Jemena
Port Kembla Pipeline Project
AIR QUALITY MANAGEMENT SUBPLAN

Document No.: GAS-599-PA-EV-005 | Revision 2

Rev	Description	By	Checked	QA	Nacap Approved	Date
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REVISION HISTORY

This table describes changes made for numerical revisions after Rev 0

Date	Rev	By	Description
19/08/2022	1	BRO	Implementation of minor comments following Jemena review – CODE 2
22/11/2022	2	BRO	Update following DPE Review

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LIST OF EMERGENCY AND KEY CONTACTS

Table 1 – Emergency and Key Contacts

Organisation/Position	Contact Details
Environment Line (EPA Pollution Hotline)	131 555 The Environment Line handles general inquiries about environmental issues and takes reports of pollution for which the EPA has regulatory responsibilities. Environment Line is a one-stop pollution and environmental incident reporting service provided by Environment and Heritage Group (EEG) and EPA.
Fire and Rescue NSW	000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)
Wollongong City Council	General Enquiries (02) 4227 7111
NSW Ports	General Enquiries 1300 922 524
Port Authority NSW	24-hour community enquiries and complaints line (02) 9296 4962 enquiries@portauthoritynsw.com.au
Port Kembla Coal Terminal	Administration (02) 4228 0288
BlueScope	Laura Davis Laura.davis@bluescopesteel.com +61 467728547
Transport for NSW	General Enquiries (02) 8202 2200
GrainCorp	Dylan Clarkson +61 409 739 697 dclarkson@graincorp.com.au

Organisation/Position	Contact Details
AIE	Andrew Petch +61 401 175 917 Andrew.petch@ausindenergy.com
Jemena	Community Feedback - 1300 081 989 Justin Anderson 0435 092 889 justin.anderson@zinfra.com.au
Nacap	Jason Heard Nacap Project Manager j.heard@nacap.com.au +61 488 087 393

ACRONYMS

Table 2 – Acronyms

Term	Meaning
AAQNEPM	Ambient Air Quality National Environmental Protection Measure
AIE	Australian Industrial Energy
AQMP	Air Quality Management Plan (This plan)
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CROW	Construction Right-of-Way
DLP	Defects Liability Period
DPE	Department of Planning and Environment
EA	Environmental Assessment
EGP	Eastern Gas Pipeline
EIS	Environmental Impact Statement
EOL	End of Line

Term	Meaning
EPA	Environment Protection Agency
ESC	Erosion and Sediment Control
FSRU	Floating Storage and Regasification Unit
ISO	International Standards Organisation
KGMS	Kembla Grange Meter Station
LECH	Land, Environment and Cultural Heritage
LNG	Liquid Natural Gas
MIJ	Monolithic Insulating Joint
NATA	National Association of Testing Authorities
NEPC	National Environmental Protection Council
NEPM	National Environmental Protection Measure
NSW	New South Wales
PKGT	Port Kembla Gas Terminal
PKL	Port Kembla Lateral
PKPP	Port Kembla Pipeline Project
Principal	Jemena
SOW	Scope of Work
SSI	State Significant Infrastructure
SWMS	Safe Work Method Statements
TfNSW	Transport for NSW

GLOSSARY

Table 3 – Glossary

Term	Meaning
Company/Principal	Jemena
Contractor	Nacap
Environmental Assessment	Includes the following EIS and Modification Reports: > Port Kembla Gas Terminal EIS and Modifications 1, 2 and 3, and > Eastern Gas Pipeline EIS and Modifications 1 and 2.
Hazard	A source or a situation with a potential for harm in terms of human injury or ill-health, damage to property, damage to the environment, or a combination.
HAZID	Hazard Identification risk assessment
Incident	A set of circumstances that: > causes or threatens to cause material harm to the environment; and/or > breaches or exceeds the limits or performance measures/criteria in this approval
Project	Port Kembla Pipeline
Regulatory Requirements	Government acts and regulations that are environment specific which prescribe legal obligations encompassing the employer and contractor.
Risk	Effect of uncertainty on objectives. Often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence [ISO Guide 73:2009, definition 1.1]
Sensitive Receptor	Locations where people are likely to work or reside and be affected by the works. May include residential dwellings, places of work, places of worship and areas of public open space used for recreation and access
Stakeholder	Party with vested interest in the works
Third Party	Any party external to the works that has been identified as a stakeholder

1 INTRODUCTION

1.1 Background

Australian Industrial Energy (AIE) have approval to build a new Liquid Natural Gas (LNG) import terminal at the Port Kembla inner harbour with the aim to sell gas to the east coast market. The gas is planned to be processed on a Floating Storage and Regasification Unit (FSRU) and imported into the existing gas networks through a new pipeline that will connect the AIE Port Kembla Gas Terminal (PKGT) with the Jemena owned gas transmission network via the Eastern Gas Pipeline (EGP).

In February 2021, Jemena and AIE entered into a Project Development Agreement to enable Jemena to build, own and operate a segment of the pipeline that is approved as part of AIE's SSI 9471 Infrastructure Approval for the PKGT, and build and operate the remainder of the pipeline approved under the same Infrastructure Approval SSI 9471.

The Port Kembla Pipeline Project (PKPP) involves the construction of an approximately 12.1 kilometres long, 18" (DN450) buried steel gas transmission pipeline and a new End of Line (EOL) facility in the vicinity of the Jemena's existing Kembla Grange Metering Station. The proposed PKPP Project is comprised of three sections (refer to Figure 1):

- Segment 1.1 – 4.3 km pipeline from PKGT to Springhill Road to be built by Jemena; owned by AIE with some services provided in operation by Jemena.
- Segment 1.2 – 2.2 km pipeline from Spring Hill Road to Five Islands Road, and
- Segment 2 – 5.6 km pipeline from Five Islands Road to KGMS which includes the Kembla Grange Tie-in Facility to be built, owned and operated by Jemena.

