediately before friable asbestos removal work commences when the glove bag removal technique is used. Control monitoring must be carried out within the enclosure used for removing friable asbestos before it can be dismantled, as well as outside the enclosure prior to, during and after the removal.

Control monitoring may be carried out before and during Class B asbestos removal work to ensure that controls being used to eliminate or minimise exposure to airborne asbestos are effective (Note: Control monitoring results cannot be compared to the exposure standard for asbestos. Where there are concerns about possible worker exposure, exposure monitoring should be undertaken to ensure compliance with Part 8.2 of the WHS Reg 2017).

Asbestos air monitoring reports shall be provided to the client (CMA Contracting) who shall make the reports available to:

- Workers at the workplace;
- Health and safety representatives for the workplace;
- Persons conducting businesses or undertakings at the workplace;
- Other persons at the workplace;

15.2. Calibration

Calibration of equipment shall be conducted by a calibration facility accredited to AS ISO 17025 by NATA or equivalent as recognized by the NATA Mutual Recognition Agreement (MRA). The calibration facility shall include the service under the scope of its accreditation. Calibrations shall be traceable to primary standards and adhere to the NATA's policy on metrological traceability (NATA Policy Circular 11 - Policy on Metrological Traceability). The frequency of calibrations, assurance checks and maintenance shall adhere to the following publications, in consultation with CMA Contracting's nominated LAA:

- NATA Policy Circular 12 - NATA Policy on equipment assurance, in-house calibration and equipment verification

- NATA document Reference equipment - calibration and checks
- NATA document General Equipment - Calibration and Checks, Technical Note 7 - Electronic measuring equipment as reference standards
- Australian or international standards, as applicable

15.3. Action Levels

Action shall be taken depending on the respirable fibre levels reported in control monitoring results. Where the results show that respirable asbestos fibre levels exceed the action levels outlined in the table below, regardless of whether removal has commenced, action must be taken immediately.

Action level	Control	Action
Less than 0.01 fibres/ml	No new control measures are necessary	Continue with control measures
At 0.01 fibres/ml or more than 0.01 fibres/ml <i>but less</i> than or equal to 0.02 fibres/ml	1. Review	Review control measures
	2. Investigate	Investigate the cause
	3. Implement	Implement controls to eliminate or minimise exposure and prevent further release
<u>More than</u> 0.02 fibres/ml	1. Stop removal work	Stop removal work
	2. Notify SafeWork NSW	Notify SafeWork NSW by phone followed by a written statement that work has ceased and the results of the air monitoring
	3. Investigate the cause	For example, conduct a thorough visual inspection of the enclosure (if used) and associated equipment in consultation with all workers involved with the removal work
	4. Implement controls to eliminate or minimise exposure and prevent further release	For example, extend the isolated/barricaded area around the asbestos removal area/enclosure as far as reasonably practicable until fibre levels are at or below 0.01 fibres/ml, wet wipe and vacuum the surrounding area, , seal any identified leaks (e.g. with expandable foam or adhesive (cloth or duct) tape) and smoke test the enclosure until it is satisfactorily sealed.
	5. Do not recommence removal work until further air monitoring is conducted	Do not recommence until fibre levels are at or below 0.01 fibres/ml

15.4. Air Exposure Monitoring

Delta shall ensure that the exposure standard for asbestos is not exceeded at the workplace, unless:

- the asbestos removal area is enclosed to prevent the release of respirable asbestos fibres, and
- negative pressure is used (except where a glove bag is used for the removal).

In consultation with an LAA, exposure monitoring shall be carried to determine an asbestos removal worker's exposure to airborne asbestos if there is uncertainty as to whether the exposure standard may be exceeded at the workplace. Where exposure monitoring is carried out, Delta shall keep records of the

results for 30 years and shall ensure that the results of air monitoring are readily accessible to persons at the workplace who may be exposed to asbestos.

16.0. TOOLS, PLANT & EQUIPMENT

16.1. Indicative tools used for removal

The following is an indicative list of tools, plant and equipment to be used during the ACM removal:

- Transport vehicles/Waste Bins
- Intermediate Bulk Containers (IBC's)
- Drums
- Hand tools
- 200µm polyethylene sheeting
- Geofabric material
- Asbestos Waste Bags
- PVA spray
- Hoses/Water
- Oxy cutting equipment
- Cordless Drill
- Handheld grinder
- Reciprocating saw
- RCD Boxes
- HEPA filtered H-Class industrial vacuum cleaner (HEPA Vacuum)
- Airless Sprayer
- Bunting tape
- Hazard signs
- 1t - 50t excavators
- Skidsteer loader

Note 1: High speed power tools such as grinders, reciprocating saws will not be used on ACM unless within an enclosure

Note 2: Where plant has enclosed cabs, operator may choose not to wear asbestos PPE if plant is fitted with HEPA Filters (H Class) within air conditioning system and doors and windows remain closed during works and associated seals maintained in good condition (this should be validated by asbestos air monitoring inside the cabin during the works).

16.2. Maintenance:

All tools, plant & equipment used for the removal of asbestos shall be inspected before the commencement of the asbestos removal work, after any repairs, and at least once every seven days when it is continually being used.

For enclosed cab plant where asbestos PPE is not intended to be worn during the works, daily inspections on HEPA Filters (H Class) within air conditioning systems along with door and window seals shall be undertaken to ensure they are maintained to the required standard.

16.3. Electrical equipment

All electrical equipment will be inspected, tested and tagged prior to its arrival on site by a ticketed and competent person. At monthly intervals, electrical equipment will be again inspected, tested and tagged.

16.4. HEPA Vacuums

HEPA vacuums used in ACM removal works are to be H-Class.

HEPA vacuums will have current DOP certificates. They will be serviced as per the Australian Standard for HEPA Filter Maintenance AS/NZ 60335.2.69 (12-month intervals). All units will be inspected and tagged prior to their arrival on site.

HEPA vacuums are to be cleaned externally by wet wiping and the contaminated content within the vacuum bags is to be removed and placed in 200µm plastic bags within the asbestos removal work area at the completion of works.

All cleaning works or inspections of the HEPA vacuums is to be conducted within the asbestos removal area wearing full PPE.

Before removing HEPA vacuums from the asbestos removal area, the HEPA vacuums are to be placed in 200µm bags (goose-neck sealed).

17.0. ENCLOSURE FOR FRIABLE ACM REMOVAL

17.1. Designing and installing an enclosure

The design of the enclosure shall be developed in consultation with the LAA and shall:

- be constructed of heavy-duty polyethylene sheeting (200 µm minimum thickness) and enclose all the walls, windows and doors. Wooden cleats may be used to anchor the polyethylene sheeting to walls. Recycled polyethylene sheeting should not be used.
- have viewing panels or clear 200µm polyethylene sheet placed in appropriate locations so that the asbestos removal work area can be seen from outside the enclosure, and
- have adequate lighting within the enclosure, either:
 - a. naturally, using clear plastic or perspex panels in the enclosure walls, or
 - b. artificially, preferably from outside the enclosure using clear plastic or perspex panels.

During the masking up and later removal of the enclosure sheeting, all workers must wear full Class A PPE

Where the asbestos removal work area connects either to the outside environment or to the rest of the building (for example through windows, ducts, wall cavities and lift entrances), the work area shall be enclosed so that an airtight seal is maintained for the duration of the asbestos removal work.

All movable items shall be removed from the asbestos removal area, and where this is not possible, the items shall be moved from the immediate asbestos removal work area and covered with two layers of polyethylene sheeting with a minimum overlap of 300 mm between the layers, double taping both layers.

All non-movable items such as fixtures and fittings shall be covered with polyethylene sheeting and the joints sealed.

Airlocks shall be placed at the entry points to the decontamination/change area and constructed using double sets of overlapping polyethylene with suitable provisions for ensuring a seal.

All floors shall be protected with at least one layer of woven polyethylene to prevent penetration during the asbestos removal work and the joints shall overlap by 300 mm and be sealed with double-sided tape and adhesive (cloth or duct) tape.

Where platforms and fixed scaffolding are required, they shall be erected during the early stages of the work. These structures shall ideally be erected on the outside of the enclosed area. Any platforms or fixed scaffolding within the enclosed area must be decontaminated and visually inspected at the end of the asbestos removal work.

All tools and equipment used for asbestos removal work, including HEPA-filtered H-Class industrial vacuum cleaners, must remain within the asbestos removal work area until the completion of the job.

All the polyethylene sheeting and tape used for the enclosure must be disposed of as asbestos waste. Temporary structures must be disposed of as asbestos waste if they cannot be decontaminated. An inspection by a competent person will confirm if the structures are free of any visible asbestos or ACM.

Work methods shall be adapted for the work environment within the enclosure (e.g. rest breaks need to be based on a risk assessment taking into account factors such as the weather and heating/cooling requirements).

17.2. Testing and enclosure

Prior to the asbestos removal work commencing, the Delta shall ensure the enclosure is tested by an independent LAA, and shall ensure that any enclosure used in removing friable asbestos is tested for leaks.

An independent LAA shall visually inspect and conduct smoke testing to ensure there are no leaks or deficiencies in the enclosure before the asbestos removal work commences.

- While smoke is generated within the enclosure, a worker must be outside the enclosure to check for leaks.
- Only smoke-generating devices incorporating non-oil-based, non-toxic smoke fluids shall be used. Flares will not be used.
- Smoke (fire) detection devices in the immediate vicinity of the asbestos removal area shall be isolated for the duration of the smoke test.
- The results of the smoke test shall be documented and a copy provided to Delta.

