At the Timaru plant of McCain Foods (NZ) Limited, the existing two-way radio system was presenting some challenges. Radios were difficult to locate when required, and even when they were, inadequate coverage meant potential black spots. Poor quality of calls often meant that workers had to physically seek each other out anyway, thereby having an impact on employee productivity.

A solution utilising Motorola Solutions’ two-way radios and repeaters now delivers coverage throughout the site and clear conversations despite a background of industrial noise. The plant has subsequently been able to implement an asset management system, resulting in greater productivity, reduced costs and improved staff morale.
McCain began as a small frozen foods plant in Florenceville, Canada, opening in 1957. The first sales office opened in Auckland in 1987 and, through further acquisitions and development, now produces french fries, vegetables and meals in New Zealand, with plants located in Timaru and Hastings. The manufacturing plant in Timaru produces french fries all year round.

The existing analogue radio system at the Timaru site was beginning to struggle with the size of the site – more than 50 acres – and there were a number of black spots. Being a manufacturing site, the factory heavily relies on stainless steel within the premises, which created lots of static even where there was clear line of sight between callers.

In addition, each department ran its own set of radios, which included various models, in differing states of effectiveness and status. The radios tended to be allocated to a person, rather than a role, and it was difficult to ensure a smooth handover of adequately functioning equipment between workers or shifts.

Extensive penetration testing demonstrated that by using a Motorola Solutions repeater with upgraded two-way radios provided faultless coverage of the site, with no black spots.

McCain took the opportunity to futureproof its system and move to a digital system, rather than simply use boosters. A Motorola Solutions MOTOTRBO DR3000 repeater and DP3400 portable two-way radios were deployed, as well as a Capacity Plus software upgrade to achieve the required standards of communication.

DP3400 portable radios provide clearer voice communications throughout the coverage area, and up to 40 per cent longer battery life between recharges. Capacity Plus trunking is a scalable, single-site digital solution that allows a group of MOTOTRBO radio users to share both voice and data communication on the same system. It also enables repeaters to manage the availability of active channels, so that users are automatically connected to co-workers without switching channels.

“We used to replace two to three radios a year. We have now had the digital radio system for nearly two years and, in that time, we have only had to replace one radio due to a genuine incident.”

Karl Thin, plant manager – Timaru, McCain Foods (NZ) Limited
THE BENEFITS

The new system rolled out in May 2011, and has been in operation for more than a year.

McCain has achieved a range of benefits from the rollout:

• All radios are now uniform across the plant.
• Coverage is excellent, with no black spots.
• The noise-cancelling feature of the radios means clarity of conversation despite the background noise of a manufacturing facility.
• Improved staff morale arising from a more efficient working environment.
• The radios can be cleaned, which makes them ideal for use in a hygienic environment where food is produced:
  “The radios are waterproof so the ability to keep them clean is better and simple to execute. In this environment, the capacity to keep them hygienic is really good,” says Thin.
• The new equipment has enabled the development of a visual management system for accountability. McCain has been able to institute a tracking system so that workers coming on or off the site know which radios were ready to go, that they were fully charged, and who currently has them.
• Greater accountability and ownership has led to cost savings and a reduced rate of equipment replacement:
  “We used to replace two to three radios a year. We have now had the digital radio system for nearly two years and, in that time, we have only had to replace one radio due to a genuine incident. This is because everyone looks after the equipment better, given that the management system shows who had the radio last and who has it now. This development has been noted with appreciation from the leadership team,” says Thin.
• The system now enables different callers to share timeslots, where there was no ability before. Moreover, McCain can split channels between different areas of the business – security, maintenance and general operation – if need be to ensure confidentiality of conversations.
• The move to digital UHF frequency has future-proofed McCain’s onsite communication requirements.

• An increase in staff productivity and reduction in downtime:

“With the new system, manufacturing can now get in touch with the maintenance guys quickly, where before they would spend time tracking down a radio which had poor quality anyway. From a safety, quality, cost and delivery perspective, having good site coverage has benefited the business significantly,” says Thin.

Since the rollout, McCain has continued to enjoy the benefits of seamless communication.