Annual Review Kerosene Vale – Stage 2 Ash Repository 2016 - 2017

Appendix A Detailed review checklist and Recommendations for Conditions of Approval

Administrative Conditions

Terms of approval

Minister's Condition of Approval 1.1

The proponent shall carry out the project generally in accordance with the:

- a) Major Project Application 07_0005;
- b) Kerosene Vale Stage 2 Ash Repository Area (two volumes) Environmental Assessment, prepared by Parsons Brinckerhoff and dated 1 April 2008;
- c) Kerosene Vale Stage 2 Ash Repository Area Submissions Report, prepared by Parsons Brinckerhoff and dated 30 May 2008; and
- *d*) The conditions of this approval.

Compliance Assessment Observations and Comments

Based on the review undertaken, the KVAR Stage 2 operations have been carried out in accordance with the above requirements.

Compliance Assessment Finding – Compliant

Minister's Condition of Approval 1.2

In the event of an inconsistency between:

- a) The conditions of this approval and any document listed from condition 1.1a) 1.1c) inclusive the conditions of this approval shall prevail to the extent of the inconsistency; and
- b) Any of the documents listed from the condition 1.1a) 1.1c) inclusive, the most recent document shall prevail to the extent of the inconsistency.

Compliance Assessment Observations and Comments

No inconsistencies were observed between the documents listed above during implementation of the project or during the course of the review of operations in preparing this AEMR.

Kerosene Vale – Stage 2 Ash Repository

2016 - 2017

Minister's Condition of Approval 1.3

The proponent shall comply with the reasonable requirements of the Director-General arising from the Department's assessment of:

- a) Any reports, plans or correspondence that are submitted in accordance with this approval; and
- b) The implementation of any actions or measures contained in these reports, plans or correspondence.

Compliance Assessment Observations and Comments

In a letter dated 17 February 2017, the DP&E made ten comments in regards to the 2015-2016 AEMR. The response to these actions are provided within Table 7, Section 5 of this report. No further requests from the Secretary of the DP&E were received in the 2016-17 reporting period.

Compliance Assessment Finding – Compliant

Limits of approval

Minister's Condition of Approval 1.4

This approval shall lapse five years after the date on which it is granted, unless the works that are the subject of this approval are physically commenced on or before that time.

Compliance Assessment Observations and Comments

The Project Approval for KVAR Stage 2 is dated 26 November 2008, indicating a 26 November 2013 lapse date. Works on the KVAR Stage 2B project commenced June 2013, well before the 'deadline' date.

Compliance Assessment Finding – Compliant

Statutory requirements

Minister's Condition of Approval 1.5

The Proponent shall ensure that all licences, permits and approvals are obtained as required by law and maintained as required with respect to the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.

Compliance Assessment Observations and Comments

The project complies with the requirements of EnergyAustralia NSW's EPL 766. (See Table 1).

Specific Environmental Conditions

Ash management

Minister's Condition of Approval 2.1

The Proponent shall prepare a long-term ash-management strategy including a program for investigation and assessment of alternative ash management measures with a goal of 40% reuse of ash by 31 December 2013. The report shall be submitted to the Director-General within six months of the commencement of operations. The Proponent shall report on the status and outcomes of its investigations to the Director-General every two years from the commencement of the operation of the project, unless otherwise agreed by the Director-General.

Compliance Assessment Observations and Comments

EnergyAustralia NSW commissioned the report *Fly Ash: Strategy Development for Aggregates and Other Bulk Use Applications* (DMC, 2010). The reports were submitted to DP&I in September 2011.

Ash reuse progress is communicated via the Lend Lease Monthly Compliance Report and tracked in EnergyAustralia's Annual Sustainability Report. The goal of 40% ash reuse was not achieved by 31st December 2013, with a total of only 0.32% ash reuse occurring from Wallerawang Power Station by the end of 2013. In March 2014, when it was announced that Wallerawang Power Station was being put out of service, the total ash reuse from Wallerawang had remained at 0.32%.

However, ash utilisation has been an ongoing program for the power station. Since then, more research and development to develop markets have been performed, rather than to solely focus on servicing established market opportunities. Generally the major limitation to further market development is a lack of rail, building and industrial infrastructure, particularly for the storage of ash at Wallerawang.

Compliance Assessment Finding – Non-Compliant

Minister's Condition of Approval 2.2

To facilitate assessment of the viability of coal resources in the project area and provide a finite opportunity for their extraction, the Proponent shall undertake revised staging of ash placement activities as described in the document referred to in condition 1.1c) of this approval

Compliance Assessment Observations and Comments

Centennial Coal declined to extract the coal resources in the project area.

Ash will not be placed over the coal resource in the project area as a result of the non-operational status of Wallerawang Power Station, which is finite opportunity.

As outlined in this report, the pine plantation area now constitutes KVAR Stage 2B.

Noise impacts

Minister's Condition of Approval 2.3

Construction activities associated with the project shall only be undertaken during the following hours:

a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;

b) 8:00 am to 1:00 pm on Saturdays; and

c) At no time on Sundays or public holidays.

Compliance Assessment Observations and Comments

A CEMP was prepared for the works associated with the development of KVAR Stage 2B in preparation for ash placement and included a Construction Noise Management Plan and Noise Monitoring Program. This was submitted to DP&I in August 2011 and approved on the 16th December 2011.

No construction activities have occurred during the reporting period.

Compliance Assessment Finding – Not Applicable

Minister's Condition of Approval 2.4

Activities resulting in impulsive or tonal noise emission (such as rock breaking or rock hammering) shall be limited to 8:00 am to 12:00 pm, Monday to Saturday and 2:00 pm to 5:00 pm Monday to Friday. The Proponent shall not undertake such activities for more than three continuous hours and must provide a minimum one-hour respite period.

Compliance Assessment Observations and Comments

No activities resulting in tonal or impulsive noise emission have occurred during the monitoring period.

Compliance Assessment Finding - Not Applicable

Minister's Condition of Approval 2.5

Construction outside the hours stipulated in condition 2.3 of this approval is permitted in the following circumstances:

- a) Where construction works do not cause audible noise at any sensitive receiver; or
- b) For the delivery of materials required outside these hours by the Police or other authorities for safety reasons; or
- c) Where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Compliance Assessment Observations and Comments

No construction activities have taken place during the reporting period.

Compliance Assessment Finding - Not Applicable

Minister's Condition of Approval 2.6

The hours of construction activities specified under condition 2.3 of this approval may be varied with the prior written approval of the Director-General. Any request to alter the hours of construction specified under condition 2.3 shall be:

- a) Considered on a case-by-case basis;
- b) Accompanied by details of the nature and need for activities to be conducted during the varied construction hours; and
- c) Accompanied by any information necessary for the Director-General to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of sensitive receivers in the vicinity of the site.

Compliance Assessment Observations and Comments

There has been no requirement to vary hours of construction during the reporting period, as no construction activities have taken place.