Negative pressure exhaust units shall not be used while the smoke test is being conducted. The effectiveness of the enclosure shall be regularly monitored while asbestos removal work is underway (for example, a visual examination, air-monitoring results and negative pressure readings).

If leaks or deficiencies are found during the initial testing of the enclosure they must be rectified. An expandable foam sealant, adhesive (cloth or duct) tape or equivalent may be used. Additional smoke tests must be performed until no leaks or deficiencies are identified.

Following a visual examination of the enclosure and surrounding area, if a leak of asbestos is detected, and Class A asbestos removal work is being conducted, Delta will:

- If more than 0.01 fibres/mL but less than 0.02 fibres/mL is detected, immediately, before work recommences:
 - a. investigate the cause of the respirable asbestos fibre level
 - b. implement controls to prevent exposure of anyone else to asbestos, and
 - c. prevent the further release of respirable asbestos fibre.
- In addition to the immediate action Delta shall:
 - a. seal the leaks in the enclosure
 - b. re-test the enclosure by smoke testing until the enclosure is effective again
 - c. clean any contaminated areas
 - d. conduct visual inspections
 - e. conduct an air monitoring test specific to the incident (air monitoring)
 - f. re-assess the boundaries of the asbestos removal work area and site.

If more than 0.02 fibres/mL is detected, Delta shall immediately, before work recommences:

- order the asbestos removal work to stop
- notify the regulator (SafeWork NSW)
- investigate the cause of the respirable asbestos fibre level
- implement controls to prevent exposure of anyone to asbestos, and
- prevent the further release of respirable asbestos fibre.

The asbestos removal work must stop until any defects have been rectified. Work cannot recommence until it can be ensured that air-monitoring results show the recorded respirable asbestos fibre level is below 0.01 fibres/mL.

A supply of expandable foam sealant, polyester insulation or equivalent shall be kept on site for sealing leaks.

17.3. Negative pressure exhaust units

To prevent the escape of airborne asbestos fibres from an enclosed asbestos removal work area, exhaust extraction fans shall be installed to create a 'negative' air pressure of approximately 12 Pa (water gauge) within the enclosed area. Note: This may require the use of more than one negative pressure exhaust unit and shall be determined in consultation with the LAA.

Units shall incorporate warning devices for filter integrity/overload and power failure, and shall have a manometer or magnehelic gauge and an audible and visual alarm system.

The negative pressure exhaust unit shall be positioned opposite the decontamination unit to enable laminar (smooth) air flow, with the location determined in consultation with the LAA.

- The air entering the asbestos removal work area passes through the decontamination unit or point-of-entry while the air extracted passes through a HEPA filter to remove any asbestos before it is discharged to the outside.
- Where this is not possible, consideration shall be given to how to set up the enclosure, decontamination unit and negative pressure exhaust unit to enable optimum smooth flow of air through the enclosure so as to minimise dead air pockets. Discharge of the air from the enclosure shall be at a location away from other working areas, air-conditioning inlets or breathing air compressors.

The HEPA filter must comply with AS 4260–1997: High efficiency particulate air (HEPA) filters – Classification, construction and performance or its equivalent.

- A coarse pre-filter shall be installed on the air intake side of the negative air unit to prolong the useful life of the HEPA filter (Note: These pre-filters may need to be changed once per work shift or more frequently depending on dust loads).
- Used pre-filters must be disposed of as asbestos waste.
- A process of regular inspection of the integrity of the HEPA filter and seal fittings in conjunction with a static pressure alarm shall indicate failures in the system.

The negative air units shall operate continuously (24 hours a day) until all asbestos removal work and decontamination within the enclosure has been completed, a clearance certificate issued and the enclosure dismantled. If the units stop during removal work, Delta will ensure all removal work ceases immediately until the problem is rectified and the required number of units are in operation. To minimise the risk of airborne asbestos fibres escaping the enclosure, the delay shall be as short as possible to avoid interruption. Consideration shall be given to backup negative pressure exhaust units and the use of a generator.

Maintenance work on these units shall only be performed after they have been thoroughly decontaminated, or the work may be carried out under controlled conditions, such as in an asbestos removal enclosure while wearing appropriate PPE.

17.4. Dismantling an asbestos removal enclosure

The structure used to enclose an asbestos removal area shall only be dismantled once all of the following are done:

- asbestos removal work has been completed
- visual inspection by an independent competent person is satisfactory, and
- air monitoring by a LAA, in the case of friable asbestos removal, is found to be less than 0.01 fibres/mL.

The polyethylene sheeting that formed the enclosure must be disposed of as asbestos waste along with any other contaminated material that assisted in forming the enclosure. In some cases, structures used in building the enclosure (other than the polyethylene sheeting that formed the enclosure) may be wrapped and sealed in polyethylene sheeting and not opened until in a similar controlled environment, such as another asbestos removal enclosure (for example collapsible rods used to form the enclosure frame).

The area from which the enclosure was dismantled must be thoroughly cleaned and inspected.

Ropes, warning signs and protective polyethylene sheeting isolating public areas shall not be removed until:

- the enclosure has been dismantled and removed as asbestos waste
- satisfactory air-monitoring results have been achieved, and
- the removal area and its surrounds have been visually inspected by an independent competent person and found to be satisfactory for reoccupation.

17.5. Security and checks when using an enclosure

Delta will ensure an employee is stationed outside the asbestos work area for the duration of the asbestos removal work to:

- liaise with the project supervisor
- check and maintain negative air units, compressor units, decontamination units and hot water service
- ensure security of the area is maintained
- communicate with personnel inside the work enclosure, and
- instigate emergency or evacuation procedures if necessary.

Records of these checks shall be made on a daily basis and kept.

18.0. DECONTAMINATION

18.1. Decontamination Units (For specific Friable Asbestos removal only) – “Wet Decontamination”

A Decontamination unit will be positioned at an appropriately designated area at discretion of the Asbestos Supervisor following consultation with the CMA Demolition Supervisor and LAA, immediately adjacent to, and jointed to, the designated asbestos removal area.

The decontamination unit shall include a dirty decontamination area, a clean decontamination area and a clean changing area. These areas need to:

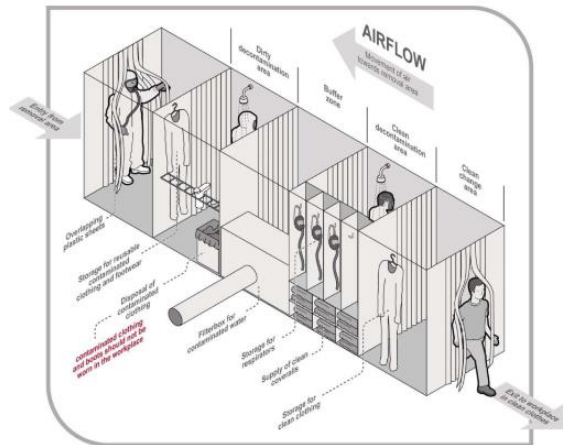
- be large enough to enable workers to adequately decontaminate themselves
- be separated by suitable airlocks or buffer zones, and
- have doors with large openings with overlapping, hinged flaps operating as a one-way valve to ensure there is sufficient airflow through the decontamination unit.

Towels and soap shall be provided to allow workers to appropriately decontaminate themselves.

All water discharge from the decontamination unit will be passed through an interceptor box fitted with a filter system approved for asbestos filtration (capable of capturing down to 5 microns) redirected and discharged into nearest sewage line.

At demobilisation, the filter box, filter, and waste hoses shall be sealed and labelled as asbestos contaminated.

Delta shall have a worker stationed outside an enclosure for the duration of the asbestos removal work to liaise with the Asbestos Supervisor, communicate with personnel inside the work enclosure, and instigate emergency/evacuation procedures if necessary.



Example Decontamination Unit Equipment:



18.2. Remote Decontamination units

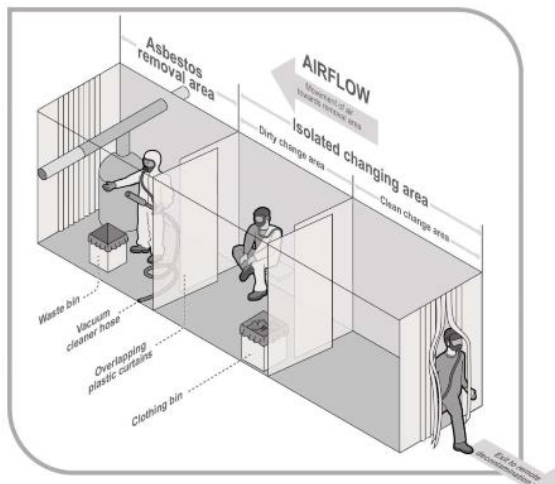
Remote decontamination units are decontamination units that are not located next to the asbestos removal area and can only be used if a decontamination unit cannot be located immediately adjacent to the asbestos removal area. A decision to use a remote decontamination is made by the Asbestos Supervisor in consultation with an LAA.

When a remote decontamination unit is to be used, additional transiting procedures are to be implemented to minimise asbestos contamination of pathways leading from the enclosure to the decontamination unit which involve the use of 'transiting' PPE and additional facilities to enable the worker to carry out preliminary decontamination before travelling to the decontamination unit for full decontamination which may include a three-stage airlock isolated changing area (specially constructed and made of heavy duty polyethylene sheeting (minimum 200 μ m thickness)). The area shall be attached to the enclosure and should comprise three compartments separated by weighted sheets to minimise the spread of dust between the compartments.

