



Our reference: : SF14/6336; DOC19/813030
Contact: : Rebecca Scrivener – 02 6773 7000 – armidale@epa.nsw.gov.au
Date : 17 September 2019

Mr Paul Freeman
Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attn: Ms Phillipa Duncan

Email: phillipa.duncan@planning.nsw.gov.au

BY EMAIL

Dear Ms Duncan,

RE: Request for Advice - Vickery Mine Extension (SSD-7480)

I refer to your email of 3 September 2019 via the NSW Planning Portal seeking our comments on the Response to Submissions Report for the proposed Vickery Mine Extension (SSD 7480).

The Environment Protection Authority (EPA) has reviewed the response provided by the proponent and has determined it is able to provide recommended conditions of approval for your consideration. Our recommended conditions of approval are provided at **Attachment A** and should be included in any approval document(s). Mandatory licence conditions are also provided for your information at **Attachment B**.

Our recommended conditions of approval relate to the development proposed in the documents and information currently provided to the EPA. If the proposal is modified, either by the applicant prior to the granting of consent, or as a result of proposed consent conditions, the EPA must be consulted about the changes before the consent is issued. This will allow the EPA to decide whether its recommended conditions need to be modified to account for the changes.

The EPA notes the proponent holds an Environment Protection Licence 21283 (EPL) for construction activities for the existing Vickery coal mine. If the proposed extension is approved, the proponent will need to apply to the EPA to vary the existing EPL.

The EPA provides the following comments that you may wish to consider in your overall assessment of the application.

Surface Water Assessment

The Response to Submissions report addresses issues raised relating to the surface water assessment in our previous correspondence of 18 October 2019. If approved, the proposed extension shall comply with Section 120 of the Protection of the Environment Operations (POEO) Act 1997, which prohibits the pollution of waters, except as expressly provided in an EPL.

Existing and proposed surface water quality controls are adequately designed, however, an initial short-term sampling program is recommended to confirm that metals will remain at non-trivial levels in any controlled discharges from the site. This can be determined by a short-term program used to inform ongoing monitoring or licence limits.

The EPA recommends the proposed extension be operated as a nil discharge mine water site with no mine water or 'coal contact water' to be discharged from the site. There may be potential indirect discharge of pollutants if collected mine water is reused outside of nil discharge mine water catchments.

Reuse of mine water or coal contact water must only occur within mine water management catchments and not to clean water, dirty water, or rehabilitated catchments. Mine water reuse in catchments that drain to the dirty water or rehabilitation area catchments could lead to runoff and discharges via the sediment basins in those areas.

All practical measures to mitigate the risk of seepage of mine water from storages into the surrounding aquifers or watercourses should be implemented by the proponent. Consistent with other contaminated water storages, the mine water storages should be lined to achieve a benchmark requirement for hydraulic conductivity of $1 \times 10^{-9} \text{ ms}^{-1}$ or less, with a constructed clay liner of at least 1000mm or a geosynthetic liner providing equivalent or better protection.

For water generated within the dirty-water catchments, the EPA recommends potential non-trivial pollutants in managed overflows from site sediment basins. be identified and monitored through the EPL. Managed overflows must only occur solely as a result of rainfall at the premises exceeding a total of 38.4 millilitres over any consecutive 5-day period and after all possible transfers of water to the mine water dams and water carts has occurred. Any settling agents used in sediment basins should be appropriately managed to ensure settling agent chemicals are not discharged to the environment or at concentrations that will not impact the receiving environment.

These issues are reflected in Attachment A at conditions L1, L2, O5 and E1.

Groundwater Impact Assessment

The Response to Submissions addresses issues raised relating to the groundwater impact assessment in our previous correspondence of 18 October 2019.

The EPA notes comments on page 30 of the Response to Submissions report that support the use of the final void to remain open and establish as a groundwater sink. The reasoning provided suggests poorer groundwater quality will be generated if the void is filled and also estimates the cost of backfilling the void is in the vicinity of \$600 million.

Given the life of the mine, if the proposed extension is approved, is 25 years, the EPA believes it appropriate to reconsider the final end use of the void during the life of the mine, particularly given advances technology and an increasing groundwater data set to help inform groundwater quality, quantity and flows in varying seasonal and climatic conditions.