Compliance Assessment Finding - Not Applicable

Minister's Condition of Approval 2.7

The construction noise objective for the proponent is to manage noise from construction activities (as measured by $_{LA10}$ (15minute) descriptor) so as not to exceed the background L_{A90} noise level by more than 10dB(A) at any sensitive receiver.

Any activities that have the potential for noise emissions that exceed the objective must be identified and managed in accordance with the Construction Noise Management Plan (as referred under condition 6.3B) of this approval). The Proponent shall implement all reasonable and feasible noise mitigation measures with the aim of achieving the construction noise objective.

Compliance Assessment Observations and Comments

No construction activities with the potential to exceed background noise levels were undertaken during the reporting period.

Compliance Assessment Finding – Not Applicable

Minister's Condition of Approval 2.8

Operational activities associated with the project shall only be undertaken from 7:00am to 10:00pm Monday to Sunday.

Compliance Assessment Observations and Comments

Lend Lease have advised that no operational activities have taken place during or outside the hours designated above.

Aurecon reported that: "No ash truck movements were noticed during the entire noise survey."

Compliance Assessment Finding - Compliant

Minister's Condition of Approval 2.9

Within six months of commencement of operation of the project the Proponent shall prepare and submit to the Director-General a review of the logistical arrangements for ash haulage and placement to determine the feasibility of reducing the hours of operation. If, as a result of the review, it is determined that ash haulage and placement times can commence later and/or finish earlier, the Proponent shall aim to observe the reduced hours whenever possible.

Compliance Assessment Observations and Comments

The review was conducted within six months of commencement of operations and submitted to the DP&I on the 26th April 2012. The review determined that ash haulage and placement times could not commence later or finish earlier. This review was not submitted to the Director-General.

Minister's Condition of Approval 2.10

Operations outside the hours stipulated in condition 2.8 of this approval are only permitted in the following emergency situations:

- a) Where it is required to avoid the loss of live, property and/or to prevent environmental harm; or
- b) Breakdown of plant and/or equipment at the repository or the Wallerawang Power Station with the effect of limiting or preventing ash storage at the power station outside the operating hours defined in condition 2.8; or
- c) A breakdown of an ash haulage truck(s) preventing haulage during the operating hours stipulated in condition 2.8 combined with insufficient storage capacity at the Wallerawang Power Station to store ash outside of the project operating hours; or
- d) In the event that the National Electricity Market Management Company (NEMMCO), or a person authorised by NEMMCO, directs the Proponent (as a licensee) under the National Electricity Rules to maintain, increase or be available to increase power generation for system security and there is insufficient ash storage capacity at the Wallerawang Power Station to allow for the ash to be stored.

In the event of conditions 2.10b) or 2.10c) arising, the Proponent is to take all reasonable and feasible measures to repair the breakdown in the shortest time possible.

Compliance Assessment Observations and Comments

Lend Lease have advised that no operational activities have taken place outside the hours.

Compliance Assessment Finding - Not Applicable

Minister's Conditions of Approval 2.11, 2.12, 2.13 and 2.14

2.11- In the event that an emergency situation as referred to under condition 2.10b) or 2.10c) occurs more than once in any two month period, the Proponent shall prepare and submit to the Director-General for approval a report including, but not limited to:

- a) The dates and a description of the emergency situations;
- b) An assessment of all reasonable and feasible mitigation measure to avoid recurrence of the emergency situations;
- c) Identification of a preferred mitigation measure(s); and
- d) Timing and responsibility for implementation of the mitigation measure (s).

The report is to be submitted to the Director-General within 60 days of the second exceedence occurring. The Proponent shall implement all reasonable and feasible mitigation measures in accordance with the requirements of the Director-General.

2.12- The Proponent shall notify the DECC prior to undertaking any emergency ash haulage or placement operations outside of the hours of operation stipulated in condition 2.8 of this approval and keep a log of such operations.

2.13- The Proponent shall notify the Director-General in writing within seven days of undertaking any emergency ash haulage or placement operations outside of the hours of operation stipulated in condition 2.8 of this approval.

2.14- The Proponent shall notify nearby sensitive receivers (as defined in the Operational Noise Management Plan required under condition 6.5a) of this approval) prior to 8.00pm where it is known that emergency ash haulage or placement operations will be required outside of the hours of operation stipulated in condition 2.8 of this approval.

Compliance Assessment Observations and Comments

No emergency situations have occurred during the reporting period.

Compliance Assessment Finding - Not Applicable

Minister's Condition of Approval 2.15

The cumulative operational noise from the ash placement area and ash haulage activity shall not exceed an $L_{Aeq (15 minute)}$ of 40 dB(A) at the nearest most affected sensitive receiver during normal operating hours as defined in condition 2.8 of this approval.

This noise criterion applies under the following meteorological conditions:

- a) Wind speeds up to 3m/s at 10 metres above ground; and/or
- b) Temperature inversion conditions of up to 3^oC/100m and source to receiver gradient winds of up to 2m/s at 10m above ground level.

This criterion does not apply where the Proponent and the affected landowner have reached a negotiated agreement in regard to noise, and a copy of the agreement has been forwarded to the Director-General and the DECC.

Compliance Assessment Observations and Comments

Measured noise levels during May 2016, November 2016 and March 2017 indicate KVAR Stage 2 operations are compliant with operational noise criteria (Aurecon, 2016a; 2016b; 2017a)

EnergyAustralia NSW has not entered into any agreements regarding noise from KVAR with any potentially affected landholders, nor had any noise related complaints regarding the KVAR Stage 2 project. (See Section 6.3).

Compliance Assessment Finding - Compliant

Minister's Condition of Approval 2.16

The Proponent shall implement measures to ensure noise attenuation of trucks. These measures may include, but are not limited to, installation of residential class mufflers, engine shrouds, body dampening, speed limiting, fitting of rubber stoppers to tail gates, limiting the use of compression breaking, and ensuring trucks operate in a one-way system at the ash repository where feasible.

Compliance Assessment Observations and Comments

Lend Lease has engaged a fleet of Mercedes-Benz Actros trucks which are compliant with the noise emission standards outlined above. No compression braking is used on the repository, trucks are well maintained with engines enclosed, mufflers in place, and proceed in a unidirectional format according to enforced speed limits. Minimal ash truck movements have occurred during the reporting period as a result of minimal ash being placed within Kerosene Vale Ash Repository due to the operational status of Wallerawang Power Station.

Minister's Condition of Approval 2.17

The Proponent shall liaise with the owner/operator of Angus Place Coal Mine with the aim of preparing a protocol which provides for a cooperative approach for the management and mitigation of noise impacts associated with coal and ash truck movements along the private haul road.

