# Operational Air Quality Management Plan

Lidsdale Ash Repository 2026

GPM

## Document control

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|---|---|
| **Title** | Operational Air Quality Management Plan - Lidsdale Ash Repository 2025 |
| **Approved by GPM Manager Environment** | John Pola |
| **Signed** |  |
| **Dated** | 31st March 2026 |

## Version control

| Revision | Date | Description | Author | Reviewer | Approval |
|---|---|---|---|---|---|
| Rev 02 | 19/12/2024 | Draft | Laurence Smith | Verity Blair | John Pola |
| Rev 03 | 28/01/2025 | Update consultation register | Nadia Eisenlohr | Daniel Keegan | John Pola |
| Rev 04 | 08/08/2025 | Update to reflect DPHI's comments | Zainab Ahmed | Nadia Eisenlohr | John Pola |
| Rev 05 | 18/09/2025 | Update to reflect DPHI's comments | Zainab Ahmed | Nadia Eisenlohr | John Pola |
| Rev 06 | 31/03/2026 | Final | Zainab Ahmed | Nadia Eisenlohr | John Pola |

## List of emergency and key contacts

| Position | Name | Phone |
|---|---|---|
| EPA pollution hotline | General Number | 131 555 |
| Fire and Rescue NSW | General Number | 000 (for pollution incidents that present an immediate threat to human health or property)<br>1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property) |
| Lithgow Hospital | General Number | 63502300 |
| SafeWork NSW | General Number | 131 050 |
| 24-hour community information line | General Number | 1800 817 711 |
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| Financial Controller & Company Secretary | Diane Dibben | 0412 773 255 |
| Acting Chief Executive Officer | Dougal Mulvey | 0414 361 366 |
| Western Region Manager | Paul Glasson | 0418 708 113 |
| Engineering Project Officer | Timothy Edwards | 0413 446 686 |
| Engineering Project Officer | Julian MacPhee | 0427 094 014 |
| Environmental Representative | John Pola | 0429 205 290 |
| Lithgow City Council | General Number | (02) 6354 9999 |
| Wallerawang Police | General Number | 02 6355 1303 |
| Lithgow Police | Chris Sammut | 02 6352 8399 |

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# Glossary/Abbreviations

| Abbreviation | Expanded text |
|---|---|
| Approval | Approval Modification MP07_005-Mod 2 |
| ASS | Acid Sulphate Soils |
| CEMP | Construction Environmental Management Plan |
| CoAs | Conditions of approval |
| Minister, the | Minister of the NSW Department of Planning and Environment (or delegate) |
| DG | Dust gauges |
| DPHI | NSW Department of Planning, Housing and Infrastructure |
| EPA | NSW Environment Protection Authority |
| ERG | Environmental Review Group – generally comprising representatives of Roads and Maritime, Environmental Representative, Project delivery team, regulatory authorities and Lithgow Council. The ERG will be maintained for the duration of the Project and will meet regularly and undertake environmental inspections. The role the ERG is to work collaboratively with the project team to provide proactive advice on environmental management issues on the Project. |
| EMS | Environmental Management System |
| Environmental aspect | Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment. |
| Environmental impact | Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects. |
| Environmental 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. |
| Environmental objective | Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve. |
| ER | Environmental Representative: A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance. |
| EP&A Act | *Environmental Planning and Assessment Act 1979* (NSW) |
| EPL | Environment Protection Licence |
| GPM | Generator Property Management Pty Ltd |
| KPI | Key Performance Indicator |
| KVAD | Kerosene Vale Ash Dam |
| KVAR | Kerosene Vale Ash Repository (dry stacked as on top of KVAD) |

| Abbreviation | Expanded text |
|---|---|
| LADR | Lidsdale Ash Dam Repository |
| Non-compliance | An occurrence, set of circumstances or development that is a breach of the approval but is not an incident. |
| OAQMP | Operational Air Quality Management Plan |
| OEMP | Operational environmental management plan |
| Principal, the | GPM |
| Roads and Maritime | Roads and Maritime Services |
| Secretary | Secretary of the Department of Planning or their Nominee |
| SSCAD | Sawyers Swamp Creek Ash Dam |
| TfNSW | Transport for New South Wales |
| WPS | Wallerawang Power Station |

# 1 Introduction

The Lidsdale Ash Dam Repository (LADR), formerly known as the Wallerawang Ash Repository, is located at Skelly Road, Lidsdale NSW (the Site) and is approximately 15 kilometres (km) north-west of Lithgow and 2.5 km north-east of Wallerawang Power Station (WPS). The Site comprises an area of approximately 528 hectares (ha) and is situated primarily on Lot 5 of Deposited Plan (DP) 829137.

The Site includes several distinct components, including:

- The Kerosene Vale Dry Ash Repository (KVAR) and underlying former Kerosene Vale Ash Dam (KVAD).
- Sawyers Swamp Creek Ash Dam (SSCAD).
- Lidsdale Cut and adjacent asbestos landfills.
- WPS Asbestos demolition landfill south of the SSCAD.

The site location and general layout are shown in Figure 1.1.

The Site has been used since the 1950s to store ash and other wastes generated by the Wallerawang Power Station. Site operations started prior to the commencement of the E*nvironmental Planning and Assessment Act 1979* (EP&A Act), when the WPS and associated facilities were owned by the NSW Government.

Ownership and responsibility for the Site was transferred from Energy Australia NSW Pty Ltd to Generator Property Management Pty Limited (GPM) in September 2020. GPM's objectives at the Site include closure of the operational facilities and the rehabilitation and management of the site in general including the KVAR and the SSCAD.

This OEMP has been developed to ensure the care and maintenance of the site are carried out responsibly and in accordance with the relevant Conditions of Approval (CoAs) and any other requirements.

GPM and its contractors are also undertaking construction activities that will be managed under the Site's Construction Environmental Management Plan (CEMP).