Noise Impact Assessment

The Response to Submissions addresses issues raised relating to the noise impact assessment in our previous correspondence of 18 October 2019.

The proponent has provided references for each indicative sound power level (SWL) used in the noise modelling for the proposal, based either on manufacturer's data or measurements carried out at other mine sites. The SWLs are quite low. The EPA notes the proponent explains the low SWLs as they expect the equipment, to be be purchased in the future, will meet these levels.

Given these SWLs are the basis of modelling to determine impacts from the proposal, the EPA expects the proponent to achieve the predicted SWLs.

The EPA recommends, any approval for the proposal (if granted) should include a condition that measurements be performed on all items of plant and equipment at the premises to confirm that the SWLs

can meet or better the modelled levels as put forward in Table 5-4 of the Noise and Blasting Assessment (NBA) for the proposal, prior to operation on the site.

The EPA notes some uncertainty remains on the applicability for a low frequency modifying factor to noise emissions from the proposal at surrounding sensitive receivers, the EPA considers this can be adequately addressed through the inclusion of a standard condition that applies a modifying factor if low frequency noise is measured to be present at a receiver location, in accordance with Fact Sheet C of the Noise Policy for Industry.

The EPA also notes that the Response to Submissions Report states that if a 2 dB low frequency modifying factor was applicable to the maximum predicted noise levels in Table 6 of the Report, no additional properties would be 'significantly' noise-affected as per the Voluntary Land Acquisition and Mitigation Policy (VLAMP). The Report does not state what number of additional properties might fall into the 'moderate', 'marginal' and 'negligible' impact categories.

The EPA recommends that Department of Planning, Industry and Environment consider the issue of the 2dB low frequency modifying factor when compiling a list of receivers to be afforded voluntary mitigation rights or voluntary land acquisition rights, in any conditions of approval (if granted) for the proposal.

The justification provided by the proponent for hours of construction beyond the standard hours in Section 2.2 of the Interim Construction Noise Guideline (ICNG) is not sufficient as it is based primarily on reducing the construction period, rather than the considerations provided in the ICNG.

The EPA recommends that the standard construction hours in Section 2.2 of the ICNG be adopted for construction activities associated with the project. Any construction activities outside these hours should comply with the 'Noise affected' (RBL + 5 dB) Management level in Table 2 of the ICNG at surrounding residences, unless a negotiated agreement is entered into with the relevant property owner(s).

These issues are reflected in Attachment A at conditions L4 and L5.

Air Quality Impact Assessment

The Response to Submissions addresses issues raised relating to the air quality impact assessment in our previous correspondence of 18 October 2019.

Additional information was provided in the Response to Submissions report regarding the intensities of operation and associated air emissions.

Emissions from onsite hauling of coal from neighbouring mines has not been provided. The EPA acknowledges this is a small percentage of total haulage emissions, noting the onsite road to the coal handling preparation plant (CHPP) is sealed which reduces haulage emission sources.

The EPA notes the proponent commits to achieving 90% control factor for haulage using a combination of chemical suppressant, water and speed limits on haul roads. The proponent should be encouraged to identify dust control measures to achieve this level of dust control during climatic conditions such as drought, when water resources are limited. This could be included as part of any air quality management plan developed for the premises.

Waste

The Response to Submissions does not provide any commentary on waste management at the premises. The EPA requested additional information be provided on the assessment of waste generation, management and disposal.

The EPA recommends a Waste Management Plan will be included in any consent conditions, should approval be granted. Matters for consideration should include, but not be limited to:

- domestic, general solid waste;
- handling and disposal of hazardous waste including chemical waste, dangerous goods and similar;
- septic waste; as well as
- waste tyres.

The Waste Management Plan should demonstrate consideration of the waste hierarchy being, reuse and recycling options ahead of disposal. Where disposal is proposed, the proponent needs to justify why this option is the preferred option.