Compliance Assessment Observations and Comments

EnergyAustralia NSW regularly liaises with Centennial Coal through monthly fuel supply meetings. The protocol developed between EnergyAustralia and Centennial includes the restriction of movement of trucks along the haul road between 6pm and 7am daily- trucks are diverted from the haul road passage during these hours as necessary. Centennial Coal reports to EnergyAustralia with any instances that may impact on background noise caused by truck movement through the monthly meetings, and are bound by their Environment Protection Licence 467. Information provided to EnergyAustralia by Centennial regarding potential Angus Place noise impacts associated with coal and ash truck movements underneath this licence included hours of operation, noise level limits and pollutants.

In 2015, Angus Place Coal Mine was placed into Care and Maintenance functionality. As a result, no coal truck movements have occurred on the private haul road. In addition, minimal ash truck movements have occurred along the private haul road during the reporting period as a result of minimal ash being placed within Kerosene Vale Ash Repository due to the operational status of Wallerawang Power Station.

Minister's Condition of Approval 2.18

Where noise monitoring (as required by conditions 3.2 or 3.3 of this approval) identifies any non-compliance with the operational noise criterion specified under condition 2.15 of this approval the Proponent shall prepare and submit to the Director-General for approval a report including, but not limited to:

- a) An assessment of all reasonable and feasible physical and other mitigation measures for reducing noise at the source including, but not limited to
 - i. Construction of a noise barrier along the haulage road
 - ii. Alternative ash haulage routes, and
 - iii. Alternative methods of ash conveyance to the repository; and
- b) Identification of the preferred measure(s) for reducing noise at the source;
- c) Feedback from directly affected property owners and the DECC on the proposed noise mitigation measures; and
- d) Location, type, timing and responsibility for implementation of the noise mitigation measure(s).

The report is to be submitted to the Director-General within 60 days of undertaking the noise monitoring which has identified exceedences of the operational noise criterion specified under condition 2.15, unless otherwise agreed to by the Director-General. The Proponent shall implement all reasonable and feasible mitigation measures in accordance with the requirements of the Director-General.

Compliance Assessment Observations and Comments

EnergyAustralia NSW has implemented six-monthly noise monitoring assessments. No non-compliances were identified during the reporting period.

Refer to Appendices B-D for further details.

Minister's Condition of Approval 2.19

If, after the implementation of all reasonable and feasible source controls, as identified in the report required by condition 2.18, the noise generated by the project exceeds the criterion stipulated in condition 2.15 at:

- a) Any sensitive receiver in existence at the date of this approval; or
- b) Any residential dwelling for which an approval has been sought or obtained under the Environmental Planning and Assessment Act 1979 no later than six months after the confirmation of operational noise levels;

Upon receiving a written request from an affected landowner (unless that landowner has acquisition rights under condition 2.20 of this approval and has requested acquisition) the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, air conditioning and or other building acoustic treatments at any residence on the land, in consultation with the landowner.

For the purpose of this condition and condition 2.20, confirmation of operational noise levels means:

- a) Completion of the operational noise review required under condition 3.2 this approval; and
- b) Implementation of any source controls, as required under condition 2.18 of this approval, should the operational noise review indicate noise levels in excess of the operational noise criterion specified in condition 2.15; and
- c) Monitoring of operational noise levels, as required under condition 3.3b) of this approval, following the implementation of any source controls.

The additional mitigation measures must be reasonable and feasible. If within three months of receiving this request from the landowner the Proponent and landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution, whose decision shall be final.

Compliance Assessment Observations and Comments

EnergyAustralia NSW has implemented six-monthly noise monitoring assessments. No non-compliances were identified during the reporting period. Refer to Appendices B-D for further details.

EnergyAustralia NSW has received no written requests from affected landowners regarding noise mitigation measures.

Minister's Condition of Approval 2.20

If, after the implementation of all reasonable and feasible source controls, as identified in the report required by condition 2.18, the noise generated by the project exceeds the criterion stipulated in condition 2.15 by more than 5dB(A):

- a) At a sensitive receiver in existence at the date of this approval; or
- b) At any residential dwelling for which an approval has been sought or obtained under the Environmental Planning and Assessment Act 1979 prior to the landholder receiving written notification that they are entitled to land acquisition rights, as per condition 2.25 of this approval; or
- c) Over 25% or more of the area of a vacant allotment in existence at the date of this approval, and where a dwelling is permissible under the Environmental Planning and Assessment Act 1979 at that date, with the exception of land that is currently used for industrial or mining purposes;

The Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 2.22 to 2.24 of this approval.

Any landowner that has agreed to, or property that has been the subject of, the application of additional noise mitigation measures under condition 2.19 of this approval waives the right to land acquisition.

Compliance Assessment Observations and Comments

EnergyAustralia NSW has received no written or verbal requests from landowners to acquire their land.

Compliance Assessment Finding - Compliant

Minister's Condition of Approval 2.21

The land acquisition rights under condition 2.20 of this approval do not apply to landowners who have sought approval to subdivide their land after the date of this approval, unless the subdivision is created pursuant to condition 2.24 of this approval.

Compliance Assessment Observations and Comments

No landholders have applied for approval to subdivide their land according to the land acquisition rights.

Compliance Assessment Finding - Not Applicable

Minister's Condition of Approval 2.22

Within three months of receiving a written request from a landowner with acquisition rights under condition 2.20 of this approval, the Proponent shall make a binding written offer to the landowner based on:

- a) The current market value of the landowner's interest in the property at the date of this written request, as if the property were unaffected by the project which is the subject of the project application, having regard to the:
 - *i.* Existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - ii. Presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of condition 2.19 of this approval;
- b) The reasonable costs associated with:
 - *i.* Relocating within the Lithgow local government area, or to any other local government area determined by the Director-General;
 - ii. Obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and
- c) Reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

Within 14 days of receiving an independent valuer's determinations, the Proponent shall make a written offer to purchase the land at a price not less than the independent valuer's determination.

If the landowner refuses to accept this offer within six months of the date of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.

Compliance Assessment Observations and Comments

No landholders have applied for approval to subdivide their land according to the land acquisition rights.

Compliance Assessment Finding - Not Applicable

Minister's Conditions of Approval 2.23, 2.24 and 2.25

2.23- The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer or the Director-General and the costs of determination referred to above.

2.24- If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.

2.25- The Proponent shall provide written notice to all landowners that are entitled to rights under conditions 2.19 and 2.20 within 21 days of determining the landholdings were additional noise mitigation measures or land acquisition apply. For the purpose of condition 2.20b), this condition only applies where operational noise levels have been confirmed in accordance with the definition in condition 2.19.

Compliance Assessment Observations and Comments

No landholders have applied for approval to subdivide their land according to the land acquisition rights.

Compliance Assessment Finding - Not Applicable

Sawyers Swamp Creek realignment

EnergyAustralia NSW decided upon commencement of the Project that the realignment of SSC was not necessary. Therefore, the CoAs relating to SSC realignment are not applicable. This refers to CoAs 2.26 (a – m), 2.27, 2.28 and 2.29.