## 1.1 Background to the Lidsdale Ash Repository

The Lidsdale Site was originally farmland that was gradually turned into mining premises during the late 1800s into the early 20th century. The Kerosene Vale mines were originally a series of open cut operations that changed to underground mines using portals driven under the northern escarpment.

The original ash placement operations were at the KVAD. The mining void was filled with ash transported from the WPS as a slurry (i.e. wet ash placement). When the KVAD was full, it was capped with a clay capping and then ash placement operations began at the SSCAD, which saw wet ash placement take place from 1980 to 2003. The SSCAD is still used to manage site water requirements with water levels managed by irrigation for dust suppression and other onsite water uses to prevent discharge to Sawyers Swamp Creek. When required, water is transferred for treatment via a CIP, clarified and discharged through a licenced discharge point (LDP3). The SSCAD is a declared dam under the NSW Dams Safety Act 2015 No 26 (DS Act) and is subject to regular surveillance and monitoring by certified engineers in accordance with the DS Act.

The need to further develop the KVAR area to maintain power-generation operations at WPS was identified in 2001. The existing wet ash storage area (i.e. the SSCAD) was approaching its design capacity and the placement of dry ash at the KVAR was identified as a viable alternative. Conversion from wet to dry ash placement aimed to minimise environmental and social impacts potentially resulting from heavy metal accumulation. The extent of both stages is outlined in Figure 1.2.

It is noted that the Site has recently been formally Declared under the *Contaminated Land Management Act* (CLM Act) by the EPA and is subject to a Voluntary Management Plan requiring detailed and extensive investigations that will guide long term works on the SSCAD and may require additional works on the Site that would be subject to further approval.

## 1.2 Project approval history

In 2002, Project Approval was granted by the then Minister of Planning to change from wet to dry ash-producing activities and to use the KVAR area for dry ash storage.

The placement of ash on the Repository was developed in two stages:

- Stage 1: Comprises about one third of the area associated with the repository site and located on the south-western section of the site, this area was designed to operate for a period of 5 years and reached its design capacity and has been capped.
- Stage 2: Comprises the remainder the repository site, covering an area from the open face of the Stage 1 area to the edge of the original storage area. This stage was designed to operate about 10 years, depending on actual ash production rates.

On 26 November 2008, Project Approval (07_0005) was granted by the then Minister of Planning for the extension of the existing KVAR area to permit the continued disposal of ash generated by the WPS under Part 3A (now repealed) of the EP&A Act *1979*. The KVAR Stage 1 placement works were completed and capped in February 2009. The KVAR Stage 2 placement works commenced soon after in April 2009.

In January 2014, WPS's Unit 7 was removed from service and deregistered from the market; whilst in March 2014, Unit 8 was placed in long term storage. However, in November 2014, EnergyAustralia NSW announced that Unit 8 was to be removed from service and the WPS deregistered from the market.

WPS ceased energy production in April 2014 and is currently being decommissioned and dismantled. The bulk transport and disposal of ash to the KVAR ceased following the closure of the WPS in 2014. The Lidsdale Ash Repository is currently being managed in a care and maintenance arrangement. Environmental studies and investigations are currently underway to support GPM's safe decommissioning, demolition, rehabilitation and management of ongoing regulatory and contractual obligations associated with the Lidsdale Ash Repository area.

Modification 1 to 07_005 was approved on 9 August 2018 under section 75W of the EP&A Act. This was to allow for the importation of clean fill (virgin excavated natural material (VENM) and excavated natural material (ENM)) for use in the final shaping and capping of KVAR and SSCAD over two years. This modification included a revised project area that extended the originally approved project to include the area covered by SSCAD.

Modification 2 to 07_005 was approved on 13 October 2023 under section 96(1A) of the EP&A Act. This was to allow for the importation of fill over an additional 10 years (i.e. until 13 October 2033).

The most complete description of the onsite activities was provided in the original *Kerosene Vale Stage 2 Ash Repository Area Environmental Assessment* prepared by Parsons Brinckerhoff in April 2008. This focused on the ongoing ash management without providing any details of site rehabilitation requirements when the power station closed. However, it did include the realignment of a section of Sawyers Swamp Creek to allow the structural earthworks required to achieve an acceptable factor of safety against failure of the ash stockpiles during earthquakes. The subsequent modification applications focussed on the potential impacts of the importation of fill material, rather than on activities within the Site where the material would be utilised.

