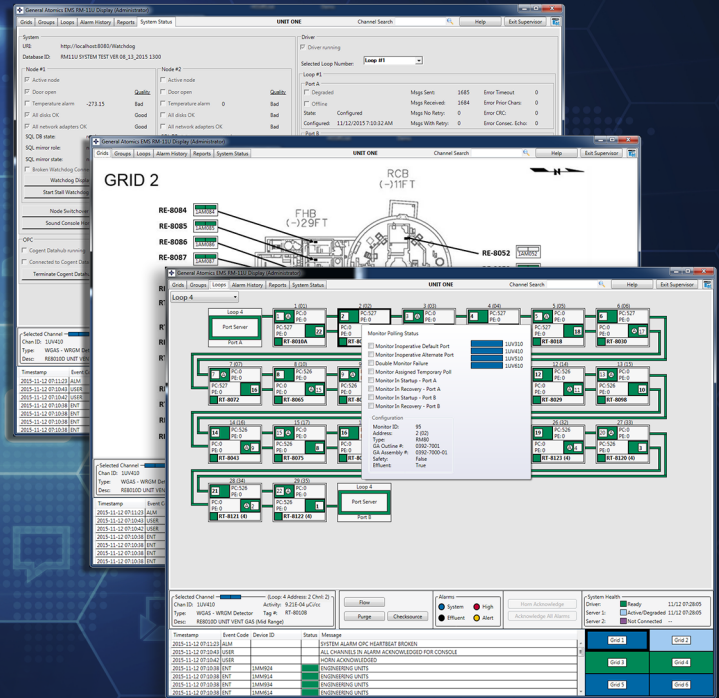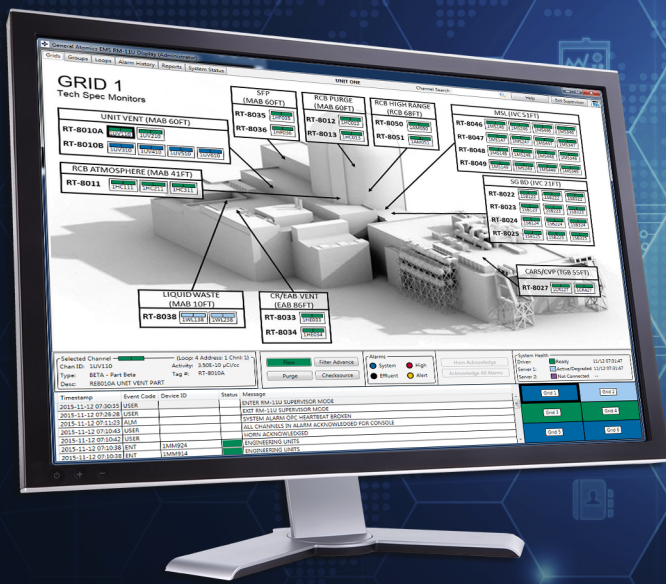# RM-11U

SUPERVISORY COMPUTER SYSTEM

General Atomics Electromagnetic Systems (GA-EMS) RM-11U supervisory computer system provides robust communications capabilities to collect radiation monitor information and display the information at remote consoles in the control room and other locations within a nuclear power plant.

- Provides health and status of radiation monitoring systems at a glance

- Includes graphical displays and tools to troubleshoot communication issues

- Supports GA-EMS RM-80, RM-2000 and RM-2020 systems

- Provides standard and custom reporting capabilities

- Complies with NRC-mandated cyber security requirements (NEI 08-09)

GENERAL ATOMICS
ELECTROMAGNETICS

RM-11U SUPERVISORY COMPUTER SYSTEM

RM-11U CAPABILITIES

The RM-11U supervisory computer system provides significantly enhanced functionality over legacy systems to help operators access information from radiation monitoring systems. The RM-11U software includes an intuitive Graphical User Interface (GUI) for data entry and navigation, along with extensive diagnostics functions to reduce the time required to troubleshoot radiation monitors and communication loop issues. Unlike legacy systems, the consoles are Windows® – based and support the use of a mouse and standard keyboard, making the RM-11U system both easy to learn and use.

The RM-11U also provides:

- Improved monitor communication to mitigate communication issues
- Loop communication troubleshooting tools
- High reliability using component redundancy
- System status display for system troubleshooting
- Customizable main views by monitor type, plant elevation, and building location
- Initiation of control functions for non-safety radiation monitors
- Communication interface that can be adapted to other protocols

The RM-11U is designed for easy installation to facilitate the replacement of legacy RM-11 systems and similar systems provided by other vendors. The RM-11U system components can be installed in existing racks and can also utilize existing shielded twisted pair loop cabling.

RM-11U supports RM-80, RM-2000 and RM-2020 monitors.

RM-11U SUPERVISORY COMPUTER SYSTEM

RM-11U CAPABILITIES

SIMULATOR AND TRAINING SYSTEM SUPPORT

The RM-11U can be connected to an existing plant simulator computer to support on-site operational training. By installing an RM-11U system, RMS simulator and a remote console in the training control room, operators are provided a more realistic and effective training experience. The plant simulator computer, connected via a network or serial connection to the RMS simulator, can control the simulated radiation monitors, and in turn make the RM-11U screens show the expected response during a given scenario.

CYBER SECURITY SUPPORT

The RM-11U was developed under a full verification and validation program per IEEE 1012 and was the first RMS computer system to pass an NRC cyber security inspection per NEI 08-09 recommendations. Cyber security applications can monitor the RM-11U's real-time communications data to flag changes at monitors and notify personnel of critical issues or possible intrusions within seconds.

SERVICE AGREEMENT

The RM-11U Service Agreement offers maintenance and support to ensure issues are resolved quickly and efficiently. Multiple areas of support are offered, including:

- Patch management to maintain cyber security compliance
- Software services to resolve customer-specific issues
- Computer hardware/software and upgrade support
- 24/7/365 telephone and e-mail support
- Spares and obsolescence management
- Requested enhancements