Noise monitoring

FGM undertakes routine attended noise monitoring in and around the Fosterville mine site. The monitoring allows us to assess compliance with prescribed noise limits and continuously improve operational noise management.

Noise Limits

The noise limits are set in accordance with guidelines published by EPA Victoria. The limits are based on planning schemes and any existing background conditions that may contribute to the noise environment.

Varying limits are set for day, evening and night-time periods. The limits are required to be met at the nearest receptors, which in the case of noise, is generally a residence.

Monitoring Sites	Day (7am – 6pm)	Evening (6pm – 10pm)	Night (10pm – 7am)
Farming Zone	46 dBA	41 dBA	36 dBA
Rural Living Zone	45 dBA	38 dBA	33 dBA

Left: Attended noise monitoring outside the FGM site boundary. Above: FGM's maximum permitted noise levels.

Attended Noise Monitoring

To assess compliance with the noise limits, FGM undertakes noise monitoring in accordance with a monitoring schedule. A monitoring session consists of a technician completing an attended 30-minute noise recording with a sound level meter.

Throughout attended noise monitoring sessions, the technician takes notes of all recorded noise sources, including extraneous sources (e.g., wind, traffic, insects, animals) and mine-related sources.

At the conclusion of the session, the overall continuous sound pressure level (LAeq) is compared to the prescribed site limits.

Monitoring results are reviewed to assess noise levels, identify mine-related and extraneous noise sources and inform additional noise management measures, if required.

FGM's noise monitoring results are reported at quarterly Environment Review Committee meetings, attended by regulators and community representatives.

Locations where monitoring is conducted

Routine noise monitoring is undertaken at designated locations outside of the Fosterville Gold Mine boundary to assess noise levels at the nearest receptors to the operation.

FGM also undertakes noise monitoring during exploration programs such as diamond drilling, to monitor noise levels at receptors in exploration licence areas.

Image: Attended noise monitoring of crushing and ore stockpiling.

Minimising noise emissions

FGM adopt a suite of operational and physical control measures to minimise noise emissions, these include:

- Position infrastructure and equipment to minimise noise emissions.
- Make changes to the activities undertaken at the mine, such as constraining certain activities or equipment to designated times and locations.
- Install noise attenuation controls, including sound barriers (e.g. Hay bales), acoustic cladding/enclosures and sound curtains.
- Make modifications to plant and equipment (e.g. Noise shrouds on engine outlets).
- Undertake noise modelling to predict noise levels at receptors.
- Inform noise attenuation requirements in the project planning and design stage.

Left: Drill rig enclosed in acoustic shed.

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