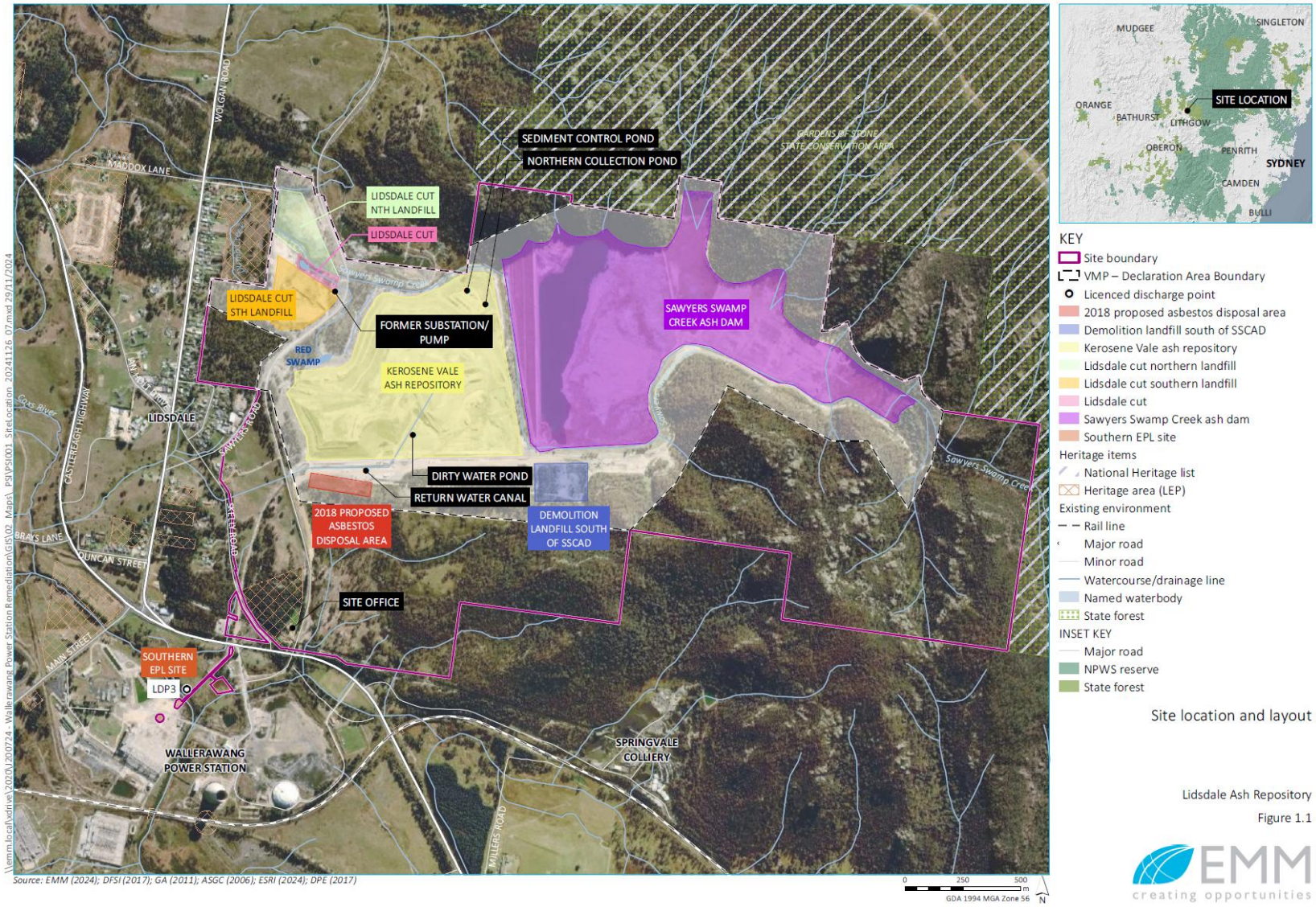


*Figure 1.1 Site location and layout.*


*Figure 1.2 Historical ash placement at the cessation of ash placement KVAR Stages 1 and 2*

## 1.3 Operational Environmental Management Plan and Sub-plans

Under the approval, CoA 6.4 lists requirements for the applicant to develop an OEMP that outline the environmental management practices and procedures to be followed during operations, while CoA 6.5 requires the preparation and implementation of the following management plans be prepared in conjunction with the OEMP:

- **Operational Noise Management Plan** (ONMP) - identifies the management measures to minimise operational noise impacts
- **Operational Groundwater Management Plan** (OGMP) - identifies the management measures to minimise operational groundwater impacts
- **Operational Surface Water Management Plan** (OSWMP) – identifies the management measures to minimise operational surface water impacts
- **Operational Air Quality Management Plan** (OAQMP) – identifies management measures to minimise impacts from project on local air quality
- **Operational Landscape/Revegetation Plan** (OLP) - identifies the management measures to minimise operational biodiversity impacts
- **Construction and Operational Transport Management Plan** (OTMP) - identifies the management measures to minimise traffic and transport impacts

This OAQMP has been prepared as a subplan of the OEMP and must be read with the OEMP.

Table 1.1 provides a high-level overview of the proposed activities that are covered by the OEMP and those covered by the OEMP. Further information on the scope of this OEMP is provided in section 1.4.

*Table 1.1 Activities covered by the OEMP*

| Environmental Management Plan | Activities covered |
|---|---|
| OEMP – care and maintenance operations | • Ash management<br>• Management of on-site water systems<br>• Capping material haulage, placement and management<br>• Landscaping and revegetation/rehabilitation of the site<br>• Upgrading and maintaining internal access roads in the project area |

### 1.3.1 OAQMP

CoA 6.5 (d) requires applicant to prepare an Operational Air Quality Management plan that outlines measures to minimise impacts from project on local air quality. This OAQMP has been prepared in accordance with that condition.

Table 3.1 includes a breakdown of the detailed requirements of CoA 6.5 (d).

It is noted that the site no longer receives coal ash from the Wallerawang Power Station (WPS) which was decommissioned in 2014.

## 1.4 Environmental management system overview

GPM's Environmental Management System (EMS) is based on AS/NZS ISO 14001. The ISO 14001 standard provides best practice specifications for the implementation of an EMS. An EMS provides a framework for managing the company's environmental responsibilities so that they are integrated into overall operations. The standard approach integrates environmental management and supports the company's compliance with legislated and voluntary environmental requirements, as well as continuously improving their overall environmental performance.

The relevant environmental standard ensures a consistent approach is undertaken to integrate environmental management at all levels of the organisation by:

- identifying and maintaining awareness of relevant environmental legislation
- assignment of roles and responsibilities
- establishment of procedures for internal and external communications
- establishment of procedures for monitoring and measuring environmental performance
- setting and reviewing objectives and targets for improving environmental performance
- monitoring and measuring environmental compliance and community inquiries
- setting and reviewing management system programs for achieving objectives and targets
- provision of environmental training aligned to skill requirements
- review of EMS performance for continual improvement.

This OAQMP has been developed to be consistent with the relevant provisions of GPM's EMS, including approvals and license as noted above.

A summary of the EMS and its interaction with the CEMP and OEMP and their respective sub-plans is provided in Figure 1.3.