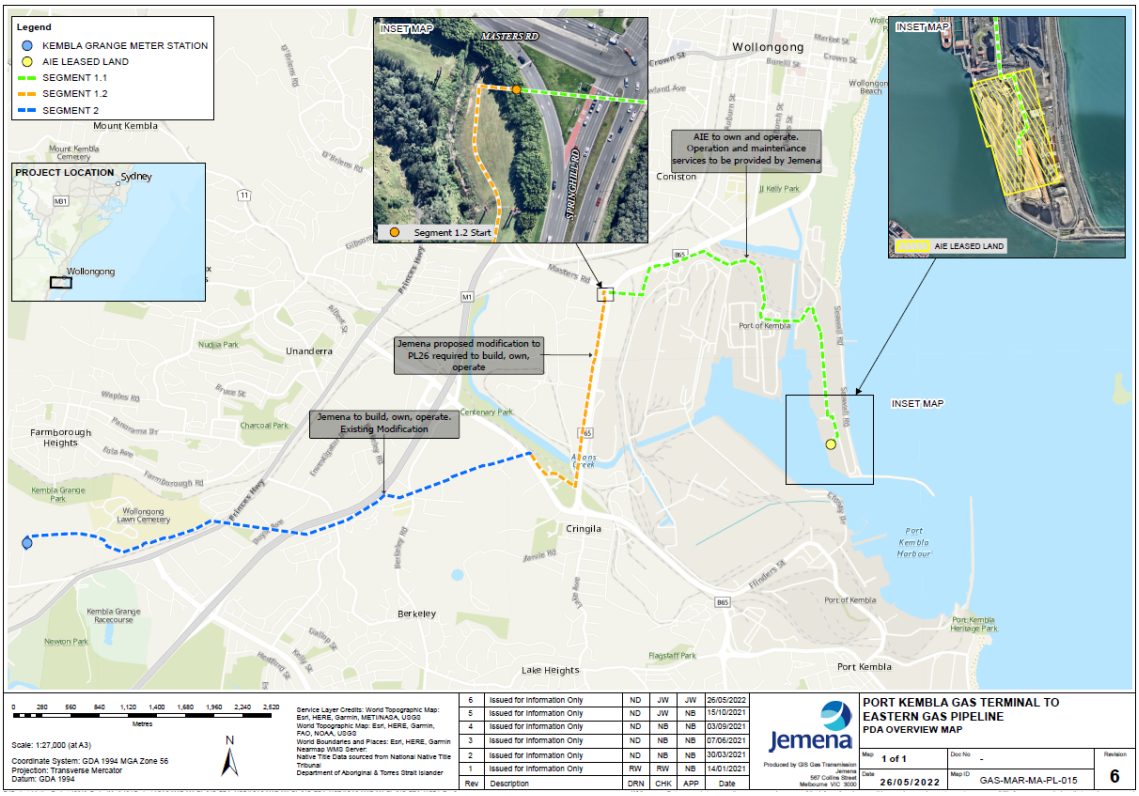

Figure 1 - Project Layout

The project is approved by the Department of Planning and Environment (DPE) under a number of Infrastructure Approvals:

- SSI-9471 Port Kembla Gas Terminal Infrastructure Approval under Section 5.19 of the Environmental Planning and Assessment Act 1979 which incorporates Segment 1.1 and 1.2.
- SSI-9973 Eastern Gas Pipeline Modification 1 - Port Kembla Lateral Pipeline Infrastructure Approval under section 5.25 of the Environmental Planning and Assessment Act 1979 pertains to Segment 2.
- SSI-9973 Eastern Gas Pipeline Modification 2 - Transfer of Pipeline Segment to transfer Segment 1.2 from AIE SSI-9471 PKGT Infrastructure Approval.
- Proposed Modification to the AIE SSI-9471 Port Kembla Gas Terminal to remove segment 1.2 from the Infrastructure Approval in Q2 2022.
- Staging Plan approved by DPE for SSI-9471
    - Stage 1: Early Enabling Works commenced in May 2021
    - Stage 2a: Marine Berth Construction – Land Based commenced January 2022
    - Stage 2b: Marine Berth Construction and Dredging – Land and Marine based commenced March 2022, and
    - Stage 3: Pipeline installation including ties ins, proposed to commence in December 2022.
- Staging Plan approved by DPE for SSI-9973
    - Stage 1: Pipeline installation, and
    - Stage 2: Construction of the tie in facilities including Kembla Grange Metering Station (KGMS).

1.2 Purpose and Scope

This Air Quality Management Plan (AQMP) has been prepared to ensure construction activities are carried out in accordance with the Conditions of Approval (CoA), relevant regulatory requirements, standards, procedures and current best practice to ensure that all reasonable and practical measures are implemented to minimise the potential for air quality related impacts.

This AQMP adopts an integrated approach, considering and identifying management measures overarching the sequencing of construction related activities. All works are to be implemented in accordance with the management measures and strategies contained within this plan.

This AQMP has been prepared to satisfy the requirements of both SSI 9471 and SSI 9973, the Project EIS and subsequent modification reports to include the staging of works as described above in Section 1.1 and as presented in the table below. This AQMP applies to the Construction phase of the works only and in accordance with the CoA will be implemented during construction.

Table 4 - AQMP scope relevant to SS1-9471 and SSI-9973

Infrastructure Approval	Post Consent Stage	Description of Works	Segment of Works As detailed in Sect 1.4 and Figure 1
SSI-9471	Stage 3	Pipeline construction from PKGT to KGMS	Segment 1.1
SSI-9973	Stage 1		Segment 1.2
			Segment 2

1.3 References

The following are principal documents referenced in this document:

Table 5 - Reference Documents

Document No.	Title of Document
GAS-554-AC-PM-001	SSI 9471 - Port Kembla Gas Terminal - Infrastructure Approval
GAS-556-AC-PM-001	SSI 9973 Modification 1 - Port Kembla Lateral Looping Pipeline – Infrastructure Approval
GAS-556-SP-PL-007	Construction Specification
GAS-551-SW-PL-001	Pipeline Construction Scope of Work
GAS-599-HSE-004	Environmental Management Plan
PKGT-AIE-PLN-020	PKGT Air Quality Management Plan
GAS-599-PA-RA-001	Joint Post-Approval Strategy - AIE's Port Kembla Gas Terminal to Jemena's Eastern Gas Pipeline
GAS-599-RP-RA-007	Eastern Gas Pipeline - Port Kembla Lateral Looping Modification Report
GAS-599-RP-RA-008	Eastern Gas Pipeline Modification 2 - Modification Report
-	Port Kembla Gas Terminal Environmental Impact Statement

1.4 Principal Contractor Details

Table 6 - Principal Contract Details

Nacap Details	
Business name:	Nacap Pty Ltd
Address:	Ground Floor, 599 Doncaster Road, Doncaster Victoria 3108
ABN:	33 006 306 994
Main phone number:	03 8848 1888
Contact person:	Jason Heard Nacap Project Manager
Contact mobile:	+61 488 087 393
Contact email:	j.heard@nacap.com.au

1.5 Environmental Management System Overview

The environmental management system overview is described in Section 4.1 of the Construction Environmental Management Plan (CEMP) (GAS-599-PA-EV-001). This AQMP used together with the CEMP, and subordinate project documents, procedures, resources, and practices will inform and guide Nacap personnel and subcontractors to ensure that all reasonable and practical measures are taken to manage the environmental risks for the Project.

1.6 CEMP Structure and relationship with sub plans

The CEMP comprises three sections:

- PART A: Provides background information and the overarching systems approach to environmental management and mitigation controls for the project
- PART B: Comprising Appendices in support of PART A, and

- PART C: Comprising the required series of environmental management sub-plans outlined in the CoA including:

(a) Noise Management Plan (GAS-599-PA-EV-004)

(b) Air Quality Management Plan (GAS-599-PA-EV-005) (this plan)

(c) Biodiversity Management Plan (GAS-599-PA-EV-006)

(d) Soil and Water Management Plan (GAS-599-PA-EV-007)

(h) Traffic Management Plan (GAS-599-PA-CN-002), and

(i) Waste Management Plan (GAS-599-PA-EV-008).