The EPA reminds the proponent that land pollution is an offence under section 142A of the POEO Act and includes the placement of more than 5 tonnes of waste tyres or more than 500 waste tyres in total. Any coal mine operation that disposes of waste tyres onsite over the prescribed thresholds (being 5 tonnes or 500 tyres) would be polluting land for the purposes of the definition unless a defence, such as condition of a Project Approval or EPL is provided.

As no information has been provided on the waste management strategy for the proposed development, the EPA has included a standard condition at L3 in Attachment A.

Please contact me on (02) 6773 7000 or by email to armidale@epa.nsw.gov.au if you wish to discuss this matter further.

Yours sincerely



REBECCA SCRIVENER
Head Regional Operations Unit - Armidale
Environment Protection Authority

Encl: Attachment A and Attachment B – EPA General Terms of Approval

Attachment A – EPA Recommended Conditions of Approval for Vickery Mine Extension SSD-7480

The conditions listed in Attachment A are in addition to the existing conditions on Environment Protection Licence 21283 (EPL). Should the proposed extension be approved, the proponent will need to apply to vary the EPL before commencing any activities related to this proposal.

Administrative conditions

A1. Information supplied to the EPA

- A1.1** Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:
- the development application, SSD 7480, submitted to the Department of Planning and Environment;
 - the environmental impact statement titled, '*Environmental Impact Statement - Vickery Extension Project*' dated 2018 relating to the development; and
 - the response to submissions reported titled, '*Vickery Extension Project – Submissions Report*' dated August 2019.

A2. Fit and Proper Person

- A2.1** The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the *Protection of the Environment Operations Act 1997*, having regard to the matters in s.83 of that Act.

Note: *This condition is a pre-requisite for issuing an environment protection licence and will not appear on any environment protection licence.*

Discharges to Air, Water and Applications to Land

P1. Location of monitoring/discharge points and areas

- P1.1** For the life of the project, the proponent shall ensure that there is a meteorological station in the vicinity of the site that complies with the requirements in the EPA document Approved Methods for Sampling of Air Pollutants in New South Wales.

The location of the meteorological monitoring station must be confirmed and approved by the EPA prior to earth moving activities being undertaken at the site

Limit conditions

L1. Pollution of waters

- L1.1** Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation of the development, Section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in and in connection with the carrying out of the development.

L2. Water

- L2.1** For each point identified in the table below, no discharge to waters is permitted unless the specified rainfall depth is exceeded.

Point	Specified rainfall depth
Spillway from sediment dam X	Rainfall at the premises exceeding a total of 38.4 millilitres over any consecutive 5-day period
Spillway from sediment dam Y	Rainfall at the premises exceeding a total of 38.4 millilitres over any consecutive 5-day period.

Note: rainfall at the premises exceeding a total of 38.4 millilitres over any consecutive 5-day period being the 90th-ile 5-day rainfall depth *for the Gunnedah area*

L3. Waste

L3.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*.

L3.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the *Protection of the Environment Operations Act 1997*.

Note 1: Condition L3 is included to ensure that a premises based activity is not used as a waste facility (unless that scheduled activity is permitted by another condition).

Note 2: Land pollution is an offence under section 142A of the POEO Act and includes the placement of more than 5 tonnes of waste tyres or more than 500 waste tyres in total. Any premises that disposes of waste tyres onsite over the prescribed thresholds (being 5 tonnes or 500 tyres) would be polluting land for the purposes of the definition unless a defence, such as condition of a Project Approval or EPL is provided. Condition L3 does not permit the disposal of waste tyres onsite over the prescribed thresholds of 5 tonnes or 500 tyres over the life of the scheduled activity.

L4. Hours of operation

Construction hours

L4.1 Unless otherwise specified by another condition of this licence, construction activities must only be carried out:

- a. between the hours of 7am and 6pm Monday to Friday;
- b. between the hours of 8am and 1pm Saturday; and
- c. at no time on Sundays or Public Holidays.

L4.2 The following activities may be carried out outside the hours in Condition L5.1:

- a) Construction work that causes LAeq(15min) noise levels that are:
 - i. no more than 5 dB above rating background level at any residence not subject to a private negotiated agreement, in accordance with the *Interim Construction Noise Guideline* (DECC 2009); and
 - ii. no more than the noise management levels in Table 2 of the *Interim Construction Noise Guideline* (DECC 2009) at other sensitive land uses.
- b) Delivery of plant, equipment and materials which is required to be delivered outside standard construction hours by Police and/or other authorities for safety reasons.
- c) Emergency work to avoid loss of life, damage to property and/or environmental harm.
- d) Activities approved through the process outlined in Condition L5.3.

