

## Adelaide Brighton Cement's Angaston Site Upgrade to Digital Communications

Adelaide Brighton Cement's existing two way radio communications at their Angaston site was an old Analogue simplex system, that required the user to change channels when working in either the tunnels or the quarry. Looking to upgrade their radio communications, each of the Production, Safety, and Finance departments at Adelaide Brighton had specific requirements for the proposed new system. These included:

### Production

- Utilising the latest digital technology
- Provide coverage over their entire site; including the underground tunnels, quarry, and process plant without having to change channels
- Back-up channel if system had a power failure
- Clear audible communications in and around high noise process equipment
- All call ability

### OH&S - Safety

- GPS tracking
- Lone worker functionality
- Ability to call all users in event of emergency evacuation

### Finance

- A fixed cost for the management of the system

Working with the Adelaide Brighton team from Angaston and Birkenhead operations, TR Hirecom was able to design a system for the Angaston site. Following a full site coverage test, it was established that Motorola MOTOTRBO digital radios would provide coverage across the site including the plant, quarry, and tunnels without the need to change channels. During the coverage testing, the radios were used in the high noise environments around the plant. This proved that Motorola's Intelligent Audio provided crisp and clear communications between the control room and portable radios, as well as portable to portables. These features were combined with a Managed Service Solution to meet the financial, safety and production requirements of Adelaide Brighton Cement.

The final solution for Adelaide Brighton included Motorola MOTOTRBO DP4801FM radios a 3 repeater system in Capacity + mode with battery back-up in case of power failure. The portable radios included a variety of accessories such as Remote Speaker Microphones, security earpieces, chest packs, and both single and multi-unit chargers.



Angaston Site



Following the signing of the agreement, TR Hirecom and Adelaide Brighton staff put together an installation and commissioning plan. This included the installation of a new mast and antenna system, fleet mapping of all subscribers, and the introduction of GPS tracking software. The repeaters were assembled and staged, radios programmed, and GPS software loaded at our Melbourne service centre. On completion of commissioning to manufacturers specifications, all equipment was shipped to the site.

Once on-site, final installation and testing was completed, the radios were issued, and the system was turned on. The new installation operated alongside the existing analogue system for a week, ensuring a smooth transition to the new digital system. Once Adelaide Brighton was confident with the new digital system, the old Analogue system was decommissioned.

Since the commissioning of the system, Adelaide Brighton has increased the number of on-site radios and is now looking to install the TR Hirecom Evacuation box for additional on-site safety. This additional safety measure can be programmed directly into the new digital system, demonstrating the flexibility of the Motorola MOTOTRBO digital range.

#### *Aerial view of the Adelaide Brighton Cement site in Angaston*



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