The sub plans are structured to incorporate mitigation and control measures in meeting the project's environmental risk assessment and includes, construction Activity Specific Environmental Management Measures and Aspect Specific Environmental Management Measures, each of which identifies the following:

- Environmental aspects
- Environmental performance objectives and standards
- Measurement criteria
- Management measures and responsibilities
- Compliance monitoring, and
- Records.

1.7 Objectives and Targets

The objectives and targets for the PKPP Project to be undertaken in relation to the Air Quality are listed in Table 4 Objectives and Targets.

Table 7 - Objectives and Targets

Objective	Target
Minimise air quality impacts on sensitive receptors and the generation of visible dust emissions from the site generated as a result of construction activities.	Zero complaints from the community due to dust generation.
Ensure all personnel, subcontractors and visitors are inducted, consulted and receive regular updates and information on project air quality aspects and impacts for the duration of works.	100% completion of Inductions, Daily Pre-Start Inputs by Environment Team, and Monthly toolbox inputs by Environment Team.
Ensure that personnel and subcontractors are aware of environmental hazards and risks associated with construction activities and relevant scope of work under the contract.	100% attendance recorded at SWMS workshops, and 100% Project Induction.
To conduct construction activities in compliance with all relevant approvals and environmental legislation.	100% compliance No regulatory infringements, including Provisional improvement notices and prosecutions.

Objective	Target
Promote a positive reporting culture. To minimise the occurrence and severity of environmental incidents during construction activities.	All environmental incidents to be reported within 2 hours and investigated appropriately.
Ensure all corrective actions are closed out by the nominated due dates	No corrective actions outstanding past due date >7 days

1.8 Consultation

Consultation on this AQMP is required to be undertaken with the following stakeholders:

- NSW EPA
- Transport for NSW (TfNSW)
- Wollongong City Council, and
- NSW Ports.

Comments and feedback received during consultation will be incorporated into the Plan where relevant before being submitted to the DPE for approval.

Details of the Consultation associated with this Plan will be presented in Appendix B.

1.9 Certification and Approval

This AQMP is required to be submitted for approval by the Secretary of the DPE prior to commencement of construction or as otherwise agreed by the Secretary.

1.10 Distribution

A controlled hard copy of this AQMP and supporting documentation will be maintained and reside at the Project construction site office. Registered copies of this AQMP and supporting documentation will be distributed to the Project team, the DPE, all relevant personnel and interested third parties as required. It will also be available to view on the Project website

[https://jemena.com.au/pipelines/eastern-gas-pipeline]

2 ENVIRONMENTAL PLANNING AND GOVERNANCE

2.1 Legislation

The following legislation and guidelines provide the primary context for construction air quality management in NSW:

- Environmental Planning and Assessment Act 1979 (EP&A Act)
- Protection of the Environment Operations Act 1997 (POEO Act), and
- Protection of the Environment Operations (Clean Air) Regulation 2010 (POEO Clean Air Regulation).

2.2 Guidelines

The main guidelines, specifications and policy documents relevant to this Plan include

- National Environment Protection Councils (NEPC) – National Environment Protection Measure (NEPM) for Ambient Air Quality Guidelines (AAQNEPM)
- Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (NSW Environment Protection Authority (EPA) 2016) (EPA Approved Modelling and Assessment Methods), and
- The Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016).

2.3 Conditions of Approval (CoA) requirements for AQMP

This Plan has been prepared to comply with the Joint Post Approval Strategy for SSI-9471 (GAS-554-AC-PM-001) and SSI-9973 (GAS-556-AC-PM-001) and associated consent documents and supporting information and the consolidated conditions of approval as listed in Table 8 Conditions of Approval requirements AQMP.

Table 8 - Conditions of Approval requirements AQMP

CoA	Description of Works	Refer to Section within This Plan
SSI 9471 - Port Kembla Gas Terminal – Stage 3 Works		
Schedule 3 CoA 30	The Proponent must ensure that no offensive odours are emitted from the development, as defined under the POEO Act.	Sect 4.3
Schedule 3 CoA 31	The Proponent must minimise and/or prevent the: (a) dust emissions of the development, including wind-blown and traffic generated dust (b) surface disturbance of the development; and (c) greenhouse gas emissions of the development.	Sect 4.3
Schedule 3 CoA 32	The Proponent must ensure that air emissions from the development comply with the requirements of any EPL issued for the development.	Sect 4.3 Sect 2.5
Schedule 3 CoA33	Prior to commencement of construction, unless otherwise agreed by the Secretary, the Proponent must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with the EPA; (b) describe the measures that would be implemented to ensure compliance with the conditions of this approval and EPL including: • objectives and performance criteria, including trigger levels for investigating any potential or actual adverse impacts associated with air emissions; • proactive and reactive management measures for air emissions; • a plan to respond to any exceedances of the trigger levels and/or performance criteria, and minimise any adverse air quality impacts of the development (c) include an air quality monitoring program that includes: • a detailed description of the air quality monitoring that would be undertaken; • real-time dust monitoring during construction and point source discharge monitoring from the FSRU during operations; • a gas leak detection and repair program; and • reporting procedures for the results of the monitoring program	This Plan
Schedule 3 CoA 34	The Proponent must implement the approved Air Quality Management Plan for the development.	This Plan

CoA	Description of Works	Refer to Section within This Plan
Schedule 3 CoA 35	Prior to commencement of construction, the Proponent must ensure that there is a suitable meteorological station operating in the vicinity of the site. The meteorological station must be maintained so as to be capable of continuously monitoring the following parameters: air temperature, wind direction, wind speed, rainfall, relative humidity, and any requirement specified in an EPL. Unless a suitable alternative is approved by the Secretary following consultation with the EPA, the meteorological station must be capable of monitoring weather conditions in accordance with: (a) AM-1 Guide to Siting of Sampling Units (AS 2922-1987); (b) AM-2 Guide for Horizontal Measurement of Wind for Air Quality Applications (AS 2923-1987); and (c) AM-4 On-Site Meteorological Monitoring Program Guidance for Regulatory Modelling Applications.	Sect 3.7 Sect 4.3
Schedule 3 CoA 38	The Proponent must: (a) rehabilitate the site progressively, as soon as reasonably practicable following disturbance; (b) minimise the disturbance area at any time; and (c) employ interim rehabilitation strategies to minimise dust generation, soil erosion and weed incursion on parts of the site that cannot yet be permanently rehabilitated;	Sect 4.3
SSI 9973 Modification 2 - Port Kembla Lateral Looping Pipeline		
B8	The Proponent must minimise the dust generated during construction of the Port Kembla Lateral Looping Pipeline, including wind-blown and traffic generated dust	Sect 4.3
B10	The Proponent must ensure the Port Kembla Lateral Looping Pipeline is constructed to minimise the potential for contaminant mobilisation.	Sect 4.3
C1	Prior to commencing construction, the Applicant must prepare a Construction Environmental Management Plan (CEMP) for the Port Kembla Lateral Looping Pipeline to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with Council, Sydney Trains and TfNSW; (b) identify the statutory approvals that apply to the construction and commissioning of the Port Kembla Lateral Looping Pipeline; (c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Port Kembla Lateral Looping Pipeline; (d) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the construction and commissioning of the Port Kembla Lateral Looping Pipeline; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise; • respond to any non-compliance; and • respond to emergencies; and (e) include: • the following sub-plans: • noise, including an out-of-hours work protocol; • air quality; • biodiversity; • soil and water management; • water management; • traffic management; and • waste • a clear plan depicting monitoring to be carried out in relation to the Port Kembla Lateral Looping Pipeline	CEMP This Plan
C2	The CEMP sub-plans must state how: (a) the mitigation measures identified in the Modification Report will be implemented; and (b) the relevant terms of this Schedule will be complied with.	Sect 4.3