Before asbestos removal workers enter this changing area, all obvious signs of asbestos dust must be removed from their protective clothing using a HEPA filtered H-Class industrial vacuum cleaner in the enclosure. The isolated changing area is then used to discard outer garments, including coveralls and overshoes, before workers put on fresh outer/protective clothing for the journey to the remote decontamination unit. RPE should be worn until the appropriate phase of the decontamination procedure within the remote decontamination unit.

The route of access from the asbestos removal area to the decontamination unit should be suitably signposted and barricaded to restrict public access.

Air monitoring shall be conducted in the immediate vicinity of this access route and at other suitable locations outside the asbestos removal area as determined by the LAA.



18.3. Equipment, Tools & Plant

All tools or equipment used during the asbestos removal work must be decontaminated before they are removed from the asbestos removal area.

The decontamination process will be completed in the following steps:

1. Where appropriate, tools or equipment are to be fully dismantled.
2. The tools will be wet wiped using damp rags to remove any visible dust or debris.
3. Place the damp cloths into 200 μ m thick plastic asbestos waste bags.
4. Seal all asbestos waste bags with duct tape and place each into a second bag and seal.

5. Plastic and any debris removed in the decontamination process is to be wrapped and sealed with duct tape and is to be transferred to transport vehicles ready for disposal.

If tools or equipment are unable to be decontaminated or are to be reused in another asbestos removal area the following procedure will apply:

1. Tools to be tagged to indicate asbestos contamination.
2. Tools are to be double bagged & sealed in 200µm thick plastic asbestos bags before being removed from the asbestos removal area
3. The bags containing the tools must remain sealed until the commencement of the next asbestos removal task.
4. PPE must be worn when opening sealed bags and bags shall only be opened in a controlled environment
5. If not appropriate to decontaminate tools, dispose of the bagged tools as asbestos waste.

18.4. Personal Decontamination – Decontamination Unit (Specific Friable works)

For Friable asbestos removal works where an enclosure and decontamination unit are used, the following decontamination procedures will be used from commencement of asbestos removal work until asbestos clearance notification has been given:

1. Remove any obvious signs of asbestos residue from protective clothing in the asbestos removal area immediately prior to entering the decontamination unit. An approved vacuum cleaner (HEPA) will be used in this procedure. Remove gum boots and leave inside the asbestos removal area adjacent to the decontamination unit.
2. Shower in the first section of the decontamination unit whilst wearing the protective equipment and the respirator. Remove protective clothing and place into the waste bags provided;
3. leaving the respirator on, pass through the airlock into the next section of decontamination unit.
4. Remove the respirator after commencing to shower in this section of the decontamination unit. Special attention is required to cleaning hands, fingernails, face, body hair, head and the respirator.
5. Pass through into the clean change area, where clean work clothes can be put on. Store the respirator in a suitable container which will facilitate drying.

For persons entering or re-entering the asbestos removal area the procedure is as follows:

1. Change out of street clothing or clean work clothes in the clean change area.
2. Change into protective clothing and fit the respirator. Check that the respirator is working properly and that there is a good facial seal.
3. Pass through the decontamination unit into the asbestos removal area where work boots shall be fitted, ensuring coveralls pass over the top of the work boots.

18.5. Personal Decontamination – Dry Decontamination (Non-Friable works and specific Friable works)

For persons leaving the non-friable asbestos removal area (and for removal of specific Friable ACM), the following decontamination procedures will be used from commencement of asbestos removal work until asbestos clearance notification has been given:

1. Remove any visible asbestos dust/residue from protective clothing including RPE using an approved HEPA filtered vacuum or wiping down with damp cloths. Do not reuse or re-soak damp cloths.
2. Place used cloths into 200µm thick asbestos waste bags.
3. Take off disposable coveralls, eyewear and gloves, and place into 200µm thick asbestos waste bags. (PPE must still be worn)
4. Use damp cloths to wipe down footwear and place used cloths into 200µm thick asbestos waste bags.
5. Seal all asbestos waste bags with duct tape and place each into a second bag
6. Seal this second bag and label/mark as 'Asbestos Waste'.

7. Remove non-disposable PPE and place in container labelled as containing Asbestos.
8. Remove RPE filters and place into 200µm thick asbestos waste bags.
9. Remove half face RPE and place into protective plastic case for later re-use.
10. Use damp rags to wipe external surfaces of the disposable bags to remove any dust before it is removed from the asbestos removal area
11. Place the damp cloth into disposable bags.
12. Disposable PPE is to be treated as asbestos waste and taken to bulk bin for disposal.

19.0. ASBESTOS WASTE

19.1. Asbestos Waste Bags

Asbestos waste bags shall be new, heavy duty polyethylene bags minimum 200 µm thickness, that are no more than 1200 mm long and 900 mm wide to prevent manual handling injuries. When sealing the bags, they must be twisted tightly, the neck folded over and then secured with adhesive (cloth or duct) tape (goose-necking).

To minimise the risk of a bag tearing or splitting and to assist in manual handling, asbestos waste bags should not be filled more than half full and excess air should be gently evacuated from the waste bag in a way that does not cause the release of dust.

The bags should be labelled in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals, 7th revised edition (GHS) to indicate they contain asbestos and that dust creation and inhalation should be avoided.

19.2. Polyethylene sheeting for containing asbestos waste

When using polyethylene sheeting to wrap ACM, the polyethylene sheeting must be new and minimum 200 µm thickness. Adhesive (cloth or duct) tape must be applied to the entire length of every overlap to secure the bundles and minimise the risk of the polyethylene sheeting tearing or splitting.

19.3. Labels for waste containers and drums

All containers containing a ACM must comply with labelling elements of the GHS. Waste drums or bins should be lined with heavy duty polyethylene sheeting (minimum 200 µm thickness), and labels warning of the asbestos waste should be placed on the top and side of each drum or bin with the words, 'Danger: Asbestos Do not break seal' or a similar warning.

19.4. Packaging of ACM Waste

ACM Waste is progressively packaged for loadout as it is removed in a number of methods as follows:

- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed in an asbestos waste Bulka Bag (HAZIBAG) and sealed.
- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed into an open top IBC and sealed (IBC top removed, single bagged ACM placed inside, top replaced and sealed with tape) – IBC to be inspected prior to use and any debris inside removed.
- Double wrapped and sealed in 200µm polyethylene sheet and placed on a pallet
- Placed in asbestos waste bags and sealed and then placed in another asbestos waste bag and sealed and secured onto pallets.
- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed into polyethylene sheet lined skip and sealed.
- Wrapped and sealed in 200µm polyethylene sheet (or placed in an asbestos waste bag and sealed) and then placed into a metal drum and sealed.
- Place directly into a skip bin lined with 2 x layers of 200µm polyethylene sheet, and once the bin is full, the sheets are individually folded over and sealed to wrap the ACM waste.
- Using a pre-lined Bulka Bag (HAZIBAG), an additional layer of 200µm polyethylene sheet is placed inside, and the ACM material is placed directly into the bag.
- lined with 2 x layers of 200µm polyethylene sheet, and once the bin is full, the sheets are individually folded over and sealed to wrap the ACM waste.

Note: Palletised packaged asbestos waste and containers with asbestos waste must have labels on the top and side of package / container warning of the asbestos waste with the words 'Danger: Asbestos Do not break seal' or a similar warning.

19.5. Offsite transport, disposal & tracking of packaged ACM waste

Where ACM waste is disposed of offsite, the waste shall be transported by a company holding a NSW EPA Environmental Protection License (EPL) for Transport of Category 1 trackable waste and disposed of at a facility with an appropriate EPL to receive the waste.

The waste shall be tracked and reported to the EPA using KPMG Origins Integrated Waste Tracking Solution (IWTS) which is a digital tool that enables waste consignors, transporters and receivers to track and report on the transport of hazardous and regulated waste.

19.6. Onsite transport, temporary storage, disposal & tracking of packaged ACM waste

19.6.1. Onsite temporary storage and disposal

The State Significant Development (SSD) for the demolition (including hazardous materials removal) of the Liddell Power Station includes for the construction of an onsite asbestos containment cell to dispose of all ACM waste from the works.

For asbestos removal works undertaken prior to the construction of the onsite asbestos containment cell, the ACM waste that is not disposed of offsite is temporarily stored onsite in the former Stores Warehouse until the onsite asbestos containment cell is available to facilitate permanent disposal.

Once the onsite asbestos containment cell has been constructed, all asbestos waste that has been placed in the former Stores Warehouse for temporary storage will be transported for permanent disposal in the onsite asbestos containment cell and all new asbestos generated will be transported directly to the onsite asbestos containment cell for permanent disposal.