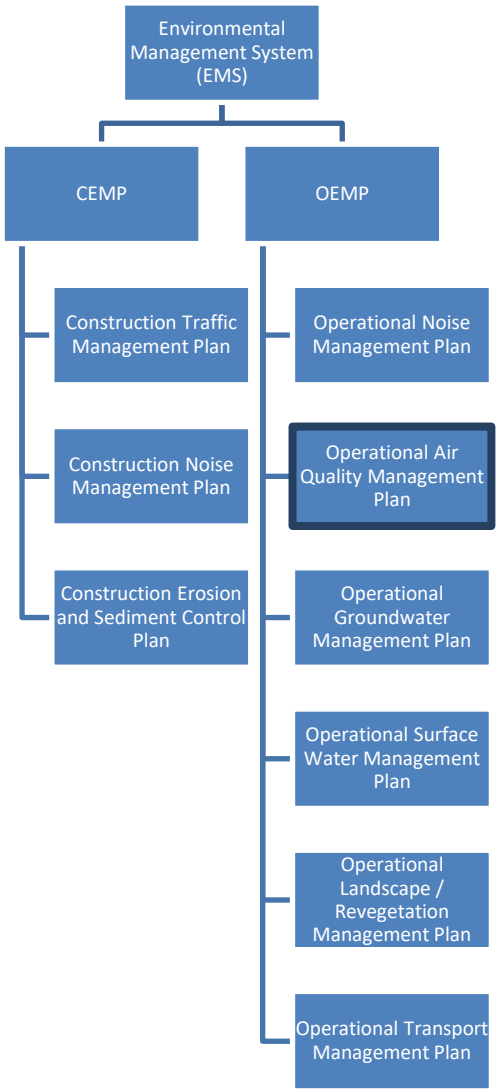


*Figure 1.3 Environmental Management System flowchart*

## 1.5 Interactions with other management plans and strategies

This OAQMP (outlined in Figure 1.3 above) is a sub-plan to the OEMP and interrelates with the other (sub) management plans set out in section 1.3 and 1.4 above.

## 1.6 Reference documents

The OAQMP incorporates the obligations and criteria outlined in the following documents:

- Project Approval 07_0005 (NSW Department of Planning)
- Submission Report – Statement of Commitments (Parsons Brinckerhoff 2008)
- Modification application 07_0005 Mod 1
- Modification application 07_0005 Mod 2
- Wallerawang Power Station to Submissions Report (EA 2018)
- Environment Protection Licence 21185 (NSW Environment Protection Authority)
- Works Approval (Water Mgt Act 2000).

## 1.7 Endorsement and approval

### 1.7.1 Internal approval of OEMP and Sub-plans

The OAQMP will undergo ongoing review by the GPM team. Following the ongoing review and revision process described in Section 5, internal signoff will be provided.

Once internal approval is received, the documents will be provided to Department of Planning Housing and Infrastructure (DPHI) and the Environmental Representative (ER) for review prior to undertaking external consultation, review and approval processes described below.

### 1.7.2 External endorsement and approval of OEMP and sub-plans

Table 1.2 below provides a summary of the relevant authority(s), council(s) and agencies that require consultation during preparation of the OAQMP in accordance with the CoAs.

External distribution for consultation and approval of the OEMP, sub-plans and monitoring programs will be undertaken and updated in consultation with the relevant external parties and will then be endorsed by the ER in accordance with CoA 6.4 and 6.5 (refer Table 1.2 and Table 1.3). After this external consultation and endorsement process is complete the required documents will be submitted to the Secretary for approval. This will occur no later than four weeks prior to the commencement of operation of the project (unless otherwise agreed by the Secretary).

It is noted that in accordance with CoA 6.5A, the applicant will update the OEMP and relevant sub-plans prior to the importation of capping material to the site from sources outside Lithgow LGA, to the satisfaction of the Secretary.

A copy of the ER Endorsement of the OAQMP is included in Appendix A: of this Plan. Consultation with the EPA is included in Appendix C of this Plan.

*Table 1.2 Consultation requirements for OEMP and sub-plans*

| Report | Relevant CoA | Condition of Approval | Consultation required |
|---|---|---|---|
| Operational Environmental Management Plan | 6.4 | The plan shall be submitted for the approval of the Secretary no later than four weeks prior to the commencement of operation of the project, unless otherwise agreed by the Secretary. | Secretary (DPHI) |
| Operational Noise Management plan | 6.5a | The plan shall be prepared in consultation with, and to the satisfaction of, the EPA. | EPA |
| Groundwater Management Plan | 6.5b | The plan shall be prepared in consultation with, and to the satisfaction of, WaterNSW. | WaterNSW |
| Surface Water Management Plan | 6.5c | The plan shall be based on best environmental practice and shall be prepared in consultation with, and to the satisfaction of, WaterNSW and Fisheries NSW. | WaterNSW<br>Fisheries NSW |
| **Air Quality Management Plan** | **6.5d** | **The plan shall be prepared in consultation with, and to the satisfaction of, the EPA.** | **EPA** |
| Operational Transport Management Plan | 6.5f | The plan must be prepared in consultation with TfNSW and Council. | TfNSW<br>Lithgow Council |

*Table 1.3 Consultation outcomes for AQMP*

| Agency | Date provided | Comments | Where addressed |
|---|---|---|---|
| NSW EPA | 21/01/2025 | EPA has reviewed this plan and has no comments at this stage | Not applicable |

# 2 Purpose and Objectives

## 2.1 Purpose

This OAQMP for the Lidsdale Ash Repository outlines strategies and actions to mitigate environmental impacts during the project's operational phase. It is designed to set clear protocols and responsibilities, and to thereby ensure that risks are managed and sustainable practices are upheld. This sub-plan supports the OEMP and should be read in conjunction with the OEMP.