CoA	Description of Works	Refer to Section within This Plan
C5	The Proponent must implement the approved CEMP	CEMP This Plan
C6	The Proponent must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must identify the development (including the development application number and name) and set out the location and nature of the incident.	Sect 4.3
C7	Within seven days of becoming aware of a non-compliance, the Proponent must notify the Department of the non-compliance. The notification must set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken 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.	Sect 4.3

2.4 Environmental Management Measures

Environmental Management Measures (EMM) derived from the Project Environmental Assessment relevant to this BMP Plan are listed in Table 9.

Table 9 - Environmental Management Measure (EMM) requirements AQMP

EMM	Management Measure Category	Commitment	Refer to Section within This Plan
SSI 9471 - Port Kembla Gas Terminal – Stage 3 Works			
AQ1	Fugitive dust emissions	Water material prior to it being loaded for on-site haulage, where appropriate.	Section 4.3
AQ2	Fugitive dust emissions	Aim to minimise the size of storage piles where possible.	Section 4.3
AQ3	Fugitive dust emissions	Limit cleared areas of land and clear only when necessary to reduce fugitive dust emissions.	Section 4.3
AQ4	Vehicle emissions	Control on-site traffic by designating specific routes for haulage and access and limiting vehicle speeds to below 25 km/hr.	Section 4.3
AQ5	Fugitive dust emissions	All trucks hauling material will be covered on the way to the site and maintain a reasonable amount of vertical space between the top of the load and top of the trailer.	Section 4.3
AQ6	Fugitive dust emissions	Operations conducted in areas of low moisture content material should be suspended during high wind speed events or water sprays should be used.	Section 4.3
G1	Greenhouse gas emissions	All plant and equipment used during the construction works shall be regularly maintained to comply with the relevant exhaust emission guidelines	Section 4.3
G2	Greenhouse gas emissions	Sustainable procurement practices will be adopted where feasible.	Section 4.3
G3	Greenhouse gas emissions	The following measures will be considered by contractor(s): > Construction materials sourced locally where possible > Construction materials that have minimal embodied energy be selected	Section 4.3

EMM	Management Measure Category	Commitment	Refer to Section within This Plan
		> Use of PVC plastic minimised > Construction materials that are low maintenance and durable > Plant and equipment will be switched off when not in constant use and not left idling > Plant and equipment brought onsite will be regularly serviced and energy efficient vehicles or equipment will be selected where available > Any plant and equipment that is not working efficiently (i.e. emitting excessive smoke) will be removed from site and replaced as soon as possible > Construction works will be planned to ensure minimal movement of plant and equipment, including barges	
SSI 9973 Modification 2 - Port Kembla Lateral Looping Pipeline			
M01		Standard mitigation measures outlined in the approved EGP EIS (November,1996), along with mitigation measures per the APGA Code of Environmental Practice, will be implemented during construction and operation of the proposed modification.	Section 4.3
BDAR 05	Dust management	Wet down areas to reduce dust generation during construction.	Section 4.3
BDAR 06	ESC	Sedimentation and erosion control measures including silt fencing, sediment traps, etc. to prevent sediment-laden stormwater exiting the construction areas and to prevent scouring and erosion of land beyond the development footprint. All erosion and sediment control measures are to be constructed and installed in accordance with relevant guidelines, are to be regularly maintained for the duration of the construction period and are to be carefully removed at completion of works.	Section 4.3

2.5 Environmental Protection Licence

The proposed pipeline construction works do not trigger a requirement to obtain an Environmental Protection Licence (EPL) under the Protection of the Environment and Operations Act (POEO Act).

3 EXISTING ENVIRONMENT

3.1 Site Description and Existing Land use

As stated in Section 1.1 the pipeline will be constructed in three discrete segments:

- Segment 1.1 – 4.3 km section from PKGT to Springhill Road.
- Segment 1.2 – 2.2 km pipeline from Spring Hill Road to Five Islands Road, and
- Segment 2 – 5.6 km pipeline from Five Islands Road to Kembla Grange Metering Station.

The zoned land use across the pipeline alignment includes special use and industrial use at Port Kembla and a mix of primarily residential and commercial uses at the surrounding localities. Major infrastructure in the region of Port Kembla includes the Princes Highway, which is a major state and regional highway connecting Sydney and Wollongong and regional areas further south. Princes Highway provides access to Port Kembla through turnoffs at Masters Road, Five Islands Road and Northcliffe Drive and is broadly utilised including by heavy vehicles from the port.

The South Coast railway line runs along the periphery of Port Kembla including the stations Port Kembla, Port Kembla North, Cringila and Kembla Grange. The rail line services commuters and is also used to transport bulk solid goods like coal, grain, copper, and steel from Port Kembla. The environmental features of Port Kembla and the surrounding region are limited given the extensive industrial, commercial, and residential development. Waterways in the region include the Gurungaty Waterway, Allans Creek, American Creek and Byarong Creek.

3.2 Soils and Landforms

Natural landforms along the pipeline alignment have been heavily altered by human activities. The Port area is generally a progressively reclaimed former coastal lagoon. Some residual natural slopes remain in the western extent of the alignment.

The pipeline alignment traverses a range of soil types predominantly alluvial soils being a silty and gravelly sandy soils in the east with increasing clay content in the western extents of the alignment. Fill materials also prevail and are intersected at various locations along the alignment, particularly in the Port area. Fill material generally contained coal, coal wash, slag with trace fragments of a range of anthropogenic materials including asbestos.

Soil texture and moisture content varies along the alignment with drier and finer texture soils being more prone to release of particulates via wind causing erosion and nuisance dust. Other materials that will be present and susceptible to erosion may include imported bed and fill materials, imported road base and hardstand subgrade materials. These materials can form nuisance dust when subjected to mechanical forces from construction equipment and removal of existing groundcover, such as pavements and vegetation.

3.3 Climate

The climate characteristics of the site are summarised below based on the Bureau of Meteorology (BOM) monitoring station located at Port Kembla (BOM No 068053). This is broadly representative of the project area.

Based on the available data, higher rainfall occurs in late summer months with lowest rainfall during autumn. This pattern also applies to the occurrence of 10mm and 25mm daily rain events. Temperatures are typically higher in summer months with wind conditions generally the same throughout the year with a pattern of higher wind speeds occurring in the afternoon. In terms of climate influence on air quality, the data suggests that there are no specific temporal risks and that

site based meteorology monitoring should be considered and integrated into forward works planning and air quality mitigation.