19.6.2. Tracking of onsite packaged ACM waste

For packaged ACM waste being stored temporarily in the Stores Warehouse, a material tracking system shall be implemented to track the packaged ACM waste from source location into temporary storage at the Stores Warehouse, with a material tracking register set up and progressively populated throughout asbestos removal works with the following minimum detail:

- Work Area from which asbestos originated (Start Location)
- Package type (e.g. pallet, skip, IBC etc)
- Number of packages
- Destination (Stores Warehouse)

For packaged ACM waste that is stored in the Stores Warehouse being transported to the onsite asbestos containment cell, a material tracking system shall be implemented to track the packaged ACM waste from the Stores Warehouse to the onsite asbestos containment cell. A Material Tracking Register shall be set up and progressively populated throughout asbestos removal works with the following minimum detail:

- Work Area from which asbestos originated (Stores Warehouse)
- Package type (e.g. pallet, skip, IBC etc)
- Number of packages
- Destination (Onsite Asbestos Containment Cell)

For packaged ACM waste being taken directly to the onsite asbestos containment cell, a material tracking system shall be implemented to track the packaged ACM waste from source location to the onsite asbestos containment cell, with a material tracking register set up and progressively populated throughout asbestos removal works with the following minimum detail:

- Work Area from which asbestos originated (Start Location)
- Package type (e.g. pallet, skip, IBC etc)

- Number of packages
- Destination (Onsite Asbestos Containment Cell)

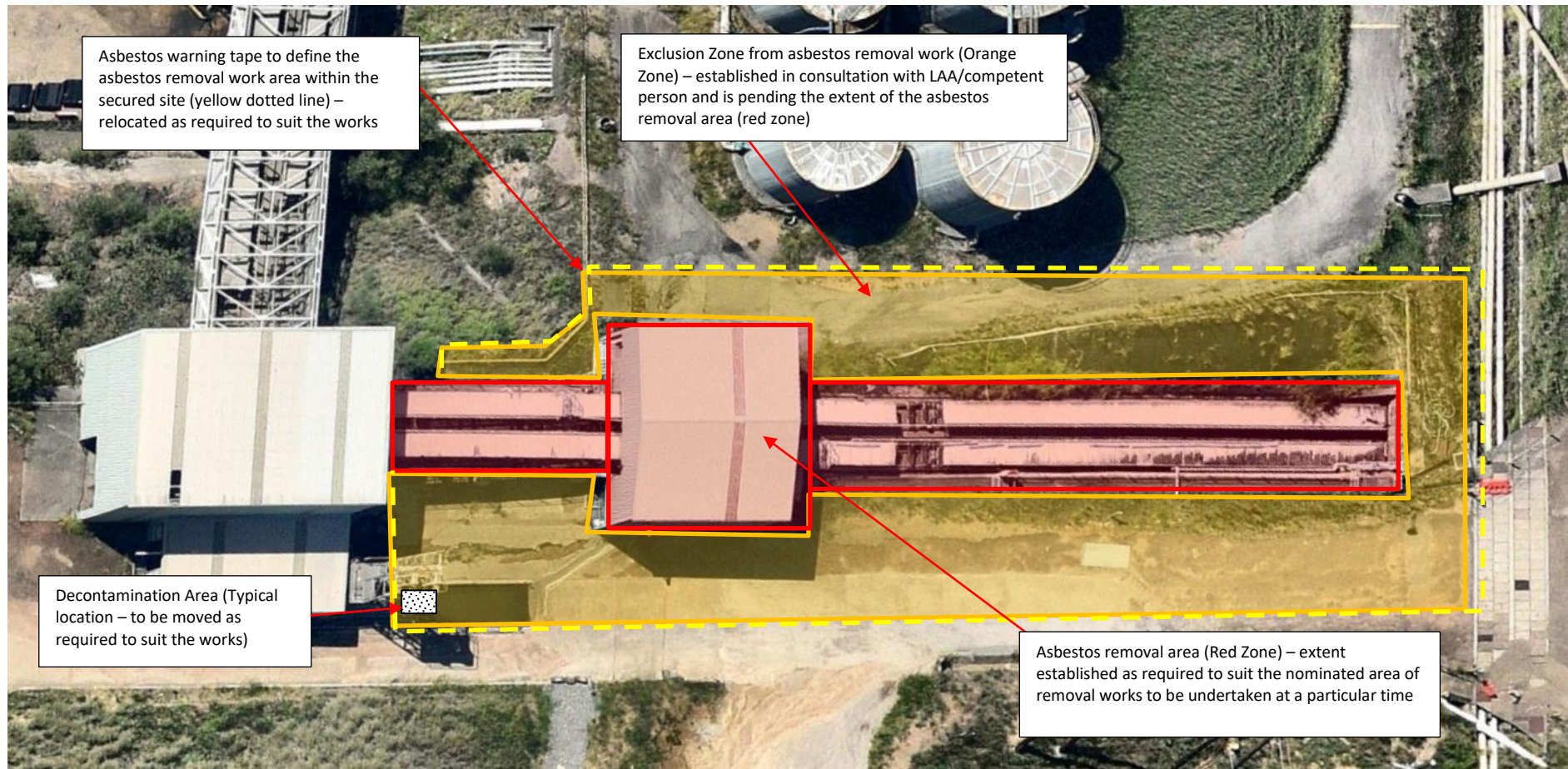
19.6.3. Onsite transport of packaged ACM waste

- Packaged ACM waste transported from the respective asbestos removal areas to the Stores Warehouse shall be undertaken by a combination of truck (flatbed, bin truck, etc), manitou, forklift, etc (small plant), using the existing roadways within the site and communicated at the daily pre-start meetings;
- Packaged ACM waste disposed of either directly from the respective asbestos removal areas or from the Stores Warehouse, and taken to the onsite asbestos containment cell, shall be transported using tipper trucks, and will use the existing roadways within the site and communicated at the daily pre-start meetings;

20.0. SITE SPECIFIC ACM REMOVAL

20.1. Typical Site Setup Plan for Asbestos Removal Works

The following marked up site plan provides a typical setup to be established at each asbestos removal area around the site:



**Note: Dry or Wet decontamination areas are established as required in consultation with an LAA / competent person*

**Note: Setup of Negative air units where required are established in consultation with an LAA*

**Note: Specific setup for each asbestos removal work area to be identified within the SWMS or the Demolition Work Method Statement for the work*

20.2. Site Establishment & Asbestos Removal Area Set Up

The following applies for each asbestos removal area established around the site:

- Ensure all parties have been notified of the commencement of works in the area.
- Ensure that all access-ways are sealed to prevent unauthorised access
- All personnel are to attend the site induction.
- Safe Work Method Statements will be discussed, agreed on and amended if necessary, in conjunction with the workers, the project manager and the asbestos supervisor prior to the commencement of any asbestos materials removal.
- All tools and equipment are to be tested by a qualified tradesperson to confirm that they are in working order.
- Adequate water and power supplies are to be available prior to the commencement of any work.
- Establish boundaries and erect asbestos signs around the asbestos removal area and the work site boundary (red and orange zones). Exclusion zone limits (orange area) will be determined in consultation with the LAA (Class A) or Competent Person (Class B) – Note: Areas may be adjusted as required to suit the works (e.g. may only be removing ACM to one individual building and would only setup around that building and not the whole area as detailed on the site setup plans).
- The signs shall conform to the AS1319 – Safety Signs for the Occupational Environment.
- Check that water is available to the asbestos removal area.
- Ensure that there is a sign-off in place confirming that all live service has been terminated in the asbestos removal area.
- For all ACM removal works where a dry Decontamination process will be implemented (refer to section 18 above) , a Dry Decontamination area will be established immediately adjacent to and directly connected to the asbestos removal area which may be relocated as required to suit the works (note: this applies to some materials that defined as Friable asbestos but do not require an enclosure or wet decontamination).
- For all ACM removal works where a Wet Decontamination process will be implemented (refer to section 17 and 18 above):
 - a. A containment will be constructed around the specific asbestos removal work area using 200µm polyethylene sheet
 - b. Negative pressure units (NPU's) will be attached to the containment to ensure that negative pressure of approx. 12 Pa (water gauge) is maintained throughout the asbestos removal work area.
 - c. The negative pressure units will remain in use throughout the asbestos removal works.
 - d. The LAA will inspect the containment and carry out a smoke test before works are allowed to commence.

20.3. Plant decontamination

- Prior to removing any plant from the asbestos removal zone to a clean area, the plant is to be washed or wiped down as required.
- Where washing down plant, a specific washdown area will be established with geofabric material on the ground from which to wash the plant on, with any geofabric material used to be disposed of as asbestos waste.
- Subject to a clearance inspection by the LAA (Class A) or Competent Person (Class B), the plant can be removed from the asbestos work area into a clean area.
- Plant may be transferred from one asbestos work area to an adjacent asbestos work area so long as it does not traverse through a clean area.

20.4. Clearance inspection & certificate

- Once the ACM removal work is complete, the area will be independently inspected by the LAA (Class A) or Competent Person (Class B).

- Once notified by the LAA (Class A) or Competent Person (Class B), the exclusion zones will be removed.
- All material used to construct the exclusion zones will be disposed of as asbestos waste or for non-porous materials, inspected by the LAA (Class A) or Competent Person (Class B) and a clearance certificate issued prior to reuse.
- The area will then be handed back to the client (CMA Contracting)

20.5. ACM Removal Methods

The different types of ACM and the associated removal methods that are covered by this ARCP are progressively added to “Annexure A – ACM Removal Methods”, which workers involved in the ACM removal work shall be inducted into prior to commencing the removal work.

“Annexure A – ACM Removal Methods” is progressively updated to cover the removal of the specific type of ACM prior to commencing its removal or when there is a change in methodology.

For each update to “Annexure A – ACM Removal Methods”, workers associated with the ACM removal work shall be inducted into the new revision of the Annexure prior to commencing the removal work.

Appendices

Appendix A - HEPA Vacuum Maintenance Procedure

Purpose and Scope

To ensure that the correct method and process is used when emptying and maintaining the HEPA vacuum.

Responsibility

- The Operations / HESQ Manager ensures the relevant staff shall be trained in this process.
- The Operations / HSEQ Manager and nominated staff shall ensure timely corrective action of any non- conformance.

References

- Change Management Procedure.
- Control of non-conformance procedure.
- Records.

Procedure

This procedure outlines the maintenance plan for the HEPA Vacuum both after finishing work and replacement of bags and filters when required.

All work shall be undertaken within full friable negative air pressure enclosure conditions when used for friable work.