## 2.2 Objectives

The key objective of the air quality management system is to manage activities effectively to reduce the occurrence of conditions that may lead to the generation of visible dust emissions.

Through the use of dust suppression equipment and the implementation of air quality management procedures, dust events can be controlled. In the event of fugitive emissions, an effective system for dust suppression can minimise impacts on the surrounding environment. Other measures to be included are the use of a water cart, wheel wash facilities, irrigation and dust suppressants, when necessary. Air quality monitoring practices are designed to provide an on-going indication of the effectiveness of the air quality management system within a measurable framework.

A Specialist Consultant has established the air quality monitoring locations and continues to undertake the prescribed monitoring and analysis of results, as per this plan. Air quality monitoring will be undertaken on a monthly cycle in accordance with the Air Quality monitoring program in Appendix B: .

## 2.3 Targets

This OAQMP seeks to establish targets and indicators as follows.

Section 3 of the Environmental Protection Licence (EPL) 21185 stipulates:

**O3 Dust**

- O3.1. All areas in or on the premises must be maintained in a condition that prevents or minimise the emission into the air of air pollutants (which includes dust)
- O3.2. Any activity in or on the premises must be carried out by such practicable means as to prevent or minimise the emission into the air of air pollutants (which includes dust)
- O3.3 Any plant in or on the premises must be operated by such practicable means as to prevent or minimise the emission into the air or air pollutants (which includes dust)
- O3.4 Trucks entering and leaving the premises that are carrying loads of dust generating materials must have their loads covered at all times, except during loading and unloading.

Indicators:

- Zero visible dust events from operations in in the Lidsdale Ash Repository
- Complaints register demonstrating zero occurrence of dust-related complaints
- Dust levels as measured by Total Insoluble Solids below 4g/m$^2$/mth annual average.

Other targets have been established for the management of air quality and odour impacts during the operations:

- ensure compliance with the relevant legislative requirements

- ensure activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site
- provide effective management of dust, and other emissions during operations to minimise risks to human health and the environment.

# 3 Environmental requirements

## 3.1 Relevant Conditions of Approval

This OAQMP forms part of the OEMP and has been prepared in accordance with relevant CoAs of the approval. Table 3.1 provides conditions requirements and where they have been addressed in this OAQMP.

*Table 3.1 Relevant Conditions of Approval for AQMP*

| Relevant CoA | Condition of Approval | Where addressed in this plan |
|---|---|---|
| 2.33 | The Applicant shall construct and operate the project in a manner that minimises dust impacts generated by construction works and operational activities, including wind-blown and traffic- generated dust, on the receiving environment. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Applicant shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease. | Section 2.3 (EPL targets), Section 4 (Environmental Mitigation Measures) and Appendix B: of this plan. |
| 2.34 | The Applicant shall ensure that the load carrying compartment(s) of all ash haulage trucks are covered at all times except when loading or unloading ash material. | Section 2.3 (EPL targets), Section 4 (Environmental Mitigation Measures) and Appendix B: of this plan). Note: with the closure of WPS no ash deliveries currently occur. General truck deliveries are managed under this condition. |
| 3.8 | The Applicant shall prepare an **Air Quality Monitoring Program**, in consultation with, and to the satisfaction of, the EPA. The Program shall include, but not necessarily be limited to, monitoring for dust at the monitoring sites identified in the document referred to under condition 1.1 of this approval. The air quality monitoring program shall be ongoing for the life of the project, including final rehabilitation and stabilisation of the site.<br>The monitoring program shall form part of the Air Quality Management Plan referred to in condition 6.5d) of this approval. | Appendix B: of this plan. |
| 6.5 d) | an **Air Quality Management Plan** to outline measures to minimise impacts from the project on local air quality. The Plan shall be prepared in consultation with, and to the satisfaction of, the EPA and include, but not necessarily be limited to: | This plan. |
| | i. baseline data on dust deposition levels | Section 4.1 |
| | ii. air quality objectives and impact assessment criteria | Section 2.3 |
| | iii. an air quality monitoring program as referred to in condition 3.8 of this approval | Appendix B: of this plan |
| | iv. an assessment of alternative methods of ash placement to minimise the exposure of active placement areas to prevailing winds | Section 4.2, Table 4.2 |
| | v. mitigation measures to be incorporated during emplacement activities and haulage of ash | Not included in this plan, ash no longer received at the premises |
| | vi. an operating protocol for the repository irrigation system including activation rates, application rates and area of coverage | Section 4.2, Table 4.2 |
| | vii. a protocol for the investigation of visible emissions from the repository area | Section 4.2 |

| Relevant CoA | Condition of Approval | Where addressed in this plan |
|---|---|---|
| | viii. a response plan to address visible emissions from the repository area<br>ix. provisions for periodic reporting of results to the EPA. | Appendix B: of this plan<br>Section 4.2, Table 4.2 |
| 6.5A | The Applicant shall update the OEMP (as referred to in condition 6.4 of this approval) and associated monitoring programs (as referred to in conditions 3.4 to 3.8 inclusive) prior to the importation of capping material to the site from sources outside of the Lithgow local government area, to the satisfaction of the Secretary. The updated plan and associated monitoring programs must reflect all operational activities, monitoring and management practices for the Kerosene Vale Ash Dam and the Sawyers Swamp Creek Ash Dam. | Section 1.7.1 |
| 6.6 | Within three months of:<br>a) the submission of an incident report under condition 7.1;<br>b) the submission of an Annual Review under condition 7.3;<br>c) the submission of an Independent Environmental Audit under condition 4.2); or<br>d) the modification of the conditions of this approval (unless the conditions require otherwise),<br>the Applicant must review and, if necessary, revise the studies, strategies or plans required under the conditions of approval to the satisfaction of the Secretary.<br>Within three months of:<br>a) the submission of an incident report under condition 7.1;<br>b) the submission of an Annual Review under condition 7.3;<br>c) the submission of an Independent Environmental Audit under condition 4.2); or<br>d) the modification of the conditions of this approval (unless the conditions require otherwise),<br>the Applicant must review and, if necessary, revise the studies, strategies or plans required under the conditions of approval to the satisfaction of the Secretary. | Section 5 |

## 3.2 Compliance tracking

CoA 4.2 mandates a compliance tracking program to track compliance with the requirements before commencing operations. A compliance tracking tool has been prepared for internal use by GPM to ensure effective and efficient tracking of compliance.

