

Nuclear Regulatory Commission

American Barcode & RFID uses Zebra Card Printer Solutions to improve nuclear power plant security

In response to the increased potential of terrorist attacks against key infrastructure facilities, the Nuclear Regulatory Commission (NRC) has raised security standards for nuclear power plants. American Barcode & RFID (AB&R) --a Zebra Card Printer Solutions partner--has created a custom ID verification application to help a major power provider meet the NRC's new security requirements, increase efficiency, and reduce costs.

The Challenge

The U.S. nuclear energy industry is serious about safety. They erect nuclear power plants to very high safety standards, with complex safety features and redundant critical functions. For fifty years these steps have kept the possibility of a catastrophic reactor accident from becoming a reality. However, the potential to deliberately create a catastrophe makes nuclear power plants attractive targets for terrorist attack or sabotage.

It is with this potential threat in mind that the NRC now requires all nuclear power plant security programs to include access authorization or ID verification measures. These measures must control access to the plant, monitor movement within the facility, and prevent unauthorized, undesirable, and unsafe intruders from penetrating areas where special nuclear material or key equipment are located.

When AB&R took on the task of helping a major nuclear power facility comply with the latest NRC regulations, they quickly saw that their client's legacy ID cards were going to be a problem. The cards lacked bar-coding, which hampered rapid ID verification. And their laminated coating was easy to peel off--an open invitation to tampering.

"The specific requirements of the application along with the critical timetable for implementation complicated the solution. NRC audit constraints dictated a wireless infrastructure for real-time verification along with a credential that was essentially tamper-proof," explained Steve Beck, AB&R's Strategic Account Manager for the project.

AB&R's solution to the client's ID verification issues was to create a custom application that would provide real-time verification of ID credentials and access authorization using wireless portable data terminals and Zebra P640i card printers. The enhanced features of the P640i enabled the issuance of highly secure ID badges that serve both as employee identification and access verification. While the current system utilizes bar code technology to verify each distinctive credential, it is designed to accommodate migration to new ID cards armed with UHF RFID technology. UHF RFID credentials enhance ID verification by leveraging time and distance as factors in data recognition and retrieval.

AB&R deployed the new system and trained the security staff in its use faster than anticipated, with minimal disruption of daily plant and security operations. Within a few weeks of installation, the security staff issued tamper-proof, personalized Zebra card-printed badges to the plant's entire population--some 2,500 employees, contractors, and vendors.

Today, anyone seeking entry to the client's facility must first present their ID badge, printed and encoded by a Zebra Card Printer, to a security guard. Utilizing a wireless portable data terminal, the guard then scans the card and receives instant confirmation of identity through the custom application developed by AB&R.

Given how the new control system helps plant security quickly identify and react to potential threats, it should come as no surprise that the client passed its subsequent NRC compliance audit. The Director of Security for the facility confirmed, "Not only did AB&R successfully meet all of the audit



specifications, they completed installation and training ahead of schedule. The audit went great! We are very pleased with the application they developed and the professional support they continue to provide.”

About American Barcode and RFID

AB&R is a nationally-recognized consultant and systems integrator of innovative Automatic Identification and Data Collection (AIDC) solutions for virtually any manufacturing, wholesale distribution or healthcare application. AB&R is a total solutions provider, specializing in barcode, radio frequency identification (RFID) and access control technologies. Based in Phoenix, Arizona and with sales offices throughout the United States, AB&R is committed to helping medium-to-large companies realize cost savings, operational efficiencies and increased security.

About Zebra Card Printer Solutions

A world leader in desktop card printers, Zebra Card Printer Solutions is a division of Zebra Technologies Corporation, which delivers innovative and reliable on-demand printing solutions to businesses and governments in 100 countries around the world. A broad range of applications benefit from Zebra brand thermal bar code label and receipt printers and plastic card printers (formerly branded Eltron®), in addition to RFID and real time locating systems, resulting in enhanced security, increased productivity, improved quality, lower costs and better customer service. Information about Zebra card printers can be found at www.zebracard.com. Information about Zebra Technologies can be found at www.zebra.com.

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Corporate Headquarters
+1 800 423 0442
E-mail: inquiry4@zebra.com

Asia-Pacific Headquarters
+65 6858 0722
E-mail: apacchannelmarketing@zebra.com

EMEA Headquarters
+44 (0)1628 556000
E-mail: mseurope@zebra.com

Latin America Headquarters
+1 847 955 2283
E-mail: inquiry4@zebra.com

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