On Completion of Works

The dirt tank must be emptied at the end of each use. The method used for completing the task is

1. Remove the upper section of the cleaner from the dirt tank.
2. Using one hand take hold of the dirt tank underneath and tip out the dirt into an approved Asbestos Labelled Bag.
3. Dispose of the waste as per the legal regulations.
4. Clean the rim of the tank before refitting the upper section of the cleaner.
5. Clean the inlet fitting and hose collar before reinserting the suction hose.

Maintenance

When required the waste bag can be replaced using the following method:

1. Open the retaining clamps and remove the upper section of the cleaner from the dirt tank.
2. Carefully remove the waste bag connection from the inlet fitting.
3. Close the waste bag connection with the slid located on the side of the bag.
4. Close the waste bag using the cable binder.
5. Dispose of the dirt in accordance with legal requirements.
6. Insert a new filter bag into the clean tank.

The safety filter bag can be replaced when required using the following method. During execution of this part of the maintenance wear a P3 breathing mask and ensure that dust is not spread around unnecessarily

1. Clean the filter element
2. Only perform this type of maintenance after waiting a minimum of five minutes for all dust to settle
3. Open the retaining clamps and remove the upper section of the cleaner from the dirt tank
4. Remove the filter bag connection from the inlet fitting
5. Close the safety filter bag connection with the slide
6. Remove the plastic sleeve from the tank rim and close it using the cable binder
7. Remove the safety filter bag from the tank and dispose of it in accordance with legal regulations

8. Insert a new safety filter bag into the tank making sure the filter bag connection is pressed on the inlet fitting as far as possible

Replacement of the filter element can be executed using the following process, During performance of this part of the maintenance wear a P3 breathing mask and ensure the dust is not spread around unnecessarily

1. Clean the filter element
2. Only perform this type of maintenance after waiting a minimum of five minutes for all dust to settle
3. Open the retaining Clamps and remove the upper section of the cleaner from the dirt tank, lay the upper section of the cleaner down with the filter element facing upwards
4. Using the tool supplied turn the filter holder anti clockwise and remove it
5. Place the protect filter bag over the element
6. Carefully remove the filter element and close the protective filter bag with a knot
7. Clean the filter seal, check it for damage and replace it if necessary
8. Check the anti-static clamp for damage and if damaged send to the manufacturer for replacement
9. Fit a new filter element
10. Check that the float work correctly (When the filter holder is turned, the float inside must move freely)
11. Using the tool supplied turn the filter holder clockwise and lock it
12. Dispose of the used filter element in accordance with legal regulations

4.4 Control of Non-Conformance

- a) Any non-conformance or incidents will be recorded on an IR and dealt with according to the Change Management Procedure.

5.0 Records

- a) Inspection Checklist, Maintained by the Operations/ HSEQ Manager (Held 3 Years)
- b) Improvement Request, Refer Change management procedure

Appendix B – Delta Friable Asbestos Licence



SafeWork

Friable Asbestos Removal Licence

Issued under *Work Health and Safety Regulations 2017 (NSW)*.

This licence is not transferable.

Licence:	AD211811
Licence period:	From: 07/02/2014 To: 06/02/2029
Licence holder name:	Delta Pty Ltd
Licence Type:	Friable Asbestos Removal Licence
Duration:	5 Years
ABN	67007069794

Description of the work that can be undertaken under this licence:

- 1.All friable asbestos removal work
- 2.All non-friable asbestos removal work

Licence Holder Obligations

A supervisor must be present at the site whenever licensed friable asbestos removal work is being carried out and readily available to attend the site when licensed non friable asbestos removal work is carried out.
This licence must be available for inspections at all times.
All licensed asbestos removal work is to be notified to SafeWork NSW at least five days prior to the work commencing.
The licence holder must notify SafeWork NSW in writing of any changes to the licence or supervisor details within 14 days.

Appendix C- Asbestos Register

The asbestos register for the Liddell Power Station demolition works is an online register that has been prepared and maintained by Prensa and is updated following any material sampling from the site:

- <https://liddellps.prensa.com.au>

ASBESTOS REMOVAL CONTROL PLAN LIDDELL POWER STATION (WHOLE OF SITE) ANNEXURE A - ACM REMOVAL METHODS



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"Safety is no accident!"



Project Name	Liddell Power Station Demolition Project		
Client Name	AGLM		
Project Address	Liddell Power Station, New England Highway, Muswellbrook NSW 2333		
Project Description/ Scope	Liddell Power Station – Removal of Asbestos from Liddell Power Station (Whole of Site)		
Document Number	C0269-LPS-WOP-P-Asbestos Removal Control Plan (Whole of Site) Annexure A-LPS		
Prepared By	Todd Solomon	Signature:	Date: 25/03/2025
Authorised By	Aaron Britt	Signature:	Date: 25/03/2025
Project Manager	Ruan Zaayman	Signature:	Date: 25/03/2025

TABLE OF CONTENTS

REVISION REGISTER.....	4
1.0. INTRODUCTION.....	5
2.0. TYPICAL SITE SETUP PLAN FOR ASBESTOS REMOVAL WORKS.....	6
3.0. ACM REMOVAL METHODS.....	7
3.1. Rope seal to electrical switch (Friable)	7
3.2. Fuse Packing (Friable).....	8
3.3. Arc Shields within electrical box (Non-Friable)	9
3.4. Friction pads (Non-Friable)	10
3.5. Asbestos Cement Pipes – Dust Lines (Non-Friable)	11
3.6. Mastic sealant (Non-Friable).....	13
3.7. Electrical backing boards (switchboard)	14
3.8. Asbestos Fire Doors (Friable)	15
3.9. Asbestos Containing Sprayed Vermiculite to Ceiling (Friable).....	16
3.10. Bituminous lining (sink, urinal).....	17
3.11. Mastic sealant - ceiling (Non-Friable)	18
3.12. Fibre Cement Sheet – Eaves, Walls, Ceilings, Fume hood linings (Non-Friable).....	19
3.13. Fibre Cement Sheet – Wall packer (Non-Friable)	20
3.14. Mastic sealant - ductwork (Non-Friable)	21
3.15. Mastic sealant - doors & window frames (Non-Friable).....	22
3.16. Mastic sealant - wall (Non-Friable)	23
3.17. Asbestos Loose Rope (Friable)	24
3.18. Asbestos Millboard Insulation – Safes and Strip Heaters (Friable).....	25
3.19. Asbestos Millboard Insulation –Incinerators (Friable).....	26
3.20. Woven material to electrical switches (Friable)	27
3.21. Gaskets to pipework (Friable & Non-Friable).....	28
3.22. Bituminous material (Non-Friable)	29
APPENDIX A - ACCEPTANCE OF ANNEXURE A – ACM REMOVAL METHODS.....	30

DISCLAIMER

This document has been developed to assist Delta Pty Ltd and any related entities to better understand and manage quality issues in the workplace. While every effort has been made to ensure the accuracy of the material in this document, this publication is not meant to substitute for the legislation. For the specific requirements on an issue covered in this document, persons should refer directly to the relevant legislation in their location.

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Controlled Documents: The aforementioned companies have all been assessed and registered as complying with the requirements of ISO45001, ISO14001 and ISO9001, therefore all documents within the Delta Group Integrated Management System (IMS) are known as “Controlled Documents”. Once a document is printed it becomes un-controlled, it is thereafter known as an “Un-controlled Document”. Document revisions may be viewed in the document “Properties”, documents will be reviewed on an as need basis. The controlled copies of all documents are on the computer network.

REVISION REGISTER

REV	DATE	DESCRIPTION OF CHANGE	PAGE/S	REVIEWED BY	APPROVED BY
0	25/03/2025	Document prepared for Whole of Project – supersedes all previous ARCP's for CDC works	All	RZ	TS

