Nuclear Power Plant Radiation Monitoring System

Model: RMS-TA

Description Specifics

The RMS-TA System provides a single monitoring solution for multiple systems within a Nuclear Power Plant. An advanced built-in, computer network centered on the FM-9W-Hub which serve as an Ethernet node that communicates with the control room CPU /server.

Powerful, self-contained, multi-channel Stack detector-systems

Simpler systems including single channel Air Monitors as well as some stand-alone Area Monitors have fully-addressable, two-way USB-ports that communicate with the control room CPU /server.

Large numbers of Gamma and Neutron Area Monitor Detectors disbursed throughout most plants have local pre-amps, line-drivers and high-voltage-supplies; feed their pulses into the **FM-9W-Hub**, a specialized computer, containing 20 or more simultaneous and independent counters. The **FM-9W-Hub** analyzes these detector signals, and sends back signals to trip the local alarms as needed.

Central Control The control room CPU /server has authority and capability to change:

- Local Alarm Settings
- Baseline Zero Settings
- Counting Time Constants
- Calibration Factors and Other Parameters

Options
- Acknowledge Local Alarms
- Activate Solenoid Check Sources

Detector Type

- Noble Gas Monitors
- Gamma Area Monitors
- Accident Monitors
- Tritium Monitors

- Off-Line and In-Line Liquid Monitors
- Neutron Area Monitors
- Post-Accident Monitors
- Alpha Beta Gamma

- Particulate and Iodine Monitors
- Perimeter Monitors
- N-16 Leak Monitors
- CAMs Stack Monitors and More

Software Description

Reporting

RMS-TA Overview Software is straight forward, robust, easy to use, and accomplishes a wide variety of measurement and control tasks. Status Reporting and readings of all RMS detectors up-the-line to the Control Room CPU /server console. High capacity hard drive, and CD-writer make it easy to archive data for later analysis.

Data Analysis, Display, Hard-Drive, Hard-Copy, and Data Archive

RMS-TA Overview Software provides for each data collection channel, the net counts are automatically converted to suitable engineering units. For example: Air and Stack monitors typically read out in uCi on the filter or in concentration units, such as uCi/ml or Bq/m3 or other units of users choosing.

This real time information can activate door-locks, effluent-control-valves as well as triggering the alarms. Also, all data is saved to the hard drive in spreadsheet format. Historical data is easily displayed on-screen (and/or printed out on the included printer) in tabular format, showing quantitative information. Data is recorded frequently so time-resolution is excellent.

System Flexibility

Addition of new detectors as well as new calculations or functions can be made easily by user.