Safer. Cleaner. Better.

Island A-frame foundations rejuvenated

Queensland Alumina Limited (QAL) was commissioned in 1967 and is now one of the largest alumina refineries in the world. Reducing our impact on the environment is important to us and we have actively strived to improve plant performance over the years.

To help further reduce our impact on the community, crews have spent months working on one of the major 2012 planned improvement projects, surrounding dust.

QAL's A-frame foundations (Circa 1960).

In mid July crews spent three days installing number six main air-slide and its auxiliaries, in the wharf end of the Island A-Frame (alumina storage facility).

This is one of ten air-slides that sit in the cement foundations of the shed's floor. The main purpose of the air-slides is to feed alumina into the 'bomb shelter' (confined space inside shed), where alumina is sent to be loaded onto the conveyor.

The air-slides also keep the alumina moving along the base of the shed, helping it from setting hard and making it easier to extract. The original air-slides and auxiliaries are made from sheet metal and after 45 years of wear and tear with minor maintenance every few years, they are finally being replaced.

This is a major undertaking which has involved many teams; from planning to replacing the slides. Working inside the shed are three Boilermakers and three Trades Assistants from Monadelphous and four Alumina Producers (AP's) from QAL.

The workers entering the space are well aware of the hazards and perform their work with the up most safety. Excavators have been working inside the shed removing alumina from the floor; so maintenance work can happen on the air-slides.

QAL's Utilities Manager, Mark Greenaway is impressed with the work that has been going on in the A-frame and acknowledges the hard work and effort put in by the teams involved.

Air-slides leading into the 'bomb shelter'. Inside the shed 2012.

Inside the 'bomb shelter', all slides lead into here and feed the alumina onto a conveyor.

An aerial view of South Trees wharf and QAL's Island A-frame alumina storage facility (2010).

"Dust is one of the biggest sources of our community complaints and with the overhaul the storage shed is receiving it should significantly improve our impacts on the community."

"The biggest factor for the crews working on this project is weather and the tight timeframe. The high winter rain fall has made the process that much more difficult. Also the guys can only be in the shed between certain times due to vessel loading schedules, not to mention the dusty conditions inside the shed. They have done a great job."

Another improvement at the A-frame was the installation of dust collectors to the side of the shed; collecting approximately one tonne of alumina every three days. Although there are still significant improvements to be made, the air-slide project is one that will dramatically improve dust conditions at the alumina storage facility.

QAL will continuously look for opportunities to operate the refinery safer, cleaner and better. Air-slide's number seven and eight are now also completed with work currently being undertaken on nine and ten.

Construction of South Trees wharf, QAL (Circa 1960).

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