1.0. INTRODUCTION

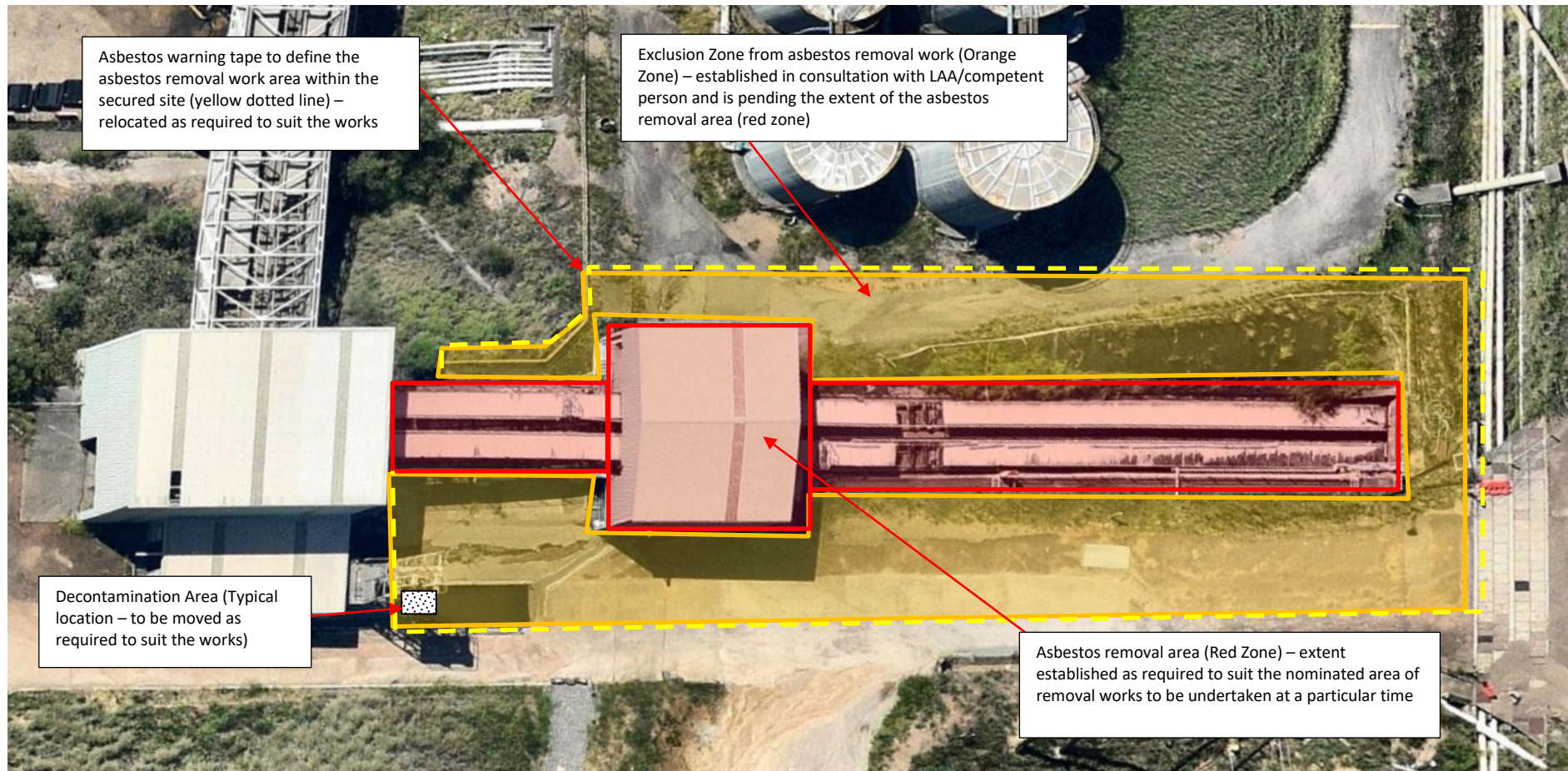
This document is an Annexure to the Asbestos Removal Control Plan (*CMA document C0269-LPS-WOP-P-Asbestos Removal Control Plan-LPS Rev 00*) and details the removal methods of the different types of Asbestos Containing Material (ACM) that are covered by this ARCP.

This Annexure shall be progressively updated to cover the removal of the specific type of ACM prior to commencing its removal or when there is a change in methodology.

For each update to this Annexure, workers associated with the ACM removal work shall be inducted into the new revision prior to commencing the removal work.

2.0. TYPICAL SITE SETUP PLAN FOR ASBESTOS REMOVAL WORKS

The following marked up site plan provides a typical setup to be established at each asbestos removal area around the site:



**Note: Dry or Wet decontamination areas are established as required in consultation with an LAA / competent person*

**Note: Setup of Negative air units where required are established in consultation with an LAA*

**Note: Specific setup for each asbestos removal work area to be identified within the SWMS or the Demolition Work Method Statement for the work*

3.0. ACM REMOVAL METHODS

3.1. Rope seal to electrical switch (Friable)



Example: Nilsen Switch with asbestos rope seal

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- High areas are accessed via a combination of scissor lift, EWP, mobile scaffold or platform ladder.
- Where Friable woven material is visible, PVA Glue is sprayed over the exposed surface to seal the material.
- The switches are removed whole (with Friable ACM intact) by a combination of removing fixings by hand or using hand tools to separate switch from the wall.
- As the switches are removed, they are progressively packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.2. Fuse Packing (Friable)



Example: Fuses in electrical board with friable fuse packing

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Friable Asbestos containing fuses will be removed by hand in whole units from their sockets to eliminate the risk of the release of asbestos fibres.
- As the fuses are removed, they are placed into 200µm plastic asbestos waste bags and sealed once the bag is to capacity, and progressively packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.3. Arc Shields within electrical box (Non-Friable)



Example: Electrical arc shield within electrical box in transformer

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Where Arc Shields are identified as present inside electrical boxes, they are assumed to be Non-Friable ACM.
- The electric boxes are removed whole (with Non-Friable ARC shields intact) by hand by removing fixings using hand tools and packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.4. Friction pads (Non-Friable)



Example: Friction pads in conveyor motors



Example: Friction pads in elevator motors

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Asbestos containing friction pads are removed by hand by unbolting the brakes to expose the pads and then removing the pads in whole units.
- As the pads are removed, they are placed into 200µm plastic asbestos waste bags and sealed once the bag is to capacity, and progressively packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding horizontal surfaces below the removal area is vacuumed to remove any remaining fibres.

3.5. Asbestos Cement Pipes – Dust Lines (Non-Friable)



Example: Asbestos Cement Pipes – Ash & Dust Lines

- Prior to commencing the pipe removal work, the removal area is inspected by the LAA / competent person to review potential historical ground contamination. If historical ground contamination is identified, AGLM is notified for direction on how to proceed.
- Dry decontamination process to be used (refer to section 18).
- The pipe is separated into manageable sized sections by either of the following options:
 - a. **Option 1:**
 - Removing the existing steel clamps by oxy cutting or grinding the fixing on the clamps and then removing the clamp by hand using hand tools
 - Workers to wear Powered Air Purifying Respirator (PAPR)
 - Water mist spray to be used during the cutting works
 - Fire blanket to be positioned beneath the pipe and under the clamp being cut
 - On completion of the cutting works, fire blanket to be vacuumed with a HEPA Vac to remove any potential released asbestos
 - The section of pipe being removed is pulled apart at joints using an excavator with grab attachment or slinging the sections to be removed to the excavator, lifting the sections out of position and minimising breakage.
 - b. **Option 2:**
 - Breaking the pipe at the required separation point using an excavator with grab attachment:
 - At the breaking point, the pipe is wrapped with plastic
 - Excavator breaks the pipe within the plastic wrapped section
 - Plastic wrapping is pulled apart and section of pipe being removed lifted out using an excavator with grab attachment or slinging the section to be removed to the excavator and lifting out of position and minimising breakage
 - Any residual pieces of asbestos that are freed during the breaking of the pipe to be wrapped in the plastic and packaged for loadout.

- As the sections of pipe are removed, they are placed directly into a skip bin lined with 2 x layers of 200µm polyethylene sheet, and once the bin is full, the sheets are individually folded over and sealed to wrap the ACM waste ready for loadout.
- During the pipe removal process, water mist spray is used to wet down sections being removed to minimise the creation of dust and the release of fibres. Aim to achieve maximum saturation with minimum run-off to minimise any subsequent clean-up and slip hazards.
- On completion of the pipe removal work, any requirement for soil scrape will be determined by the LAA / competent person and will generally be required in the following circumstances, and generally limited to the immediate vicinity of any breakage (~50mm scrape will likely be sufficient for the majority of circumstances and ~1m surrounding the location of the breakage):
 - a. Damaged sections are identified prior to removal
 - b. Pipe is damaged during removal and not contained within plastic wrapping
 - c. Encapsulating plastic proves ineffective during breaking of pipes
- During the soil removal, a mist spray is used to wet down the material to minimise the creation of dust and the release of fibres.
- All ground sheets are sprayed with PVA and disposed of as ACM waste.

3.6. Mastic sealant (Non-Friable)



Example: Mastic sealant – around pipe penetration in wall



Example: Mastic sealant – Between pathway and wall of building

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- High areas are accessed via a combination of scissor lift, EWP, mobile scaffold or platform ladder.
- ACM mastic between path and walls is progressively removed by hand using hand tools (scrapers etc) and progressively packaged for loadout.
- ACM mastic to pipe penetrations in walls is either progressively removed by hand using hand tools (scrapers etc) or sections of the wall around the mastic is removed by cutting using hand tools, and progressively packaged for loadout.
- A chemical solvent (e.g. Orange-Sol) may be used to soften the material to make it easier to remove.
- During the removal process, water mist spray is used to wet down ACM being removed to minimize the creation of dust and the release of fibres. Aim to achieve maximum saturation with minimum run-off to minimise any subsequent clean-up and slip hazards.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.7. Electrical backing boards (switchboard)



Example: Electrical backing boards throughout

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Where possible, electrical backing boards are removed whole by hand using hand tools, removing fixings as required to minimise any breakage.
- As the boards are removed they are progressively packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.8. Asbestos Fire Doors (Friable)



Example: Fire Doors

- Dry decontamination process to be used (refer to section 18 of the ARCP)
- The doors are removed whole by removing fixings by hand using hand tools (e.g. unscrew hinges, knock out hinge bolt etc), leaving all door hardware in place so as not to expose the internal ACM.
- As the doors are removed, they are progressively packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.
- Note: Should any internal ACM to the door be exposed, PVA to be sprayed on exposed area and the area taped up to cover the exposure prior to removing door.

3.9. Asbestos Containing Sprayed Vermiculite to Ceiling (Friable)



Example: Asbestos Containing Sprayed Vermiculite to ceiling

- All loose items (e.g. lockers, clothing, general rubbish etc.) will be stripped and removed prior to commencing any asbestos removal works.
- Wet decontamination process to be used (refer to section 17 and 18 of the ARCP), with enclosure setup to be in consultation with an LAA (refer to section 17 and 18 of the ARCP).
- Access to undertaker the removal work is via mobile scaffolds or platform ladders.
- The ceiling material (Gyproc or asbestos cement sheet) with vermiculite intact is removed in sections by hand using hand tools in as large a section as manageable/possible, minimising breakage, and progressively lowered to the ground for packaging and loadout, with any glue remaining on structural elements to be removed by scraping using hand tools or the elements being removed as asbestos waste.
- During the removal process, water mist spray is used to wet down sections being removed to minimize the creation of dust and the release of fibres. Aim to achieve maximum saturation with minimum run-off to minimise any subsequent clean-up and slip hazards.
- As the material is removed, it is wrapped in 200µm polyethylene sheet and sealed and placed in a designated area within the enclosure.
- On completion of the removal works, the both the wrapped material and the polyethylene sheet forming the enclosure vacuumed using a HEPA Vacuum, wet wiped, and then sprayed with PVA to seal any remaining fibres.
- On direction from the LAA that the enclosure can be removed, the enclosure is stripped and the enclosure material along with the wrapped ACM waste is packaged for loadout.