L4.3 The hours of construction specified in condition L5.1 may be varied with the prior written approval of the EPA. Any request to alter the hours of construction shall be:

- a) considered on a case-by-case or activity-specific basis;

- b) accompanied by details of the nature and justification for activities to be conducted during the varied construction hours;
- c) accompanied by written evidence that appropriate consultation with potentially affected noise sensitive receivers and notification of relevant agencies has been and will be undertaken;
- d) all reasonable and feasible noise mitigation measures have been put in place; and,
- e) accompanied by a noise impact assessment consistent with the requirements of the *Interim Construction Noise Guideline* (DECCW, 2009).

Operating Hours

L4.4 Unless otherwise specified by another condition of this licence:

- a) mining operations may be carried out 24 hours a day, seven (7) days a week; and
- b) road transport of run of mine (ROM) coal may occur between 6am-9:15pm Monday to Friday and 7am-5.15pm Saturdays only.

L5. Noise Limits

L5.1 Noise generated at the premises must not exceed the noise limits at the times and locations in the Table below. Location numbers are taken from the Vickery Extension Project Noise and Blasting Assessment prepared by Wilkinson Murray (Report 15260 Version A dated 8 August 2018).

Location	Coordinates (MGA84 Zone 56)		NOISE LIMITS dB(A)			
	Easting	Northing	Day	Evening	Night	Night
			L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{AFmax}
127b - 'Mirrabinda'	227568	6591875	40	40	40	52
131a - 'Dennison'	227562	6588753	40	37	37	52
131b	227591	6588442	40	36	36	52
132 - 'Lanreef'	227705	6588285	40	36	36	52
Any other privately-owned residential receiver without a negotiated agreement in place			40	35	35	52

L5.2 For the purposes of demonstrating compliance with Condition 5.1:

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,
- Evening is defined as the period from 6pm to 10pm all days,
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays

L5.3 The noise limits set out in condition L5.1 apply under the following meteorological conditions:

Assessment Period	Meteorological Conditions
Day	Stability Categories A, B, C, D and E with wind speeds up to and including 3m/s at 10m above ground level
Evening	
Night	Stability Categories A, B, C, D and E with wind speeds up to and including 3m/s at 10m above ground level; or

	Stability Category F with wind speeds up to and including 2m/s at 10m above ground level
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L5.4 If the meteorological conditions do not need the conditions described in condition L5.3, the noise limit is the equivalent of those described in condition L5.1 plus 5dB.

L5.5 For the purposes of condition L5.3:

[LOCATION OF BUREAU OF METEOROLOGY or ONSITE METEOROLOGICAL STATION TO BE NEGOTIATED WITH PROPONENT BY EPA AND CONSENT AUTHORITY]

- a) The meteorological conditions are to be determined from meteorological data obtained from the on-site meteorological weather station; and
- b) Stability Category shall be determined by the sigma-theta method referred to in Fact Sheet D of the Noise Policy for Industry.

L5.6 To determine compliance:

- a) with the $L_{Aeq(15\text{ minute})}$ noise limits in condition L5.1, the noise measurement equipment must be located:
 - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
 - within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
- b) with the noise limits in condition L5.1, the noise measurement equipment must be located:
 - at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by condition L6.6(a).

L5.7 A non-compliance of condition L5.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by conditions L5.6(a) and L5.6(b); and/or
- at a point other than the most affected point at a location.

L5.8 For the purposes of determining the noise generated at the premises the modification factors in Fact Sheet C of the Noise Policy for Industry must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

L5.9 Compliance measurements should not be undertaken during rain or where wind speed at microphone level will affect the acquisition of valid sound pressure level measurements.

Additions to Definition of Terms of the licence

- Noise Policy for Industry - the document entitled "Noise Policy for Industry" published by the Environment Protection Authority in October 2017."
- Noise – 'sound pressure levels' for the purposes of conditions L5.1 to L5.9.

