

Specialty Chemical Production Plant Case Study

A multinational specialty chemical corporation, with production plants in 24 countries and nearly two dozen sites in the United States, owns and operates a chemical production and R&D facility in a major North Carolina city. Each floor of their eight-story building is divided into separate sections for wet and dry chemical production. However, the entire building had poor cell reception and needed a solution that was cost effective and could be quickly implemented.

THE CHALLENGE

The wet production area presented a special challenge: the equipment in this area is sprayed down with water after each production cycle. All the flooring consists of metal grating, allowing the water to flow down through each floor to be collected and drained. This grating creates a Faraday cage that blocks electromagnetic fields, including cellular signal.

Cell signal outside the building was quite strong at -50 to -65 dBm, but inside signal, at -95 to -110 dBm, was inadequate to complete phone calls and send and receive text messages.

THE SOLUTION

Employees at this chemical production facility count on cell service inside the building to send and receive work-related calls and texts. The company turned to a WilsonPro Certified Installer for help in solving their problem.

First, the installation began with a walkthrough and on-site consultation to gather site readings around the building. Then the site survey was handed off to design engineers to create a custom solution, where they would plan where the WilsonPro cellular amplifiers, antennas and cabling would be installed throughout the production plant.

To deal with the presence of water spray, the installation team designed a custom waterproof seal for the inside dome antennas that would go in the

Manufacturing



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building's wet production areas. Once the proposed design was completed and approved by the company, the installer returned to the site to deploy the WilsonPro cellular amplifier system. “Employees at this chemical production facility count on cell service inside the building to send and receive work-related calls and texts.” Part of the solution hinged on installing the WilsonPro 70 Plus, an amplifier designed to boost reception on all carriers in large commercial spaces and luxury homes. After the WilsonPro experts tried plugging in both the competitor's system and the 70 Plus model, it was clear that the WilsonPro model achieved far superior results.

THE RESULTS

The entire WilsonPro cellular amplifier solution covers over 150,000 square feet across three and-a-half floors of this chemical production building. Cell signal inside the facility is now a strong -65 to -80 dBm. This company and its employees are now able to use cell phones inside the facility and experience faster data speeds and seamless communication to the outside world.