Surface water quality

Minister's Condition of Approval 2.30

The Proponent shall take all reasonable and feasible measures to prevent discharge of sediments and pollutants from the construction and operation of the project entering waterways.

Note: Section 120 of the Protection of the Environment Operations Act 1997 prohibits the pollution of water except where expressly provided by an Environmental Protection Licence.

Compliance Assessment Observations and Comments

No surface waters from KVAR Stage 2 are allowed to enter the SSC catchment. Measures to prevent surface water discharge include a series of collection ponds on site, with water reticulated around KVAR for the treatment of ash and dust suppression.

Minister's Condition of Approval 2.31

Earthworks not associated with the realignment of Sawyer Swamp Creek shall not be undertaken within 50m of the creek where reasonable and feasible.

Compliance Assessment Observations and Comments

A minimum buffer zone of 50m has been maintained along the riparian area of SSC for all operations.

Compliance Assessment Finding - Compliant

Minister's Condition of Approval 2.32

All equipment, machinery and vehicles associated with the construction and operation of the project shall be operated and maintained in a manner that minimises the potential for oil and grease spills/leaks.

Compliance Assessment Observations and Comments

Lend Lease supply EnergyAustralia NSW with Monthly Client Service Reports detailing site safety, ash placement, operations, environmental and maintenance aspects of site management.

These maintenance records include general operations (truck maintenance and hours, ash analyses, sensor repairs, vent lines, line trips etc.), projects (unit outages, silo repairs and maintenance, valve repairs and maintenance etc.), incidents /near misses, training and safety.

Monthly Client Service Reports may be viewed upon request.

Air quality impacts

Minister's Condition of Approval 2.33

The Proponent 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 Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

Compliance Assessment Observations and Comments

Dust management within the site is included in the responsibilities of all operations, including:

- Use of perimeter sprays at the ash placement area;
- Water cart (20,000 L) on site during all ash placement operations 8 am to 5 pm Mondays to Sundays;
- Ash placement operations;
- Final capping of ash; and
- General maintenance and rehabilitation of the ash placement area.

Compliance Assessment Finding - Compliant

Minister's Condition of Approval 2.34

The Proponent 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.

Compliance Assessment Observations and Comments

No issues with load coverings were recorded for the 2016-2017 reporting period.

Lighting emissions

Minister's Condition of Approval 2.35

The Proponent shall take all practicable measures to mitigate off-site lighting impacts from the project and ensure all external lighting associated with the project complies with Australian Standard AS4282 1997 – Control of the Obtrusive Effects of Outdoor Lighting.

Compliance Assessment Observations and Comments

Lend Lease Work Procedures Manual contains procedures that apply to all personnel and equipment operating at Kerosene Vale, including mobile lighting towers for ash placement operations, and details the responsibilities, application and procedures for using outdoor lighting for the project, within the project area.

Lights used to illuminate the tipping area must face south or east, operators must ensure the horizontal distance of the illuminated area is not less than 40m and as access to the repository for ash transport is between 7am and 10pm lights must be extinguished by 10pm.

The lights used at KVAR are the HILITE 4000 hired from Coates Hire Operations Pty Ltd. The specification sheets for these lights form part of the Work Procedures Manual for lighting.

Compliance Assessment Finding - Compliant

Construction traffic and transport impacts

Minister's Condition of Approval 2.36

The Proponent shall ensure that construction vehicles associated with the project:

- a) Minimise the use of local roads (though residential streets and town centres) to gain access to the site;
- b) Adhere to any nominated haulage routes identified in the Construction Traffic Management Plan as referred to in condition 6.3a) of this approval; and
- c) Adhere to a Construction Vehicle Code of Conduct prepared to manage driver behaviour along the local road network to address traffic impacts (and associated noise) along nominated haulage routes.

Compliance Assessment Observations and Comments

A Construction Traffic Management Plan was submitted to and approved by the DP&I as part of the Construction Environment Management Plan.

Heritage impacts

Minister's Condition of Approval 2.37

The Proponent shall ensure that all construction personnel are educated on their obligations in respect of the protection of Aboriginal and non-indigenous heritage sites and items.

Compliance Assessment Observations and Comments

The Lend Lease Work Procedures Manual includes Environmental Management Controls for Cultural Heritage and applies to all personnel.

No aboriginal or other cultural heritage sites have been identified at Kerosene Vale. All of EnergyAustralia NSW's cultural sites are listed in the Section 170 Heritage and Conservation Register.

Compliance Assessment Finding - Compliant

Minister's Condition of Approval 2.38

If any previously unidentified heritage sites or items (Aboriginal and/or non-indigenous) are discovered during construction works or operational activities, all work likely to affect the heritage sites or item(s) is to cease immediately and the discovery of the objects shall be reported to DECC or the Department as relevant.

Compliance Assessment Observations and Comments

No previously unidentified heritage sites or items were discovered during the reporting period.

Compliance Assessment Finding - Not applicable

Waste management

Minister's Condition of Approval 2.39

All waste materials shall be assessed, classified, managed and disposed of in accordance with Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes (EPA, 1999).

Compliance Assessment Observations and Comments

Lend Lease provides Monthly Ash Placement Work Instructions to address all issues of routine site maintenance as part of a monthly work program. Waste management is conducted in accordance with EPA guidelines.

Minister's Condition of Approval 2.40

All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.

Compliance Assessment Observations and Comments

Lend Lease utilises EnergyAustralia NSW's waste management facilities for wastes generated in the operation of the repository, including waste oils, general waste and materials for recycling. These are stored in intermediate storage facilities at Wallerawang Power Station and routinely removed by EnergyAustralia NSW's waste contractors. No additional waste materials were removed from the site during the reporting period.

Compliance Assessment Finding - Compliant

Minister's Condition of Approval 2.41

The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.

Compliance Assessment Observations and Comments

No wastes generated outside the Kerosene Vale site are allowed to enter the area.

To prevent the unlawful access to the repository area, regular security patrols are conducted across the site. Both Lend Lease and EnergyAustralia NSW security personnel are required to report if they encounter any rubbish or wastes outside those that are allowed during routine operations.

Environmental Monitoring

Construction noise monitoring

Minister's Condition of Approval 3.1

The Proponent shall prepare and implement a Construction Noise Monitoring Program to confirm the predictions of the noise assessment detailed in the document referred to under condition 1.1b) of this approval and assess compliance against the construction noise criterion stipulated in condition 2.7 of this approval. The noise monitoring program shall be prepared in consultation with, and to the satisfaction of, the DECC. The monitoring program shall form part of the Construction Noise Management Plan referred to in condition 6.3b) of this approval and must include monitoring of the construction noise generated during:

- a) The realignment of Sawyers Swamp Creek;
- b) Construction of the stabilisation berm;
- c) Excavation of the former pine plantation area;
- d) Relocation and construction of surface water management structures; and
- e) Concurrent construction activities.