3.4 Rainfall

Table 10 - Port Kembla Rainfall Data (mm)

	Jan	Feb	Mar	Apr	Mar	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	116.1	157.5	183.7	92.9	89.0	140.3	62.6	87.7	55.0	108.0	94.3	90.4
Low	19.0	5.4	15.8	13.7	1.1	0.0	0.0	5.9	4.1	8.1	12.4	10.8
High	350.9	575.0	528.5	350.3	420.7	465.1	220.1	286.1	188.6	423.6	600.3	366.0
Mean No of Days >=10mm	3.2	3.8	4.1	2.5	2.3	3.8	1.5	2.3	1.6	2.9	2.4	2.5
Mean No of Days >=25mm	1.6	1.6	1.9	1.1	1.0	1.6	0.5	1.1	0.5	1.2	0.9	0.9

Source http://www.bom.gov.au/climate/averages/tables/cw_068053_All.shtml

3.5 Temperature

Table 11 - Port Kembla Temperature Data (°C)

	Jan	Feb	Mar	Apr	Mar	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean High	24.1	24.4	24.1	22.4	19.4	17.5	16.7	17.3	19.2	20.7	22.4	23.
Mean Low	18.4	18.7	18.0	15.7	12.7	10.9	9.8	10.3	11.8	13.7	15.3	17.1
Mean No of Days >=35	0.4	0.1	0.2	0	0	0	0	0	0.1	0.1	0.5	0.4

Source http://www.bom.gov.au/climate/averages/tables/cw_068053_All.shtml

3.6 Wind

Table 12 - Port Kembla Wind Data (km/h)

	Jan	Feb	Mar	Apr	Mar	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean 9am	17.4	16.1	14.7	14.7	16.7	17.4	17.7	18.5	18.7	19.7	19.5	18.1
Mean 3pm	24.4	23.7	22.9	22.8	21.9	22.0	24.6	25.4	27.1	26.3	26.5	25.5

Source http://www.bom.gov.au/climate/averages/tables/cw_068053_All.shtml

3.7 Site Based Meteorology

A site-based metrological station is currently established at the southern end of the site compound established for Stage 2A works being undertaken on behalf of AIE. Refer to Figure 1.

In accordance with the Project Development Agreement between AIE and Jemena it is proposed that this site-based meteorological station also inform, and support pipeline construction works. The station currently provides monitoring against the following parameters:

- Temperature
- Humidity

- Wind direction
- Wind velocity, and
- Rainfall.

The monitoring will be representative of the pipeline construction project area and will be maintained throughout the duration of pipeline construction.

Weather monitoring at the station follows the following Sampling methods as prescribed by SSI 9471 Schedule 3, CoA 35:

- AM-1 Guide to Siting of Sampling Units (AS 2922-1987).
- AM-2 Guide for Horizontal Measurement of Wind for Air Quality Applications (AS 2923-1987), and
- AM-4 On-Site Meteorological Monitoring Program Guidance for Regulatory Modelling Applications.

Monitoring will be used to enable the planning and conduct of works to ensure suitable conditions exist for work activities and resources are available to ensure environmental management protocols are adhered to.

Existing Ambient Air Quality

The Environmental Assessment (EA) considered ambient air quality data provided by monitoring stations at Kembla Grange and Wollongong which is presented in the table below:

Table 13 - Existing Ambient Air Quality

Pollutant		NSW Monitoring Site	
		Wollongong	Kembla Grange
SO2	Average (µg/m3)	2.0	-
	Maximum (µg/m3)	13.1	-
NO	Average (µg/m3)	5.9	2.1
	Maximum (µg/m3)	57.8	20.9
NO2	Average (µg/m3)	14.8	0.0
	Maximum (µg/m3)	37.6	30.1
CO	Average (µg/m3)	253.4	-
	Maximum (µg/m3)	575.0	-
PM10	Average (µg/m3)	17.7	17.3
	Maximum (µg/m3)	45.3	99.2
	70th percentile (µg/m3)	20.2	20.3
PM2.5	Average (µg/m3)	7.0	-
	Maximum (µg/m3)	17.3	-
	70th percentile (µg/m3)	8.2	

Source EA (GHD 2018)

3.8 Construction Activities and Program

The construction methodology for the works will generally involve but not be limited to:

- Early access works comprising:

- Environmental investigations, monitoring and works to prepare the site ahead of construction
- Areas of work where access is available and approved prior to full site access dates, and
- Establishment of pipe yard, laydowns, site offices and ablutions.

- Site survey and set out
- Construction ROW (CROW) preparation
  - Development and maintenance of project access points, tracks and roads
  - Location and non-destructive confirmation of all foreign services
  - Property management works to enable CROW access and construction
  - Installation of temporary construction gateways where specified
  - Installation of erosion temporary drainage, erosion and sediment controls, and
  - Clear and grade of the CROW as specified.
- Transport of pipe to the CROW including stringing and bending operations
- Trenching works
- Trenchless crossing works
  - Horizontal directional drilling (HDD), and
  - Thrust bore.
- Welding and Non-Destructive Testing (NDT)
- Field joint coating works
- Lowering in of pipe and backfill
- Facility tie in works
- Mainline valve works and tie ins
- Cathodic Protection Works
- Hydrostatic testing
- Other pipeline works as specified:
  - Property Management Works
  - Permanent fencing and gateways
  - Watercourse rehabilitation
  - Trench breakers
  - Pipeline marker posts, and
  - Miscellaneous works required to satisfactorily complete the works.
- Inspections, monitoring and auditing of construction works
- Waste management
- Decommissioning and removal of temporary works and facilities including offices and ablutions
- Removal of temporary drainage, erosion and sediment controls

- Installation of permanent drainage, erosion and sediment controls, and
- Reinstatement and restoration of land to pre-disturbance condition, rehabilitation and monitoring (including DLP).

Construction is expected to commence in December 2022 for a duration of approximately 11 months with practical completion forecast for September 2023. Refer to Contractors Program (GAS-599-SH-CN-001) for Execute Phase schedule.

3.9 Construction Air Quality Impacts

As noted in the EA, any airborne particulate concentrations related to pipeline construction would likely be temporary and relatively short- lived. Key factors in the risk of dust impacts from pipeline construction includes:

- Nature and duration of activities being undertaken
- The size of the work area and extent of disturbance
- Meteorological conditions
- The proximity of sensitive receptors to the works
- The level of sensitivity of adjacent receptors, and
- The adequacy of the mitigation measured applied to minimise dust.

Pipeline construction will generally involve earthworks undertaken progressively in a linear fashion using a cleared construction right of way limited to approximately 20m in width. Clearing works will be undertaken by dozers, graders and excavators. Trenching works will generally be undertaken using excavators and for trenchless crossings the use of horizontal directional drilling.

The welded pipeline will be lowered into the trench and the trench backfilled using excavators to optimise the extent of open excavations. Progressive reinstatement of the disturbed areas will follow. On this basis the stockpiling of excavation and backfill materials will be of small volumes and relatively short durations. Exposed subsoils and stored topsoils will also be temporary and of short duration.

Based on the Air Quality assessment undertaken during the EA (GHD 2018), dust and particulate matter were identified as the primary emission to air during pipeline construction works as described above.