Details on compliance management, including roles and responsibilities, are provided throughout section 3 of the OEMP.

# 4 Environmental management

## 4.1 Background information on air quality

Table 4.1 provides a summary of the dust deposition monitoring data collected in the vicinity of the site from 2017 to September 2021. With the exception of DG32, dust deposition levels are generally below 2 g/m$^2$/month on an annual basis. The average over all sites and all years is 1.5 g/m$^2$/month.

In November 2019 monitoring of DG5 ceased and the dust gauge was removed from its location by EnergyAustralia NSW at the request of the landowner. It is noted that DG27 and DG28 are no longer within the Lidsdale Ash Repository site boundary and are now on land associated with the former Wallerawang Power Station owned by Greenspot. Due to ongoing demolition of the power station, these dust gauges have been removed.

The remaining four dust deposition gauges (DG29, DG30, DG31 and DG32) are located in surrounding areas of the Lidsdale Ash Repository area. In addition, DG31 is located in the general direction of DG27 and DG28 but is closer to the Lidsdale Ash Repository site. Therefore, the remaining four dust deposition gauges are deemed adequate to characterise air quality in the vicinity of the project.

*Table 4.1 Dust deposition (insoluble solids) monitoring data (g/m$^2$/month)*

| Year | DG5 | DG27 | DG28 | DG29 | DG30 | DG31 | DG32 |
|---|---|---|---|---|---|---|---|
| 2017 | 0.4 | 1.8 | 1.2 | 0.5 | 0.4 | 0.5 | 2.7 |
| 2018 | 2.0 | 1.9 | 2.2 | 2.0 | 1.0 | 1.5 | 5.0 |
| 2019 | 1.1 | 1.6 | 2.5 | 1.3 | 1.3 | 1.3 | 2.5 |
| 2020 | No data | 2.9 | 1.5 | 1.5 | 0.7 | 1.8 | 2.6 |
| 2021 | No data | 1.1 | 0.5 | 0.4 | 0.4 | 0.4 | 1.5 |
| **Average** | **1.1** | **1.9** | **1.6** | **1.1** | **0.8** | **1.1** | **2.8** |

## 4.2 Management measures

Management actions to minimise operational impacts are summarised in Table 4.2.

*Table 4.2 Environmental Management Measures*

| Relevant aspect | Management and mitigation measures | Source of requirement | Frequency | Relevant records | Responsibility |
|---|---|---|---|---|---|
| General requirement | Lidsdale Ash Repository operations shall be conducted in a manner that minimises dust impacts generated by operational activities, including windblown and traffic generated dust. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, practicable dust mitigation measures shall be identified and implemented, including cessation of relevant works, as appropriate, such that emissions of visible dust cease. | CoA 2.33 | Ongoing | Site inspection checklist<br>Complaints register | Site Contractor |
| | All areas in or on the premises must be maintained in a condition that prevents or minimises the emission into the air of air pollutants (which includes dust). | EPL O3.1 | Ongoing | Site inspection checklist | Site Contractor |
| | Any activity in or on the premises must be carried out by such practicable means as to prevent or minimise the emission into the air of air pollutants (which includes dust). | EPL O3.2 | Ongoing | Site inspection checklist | Site Contractor |
| | Any plant in or on the premises must be operated by such practicable means as to prevent or minimise the emission into the air or air pollutants (which includes dust). | EPL O3.3 | Ongoing | Site inspection checklist<br>Pre-start inspections | Site Contractor |
| Capping material deliveries | The load must be covered except when loading or unloading capping material. | CoA2.34 and EPL O3.4 | Ongoing | Site inspection checklist | Site Contractor |
| | Achieve compliance with the requirement to not import more than 100 heavy vehicle loads of capping material to the site per day. | CoA2.36A | Daily | Project diary | Site Contractor |
| | The private haulage roads shall be maintained in a clean condition by routinely washing the surface. This applies to the haul roads within the repository zone and does not include the private haul road from the power station. | OEMP | As required | Site inspection checklist | Site Contractor |
| Ash handling | Small volumes of ash will be transported intermittently to the Lidsdale Ash Repository during the dismantling of the Wallerawang Power Station and completion of the KVAR and SSCAD landforms. The ash will be transported via the internal haul trucks. No external vehicle trips will be required. | OEMP | As required | Site inspection checklist | Site Contractor |

