

Dust



No nuisance or health impact to local residents from dust, air emissions or light spill generated by construction mining or closure activities

Definitions

Terramin will undertake air quality monitoring at various locations around the site. National ambient air quality standards (aka. NEPM) were established in 1998. In South Australia the EPA (Environment Protection Authority) monitors air quality.

Terramin undertook an Air Quality Impact Assessment which modelled the project's predicted particulate matter (PM) levels during construction and operation. The report also identified which mitigation strategies to use to ensure Terramin remains well below allowable air quality emissions.

The Air Quality Assessment report considered particulate matter (PM) – the range of particles within the air we breathe, using three measurements;

- PM 2.5 – particles <2.5 micron
- PM10 – particles <10 micron
- TSP (Total Suspended Particulates) – particles <50 micron

The report indicated no exceedances of any Project Objectives at any sensitive receptors through construction or operation.

The site will be controlled by a Dust Management and Monitoring Plan, which will be reviewed by the EPA, Department for Environment and Water (DEW) and the Department for Energy and Mining (DEM).

Design Strategies

Design strategies which will mitigate and control dust include;

- Seal onsite, internal roads.
- Sealed carparks.
- Enclosed loading area from ROM(Run of Mine) silo
- Enclosed ROM silo system rather than ROM pad.
- Enclosed haulage trucks.
- Screening (windbreaks) with use of landscaped earth bunds and boundary vegetation surrounding the operating area.
- Revegetation strategies (ground cover) on bare earth areas – planted through construction and established through operation and closure.
- Vehicles and plant fitted with appropriate emission control systems.
- Vent raise location – moved to Goldwyn rather than other locations to avoid sensitive receptors (residence and native vegetation).



Water truck



Truck wheel wash bay



Enclosed loading bay



Vegetated Windbreaks



Landscape irrigation



Hydromulching of landforms

Management Strategies

Terramin will apply the following management strategies during construction and operation to manage dust;

- No on-site crushing or screening.
- Vehicle separation – Road between underground and IML separate from deliveries, ROM silo system, water treatment plant.
- Implementation of wheel washing system and wash down of vehicles.
- Water truck on-site to reduce dust.
- IML Management Plan (includes sprinkler system on IML).
- Mine air quality monitoring (occurs underground, includes re-entry procedure, diesel particulate monitoring, etc.).
- Hydromulching (includes spray seeding) of newly constructed landforms (bunding, IML, etc.).

- Installation of Water sprinkler systems
- Dust suppressant products (biodegradable binder) on the decline and surface haul roads.
- Controlled moisture content of mullock and ore.
- Mullock is placed on the surface temporarily before replacement underground.
- Modification of operations (reduction or cessation) during adverse meteorological conditions (ie: dry/windy conditions).

Terramin will implement a Dust Management and Monitoring Plan. This plan includes Trigger Action Response Plan (TARP) and defines adverse conditions.