Given the primary air quality concern during construction is dust, a screening level dust assessment was undertaken during the EA and determined that prior to mitigation, daily PM_{10} (50ug/m^3) and $PM_{2.5}$ (25ug/m^3) are met at 80m and 10m respectively from the construction area. Mitigation provided in Section 5 of this AQMP are expected to further minimise dust impacts and nuisance complaints.

Construction of the pipeline is not expected to generate or expose materials with offensive odours. If unknown unexpected materials with offensive odours are encountered during pipeline construction works, the Unexpected Contaminated Finds Protocol developed for the Soil and Water Management Plan will be implemented and the materials assessed and managed accordingly.

3.10 Sensitive Receptors

During pipeline construction works, sensitive receptors impacted by air quality are identified as locations where people are likely to work or reside and may include residential dwellings, places of work, places of worship and areas of public open space used for recreation and access. In relation to impacts arising from pipeline construction works, sensitive receptors will be identified and managed through a range of permanent and temporary access agreements entered with AIE / Jemena to facilitate the works. Sensitive receptors are further addressed in Section 5 of the CEMP with complaints managed in accordance with Section 2.5 of the CEMP.

4 CONSTRUCTION CONTROLS

4.1 Roles and Responsibilities

An Organisation Chart will be developed prior to the commencement of construction. Refer to Appendix A of Project Management Plan (GAS-599-PA-PM-015) for Organisation Chart for ECI Phase. Position descriptions describe the responsibilities specific to positions on the Project.

Table below provides a summary of Nacap environmental management responsibilities for relevant roles.

Table 14 - Nacap Environmental Management Responsibilities

Role	Responsibilities
Project Director (Management Representative)	> The Project Director provides environmental leadership and ensures that adequate, competent and experienced resources are provided and supported in the implementation of this AQMP.
Project Manager	> Provide support and guide in the implementation of this AQMP and associated controls, and > Provide management and leadership in the implementation of this AQMP > Ensure adequate resources are provided for implementing and maintaining environmental controls and mitigation measures in relation to air quality. > Take action including the stopping of work in response to natural events and activities which may impact on the environment or compromise the performance objectives, standards and commitments contained in this AQMP, and > Take action in the event of an environmental emergency and allocate the required resources to minimise environmental impact and harm.
Lands, Environment and Cultural Heritage (LECH) Manager	> Provide support and guide the implementation of this AQMP and associated controls > Provide environmental input and support to construction and associated methodologies > Support and guide site environmental incident investigation and reporting > Review internal and external project audits and coordinate the implementation of audit recommendations, and > Develop and update this AQMP and subordinate procedures and protocols.
Environment Advisor	> Provide and coordinate monitoring, inspections and audits of works > Provide and coordinate site-based training preparation and delivery > Routine record keeping and reporting in support of commitments in this AQMP > Reporting of hazards and incidents and implementing any rectification measures, and > Provide site based environmental incident investigation and reporting and corrective action management.
Project Supervisors	> Provide leadership for the implementation of commitments contained in this AQMP, and > Reporting of hazards and incidents and implementing any rectification measures.
Subcontractors	> Subcontractors engaged to perform works on behalf of Nacap will operate in accordance with all applicable legislation, Nacap procedures and this AQMP, and > Subcontractors are required to report all incidents to their Nacap Supervisor immediately.

Role	Responsibilities
All Project Personnel and Visitors	> All Project personnel and visitors will uphold a general environmental duty to take all reasonable and practical measures to ensure that the activities on the whole site do not pollute the environment in a way which causes or may cause environmental harm.

4.2 Training and Awareness

All personnel and subcontractors working on site will undergo site induction including content relating to air quality issues. The induction will address elements related to air quality management including:

- Requirements of this Plan
- Applicable and relevant legislative requirements
- Roles and responsibilities for air quality management
- Typical construction activities that may impact air quality and associated environmental mitigation and management measures, and
- Incident response procedure.

Targeted training undertaken as part of SWMS workshops, toolbox talks, or specific training will also be provided to personnel with a key role in air quality management. Examples of training topics may include:

- Potential sources of dust, emissions, and other air pollutants
- Impacts to the environment and surrounding community
- Planning and preparedness for high wind events and dust risk periods, and
- Erosion and sediment controls installation and maintenance

For further details with regards to environmental training and awareness, refer to Section 6 of the CEMP.

4.3 Construction Air Quality Management Measures

In accordance with CoA C1-3 measures to manage the impacts on Air Quality are outlined in Table 15.

Table 15 - Construction Air Quality Management Measures

No	Management Measure	Implementation	Responsibility
AQ01	All construction personnel and subcontractors are required to undertake a Project induction which will incorporate information on management of air quality specific to the project and field of operations and shall include the following: > Legislation and penalties relating to air pollution > Roles and Responsibilities > Identification and awareness regarding construction activities likely to impact on Air Quality > Air quality management measures, and > Incident reporting and record keeping. A register attendance at all inductions will be maintained	Pre-Construction	Principal Contractor/ Subcontractors
AQ02	All construction personnel and subcontractors will participate in Safe Work Method Statement (SWMS) development that will include specific management measures relating to dust emissions for specific construction activities.	Pre-Construction	Principal Contractor/ Subcontractors
AQ03	In the event there are changes to people/plant/process or environment after the development of SWMS, ensure that any changes are communicated to work personnel including environmental hazards and controls which shall be recorded in a revised SWMS or SWMS review card and signed off by all involved in the activity.	Per Event	Principal Contractor/ Subcontractors