L6. Potentially offensive odour

L6.1 No condition of this licence identifies a potentially offensive odour for the purposes of Section 129 of the *Protection of the Environment Operations Act 1997*.

Note: *Section 129 of the Protection of the Environment Operations Act 1997 provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.*

Operating conditions

Note: Conditions O1 and O2 are mandatory on all environment protection licences and are included in Attachment B.

O3. Dust

O3.1 Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

O3.2 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O5. Processes and management

Mine water storage liners

O5.1 Mine water storages must be lined to achieve a benchmark requirement for hydraulic conductivity of $1 \times 10^{-9} \text{ ms}^{-1}$ or less with a constructed clay liner of at least 1000mm or a geosynthetic liner providing equivalent or better protection.

Reuse of Minewater

O5.2 Reuse of mine-water or coal contact water must only occur within mine water management catchments and not to clean water, dirty water, or rehabilitated catchments.

O5.3 If reuse of mine water is proposed in a catchment other than mine water catchments, then the proponent must assess potential risks, in consultation with the EPA, including:

- salinity of irrigation water and related erosion and soil structure degradation risks;
- salinity and pollutants in mine water runoff to sediment basins that discharge to the environment and increased risk of a wider range of potential pollutants in discharges.

Any reuse of mine water in catchments other than mine water catchments must not occur before the EPA provides written approval to the proponent. This may be in the form of a licence variation notice or via letter.

Sediment settling agents

O5.4 Operation of sediment basins must follow best practice in the use of sediment settling agents. In determining the preferred settling agent, the proponent must demonstrate, to the satisfaction of the EPA, consideration of the following factors, prior to using the preferred settling agent:

- a. use of settling agents with known lower toxicity such as gypsum
- b. use of settling agents with available information on their level of risk, e.g. suitable ecotoxicity information/testing results

- c. establish a best practice regime that would result in low risk of residual settling agents being present in discharges
- d. demonstrate the best practice regime with appropriate discharge trigger values, active constituents monitoring and associated sediment monitoring.

Run of Mine Hopper

05.5 The Run of Mine hopper must be enclosed on 3 sides.

06. Waste management

06.1 The proponent must prepare and implement a Waste Management Plan for the premises. The Waste Management Plan must include, but is not limited to, management measures for:

- a. waste tyres; and
- b. waste oils, chemical, mechanical and hazardous waste; and
- c. general solid waste; and
- d. septage and grey water.

07. Other operating conditions

07.1 Stormwater/sediment control – Construction Phase

A Soil and Water Management Plan (SWMP) must be prepared and implemented. The plan must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The SWMP should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (Landcom 2004).

07.2 Stormwater/sediment control - Operation Phase

A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Source Control* (EPA 1998) and *Managing Urban Stormwater: Treatment Techniques* (EPA 1997).

Monitoring and recording conditions

Note: Conditions M1, M2 and M3 are mandatory on all environment protection licences and are included in Attachment B.

M4. Weather monitoring

M4.1 An onsite meteorological weather station must be built, maintained and operated so as to be capable of continuously monitoring the parameters specified in condition M4.2.

M4.2 The proponent must monitor the parameters specified in Column 1 of the table below at the onsite weather station, using the sampling method, units of measure, averaging period and sampling frequency specified in the other columns. Sampling methods are defined in the *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DEC 2007).

Onsite weather station

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Siting	-	-	-	AM-1
Air temperature at 2 metres	degrees Celsius	Continuous	1 hour	AM-4
Air temperature at 10 metres	degrees Celsius	Continuous	1 hour	AM-4
Wind direction at 10 metres	degrees	continuous	10 minute	AM-2 and AM-4
Wind Speed at 10 metres	metres per second	continuous	10 minute	AM-2 and AM-4
Sigma theta	degrees	continuous	10 minute	AM-2 and AM-4
Rainfall	mm/hour	Continuous	1 hour	AM-4
Total solar radiation	watts per square metre	continuous	10 minute	AM-4

M4.3 The licensee must develop and implement a calibration, quality assurance, quality control and audit program for the meteorological monitoring station. The program must be approved by the EPA prior to the installation of any new monitoring equipment. The monitoring of all parameters listed in Table 1 must commence prior to the earth moving activities being undertaken at the site.