The Proponent shall forward to the DECC and the Director-General a report containing the results of each noise assessment and describing any non-compliance within 14 days of conducting a noise assessment.

Compliance Assessment Observations and Comments

A CEMP was prepared for the construction works associated with the development of KVAR Stage 2B in preparation for ash placement, including a Construction Noise Management Plan and Noise Monitoring Program. This was submitted to DP&I in August 2011 and approved on the 16th December 2011.

No construction activities took place during the reporting period.

Operational noise review

Minister's Condition of Approval 3.2

Within 60 days of the commencement of operation of the project, unless otherwise agreed to by the Director-General, the Proponent shall submit for the approval of the Director-General an Operational Noise Review to confirm the operational noise impacts of the project. The Operational Noise Review must be prepared in consultation with, and to the satisfaction of, the DECC. The Review shall:

- a) Identify the appropriate operational noise objectives and level for sensitive receivers;
- b) Describe the methodologies for noise monitoring including the frequency of measurements and location of monitoring sites;
- c) Document the operational noise levels at sensitive receivers as ascertained by the noise monitoring program;
- d) Assess the noise performance of the project against the noise criterion specified in condition 2.15 of this approval and the predicted noise levels as detailed in the report referred to under condition 1.1b) of this approval; and
- e) Provide details of any entries in the Complaints Register (as required under condition 5.4 of this approval) relating to noise impacts.

Where monitoring indicates noise levels in excess of the operational noise criterion specified in condition 2.15 of this approval, the Proponent shall prepare a report as required by condition 2.18 of this approval.

Compliance Assessment Observations and Comments

The Operational Noise Review (Parsons Brinckerhoff, 2009) was submitted to the DP&I on 16 September 2009, and the Department acknowledged its satisfaction that CoA 3.2 had been met on 18 September 2009.

Ongoing operational noise monitoring

Minister's Condition of Approval 3.3

The Proponent shall prepare and implement an Operational Noise Monitoring Program to assess compliance against the operational noise criterion stipulated in condition 2.15 of this approval, throughout the life of the project. The noise monitoring program shall be prepared in consultation with, and to the satisfaction of, the DECC.

The noise monitoring program shall be prepared in accordance with the requirements of the New South Wales Industrial Noise Policy (EPA, 2000) and must include, but not be limited to:

- a) Monitoring during ash placement in the far western area of the site adjacent to the haul road; and
- b) Monitoring of the effectiveness of any noise mitigation measures implemented under condition 2.18 of this approval, against the noise criterion specified in condition 2.15 of this approval.

Noise from the project is to be measured at the most affected point on or within the residential boundary, or at the most affected point within 30 metres of a dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise criterion stipulated in condition 2.15 of this approval. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

The Proponent shall forward to the DECC and the Director-General a report containing the results of any non-compliance within 14 days of conducting a noise assessment.

Where monitoring indicates noise levels in excess of the operational noise criterion specified in condition 2.15 of this approval, the Proponent shall prepare a report as required by condition 2.18 of this approval.

The monitoring program shall form part of the Operational Noise Management Plan referred to in condition 6.5a) of this approval.

Compliance Assessment Observations and Comments

An Operational Noise Monitoring Program in the form of the Operational Noise sub-plan was developed as part of the OEMP (Parsons Brinckerhoff, 2008b) and provided to Delta to determine the minimum monitoring requirements for groundwater following receipt of approval from the DP&I. EnergyAustralia NSW continue to implement the required noise monitoring assessments. No non-compliances were identified during the reporting period.

Groundwater monitoring

Minister's Condition of Approval 3.4

The Proponent shall prepare and implement a Groundwater Monitoring Program to monitor the impacts of ash placement activities on local groundwater quality and hydrology. The program shall be developed in consultation with, and to the satisfaction of, the SCA, and shall describe the location, frequency, rationale and procedures and protocols for collecting groundwater samples, as well as the parameters analysed and methods of analysis. The monitoring program shall be ongoing for the life of the project and include, but not be limited to:

- a) Monitoring at established bore sites (or replacement bore sites in the event that existing sites are damaged or lost) as described in the document referred to under condition 1.1b) of this approval; and
- b) A schedule for periodic monitoring of groundwater quality, depth and flow at all monitoring sites, at an initial frequency of no less than once every month for the first 12 months of operation.

The monitoring program shall form part of the Groundwater Management Plan referred to in condition 6.5b) of this approval.

Compliance Assessment Observations and Comments

A Groundwater Monitoring Program in the form of the Groundwater Quality sub-plan was developed as part of the OEMP (Parsons Brinckerhoff, 2008b) and provided to EnergyAustralia NSW, then Delta, to determine the minimum monitoring requirements for groundwater following receipt of approval from the DP&I.

Surface water quality monitoring

Minister's Condition of Approval 3.5

The Proponent is to implement a surface water quality monitoring program to monitor the impacts of the ash placement activities on, and the realignment of, Sawyers Swamp Creek. The Program shall be developed in consultation with and to the satisfaction of the DPI (Fisheries) and SCA, and shall describe the location, frequency, rationale and the procedures and protocols for collecting water samples as well as the parameters analysed and methods of analysis. The program shall include, but not necessarily be limited to:

- a) Monitoring at the four existing water quality monitoring sites as described in the document referred to under 1.1b) of this approval;
- b) Monitoring downstream of the realigned section of Sawyers Swamp Creek;
- c) Monitoring at groundwater discharge points into Sawyers Swamp Creek;
- d) Wet weather monitoring with a minimum of two events recorded within the first 12 months of both the operation of the project and post realignment of Sawyers Swamp Creek; and
- e) A schedule for periodic monitoring of surface quality at all sites throughout the life of the project, at an initial frequency of no less than once every month for the first 12 months and must include, but not be limited to, dissolved oxygen, turbidity, total phosphorus and total nitrogen.

The monitoring program shall form part of the Surface Water Management Plan referred to in condition 6.5c) of this approval.

Compliance Assessment Observations and Comments

A surface water Monitoring Program in the form of the surface water Quality sub-plan was developed as part of the OEMP (Parsons Brinckerhoff, 2008b) and provided to Delta to determine the minimum monitoring requirements for surface water following receipt of approval from the DP&I.

Compliance Assessment Finding - Compliant

Sawyers Swamp Creek realignment monitoring

EnergyAustralia NSW decided upon commencement of the Project that the realignment of SSC was not necessary. Therefore, CoAs 3.6 and 3.7 relating to SSC realignment are not applicable.

Air quality monitoring

Minister's Condition of Approval 3.8

The Proponent shall prepare an Air Quality Monitoring Program, in consultation with, and to the satisfaction of, the DECC. 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 1.1b) 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.

Compliance Assessment Observations and Comments

An air quality monitoring program in the form of the air quality sub-plan was developed as part of the OEMP (PB, 2009) and provided to Delta to determine the minimum monitoring requirements for air quality following receipt of approval from the DP&I.