| Relevant aspect | Management and mitigation measures | Source of requirement | Frequency | Relevant records | Responsibility |
|---|---|---|---|---|---|
| | A water suppression cart will be utilised during emplacement activities and haulage of ash from or to site. Operators must ensure that the load carrying compartment(s) of all ash haulage trucks is covered at all times except when directly loading or unloading ash material. | COA 6.5 (d)(vii) | As required | Site inspection checklists | Site contractor |
| | If required, ash placement will be undertaken on site in such a manner that would minimise the exposure of active placement areas to prevailing winds. Management would include:<br>• Application of sprays<br>• Use of water trucks<br>• Equipment maintenance. | COA 6.5 (d)(iv) | As required | Site inspection checklists | Site contractor |
| Dust controls | A water cart shall be used to undertake dust suppression. | OEMP | As required | Site inspection checklist | Site Contractor |
| | A dedicated water sprinkler and surface irrigation system is installed at the site. The system covers the areas of exposed ash within the SSCAD.<br>The irrigation system is activated during periods of high winds, during dry conditions and when visible dust from SSCAD is observed during site activities.<br>The system has an approximate application rate of 20L/s (72KL/hour) and covers an area of approximately 30ha.<br>The irrigation system is currently manually controlled and will in future be controlled by a SCADA system as closure works progress.<br>When activated, periodic checks of the system will be conducted to ensure application rates are fit for purpose and sufficient to control the dust arising from high winds and dry conditions. Periodic checks will also ensure that the system is not overwatering or causing run-off. | CoA 6.5 (d)(vi) | As required | Site inspection checklist | Site Contractor |
| | In the event of visible dust emissions, personnel shall notify the Site Manager or Facility Environment Manager immediately, who will immediately direct the water cart operator to spray the area and review the location and application rate of the sprinkler system. | OEMP | As required | Site inspection checklist | Site Contractor |

| Relevant aspect | Management and mitigation measures | Source of requirement | Frequency | Relevant records | Responsibility |
|---|---|---|---|---|---|
| Air quality monitoring | A total of four deposition gauges shall be used to monitor dust emissions at the site, and at key locations adjacent to residential properties and Wallerawang Power Station. Refer to Appendix B: . | OEMP and CoA 3.8 | Monthly to monitor activities. | Air quality monitoring records | GPM Site Manager / Specialist Consultant |
| | Samples shall be removed from the dust deposition gauges on a monthly basis by a NATA approved laboratory and assessed for compliance with the appropriate air quality criteria in accordance with the monitoring program in Appendix B: . | OEMP and CoA 3.8 | Monthly | Air quality monitoring records | GPM Site Manager / Specialist Consultant |
| | The EPA amenity-based criteria for dust fallout is a maximum total dust deposition of 4 g/m$^2$/month (annual). Activities undertaken on site shall aim to achieve compliance with this limit. | OEMP and CoA 3.8 | Ongoing | Air quality monitoring records | GPM Site Manager / Site Contractor |
| | If the 4 g/m$^2$/month limit is exceeded in a month, an initial review of the source, management measures and activities relating to dust-generation should take place. This may include identifying site-specific reasons for contamination, checking whether dust management practices are taking place, and determining whether meteorological conditions are contributing to elevated results over extended periods. | OEMP and CoA 3.8 | Ongoing | Air quality monitoring records | GPM Site Manager / Site Contractor |
| | If the 4 g/m$^2$/month limit is exceeded by more than 2 g/m$^2$, a review of the effectiveness of the dust suppression regime and further mitigation measures shall be undertaken, including:<br>• Increased application rates of the irrigation system<br>• Increased application rates of water on haul roads, particularly during high wind events.<br>• Trial the use of cover crops to provide stabilisation of the ground surface.<br>• Review the adequacy of the management and mitigation measures for air quality compliance and implement additional measures as required. | OEMP and CoA 3.8 | Ongoing | Air quality monitoring records | GPM/Site Contractor |

| Relevant aspect | Management and mitigation measures | Source of requirement | Frequency | Relevant records | Responsibility |
|---|---|---|---|---|---|
| Reporting | The results and analysis of the monitoring data shall also be included and assessed against the air quality criteria (4 g/m$^2$/month).. In the event of recorded exceedances, the response taken must be documented within the annual report. Any deviations from the proposed monitoring program must also be justified. | CoA 7.3 | Annually from the commencement of operations | Annual Environmental Management Report (AEMR) | GPM Site Manager / Specialist Consultant |
| | The Annual Environmental Management Report will be submitted to the Secretary complete with air quality monitoring data gathered throughout the years. | CoA 7.3 | Annually | Annual Environmental Management Report (AEMR) | GPM Site Manager |
| Environmental incidents | Environmental incidents, including significant dust impacts on surrounding community are to be managed, investigated and reported in accordance with Section 3.7 of the OEMP. | CoA Appendix 3 | If there is an incident | Incident records | GPM Site Manager |

# 5 Review and improvement

A review of the OEMP, sub-plans (including this OAQMP) and monitoring programs will be undertaken during operations as required. These reviews will be completed to determine the efficiency of the plans and monitoring programs and whether any changes are required to ensure compliance.

Circumstances which may trigger a review include:

- changes to design, construction, work methods, legislation, or policy
- incidents, complaints or non-compliance
- changes identified by continuous improvement
- changes to key management plans that are relevant
- where additional monitoring measures are identified in annual reviews or audits.

In addition and in accordance with CoA 6.6, GPM will review and, if necessary, revise the studies, strategies and plans required under the conditions of approval to the satisfaction of the Secretary within three months of:

- the submission of an incident report under CoA 7.1
- the submission of an Annual Review under CoA 7.3
- the submission of an Independent Environmental Audit under CoA 4.2
- the modification of the conditions of this approval (unless the CoAs require otherwise).

Where this review leads to revisions in any such document, then within 4 weeks of the review, GPM will submit the revised document to the Secretary for approval, unless otherwise agreed with the Secretary.

## 5.1 Update and amendment

Updates and amendments to this OAQMP must first be approved by Environmental Representative and then may require to be submitted to the Planning Secretary for approval via the Planning Portal website.

A copy of the updated plan will be distributed to all relevant stakeholders and changes implemented immediately.

# Appendix A: ER Endorsement

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31 March 2026

John Pola
Environmental Manager
Generator Property Management - Lidsdale
110 Skelly Road
Lidsdale NSW 2790

**Re: MP07_0005 - Wallerawang Ash Dam Areas - Environmental Representative Endorsement - Construction and Operation Traffic Management Plan Rev 7**

Dear John,

Following a review of the documents provided for the Construction and Operation Traffic Management Plan (O&CTMP) Rev 7, I can provide the following endorsement.