M5. Requirement to monitor volume or mass

M5.1 For each discharge point or utilisation area specified below, the applicant must monitor:

- the volume of liquids discharged to water or applied to the area;
- the mass of solids applied to the area;
- the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure specified below.

Each holding pond spillway

Frequency	Unit of Measure	Sampling Method
Daily during any discharge	Kilolitres per day	By calculation (volume flow rate or pump capacity multiplied by discharge duration)

M5.1 The EPL may include further volume, mass or concentration monitoring requirements. Such requirements will be determined by the EPA considering the further assessments required by Condition E1.

Note: Conditions M6 and M7 are mandatory on all environment protection licences and are included in Attachment B.

Reporting conditions

Note: Conditions R1, R2 and R3 are mandatory on all environment protection licences and are included in Attachment B.

General Conditions

Note: Conditions G1 and G2 are mandatory on all environment protection licences and are included in Attachment B.

Special Conditions

E1. Short-term site discharge monitoring program

E1.1 The proponent must develop and undertake a short-term water quality monitoring and mitigation program for the current and future discharge point(s) in accordance with the monitoring requirements described under these General Terms of Approval and the EPL. The proponent must develop and implement a representative short-term monitoring program to inform:

- a risk assessment based on the sampling results to assess the potential for the presence and impact of pollutants in wastewater
- a revision of mitigation measures, as needed, to further improve water quality discharged from the site, e.g. use of filter strips and bioswales to further remove fine sediment and any attached pollutants in controlled discharges or managed overflows
- any additional pollutants in controlled discharges that should be regulated (EPL limits) and/or monitored under the EPL
- any revisions to current water discharge limits.

Monitoring must occur initially for a full range of potential pollutants during controlled discharges and managed overflows. This discharge monitoring must include, but is not limited to:

- a full suite of metals including but not limited to As, B, Sb, Se, Hg, Ag, Mo, Al;
- sulfate, total dissolved solids and electrical conductivity, major ions
- pH, total suspended solids and turbidity
- any residual settling agent risks (flocculants or coagulants)
- volume and frequency of controlled discharges and frequency of managed overflows.

This initial monitoring must occur until it is demonstrated that mitigation measures are effective (e.g. measures include placement of inert material on the outer surfaces of the waste rock emplacement).

Subject to initial results, a reduced suite of key indicators may be able to be developed, however, periodic monitoring of a wider suite of analytes may be required based on the initial monitoring program results.

E2. Air Quality Management Plan * (for inclusion in any project approval/consent document).

E2.1 For all emission sources at the site the proponent must prepare an air quality management plan that includes, but is not limited to:

- *Key performance indicator(s);*
- *Monitoring method(s);*
- *Location, frequency and duration of monitoring;*
- *Record keeping;*
- *Response mechanisms; and*
- *Compliance reporting.*

E2.2 The air quality management plan must be implemented prior to the commencement of any dust generating activities at the site.

E3 Non-Road Mobile Diesel * (for inclusion in any project approval/consent document).

E3.1 The applicant must ensure that any item of non-road mobile diesel equipment commissioned into service and operating at the premises after 30 June 2020:

- i) complies with the US EPA Tier 4 final or equivalent exhaust emission standard; or
- ii) is otherwise approved, in writing, by the NSW EPA for use on the premises.

Note 1 – ‘commissioned into service’ is defined as the act of using the item of non-road mobile diesel equipment for commercial or industrial activities for the first time in Australia.

Note 2 – US EPA Tier 4 final is defined by USEPA (2016), Non-road Compression-Ignition Engines: Exhaust Emission Standards, EPA-420-B-16-022, March 2016, U.S. Environmental Protection Agency, Office of Transportation and Air Quality (6401A), 1200 Pennsylvania Avenue, NW, Washington, DC 20460, United States. <https://www.epa.gov/emission-standards-reference-guide/nonroad-engines-and-vehicles-emission-standards>.

Acceptable equivalent standards include EU stage V and any other international non-road emission standard with emission limits equal to or lower than the applicable US EPA Tier 4 standard.