Dust monitoring results are recorded monthly with colour and textural observations. These results indicate that KVAR is managed effectively for ash dust and as such is in compliance with CoAs 2.33 and 3.8.

Compliance Assessment Finding - Compliant

Compliance Monitoring and Tracking

Minister's Condition of Approval 4.1

Prior to each of the events listed below, the Proponent shall certify in writing to the satisfaction of the Director-General that it has complied with all conditions of this approval applicable prior to that event:

- a) Commencement of any construction works on the land subject of this approval; and
- b) Commencement of operation of the project.

Compliance Assessment Observations and Comments

The DP&I indicated its satisfaction that EnergyAustralia NSW had met the relevant pre-operational requirements of this project before commencement in 2009. This included submission of a Pre-Operation Compliance Report, Compliance Tracking Program, and the Operation Environmental Management Plan.

Minister's Condition of Approval 4.2

The Proponent shall develop and implement a Compliance Tracking Program for the project, prior to commencing operations, to track compliance with the requirements of this approval and shall include, but not necessarily be limited to:

- a) Provisions for periodic review of the compliance status of the project against the requirements of this approval and the Statement of Commitments detailed in the document referred to in condition 1.1c) of this approval;
- b) Provisions for periodic reporting of the compliance status to the Director-General;
- c) A program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 Guidelines for Quality and/or Environmental Management Systems Auditing;
- d) Procedures for rectifying any non-compliance identified during environmental auditing or review of compliance;
- e) Mechanisms for recording environmental incidents and actions taken in response to those incidents;
- f) Provisions for reporting environmental incidents to the Director-General during construction and operation; and
- g) Provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

The Compliance Tracking Program shall be implemented prior to operation of the project with a copy submitted to the Director-General for approval within four weeks of commencement of the project, unless otherwise agreed by the Director-General.

Compliance Assessment Observations and Comments

Environmental incidents that may occur in respect to KVAR Stage 2 operations are reported in accordance with the Operation Environmental Management Plan (Parsons Brinckerhoff, 2008b) and are captured within the Environmental Management System. Annual reporting requirements are covered by the preparation of the AEMR.

Sections of the Minister approved OEMP that relate to this Condition include:

- Section 3.8 Environmental Audits (CoA 4.2c);
- Section 3.8 Environmental Audits and Section 3.8.1 Non-Compliances (CoA 4.2d);
- Section 3.9 Environmental Incidents Management (CoA 4.2e);
- Section 3.9 Environmental Incidents Management (CoA4.2f); and
- Section 3.5 Environmental Awareness Training and Site Inductions (4.2g).

Lend Lease have included the directive in the Repository Site Management Plan (Conneq, 2010) that formal site management processes be documented monthly and weekly in line with the OEMP and the Repository Management Plan. The Monthly Client Service Reports are used as a method for recording any incidences.

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Minister's Condition of Approval 4.3 and 4.4

CoA 4.3 – Nothing in this approval restricts the Proponent from utilising any existing compliance tracking programs administered by the Proponent to satisfy the requirements of condition 4.2. In doing so, the Proponent must demonstrate to the Director-General how these systems address the requirements and/or have been amended to comply with the requirements of the condition.

CoA 4.4 – The Proponent shall meet the requirements of the Director-General in respect of the implementation of any measure necessary to ensure compliance with the conditions of this approval, and general consistency with the documents listed under condition 1.1 of this approval.

Compliance Assessment Observations and Comments

This project has a Minister approved OEMP (April, 2009), which is currently under review by EnergyAustralia NSW and will be submitted to the DP&E for approval upon completion. The project also operates under EnergyAustralia NSW's ISO14001 accreditation and Environmental Management System.

The Secretary has not issued any requests to implement any additional measure to ensure compliance with the relevant CoAs for the KVAR Stage 2 project.

Compliance Assessment Finding - Not applicable

Community Information and Complaints Management

Provision of Information

Minister's Conditions of Approval 5.1 and 5.2

Prior to the commencement of the project, the Proponent shall establish and maintain a website for the provision of electronic information associated with the project. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to:

- a) The documents referred to under condition 1.1 of this approval;
- b) This project approval, Environment Protection Licence and any other relevant environmental approval, licence or permit required and obtained in relation to the project;
- c) All strategies, plans and program required under this project approval, or details of where this information can be viewed;
- d) Information on construction and operational progress;
- e) The outcomes of compliance tracking in accordance with the requirements of this project approval.
- 5.2 The Proponent shall make all documents required to be provided under condition 5.1 of this approval publicly available.

Compliance Assessment Observations and Comments

EA have developed a specific project website for Kerosene Vale Ash Repository that enables the provision of electronic information listed within CoA 5.1. A link to this web page is below.

https://www.energyaustralia.com.au/about-us/energy-generation/wallerawang-power-station-closure/kerosene-vale-ash-repository

The website includes:

- Major Project Application 07_0005
- Kerosene Vale Stage 2 Ash Repository Area (two volumes) Environmental Assessment prepared by Parsons Brinckerhoff and dated 1 April 2008.
- Kerosene Vale Stage 2 Ash Repository Area Submissions Report prepared by Parsons Brinckerhoff and dated 30 May 2008.
- Project Approval (Conditions of Approval) File S07/00001, dated 26 November 2008.
- Construction Environment Management Plan (Conneq, 2011)
- Operation Environment Management Plan (Parsons Brinckerhoff, 2008b)
- Copies of previous Annual Environment Management Reports

Complaints and enquiries procedure

Minister's Condition of Approval 5.3

Prior to the commencement of the project, the Proponent shall ensure that the following are available for community complaints and enquiries during construction and operation:

- a) A 24 hour contact number(s) on which complaints and enquiries about construction and operational activities may be registered;
- b) A postal address to which written complaints and enquiries may be sent; and
- c) An email address to which electronic complaints and enquiries may be sent; and
- d) An email address to which electronic complaints and enquiries may be transmitted.

The telephone number, postal address and email address shall be published in a newspaper circulating in the local area prior to the commencement of the project. The above details shall also be provided on the website required by condition 5.1 of this approval.

Compliance Assessment Observations and Comments

The website:

https://www.energyaustralia.com.au/about-us/energy-generation/mt-piper-power-station lists the following contact details for the project:

24 hour contact number - via the Switchboard on 02 6354 8111

Postal address:

Environment Specialist

EnergyAustralia NSW

Locked Bag 1000, Portland NSW 2847

Email: contactus@energyaustraliansw.com.au

Minister's Condition of Approval 5.4

The Proponent shall record the details of all complaints received through the means listed under condition 5.3 of this approval in an up-todate Complaints Register. The Register shall record, but not necessarily be limited to:

- a) The date and time of the complaint;
- b) The means by which the complaint was made (e.g. telephone, email, mail, in person);
- c) Any personal details of the complainant that were provided, or if no details were provided a note to that effect;
- d) The nature of the complaint;
- e) The time taken to respond to the complaint;
- f) Any investigations and actions taken by the Proponent in relation to the complainant; and
- g) If no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the Director-General upon request.