3.10. Bituminous lining (sink, urinal)



Example: Bituminous material under sink

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- The bituminous material is removed by hand using small hand tools including chisels, knives, scrapers, wire brushes etc. to remove the materials carefully from the substrate, ensuring that it is always kept wet down to minimise the release of fibres.
- A chemical solvent (e.g. Orange-Sol) may be used to soften the material to make it easier to remove.
- As the material is removed, it is progressively packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.11. Mastic sealant - ceiling (Non-Friable)



Example: Mastic sealant at corner of ceiling

- Asbestos containing mastic ceiling sealant exists where there is vermiculite ceilings present, and as such will be removed as part of the vermiculite removal process (refer above). Timber corner trims will be removed in whole with hand tools and packaged for loadout.
- Where mastic is identified elsewhere (i.e. not attached to ACM ceiling material), the following method is undertaken:
 1. Dry decontamination process to be used (refer to section 18 of the ARCP).
 2. Access to high areas will be via EWP, mobile scaffolds, or platform ladders as required.
 3. The mastic material is removed by hand using small hand tools including chisels, knives, scrapers, wire brushes etc. to remove the materials carefully from the substrate, ensuring that it is always kept wet down to minimise the release of fibres.
 4. As the material is removed, it is progressively packaged for loadout.
 5. Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.12. Fibre Cement Sheet – Eaves, Walls, Ceilings, Fume hood linings (Non-Friable)



Example: Soffit of awnings



Example: Eaves



Example: Fume hood



Example: Soffit of walkways

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Where exposed ground is in the vicinity of the removal area, 200 µm plastic will be placed on the ground, acting as a ground sheet (note: ground sheet not required where there is concrete or asphalt).
- High areas are accessed via a combination of scissor lift, EWP, mobile scaffold or platform ladder.
- ACM sheets are progressively removed in sections by hand using hand tools in as large a section as manageable/possible, minimising breakage, and progressively lowered to the ground for packaging and loadout, with any glue remaining on structural elements to be removed by scraping using hand tools or elements removed and disposed of as ACM waste.
- During the removal process, water mist spray is used to wet down sections being removed to minimize the creation of dust and the release of fibres. Aim to achieve maximum saturation with minimum run-off to minimise any subsequent clean-up and slip hazards.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.
- All ground sheets are sprayed with PVA and disposed of as ACM waste.

3.13. Fibre Cement Sheet – Wall packer (Non-Friable)



Example: AC Wall packer

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Where exposed ground is in the vicinity of the removal area, 200 µm plastic will be placed on the ground, acting as a ground sheet (note: ground sheet not required where there is concrete or asphalt).
- High areas are accessed via a combination of scissor lift, EWP, mobile scaffold or platform ladder.
- ACM packers are progressively removed by hand using hand tools, removing surrounding bricks as required for access to the packers, progressively packaging for loadout (any contaminated bricks to be loaded out as ACM waste).
- During the removal process, water mist spray is used to wet down ACM being removed to minimize the creation of dust and the release of fibres. Aim to achieve maximum saturation with minimum run-off to minimise any subsequent clean-up and slip hazards.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.
- All ground sheets are sprayed with PVA and disposed of as ACM waste.

3.14. Mastic sealant - ductwork (Non-Friable)



Example: Mastic at joins in ductwork

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Using a combination of excavator with shear attachment and by hand using hand tools (e.g. reciprocating saw), ductwork sections will be cut and dropped to the ground beneath, accessing high areas using a combination of scissor lift, EWP, mobile scaffold or platform ladder.
- Once on the ground, using a combination of excavator with shear attachment and hand tools (e.g. reciprocating saw) the duct connection joints that contain the asbestos containing mastic are separated from the surrounding ductwork and packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.15. Mastic sealant - doors & window frames (Non-Friable)



Example: Of windows and doors with mastic to windows

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Where exposed ground is in the vicinity of the removal area, 200 μ m plastic will be placed on the ground, acting as a ground sheet (note: ground sheet not required where there is concrete or asphalt).
- Using an excavator with bucket or grab attachment working from outside the buildings, the window/door frame/s are progressively pushed into the building with asbestos containing mastic intact.
- Once on the ground, the resulting material is progressively packaged for loadout, using a combination of skidsteer loader as required to facilitate loading directly into 200 μ m polyethylene sheet double lined skip bins and by hand.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.
- All ground sheets are sprayed with PVA and disposed of as ACM waste.

3.16. Mastic sealant - wall (Non-Friable)



Example: Mastic sealant on the wall (opening edge)

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- High areas are accessed via a combination of scissor lift, EWP, mobile scaffold or platform ladder.
- ACM wall mastic is progressively removed by hand using hand tools (scrapers etc), removing surrounding bricks as required for access to the mastic, progressively packaging for loadout (any contaminated bricks to be loaded out as ACM waste).
- During the removal process, water mist spray is used to wet down ACM being removed to minimize the creation of dust and the release of fibres. Aim to achieve maximum saturation with minimum run-off to minimise any subsequent clean-up and slip hazards.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.17. Asbestos Loose Rope (Friable)



Example: Asbestos Rope

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- High areas are accessed via a combination of mobile scaffold or platform ladder.
- The area immediately surrounding the asbestos rope is vacuumed using a HEPA vacuum.
- The exposed rope is sprayed with PVA and unwound from the pipe beneath by hand or with disposable tools, avoiding breakage, and placed directly into an asbestos waste bag and sealed.
- The pipe beneath is sprayed with PVA and removed by hand using hand tools (e.g. reciprocating saw) and packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.18. Asbestos Millboard Insulation – Safes and Strip Heaters (Friable)



Example: Asbestos Millboard insulation to Safe



Example: Asbestos Millboard backing to Strip Heaters

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- High areas are accessed via a combination of mobile scaffold or platform ladder.
- Where ACM millboard is exposed, spray with PVA.
- Safes are removed whole and packaged for loadout, using skidsteer loader as required to lift and move the safe.
- Strip heaters are removed whole using hand tools to separate from the ceiling or wall they are fixed to and packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.19. Asbestos Millboard Insulation –Incinerators (Friable)



Example: Asbestos Millboard to Incinerator

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- The incinerator is removed whole using hand tools to separate from wall they are fixed to and packaged for loadout.
- Where millboard is exposed behind the incinerator, the exposed millboard is sprayed with PVA, the incinerator removed by hand using hand tools and packaged for loadout. The resulting millboard is then removed by hand using hand tools and packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.20. Woven material to electrical switches (Friable)



Example: Electrical switch with Asbestos woven rope

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- High areas are accessed via a combination of scissor lift, EWP, mobile scaffold or platform ladder.
- Where Friable woven material is visible, PVA Glue is sprayed over the exposed surface to seal the material.
- The electric switches are removed whole (with Friable woven ACM intact) by a combination of removing fixings by hand and oxy cutting or using hand tools to separate switch from the support structure as required.
- As the switches are removed, they are progressively packaged for loadout.
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

3.21. Gaskets to pipework (Friable & Non-Friable)



Exposed orange pipe (302-7) - Friable



Yellow pipework (301-26) - Friable



Pipework (202-16) – Non-Friable

Gasket Types:

1. Gaskets to pipework between connected flanges to pipes (Non-Friable)
2. Gasket to exposed flange to pipes (Friable)

Removal Procedure – Type 1 Gaskets (Non-Friable)

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- The pipework is separated from the surrounding structure by mechanical demolition or oxy cutting. These works are undertaken under standard demolition practices (not an asbestos removal work area or under asbestos removal conditions) and the materials tracked over by excavator and placed in a designated area (this designated area becomes the asbestos removal work area)
- In the designated asbestos removal work area, the flanges with gaskets in place are separated from the associated pipework by a combination of shearing with excavator and oxy-cutting
- The flanges with gasket in place are then packaged for loadout as asbestos waste
- The remaining pipework is inspected by the LAA/competent person and cleared for loadout as asbestos free material
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

Removal Procedure – Type 2 Gaskets (Friable)

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- These works are undertaken under asbestos removal conditions (i.e. asbestos removal work area)
- PVA Glue is sprayed over the exposed gaskets, to seal the gasket.
- The gasket is separated from the pipework by mechanical demolition or oxy cutting.
- The flanges with gasket in place are then packaged for loadout
- Using a HEPA vacuum, the remaining structure and surrounding ground to the removal area is vacuumed to remove any remaining fibres.

Note: Prior to commencing any oxycutting works, the lead content in the paint is assessed. Where the paint contains more than 1% lead by dry weight, the oxy cutting works is defined as a lead process (NSW WHS Reg 2017) and a task specific risk assessment is undertaken by a competent person to determine if the works are classified as lead risk work and the appropriate control measures to be implemented (refer to the Hazardous Materials Removal Plan Section 6.5).