No	Management Measure	Implementation	Responsibility
AQ03	Weather conditions will be monitored / reviewed at the start of each day to enable construction activities or methods to be modified in response to wind / storm conditions predicted to generate visible emissions of dust from the site as a result of construction activities. Monitor weather via the onsite meteorological monitoring station established for Stage 2A works. Weather information will also be obtained from the Bureau of Meteorology to measure atmospheric conditions and rainfall events in the locality of the Project within the previous 24-hour period and provide real time data on wind speeds within the locality. The Beaufort Scale presented in Appendix A is a system the Project may also utilise to measure wind speeds without the use of instruments based on the effects wind has on the physical environment. This scale, sourced from the Bureau of Meteorology will be used as a guide only to estimate wind speeds.	Daily	Principal Contractor
AQ04	Ensure sustainable procurement practices are adopted to aid in the avoidance and minimisation of waste and emissions where reasonable and feasible including: > Local sourcing of construction materials > Materials that have minimal embodies energy > Minimised use of PVC plastics, and > Materials that are low maintenance and durable	Construction	Principal Contractor
AQ05	Prior to first entry onto the Project site, all vehicles, plant and equipment must be checked for cleanliness and declared weed free before release by an authorised Project representative.	Construction	Principal Contractor/ Subcontractors
AQ06	Appropriate use of Project access tracks, roads and works areas will involve: > Authorised Project vehicles entering the site only, there is no access to private vehicles within the Project area > All vehicles delivering materials, plant and equipment shall be registered and are required to maintain appropriate emission controls > Construction traffic shall travel below 25 km/hr, and > Speed limits may be reduced in dusty conditions.	Construction	Principal Contractor/ Subcontractors
AQ07	Maintain good housekeeping at project access points and minimise mud and dirt accumulating or migrating from entrances and exits.	Construction	Principal Contractor/ Subcontractors
AQ08	Disturbance is to occur only within the approved work areas.	Construction	Principal Contractor/ Subcontractors
AQ09	The approved works area will be delineated and established in accordance with the Project survey. Use fencing and flagging where appropriate to establish No-Go zones and work limits.	Construction	Principal Contractor
AQ010	Ensure regular communication via pre-starts and environmental alerts across concurrent work sites in close proximity, to ensure measures are put in place to manage potential for cumulative dust impacts.	Daily	Principal Contractor/ Subcontractors
AQ11	Construction activities shall be undertaken in a manner that minimises odours and dust emissions from the Site, including wind-blown and traffic generated dust and tracking of material onto public roads. All Project related activities on the Site shall be undertaken with the objective of preventing , odours, and visible emissions of dust from the site. Should such visible dust emissions occur at any time in relation to the Project works, identify and implement all feasible and reasonable dust mitigation measures, including the cessation of relevant works as appropriate until such time visible emissions from the Site have ceased. Dust controls will be implemented across the Project area using reasonable and appropriate measures such as: > Management of stockpiles (height, orientation and stabilisation) > Use of suppressants including water spraying and use of water carts as required. > Maintenance of access roads and tracks > All material delivery trucks will ensure loads are covered appropriately and maintain a reasonable amount of vertical space between the top of the load and top of the trailer > Use of approved wetting agent to exposed soil during dry and windy periods > Where necessary, placement of stockpiles in locations sheltered from wind and surface water flows, and > Restoration /rehabilitation of disturbed areas as soon as possible > Dedicated watercarts actively wetting construction areas to suppress the risk of dust emissions from the Project site, and > Reduced speed limits in areas which have the potential to generate dust. > Materials that have potential to result in dust generation will be managed using standard ESCs > Review and restore ESCs regularly during construction	Construction	Principal Contractor/ Subcontractors

No	Management Measure	Implementation	Responsibility
AQ12	A modern fleet of plant and equipment will be used for pipeline construction works	Construction	Principal Contractor/ Subcontractors
AQ13	All plant will be fitted with manufacturer's standard emissions control equipment and maintained in accordance with the manufacturers' specifications.	Construction	Principal Contractor/ Subcontractors
AQ14	All plant and equipment will be operated in a proper and efficient manner in accordance with the equipment specifications Switch off plant and equipment when not in constant use	Construction	Principal Contractor/ Subcontractors
AQ15	All plant and equipment will be serviced and maintained regularly	Construction	Principal Contractor/ Subcontractors
AQ16	Any plant and equipment that is emitting excessive smoke will be assessed and serviced or replaced.	Construction	Principal Contractor/ Subcontractors
AQ17	In the event dust emissions or odours are reported to be visible or detected outside the Project Site in relation to the Project works, works in this area must cease until such time that dust and odours are suitably controlled.	Per Event	Principal Contractor/ Subcontractors
AQ18	In the event of uncovering materials with a nuisance odour report the find to the Environmental advisor. Odorous material shall be managed in accordance with the Unexpected Contaminated Finds Protocol (GAS-599-PR-CN-001) as per the Soil and Water Management Plan (GAS-599-PA-EV-007).	Per Event	Principal Contractor/ Subcontractors
AQ19	In the event of uncovering contaminants including asbestos report the find to the Environmental advisor. Contaminants and asbestos shall be managed in accordance with the Unexpected Contaminated Finds Protocol (GAS-599-PR-CN-001) as per the Soil and Water Management Plan (GAS-599-PA-EV-007).	Per Event	Principal Contractor/ Subcontractors
AQ20	Refer also to the Soil and Water Management Plan (GAS-599-PA-EV-007) and implement the associated management measures as required	Construction	Principal Contractor/ Subcontractors
AQ21	Minimise the duration of exposed areas of disturbance through works planning and progressive reinstatement of the CROW: > Excavations along the CROW and within waterways shall be reinstated as soon as practicable after installation of the pipeline and associated works > Amelioration of subsoils or topsoils to be undertaken as part of backfilling and/or CROW rehabilitation per project specifications, landowner line list and any remediation works plan applicable to Segment 1.1 > Undertake all property specific rehabilitation including soil amelioration, fertilising, and reseeding requirements in accordance with landowner line list and any other project access agreements and permits > Subsoils are to be returned to the base of the excavation, and the retained topsoil containing seed bank and vegetative propagules to be placed over the backfilled trench and CROW. > Prioritise stabilisation of the CROW through re-vegetation, use of stabilising binders and or geofabric / jute mesh / blankets. > Waterway crossings to be reinstated in accordance with specification and or waterway authority requirements. > Maintain temporary ESC and exclusion fencing (where required) until re-vegetation is suitably established and the CROW is stable	Construction	Principal Contractor/ Subcontractors
AQ22	Maintain temporary Erosion & Sediment Control and other interim dust suppression measures until such time that the landform has been stabilised.	Construction	Principal Contractor/ Subcontractors
AQ23	Complaints of dust or odour will be promptly investigated and appropriately addressed through the Project complaints management system and the Project Community and Stakeholder Engagement Plan. Dust and odour complaints and the strategies put in place to address the complaint will also be included in the Complaints Register (GAS-599-RG-LM-001). Details of contact point(s) to which community complaints and enquiries may be directed will be available on the Project website, which will become live prior to the commencement of construction and remain live for the life of the Project. Dust and or odour complaints and enquiries from the community may be registered through this forum. The Project will provide a response in a timely manner to any Project complaints raised by the community through the Project life cycle.	Per Event	Principal Contractor/ Subcontractors

No	Management Measure	Implementation	Responsibility
AQ24	Incidents associated with air quality will be managed in accordance with Section 7 of the CEMP and the Project Community and Stakeholder Engagement Plan. Should it be determined by AIE / Jemena that the incident is reportable to DPE or any other relevant agency or Regulator, the Nacap Project Manager shall liaise with the AIE and or Jemena Representative and provide support to ensure that the incident is reported in the required timeframe and format required. In accordance with the CoA DPE must be notified in writing via the Department's Major Projects Website immediately after AIE or Jemena becomes aware of an incident on site.	Per Event	Principal Contractor/ Subcontractors
AQ25	Undertake monitoring of works in accordance with Section 5.	Construction	Principal Contractor

5 AIR QUALITY MONITORING AND INSPECTIONS

The LECH Manager (or delegate) shall coordinate environmental inspections and monitoring of works during the conduct of construction activities to check and record compliances with works procedures and this AQMP.

5.1 Site Inspections

Inspections of the full pipeline alignment will include daily site inspections by Site Supervisors, and weekly site inspection by environmental personnel during construction as a minimum. The frequency of these inspections may be increased to reflect the risk associated with potential impacts to air quality during adverse weather conditions or during specific construction activities or proximity to sensitive receptors.