Note 3 – For the purpose of this condition, *non-road mobile diesel equipment* means:

- i) equipment fitted with a diesel (compression ignition) engine, that is either self-propelled or portable and transportable as indicated by the presence of wheels, skids, lifting handles/points, dolly, trailer or platform mounted; and
- ii) which is primarily designed for off-road use; and
- iii) is not an eligible vehicle under the NSW Road Transport (Vehicle Registration) Regulation 2007, but may be conditionally registered for the purpose of moving from one off-road work site to another; but does not include:
 - a. equipment primarily designed to be operated on public roads for the transportation of freight or passengers; and
 - b. diesel locomotives
 - c. diesel generators.

Attachment B – Mandatory Conditions for all EPA licences

Administrative conditions

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises.

Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a. the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b. the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a. must be maintained in a proper and efficient condition; and
- b. must be operated in a proper and efficient manner.

Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the *Protection of the Environment Operations Act 1997*, in relation to the development must be recorded and retained as set out in conditions M1.2, M1.3 and M1.4.

M1.2 All records required to be kept by the licence must be:

- a) in a legible form, or in a form that can readily be reduced to a legible form;
- b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected:

- a) the date(s) on which the sample was taken;
- b) the time(s) at which the sample was collected;
- c) the point at which the sample was taken; and
- d) the name of the person who collected the sample.

M2. Requirement to monitor concentration of pollutants discharged

M2.1 Any licence issued for the proposal may include detailed pollutant monitoring requirements. Those requirements will be determined by the EPA considering the further assessments required by Condition E1.

M3. Testing methods – concentration limits

M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

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M6 Recording of pollution complaints

M6.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M6.2 The record must include details of the following:

- a. the date and time of the complaint;
- b. the method by which the complaint was made;
- c. any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- d. the nature of the complaint;
- e. the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- f. if no action was taken by the licensee, the reasons why no action was taken.

M6.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M6.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M7 Telephone complaints line

M7.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M7.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M7.3 Conditions M6.1 and M6.2 do not apply until 3 months after the licence is issued.

Reporting conditions

R1 Annual Return documents

What documents must an Annual Return contain?

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

- d. a Statement of Compliance,
- e. a Monitoring and Complaints Summary,
- f. a Statement of Compliance - Licence Conditions,
- g. a Statement of Compliance - Load based Fee,
- h. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
- i. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
- j. a Statement of Compliance - Environmental Management Systems and Practices.

Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

R1.2 An Annual Return must be prepared in respect of each reporting, except as provided below

Note: *The term “reporting period” will be defined in the dictionary at the end of the licence. Do not complete the Annual Return until after the end of the reporting period.*

R1.3 Where this licence is transferred from the licensee to a new licensee,

- b. the transferring licensee must prepare an annual return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- c. the new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: *An application to transfer a licence must be made in the approved form for this purpose.*

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on

- a. in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b. in relation to the revocation of the licence – the date from which notice revoking the licence operates.

Deadline for Annual Return

R1.4 The Annual Return for the reporting period must be supplied to the EPA using eConnect EPA or registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the ‘due date’).

Licensee must retain copy of Annual Return

R1.6 The licensee must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

R1.7 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a. the licence holder; or
- b. by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the EPA’s Pollution Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Note: *The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.*

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

- a. where this licence applies to premises, an event has occurred at the premises; or

b. where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

- a. the cause, time and duration of the event;
- b. the type, volume and concentration of every pollutant discharged as a result of the event;
- c. the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
- d. the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e. action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f. details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- g. any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

G1 Copy of licence kept at the premises or on the vehicle or mobile plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

G2 Contact number for incidents and responsible employees

G2.1 The licensee must operate one 24-hour telephone contact line for the purpose of enabling the EPA:

- a. to contact the licensee or a representative of the licensee who can respond at all times to incidents relating to individual premises, and
- b. to contact the licensee's senior employees or agents authorised at all times to:
 - i. speak on behalf of the licensee, and
 - ii. provide any information or document required under licence.

G2.2 The licensee is to inform the EPA of the contact number within 3 months of the licence being issued.

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