Compliance Assessment Observations and Comments

Any complaints called in to EnergyAustralia NSW go via the switchboard (02 6354 8111) and are then redirected to the appropriate area of EnergyAustralia NSW operations.

All complaints are recorded in the Ellipse system in the Incidents and Complaints Register with all details captured including actions to be taken if necessary.

If actions were necessary, a review of those actions is undertaken before the work order is closed.

No complaints were received regarding KVAR for the reporting period.

Environmental Management

Environmental representative

Minister's Condition of Approval 6.1

Prior to the commencement of any construction or operational activities, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director-General a suitably qualified and experienced Environmental Representative(s) independent of the design, construction and operation personnel. The Proponent shall engage the Environmental Representative(s) during any construction activities, and throughout the life of the project, or as otherwise agreed by the Director-General. The Environmental Representative(s) shall:

- a) Oversee the implementation of all environmental management plans and monitoring programs required under this approval, and advise the Proponent upon the achievements of these plans/programs;
- b) Have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval and the Statement of Commitments as referred to under condition 1.1c) of this approval;
- c) Oversee the implementation of the environmental auditing of the project in accordance with the requirements of condition 4.2 of this approval and all relevant project Environmental Management System(s); and
- d) Be given the authority and independence to recommend to the Proponent reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and, failing the effectiveness of such steps, to recommend to the Proponent that relevant activities are to be ceased as soon as reasonably practicable if there is a significant risk that an adverse impact on the environment will be likely to occur.

Compliance Assessment Observations and Comments

In March 2009 EnergyAustralia NSW nominated the Environment Manager- Western Nino Di Falco as the Environmental Representative. The Environment Manager oversees the implementation of all operations at KVAR through attendance at Monthly Client Meetings with Lend Lease and regular liaison with the External Plant Manager. The Environment Manager guides the project through site visits, sampling and other regulatory activities to ensure compliance with the environmental requirements of the CoAs and all relevant licences.

In February 2015, EnergyAustralia NSW notified the DP&E of Mr Di Falco's retirement and nominated the new Environment Manager, Peter Griffiths, as the Environmental Representative. Furthermore, in a letter dated 19 January 2017, EnergyAustralia NSW notified the DP&E of Peter Griffiths appointment to Safety Leader within the Organisation and nominated the new NSW Environment Leader, Ben Eastwood, as the Environmental Representative, which was agreed to be the Secretary in a letter dated 28 February 2017.

Construction environmental management

Minister's Conditions of Approval 6.2 and 6.3

6.2 – Prior to the commencement of construction work, the Proponent shall prepare and implement a Construction Environmental Management Plan (CEMP). The CEMP shall outline the environmental management practices and procedures to be followed during construction. The CEMP shall be prepared in accordance with Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004).

The Construction Environmental Management Plan for the project (or any stage of the project) shall be submitted to the Director General for approval at least four weeks prior to the commencement of any construction work associated with the project (or stage as relevant), unless otherwise agreed by the Director-General. Construction shall not commence until written approval has been received from the Director-General.

6.3 – As part of the Construction Environmental Management Plan for the project, the Proponent shall prepare and implement the following plans:

- a) A Construction Traffic Management Plan, prepared in consultation with the RTA, the relevant Council and emergency services to manage the construction traffic impacts of the project, including but not limited to:
 - *i.* Identifying construction vehicle volumes (construction staff vehicles, heavy vehicles and oversized loads) and haulage routes;
 - *ii.* Identifying any road closures and/or traffic detours during the haulage of oversized loads as agreed to by the relevant roads authority;
 - iii. Detailing a Construction Vehicle Code of Conduct to set driver behaviour controls to minimise impacts on the land uses along haulage routes (including noise minimisation measures); and
 - *iv.* Complying with the document Procedures for Use in the Preparation of a Traffic Management Plan (RTA, 2011).
- b) A Construction Noise Management Plan to detail how construction noise impacts would be minimised and managed. The Strategy shall be developed in consultation with, and to the satisfaction of, the DECC and shall include, but not necessarily be limited to:
 - *i.* Details of construction activities and an indicative schedule for construction works;
 - ii. Identification of construction activities that have the potential to generate noise impacts on sensitive receivers;
 - *iii.* Procedures for assessing noise levels at sensitive receivers and compliance;
 - iv. Details of the reasonable and feasible actions and measures to be implemented to minimise noise impacts and, if any noise exceedence is detected, how any non-compliance would be rectified; and
 - v. Procedures for notifying sensitive receivers of construction activities that are likely to affect their noise amenity.
- c) An Erosion and Sediment Control Plan to detail measures to minimise erosion and the discharge of sediment and other pollutants to land and/or water during construction works. The Plan must include, but not necessarily be limited to:
 - *i.* Identification of the construction activities that could cause soil erosion or discharge sediment or water pollutants from the site;

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ii. A description of the management methods to minimise soil erosion or discharge of sediment or water pollutants from the site, including a strategy to minimise the area of bare surfaces, stabilise disturbed areas, and minimise bank erosion; and

Demonstration that the proposed erosion and sediment control measures will conform with, or exceed, the relevant requirements of Managing Urban Stormwater: Soils and Construction (Landcom, 2004).

Compliance Assessment Observations and Comments

A Construction Environmental Management Plan for KVAR Stage 2B was developed in consultation with EnergyAustralia NSW's Western Environment Section and approved by the DP&I in August 2011.

Compliance Assessment Finding - Compliant

Operational environmental management

Minister's Conditions of Approval 6.4 and 6.5

6.4 – The Proponent shall prepare and implement and Operation Environmental Management Plan to detail an environmental management framework, practices and procedures to be followed during operation of the project. The Plan shall be consistent with Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004) and shall include, but not be limited to:

- a) Identification of all statutory and other obligations that the Proponent is required to fulfil in relation to operation of the project, including all approvals, licences and consultations;
- b) A description of the roles and responsibilities for all relevant employees (including contractors) involved in the operation of the project;
- c) Overall environmental policies and principles to be applied to the operation of the project
- d) Standards and performance measures to be applied to the project, and a means by which environmental performance can be periodically reviewed and improved, where appropriate;
- e) Management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval;
- f) The additional plans listed under condition 6.5 of this approval; and
- g) The environmental monitoring requirements outlined under conditions 3.3 to 3.5 inclusive and 3.8 of this approval.

The Plan shall be submitted for the approval of the Director-General no later than four weeks prior to the commencement of operation of the project, unless otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General.

Nothing in this approval precludes the Proponent from incorporating the requirements of the Operational Environmental Management Plan into existing environmental management systems and plan administered by the Proponent.

