

# Environment Protection Licence - Sunrise

# Who is the NSW EPA?

- The NSW Environment Protection Authority protects our environment and community
- We do this by being a leader, a partner and protector
- We lead in protecting our air, waterways, land and health of the community
- We work with communities, government and business
- We hold people and organisations to account through:
  - Licensing
  - Monitoring
  - Regulation
  - Enforcement

# Environment Protection Licence

- The Sunrise development needs an environment protection licence before it can commence development;
- The EPL includes conditions that the mine must meet;
- These conditions cover:
  - Air- dust and other air emissions;
  - Noise – monitoring and prescribed limits;
  - Water – water pollution prevention, water monitoring for both groundwater and surface water;
  - Operation and reporting conditions.

# Operating Conditions

## 4 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.

# Example Conditions - Dust

## O3 Dust

O3.1 All areas in or on the premises must be maintained in a condition that prevents or minimises the emission into the air of air pollutants (which includes dust).

O3.2 Any activity in or on the premises must be carried out by such practicable means as to prevent or minimise the emission into the air of air pollutants (which includes dust).

O3.3 Any plant in or on the premises must be operated by such practicable means as to prevent or minimise the emission into the air or air pollutants (which includes dust).

# VEHICLES ON HAUL ROADS



# DRILLING RIGS



# Example dust monitoring condition

POINT 2,4

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	AM-22
PM2.5	micrograms per cubic metre	Continuous	AM-22

# Example Conditions - Noise

## POINT 11

<u>Time period</u>	Measurement parameter	Measurement frequency	Noise level dB(A)
Day	L <sub>Aeq</sub> (15 minute)	-	38
Evening	L <sub>Aeq</sub> (15 minute)	-	36
Night	L <sub>Aeq</sub> (15 minute)	-	31
Night	Night-LA1 (1 minute)	-	45

## POINT 12

<u>Time period</u>	Measurement parameter	Measurement frequency	Noise level dB(A)
Night	Night-LA1 (1 minute)	-	45
Day	L <sub>Aeq</sub> (15 minute)	-	44
Evening	L <sub>Aeq</sub> (15 minute)	-	40
Night	L <sub>Aeq</sub> (15 minute)	-	35

### L4 Noise limits

- L4.1 Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.



# Meteorological Monitoring

## POINT 19

Parameter	Sampling method	Units of measure	Averaging period	Frequency
Wind Speed at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous
Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous
Sigma Theta	AM-2 & AM-4	Degrees	15 minutes	Continuous
Rainfall	AM-4	millimetres	15 minutes	Continuous
Temperature at 10 metres	AM-4	degrees Celsius	1 hour	Continuous
Relative humidity	AM-4	percent	1 hour	Continuous

# Water Monitoring

## M2.3 Water and/ or Land Monitoring Requirements

POINT 20,21,22,23,24,25,26,27,28,29,30,31

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic	milligrams per litre	Weekly during any discharge	Grab sample
Bicarbonate	milligrams per litre	Weekly during any discharge	Grab sample
Cadmium	milligrams per litre	Weekly during any discharge	Grab sample
Calcium	milligrams per litre	Weekly during any discharge	Grab sample
Carbonate	milligrams per litre	Weekly during any discharge	Grab sample
Chloride	milligrams per litre	Weekly during any discharge	Grab sample
Conductivity	microsiemens per centimetre	Weekly during any discharge	Grab sample
Copper	milligrams per litre	Weekly during any discharge	Grab sample

# Air Verification Report

1. Prior to commencement of construction of the processing plant and power generation facilities the applicant must provide an Air Quality Verification Report to the EPA for approval, (the Verification Report). The Verification Report must:
  - a. Demonstrate that all feasible and reasonable best practice mitigation measures have been incorporated into the design of the processing plant and power generation facilities;
  - b. Include manufacturers specifications or emission performance guarantees for each emission discharge point associated with the processing plant and power generation facilities;
  - c. Confirm that all emission discharges will comply with the prescribed concentrations contained in the *Protection of the Environment Operations (Clean Air) Regulation 2010* and benchmarked best practice emission concentrations; and
  - d. Include an Air Quality Impact Verification Assessment (the Verification Assessment) based on final design and emission performance of the processing plant and power generation facilities. The Verification Assessment must:
    - i. be conducted in strict accordance with the *Approved Methods for Modelling and Assessment of Air Pollutants in NSW*
    - ii. assess all potential point and fugitive air pollutant emission sources associated with the processing plant and power generation facilities at the premises
    - iii. confirm predicted impacts will comply with the impact assessment criteria contained in the *Approved Methods for Modelling and Assessment of Air Pollutants in NSW*
    - iv. Propose air emission limits and monitoring requirements for all significant air emission points.

# Community Question – Real time monitoring

- Continuous monitoring for 2 sites – dust – TEOM (construction and operation);
- Continuous monitoring for meteorology (construction and operation);
- Continuous monitoring for air emissions, sulphuric acid plant stack, two power generation facilities (operation only).