Inspections specific to identifying potential air quality issues will include:

- Visible sources of dust
- Visible dust emissions
- Implementation and effectiveness of all dust controls
- No continuous visible vehicle/plant/equipment emissions for longer than 10 seconds as per the POEO Clean Air Regulation
- Access road, CROW and work area integrity (clean, no potholes etc)
- No mud tracking off-site; check main exit/entry points and material on public roads
- No detectable offensive odours including freshly disturbed areas, open excavations, stockpiles, waste skips, etc), and
- Daily review of meteorological conditions and weather forecast (e.g. rainfall and wind) to enable integration of proactive dust management actions into work schedules and pipeline construction activities.

Site inspections will be recorded (along with actions and issues observed) and actioned appropriately within agreed timeframes. Air Quality inspections will be recorded as part of Environmental Inspection Checklist. Additional requirements and responsibilities in relation to inspections are documented in Section 8 of the CEMP.

5.2 Site Monitoring

Proactive real time site monitoring using Hive or similar will occur whenever sensitive receptors falls within the following works proximity:

- <30m Clear and Grade

- <50m Trench Excavation
- <30m Backfill
- <30m Rehab

The primary location where this is expected to occur is in proximity to Warwick St, Unanderra.

5.3 Performance Criteria

Based on the EA and air quality impacts discussed in Section 3.10 where it was determined that prior to mitigation, daily PM10 (50ug/m3) and PM2.5 (25ug/m3) are met at 80m and 10m respectively from the construction area it is considered appropriate to adopt the following performance criteria for the pipeline construction works as presented in Table 16.

Table 16 – Air Quality Performance Criteria

Parameter	Averaging Period	Performance Criteria
PM_{10}	24 Hour	200ug/m^3
Visible Dust	Daily Visual Observation	Dust generation (with potential migration from site)
Offensive Odour	Olfactory Observation	No odours detected

5.4 Trigger Action Response

Dust detection trigger values and triggered response procedures for visible dust are provided below in Table 17.

Parameter	Trigger Level 1	Trigger Level 2
PM_{10}		>200ug/m^3
Visible Dust	Dust Generation with potential to leave site	Nuisance Complaint
Actions	> Responsive intervention required. > Review dust mitigation measures are sufficient and effective, > Resume normal works when dust abates or if dust generating activities are reduced by implementing one or more appropriate adaptive management options,	> Suspend works > Review dust mitigation measures to ensure effectiveness and restored mitigation control are stabilised. > Resume normal works only when dust abates or elevated PM_{10} levels have fallen and investigations have identified the cause and corrective actions have been implemented.

6 RECORD KEEPING AND REPORTING

6.1 Record Keeping

The Project shall maintain a documentation and record system in support of this AQMP and monthly Project HSE reporting requirements to enable review and auditing of environmental management systems and procedures.

The following records are expected to be generated in relation to Air Quality management and monitoring:

- Visual monitoring and environmental inspection records
- Stakeholder discussion records

- Induction, training and awareness records
- Site and construction activity specific records and registers
- Waste management records
- Erosion & Sediment Control (ESC) installation registers
- Reporting of Environmental Incident, non-conformances and corrective actions
- Audit reports, and
- Complaints.

6.2 Reporting

Daily, Weekly, Monthly and Annual Reporting will include information on relevant environmental data including Air Quality and commentary as generated in support of incident and complaint management, regulatory and contractual requirements.

6.2.1 Environmental Incident Reporting

Environmental incidents will be reported in accordance with the CEMP Section 7.1. Should it be determined by AIE / Jemena that the incident is reportable to DPE or any other relevant agency or Regulator, the Nacap Project Manager shall liaise with the AIE and or Jemena Representative and provide support to ensure that the incident is reported in the required timeframe and format required.

In accordance with the CoA DPE must be notified in writing via the Department's Major Projects Website immediately after AIE or Jemena becomes aware of an incident on site.

6.2.2 POEO Act Incident Notification

In accordance with the Protection of the Environment Operations Act 1997 (POEO Act) the Environment Protection Authority (EPA) must be notified of pollution incidents that cause or threaten material harm to the environment. POEO Act reporting will be undertaken in accordance with the CEMP Section 7.2.

6.2.3 Non-Compliance Notification

Non-Compliances will be reported in accordance with the CEMP Section 8.4. The Department must be notified in writing via the DPE's Major Projects Website within seven days after
the identification of any non-compliance issue. The notification must identify the development, including the application number, set out the condition of approval that the development is noncompliant with, the way in which it does not comply, the reasons for the non-compliance (if known) and what actions have been taken, or will be taken, to address the non-compliance

7 REVIEW AND IMPROVEMENT

Section 8.6 and 8.7 of the CEMP describes the process for the review and continual improvement of project documents including this AQMP.

Continual improvement of this AQMP will be achieved by ongoing evaluation of environmental management performance against environmental policies, objectives and targets, for the purpose of identifying opportunities for improvement.

The continual improvement process is designed to:

- Identification of opportunities for improvement of environmental management and performance
- Identification through incident investigation the cause or causes of non-conformance,

- Development of corrective and preventative measures to address non-conformance and process deficiency
- Assessment of the effectiveness of corrective actions
- Documentation and communication of change and process improvements, and
- Any updates to the AQMP as described above.

A copy of any updated plan and changes will be distributed to all relevant stakeholders and regulatory authorities. Any changes to work practices arising from document review will be communicated via pre-start alerts, toolboxes, SWMS review and or site specific awareness sessions.

APPENDIX A BEAUFORT SCALE

Beaufort Scale Number	Descriptive Term	Unit	Description on Land
0	Calm	0	Smoke rises vertically
1-3	Light winds	19km/h or less	Wind felt on face; leaves rustle; ordinary vanes moved by wind.
4	Moderate winds	20-29km/h	Raises dust and loose paper; small branches are moved.
5	Fresh winds	30-39km/h	Small trees in leaf begin to sway; crested wavelets form on inland waters
6	Strong winds	40-50km/h	Large branches in motion; whistling heard in telephone wires; umbrellas used with difficulty.
7	Near gale	51-62km/h	Whole trees in motion; inconvenience felt when walking against wind.
8	Gale	63-75km/h	Twigs break off trees; progress generally impeded.
9	String gale	76-87km/h	Slight structural damage occurs -roofing dislodged; larger branches break off.
10	Storm	88-102km/h	Seldom experienced inland; trees uprooted; considerable structural damage.
11	Violent Storm	103-117km/h	Very rarely experienced - widespread damage
12+	Hurricane	118km/h or more	Very rarely experienced - widespread damage

APPENDIX B CONSULTATION RECORD

The following table provides a detailed record of the consultation activities associated with this Plan.

Stakeholder	Date Sent	Send Method	Due Date	Date Received	Comments
Wollongong City Council (WCC)	30/08/2022	Email	13/09/2022	10/11/2022	Completing review, however, note that the deadline has passed.
Sydney Trains	30/08/2022	Email	13/09/2022	15/09/2022	No Comments
Transport for NSW	30/08/2022	Email	13/09/2022	21/09/2022	No Comments
EPA	25/08/2022	Email	9/09/2022	30/08/2022	Comments provided and updated into document