3.22. Bituminous material (Non-Friable)



Metal chamber (302-8)

Removal Procedure:

- Dry decontamination process to be used (refer to section 18 of the ARCP).
- Access to high areas will be via EWP, mobile scaffolds, or platform ladders as required.
- The bituminous material is removed by hand using small hand tools including chisels, knives, scrapers and wire brushes to remove the materials carefully from the substrate, ensuring that it is kept wet down at all time to minimise the release of fibres.
- A chemical solvent (e.g. Orange-Sol) may be used to soften the material to make it easier to remove.
- As the material is removed, it is progressively placed into 200µm plastic asbestos waste bags and sealed once the bag is to capacity, and progressively packaged for transport.

APPENDIX D – CONSULTATION



Documents: Asbestos Sub management Plan"
Revision: Rev 00 April 2025
Reviewed: Charissa Pillay April 2025
Schedule

Post Approval Review
Liddell Future Land Use
(SSD-24937520-PA-10)

Schedule	Sufficient (Yes/No/ Partial)	Document reference and comment	Action Required	Company Response	DPHI Response
Schedule 2 Asbestos disposal facility A6. A maximum of 30,000 cubic metres of asbestos waste, asbestos containing material, synthetic mineral fibre and other associated wastes authorised by the Site auditor, may be disposed of at the asbestos disposal facility, unless otherwise agreed by the Planning Secretary.	Yes	Section 7.14.1 addresses the requirement.	-Nil	-N/A	
B27. Asbestos soils requiring disposal, asbestos containing materials, synthetic mineral fibre and other associated wastes authorised by the Site auditor must be disposed of at the asbestos disposal facility constructed within the Borrow Pit Area identified on Figure 1 in Appendix 1.	No	The sub-plan does not include the requirement.	Include a commitment consistent with condition B27.	Condition B27 is referenced in Table 4 of the DEMP. Condition B27 is addressed in Section 5.14 of the DEMP	
C15. Prior to the commencement of demolition works, a clearance certificate from an occupational hygienist to certify that asbestos containing materials, PBC capacitors, and transformers have been removed before demolition work must be provided to the Department. Any hazardous materials that cannot be removed should be assessed in consultation with SafeWork NSW.	Partial	The requirement and timeframe has not been documented in the plan.	Include the requirement of condition C15	In accordance with NSW legislation, a clearance certificate is not required for PCB Capacitors or transformers and is only required for asbestos containing materials which is addressed in the Asbestos Management Sub	



Documents: Asbestos Sub management Plan”
Revision: Rev 00 April 2025
Reviewed: Charissa Pillay April 2025
Schedule

Post Approval Review
Liddell Future Land Use
(SSD-24937520-PA-10)

				Plan (Sections 5.1, 7.3 & 7.6.3 updated to reference C15). <i>Note: multiple ACM clearance certificates will be progressively issued throughout the course of the works.</i> It is also not relevant to be referring to PCB's in the AMSP. PCB removal prior to demolition has been addressed in Section 5.10 of the DEMP (updated to address).	
C19. An asbestos management sub-plan must be prepared as part of the demolition environmental management plan. The plan must:					
(a) be prepared in accordance with the SafeWork NSW 2022 Code of practice: How to safely remove asbestos, SafeWork: guidance on managing asbestos in soil, Schedule B2 of the NEPM and any requirements of the Site auditor;	No	There is no clear detail to confirm the sub-plan was prepared	Include the requirement of the condition.	Updated section 3 of the AMSP to fully address requirement	

(b) identify any known or potential areas of concern within the approved development area for asbestos containing materials and synthetic mineral fibre;	Yes	Section 3 and Figure 3 address the condition.	-	N/A	
(c) include: (i) procedures for identifying, handling and disposing of asbestos waste, asbestos containing materials and synthetic mineral fibre;	No	There is no clear detail on who is responsible to identify, and handle asbestos or a clear procedure to address the requirement.	Discuss the procedure to identify, handle and dispose of asbestos.	Already addressed throughout the AMSP: 1) Who is responsible to identify ACM - Section 7.2 (Prensa Asbestos Audit on behalf of CMA) 2) Who is responsible to handle ACM - Section 7.3 (LARC) 3) Procedure to address the requirement - Section 3 (ARCP's)	
(ii) procedures for interim storage of asbestos prior to disposal and disposal of asbestos; and	No	The sub-plan does not discuss a procedure for interim storage of asbestos prior to disposal and disposal of asbestos	Include a procedure for interim storage of asbestos prior to disposal and disposal of asbestos	Covered in section 7.14.2	
(iii) outline the relevant requirements of conditions C1 to C13 for the management of asbestos waste, asbestos containing materials and synthetic mineral fibre.	Yes	Section 6 addresses the requirement	-	N/A	

Asbestos disposal facility C23. The asbestos disposal facility must be designed and constructed in accordance with the relevant requirements of the NSW EPA Environmental Guidelines Solid Waste Landfills (2016), unless otherwise agreed by the Site auditor and the Planning Secretary.	No	The requirement was not included in the sub-plan	Include the requirement of C23	Added Section 7.14.4 Onsite Asbestos Disposal Facility	
C24. A final design for the asbestos disposal facility must be prepared for the development. The design must:	No	The sub-plan does not include requirement.	As above	Added Section 7.14.4 Onsite Asbestos Disposal Facility	
(a) be accompanied by interim audit advice from the Site auditor;	No	There is no information on the final design for the asbestos disposal facility must be prepared for the development	As above	Added Section 7.14.4 Onsite Asbestos Disposal Facility	
(b) be prepared in consultation with the NSW EPA;	No	There is no consultation evidence to support the requirement.	Include evidential records to confirm the requirement.	Added Section 7.14.4 Onsite Asbestos Disposal Facility	
(c) be submitted to the Planning Secretary for approval prior to the commencement of construction of the asbestos disposal facility; and	No	There are no details to confirm if the design submitted to the Planning Secretary for approval prior to the commencement of construction of the asbestos disposal facility	Include the requirement condition	Added Section 7.14.4 Onsite Asbestos Disposal Facility	
(d) be implemented, as approved, by the Planning Secretary.	No	There is no detail to address the condition.	Include a commitment to implement the approved sub-plan	Added Section 7.14.4 Onsite Asbestos Disposal Facility	

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C25. A construction quality assurance plan must be prepared for the asbestos disposal facility. The plan must:				Added Section 7.14.4 Onsite Asbestos Disposal Facility	
(a) be provided to the NSW EPA for review prior to the commencement of the construction of the asbestos disposal facility; and	No			Added Section 7.14.4 Onsite Asbestos Disposal Facility	
(b) be prepared in accordance with the relevant requirements of the NSW EPA Environmental Guidelines Solid Waste Landfills (2016)	No			Added Section 7.14.4 Onsite Asbestos Disposal Facility	
Schedule 5	Sufficient (Yes/No/Partial)	Document reference and comment	Action Required	Company Response	
C26. A construction quality assurance report must be prepared for the asbestos disposal facility. The report must: (a) be provided to the NSW EPA for review prior to the commencement of the operation of the asbestos disposal facility; and (b) be prepared in accordance with NSW EPA Environmental Guidelines Solid Waste Landfills (2016).	No	There are no details to address the conditions under C26	Provide a summary to address condition C26.	Added Section 7.14.4 Onsite Asbestos Disposal Facility	
Existing asbestos landfills C27. A verification of the existing asbestos landfills identified in the EIS must be undertaken for the development. The assessment must:				The existing asbestos landfills are not part of Stage 1 and are not relevant to the current Asbestos Management Plan which is a subplan of the demolition environment management plan. The existing asbestos landfills are part of Stage 3 of the works and	

				will be covered by separate plans at the appropriate time.	
(a) be prepared: (i) by a suitably qualified and experienced person/s; and	No	There are no details to address the conditions of C27.	Provide a summary to address condition C27.	As above	
(ii) within 2 years of the date of commencement of development under this consent, unless otherwise agreed by the Planning Secretary;	No		See above	As above	
(b) determine the suitability of the existing capping to achieve final closure requirements identified by the NSW EPA;	No		See above	As above	
(c) be accompanied by interim advice from the Site auditor; and	No			As above	
(d) include any recommendations to supplement the existing capping in required by the Site auditor and an implementation plan for the recommendations.	No			As above	
C28. The recommendations required by the Site auditor must be implemented as outlined in the assessment required by condition C27.	No			As above	
Part D					
Compliance Non-compliance notification D4. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must: (a) be in writing; (b) submitted via the NSW planning portal (Major Projects); (c) identify the development (including the development application number and name); (d) set out the condition of this consent that the development is non-compliant with; (e) why it does not comply; (f) the reasons for the non-compliance (if known); and (g) what actions have been undertaken, or will be	No	The plan does not include the requirement.	Include the requirements of condition D4	Covered by 6.3.1 of the DEMP. Added section 9.1.2 to reflect same.	



Documents: Asbestos Sub management Plan”
Revision: Rev 00 April 2025
Reviewed: Charissa Pillay April 2025
Schedule

Post Approval Review
Liddell Future Land Use
(SSD-24937520-PA-10)

undertaken; and when, to address the non-compliance.					
Incident notification D5. The Applicant must notify the Department within 24 hours of becoming aware of an incident. The notification must be made via the NSW planning portal (Major Projects) and address details of the incident including: (a) date, time and location; (b) a brief description of what occurred and why it has been classified as an incident; (c) a description of what immediate steps were taken in relation to the incident; and (d) identifying a contact person for further communication regarding the incident.	Yes	The plan includes the requirement.	-Nil	-N/A	
D6. The Applicant must provide the Department with a subsequent incident report in accordance with Appendix 6 (Incident Notification and Reporting Requirements).	Yes	The plan includes the requirement.	-Nil	N/A-	
General Comments	Action Required		Company Response	Company Response (XX/XX/XX)	
Other Agency Comments	Action Required		Company Response	Company Response (XX/XX/XX)	