6.5 – As part of the Operation Environmental Management Plan for the project, required under condition 6.4 of this approval, the Proponent shall prepare and implement the following Management Plans:

- a) An Operational Noise Management Plan to detail measures to mitigate and manage noise during operation of the project. The Plan shall be prepared in consultation with, and to the satisfaction of, the DECC and include, but not necessarily be limited to:
 - *i.* Procedures to ensure that all reasonable and feasible noise mitigation measures are applied during operation of the project;
 - *ii.* Identification of all relevant sensitive receivers and the applicable criteria at those receivers commensurate with the noise limit specified under condition 2.15 of this approval;
 - iii. Identification of activities that will be carried out in relation to the project and the associated noise sources;
 - iv. Noise monitoring procedures (as referred to in condition 3.3 of this approval) for periodic assessment of noise impacts at the relevant receivers against the noise limits specified under this approval and the predicted noise levels as detailed in the report referred to under condition 1.1b) of this approval;
 - v. Details of all management methods and procedures that will be implemented to control individual and overall noise emissions from the site during operation;
 - vi. Procedures and corrective actions to be undertaken if non-compliance against the operational noise criteria is detected; and
 - vii. Provisions for periodic reporting of results to DECC.
- b) A Groundwater Management Plan to detail measures to mitigate and manage groundwater impacts. The Plan shall be prepared in consultation with, and to the satisfaction of, the SCA and include, but not necessarily be limited to:
 - *i.* Baseline data on groundwater quality, depth and flow in the project area;
 - *ii.* Groundwater objectives and impact assessment criteria;
 - iii. A program to monitor groundwater flows and groundwater quality in the project area as required by condition 3.4 of this approval;
 - iv. A protocol for the investigation of identified exceedences of the groundwater impact assessment criteria;
 - v. A response plan to address potential exceedences and groundwater impacts; and
 - vi. Provisions for periodic reporting of results to the SCA.
- c) A Surface Water Management Plan to outline measures that will be employed to manage water on the site, to minimise soil erosion and the discharge of sediments and other pollutants to land and/or waters throughout the life of the project. The Plan shall be based on best environmental practice and shall be prepared in consultation with, and to the satisfaction of, the SCA and DPI (Fisheries). The Plan shall include, but not necessarily be limited to:
 - i. Baseline data on the water quality and flow in Sawyers Swamp Creek up to the date of this approval;
 - *ii.* Water quality objectives and impact assessment criteria for Sawyers Swamp Creek;
 - iii. A program to monitor surface water quality in Sawyers Swamp Creek as referred to in condition 3.5 of this approval;
 - *iv.* A protocol for the investigation of identified exceedences in the impact assessment criteria;
 - v. A response plan to address potential adverse surface water quality exceedences;
 - vi. A site water management strategy identifying clean and dirty water areas for Stage A, B and C of the project and the associated water management measures including erosion and sediment controls and provisions for recycling/reuse of

water and the procedures for decommissioning water management structures on the site; and

- vii. Provisions for periodic reporting of results to the DPI (Fisheries) and the SCA.
- 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 DECC and include, but not necessarily be limited to:
 - *i.* Baseline data on dust deposition levels;
 - *ii.* Air quality objectives and impact assessment criteria;
 - iii. An air quality monitoring program as referred to in condition 3.8 of this approval;
 - *iv.* An assessment of alternative methods of ash placement to minimise the exposure of active placement areas to prevailing winds;
 - v. Mitigation measures to be incorporated during emplacement activities and haulage of ash;
 - vi. An operating protocol for the repository irrigation system including activation rates, application rates and area of coverage;
 - vii. A protocol for the investigation of visible emissions from the repository area;
 - viii. A response plan to address visible emissions from the repository area; and
 - ix. Provisions for periodic reporting of results to the DECC.
- e) A Landscape/Revegetation Plan to outline measures to minimise the visual impacts of the repository and ensure the long-term stabilisation of the site and compatibility with the surrounding land fabric and land use. The Plan shall include, but not necessarily be limited to:
 - i. Identification of design objectives and standards based on local environmental values, vistas, and land uses;
 - *ii.* A description of short- and long-term revegetation measures;
 - *iii.* A schedule of species to be used in revegetation;
 - iv. Timing and progressive implementation of revegetation works as placement areas are completed, including landscape plans; and
 - v. Procedures and methods to monitor and maintain revegetated areas during the establishment phase and long-term.

Revegetation works must incorporate the use of local native species.

Compliance Assessment Observations and Comments

The Operation Environmental Management Plan was prepared by Parsons Brinckerhoff. Approval was granted in April 2009 and operations at KVAR Stage 2 commenced in September 2009. The OEMP is currently undergoing review by EnergyAustralia NSW to ensure that it reflects the current care and maintenance activities at KVAR.

Environmental Reporting

Environmental incident reporting

Minister's Conditions of Approval 7.1 and 7.2

7.1 – The Proponent shall notify the Director-General of any environmental incident within 12 hours of becoming aware of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.

7.2 – The Proponent shall meet the requirements of the Director-General to address the cause or impact of any environmental incident, as it related to this approval, reported in accordance with condition 7.1 of this approval, within such period as the Director-General may require.

Compliance Assessment Observations and Comments

No environmental incidents requiring notification of the Secretary occurred within the April 2016- March 2017 reporting period

Compliance Assessment Finding - Not applicable

Annual performance reporting

Minister's Condition of Approval 7.3

The Proponent shall, throughout the life of the project, prepare and submit for the approval of the Director-General, an Annual Environmental Management Report (AEMR). The AEMR shall review the performance of the project against the Operation Environmental Management Plan (refer to condition 6.4 of this approval) and the conditions of this approval. The AEMR shall include, but not necessarily by limited to:

- a) Details of compliance with the conditions of this approval;
- b) A copy of the Complaints Register (refer to 5.4 of this approval) for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were addressed and resolved;
- c) Identification of any circumstances in which the environmental impacts and performance of the project during the year have not been generally consistent with the environmental impacts and performance predicted in the documents listed under condition 1.1 of this approval, with details of additional mitigation measures applied to the project to address recurrence of these circumstances;
- d) Results of all environmental monitoring required under conditions 3.3 to 3.8 of this approval, including interpretations and discussion by a suitably qualified person; and
- e) A list of all occasions in the preceding twelve-month period when environmental goals/objectives/impact assessment criteria for the project have not been achieved, indicating the reason for failure to meet the criteria and the action taken to prevent recurrence

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of that type of failure.

The Proponent shall submit a copy of the AEMR to the Director-General every year, with the first AEMR to be submitted no later than twelve months after the commencement of operation of the project. The Director-General may require the Proponent to address certain matters in relation to the environmental performance of the project in response to review of the Annual Environmental Report. Any action required to be undertaken shall be completed within such period as the Director-General may require. The Proponent shall make copies of each AEMR available for public inspection on request.

Compliance Assessment Observations and Comments

This AEMR satisfies the requirements of CoA 7.3.