The O&CTMP Rev 7 has been reviewed against the Mod 2 Consolidated Conditions of Approval, in particular Condition 6.5a. Consultation with TfNSW and Lithgow Council has been completed and all comments have been addressed.

All conditions of approval and mitigation measures are contained in the O&CTMP Rev 7.

The document is endorsed for submission for approval.

Yours sincerely

**David Bone**
Independent Environmental Representative
dbone@emmconsulting.com.au

# Appendix B: Air Quality Monitoring Program

**Overview**

Air quality monitoring is required to be undertaken by the Conditions of Approval for MP 05_0007 condition 3.8, which requires:

> '*The Applicant shall prepare an **Air Quality Monitoring Program**, in consultation with, and to the satisfaction of, the EPA. The Program shall include, but not necessarily be limited to, monitoring for dust at the monitoring sites identified in the document referred to under condition 1.1 of this approval. The air quality monitoring program shall be ongoing for the life of the project, including final rehabilitation and stabilisation of the site.*
>
> *The monitoring program shall form part of the Air Quality Management Plan referred to in condition 6.5d) of this approval.*'

The site has been operational since prior to the 2005 approval and was originally tied to the operation of the WPS. Following the closure of the WPS in November 2019 the following changes were implemented:

- monitoring of DG5 ceased and the dust gauge was removed from its location by EnergyAustralia NSW at the request of the landowner.
- DG27 and DG28 are no longer within the Lidsdale Ash Repository site boundary and are now on land associated with the former Wallerawang Power Station owned by Greenspot. Due to ongoing demolition of the power station, these dust gauges have been removed.

The remaining four dust deposition gauges (DG29, DG30, DG31 and DG32) are located in surrounding areas of the Lidsdale Ash Repository area (see Figure B1). In addition, DG31 is located in the general direction of DG27 and DG28 but is closer to the Lidsdale Ash Repository site.

Dust monitoring is not a licence requirement of the EPL 21185 however control of dust is required by the EPL, and monitoring of compliance is undertaken via this monitoring program.


*Figure B1 Dust deposition gauge locations (DG29, DG30, DG31 and DG32) locations*

### Methods

The following sections describe the monitoring methods and locations. It is noted that additional monitoring may be undertaken in addition to these requirements. There are two main methods used at the site:

- Dust Deposition Gauges
- Visual

### Dust Deposition Gauges

Air quality monitoring will be undertaken on a monthly basis in accordance with AS3580.10.1- 2016 Methods for sampling and analysis of ambient air, Method 10.1: Determination of particulate matter — Deposited matter — Gravimetric method or its most current version.

In summary the method requires the following:

- A stand or holder is positioned to be 2000mm +/- 20mm above the ground to maintain a horizontal plane.
- A glass bottle of appropriate size (2L-5L) is dosed with an algicide (Dilute Copper sulphate solution) and placed in the stand or holder.
- A glass funnel of 150mm diameter is placed in the lid or via a bung into the bottle.
- The assembly is exposed for a period of 30 days +/- 2 days.
- The gauge is exchanged after this period and sent to a laboratory for analysis for Total Insoluble Solids (Total Insoluble Matter). Additional analysis for Ash Residue and Combustible Matter can also be undertaken. Visual microscopic analysis (if required) can be undertaken prior to combustion.

Dust levels as measured by Total Insoluble Solids are required to be below the 4g/$m^2$/month annual average. Where levels exceed this limit on a monthly basis a review of activities will be undertaken as noted in Section 4.2, Table 4.2.

Where levels are greater than 2 g/$m^2$/mth above the 4g/$m^2$/mth limit and dust is identified to be from site activities, a full review of the location dust suppression equipment location and usage will be undertaken as noted in Section 4.2, Table 4.2.

### Visual Monitoring

This will consist of the following:

- Daily inspection by GPM site management of site activities recorded in a site diary
- Daily monitoring by all staff of visible dust, where high dust levels are identified, this will be reported to the supervisor to action watercarts, irrigation sprays and stop work notices

### Reporting

Dust results will be reported as follows:

- Monthly to the GPM site management team via consultants reports and laboratory results
- Monthly to the Environmental Representative
- Annual review in the AEMR
- As requested by the NSW EPA, DPHI or other agencies.

# Appendix C: Consultation

Our ref: DOC25/12774-1

John Pola
Safety and Environment Manager
Generator Property Management Pty Ltd

By email: john.pola@gpm.com.au

Dear John,

**POST APPROVAL MANAGEMENT PLANS – KEROSENE VALE ASH REPOSITORIES**
**Generator Property Management – EPL 21185**

I refer to your request via the Department of Planning, Housing and Infrastructure (DPHI) for advice from the Environment Protection Authority (EPA) on the Construction and Operational Noise Management Plans, and the Air Quality Management Plan for the former Kerosene Vale Ash Repositories site (the Premises), Environment Protection Licence (EPL 21185).

In preparing this advice, the EPA has included a review of the following documents:

- '*Generator Property Management: Construction & Operational Noise Management Plan – Lidsdale Ash Repository 2024, November 2024'*.
- '*Generator Property Management: Operational Air Quality Management Plan – Lidsdale Ash Repository 2024, November 2024'*.

For your information, the EPA does not endorse Environmental Management Plans (EMPs) given the role of the EPA in developing conditions and criteria for environmental protection and management. The EPA does however encourage the development of EMPs and programs to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by any Project Approval and/or conditions of an environment protection licence.

The EPA has reviewed the management plans as provided and has no comments at this stage. The EPA will continue to review any additional management plans as required.

If you have any further questions about this matter, please contact Allan Adams, Senior Operations Officer, Environment Protection Authority on 6333 3804, or at info@epa.nsw.gov.au.

Yours sincerely,

**LUCY APPS**
**Unit Head**
**Environment Protection Authority**

21 January 2025