



Wilgerup Mine Development

Noise

People living near the proposed Wilgerup Mine site, along the railway line and near Port Lincoln Wharf have asked Centrex about the effects of noise from the proposed Wilgerup iron ore mine, transport corridor and mineral exporting facility at the Port Lincoln Wharf site. This fact sheet has been prepared to answer these questions and to explain the controls that Centrex would put in place to reduce noise and its impact on local communities.

Investigations

Noise impact assessments have been undertaken for the proposed Wilgerup iron ore mine site, transport corridor and Port Lincoln Wharf site.

The noise level predictions are based on 'worst case' scenarios both for noise emissions and prevailing weather conditions.

Wilgerup Mine

What would be the main sources of noise?

The main sources of noise at the proposed Wilgerup mine site would be:

- **Blasting using explosives**

To reduce the noise impact from blasting, activities would be limited to once a day, would only occur during daylight hours and would not exceed 10 seconds in duration.

- **Crushing plant**

The ore crushing plant is planned to operate 12 hours a day, seven days a week. The level of noise from the ore crushing plant is quite high at close range. However, hearing protection measures are mandatory for those working in close proximity to the plant and excessive noise levels are not expected beyond the mine site.

To reduce the noise emissions from the crushing plant, noise attenuation mounds would be developed where required around the noise sources within the ore crushing area. These mounds would be formed from the mine overburden. The mounds would reduce the impact of noise from the mine at neighbouring homes.

- **Ore loading in the mine pit**

Excavators and various types of machinery would be required to load haul trucks in the mine pit. However, once the mining and truck loading zones reach 20-30 metres down into the open pit mine, the sound of truck loading would not be heard off the mine site.

Other noise sources would include trucks and bulldozers operating next to the mine pit and waste dump, as well as employee vehicles.

Centrex operations at the mine site will comply with the requirements of the *Environment Protection (Noise) Policy 2007*.

How is Centrex planning to reduce noise?

Centrex aims to minimise noise impacts through a number of innovative and proven methods. These would include:

- Engineered solutions, such as pit and machinery design;
- Vegetated noise attenuation mounds;
- Transport practices such as limiting exhaust braking; and
- Adjustment of operational times.

Transport Corridor

It is planned that the ore haulage trucks (up to triple road trains) would travel to the proposed rail siding near Tooligie on sealed roads. This would have a significantly lower noise impact than if they were to travel across unsealed roads. Drivers will also be instructed to limit the use of exhaust brakes during night time operations.

From the railway siding, the trains carrying the iron ore would travel on the existing railway line to the Port Lincoln Wharf. One to two trains would leave the railway siding for the wharf in a 24 hour period. A noise assessment of the proposed rail operation found that noise from the trains should be within Environmental Protection Authority (EPA) guidelines and limits acceptable to communities located along the rail corridor.

Port Lincoln Wharf

What would be the main sources of noise?

The main sources of noise generated at the proposed minerals exporting facility would include:

- **Train shunting and slogging**

Each iron ore train that arrives at the Port Lincoln Wharf would be split in two at the marshalling yard adjacent to London Street bridge and each half shunted into the rail unloading facility.

Slogging of the rail wagon couplings is the pushing and pulling effect created by the rail wagons as they are positioned for unloading.

The noise from the slogging of the iron ore wagons would be similar to the level of noise created by the existing wheat unloading operations.



The noise from slogging can be controlled by the driver using appropriate care, when accelerating and braking, to position each wagon for unloading. Centrex also intend to implement continuous unloading techniques to minimise slogging noise.

■ Rail wagon unloading

The sources of noises associated with the rail wagon unloading process include the locomotive engines, train shunting, slogging and breaking and the dust extraction motors and fans.

The rail unloading operation is expected to be the main source of noise but would only occur for approximately two hours at a time for each train arrival, which would be once or twice a day.

Engineering design controls have been incorporated into the design of the rail unloading facility to minimise noise impacts. These include the dust extraction motors and fans being located behind the building and covered to contain the noise.

■ Conveyor system and transfer points

The main noises associated with the conveyor system are drive unit motors (which move the conveyor) and dust extraction motors and fans at transfer points.

The ICS conveyor system proposed by Centrex is different to the conventional conveyor system currently used at Port Lincoln Wharf. The ICS conveyor system is expected to be quieter than the existing conveyor system as it uses a series of smaller, quieter drive units (motors) and does not use steel rollers.

■ Storage shed

The main noises from the storage shed would be from the motor and fans for the dust control system. The front end loaders working inside the shed should not be heard by any residential neighbours as the shed would be enclosed. The dust extraction fans are located on the northern (or sea) side of the storage shed to shield noise from the residential areas.

■ Ship loader

Operation of the ship loader would create some noise. The noise modelling indicated that this would not impact residents on shore.

Would I be affected by noise?

Noise modelling has revealed that the negative effects of noise in the Port Lincoln locality would be minimal. The worst case noise levels modelling indicate that the main source of noise would be the rail unloading operation. All modelled noise levels met the statutory noise limits according to the *Environment Protection (Noise) Policy 2007*.

How are Centrex planning to reduce noise?

The potential noise emissions have been reduced by the design of the proposed mineral exporting facility, for example the dust extraction motors and fans would be located behind the rail unloading facility and storage shed and covered to shield the noise from neighbouring properties.

The lower noise emissions are also obtained by the operating equipment such as the rail wagon unloading facility, conveyors and transfer points being enclosed.

Centrex has also published fact sheets on the following topics:

- Fact Sheet 1 – Project Overview
- Fact Sheet 2 - Mine Site Environmental Considerations and Remediation
- Fact Sheet 3 - Port Lincoln Wharf
- Fact Sheet 4 - Iron Ore Dust and You

For more information or to have your say contact:

Kevin Malaxos
Chief Operating Officer
Centrex Metals Limited
(08) 8232 0400

kmalaxos@centrexmetals.com.au

Level 3, 100 Pirie Street Adelaide

www.centrexmetals.com.au