



Wager Update 07

February 2005

Alcoa wants **our neighbours** to know about our current and planned activities at Wagerup Refinery.

This new Wagerup Update will **help do that.**

What's involved with unit three?

When announcing the Wagerup Unit Three proposal Alcoa made some important undertakings.

Alcoa said it would not increase noise, dust or odour **impacts** on residents from the refinery or mine.

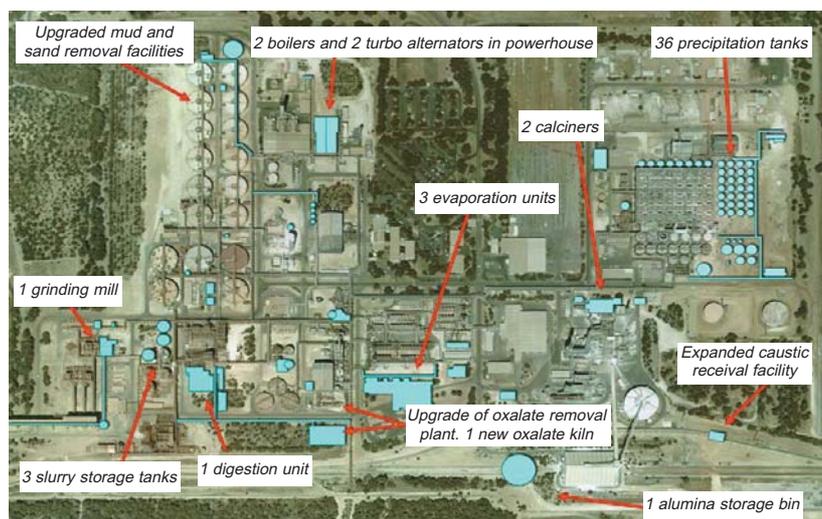
But what does this mean and how would Alcoa meet those undertakings?

Firstly, it doesn't mean there'd be no increase in emissions. Some emissions would increase. (e.g. carbon dioxide emissions)

But any increase in noise, dust or odour emissions would be offset by emissions cuts in other areas or by improved dispersion of emissions before they reach neighbours.

Secondly, while the Unit Three project would almost double production, it wouldn't double the refinery infrastructure. Nor would it double the number of emission sources.

The illustration at below shows the additional equipment that would be installed as part of this project.



As this illustration shows, new equipment (shown in blue) is proportionally small compared to the existing infrastructure.

Not shown on this map:

Various stock tanks and non-specific upgrades to other sections of the plant
Upgrade of water and power reticulation
New emergency stockpile
Additional ore reclaimer
Additional raw water storage
Expansion of residue drying areas
Upgrade and extension of overland conveyor system

Much of the extra production would come from improving the efficiency of **existing** refinery infrastructure.

The company would also improve the environmental efficiency of existing equipment, as it did recently for Calciners 3 and 4. For instance, Alcoa would fit Regenerative Thermal Oxidisers (RTOs) to the liquor burner and oxalate removal plant. These high temperature incinerators are capable of destroying over 99% of Volatile Organic Compounds (VOCs), the substances most responsible for odour.

It would introduce new technology and solutions at Wagerup to neutralise some emission impacts in key areas, despite the increase in production.

These include:

- Enclosing some systems to prevent odour release and diverting air from these systems to the high-temperature powerhouse furnaces
- Cutting vapour emissions from the digestion plant by about 80% through improved heat recovery
- Improving the existing slurry storage tanks to reduce their vapour emissions by about 75%.
- Destroying some calciner vent emissions in combustion burners
- Improving dust management systems on calciners
- Using low speed gearboxes, fans and motors where possible
- Installing new wide rollers to reduce the mine-to-refinery conveyor belt noise
- Increasing sprinkler coverage at the residue drying areas

There are other technologies or improvements Alcoa is examining, such as enclosed cooling systems to prevent the release of odours, and where practical these will be used.

All this will build on the improvements Alcoa has already made in recent years.

Socio-economic benefits

The company also undertook that the Wagerup Unit Three project would provide significant social and economic benefits and Alcoa is undertaking discussions and investigations to ensure the project will:

- Maximise local job participation both in construction and operation
- Create more opportunity for current and future small businesses
- Increase contributions to community-based initiatives
- Provide an opportunity for ongoing community involvement into the proposal
- Create a better focus on developing a sustainable region into the future.



To learn more about how Alcoa will meet its undertakings, go to www.alcoa.com/wagerup3 or contact Jodie Read on 9733 8620.