New Video: Reliable Flow Level Monitoring System For Spent Fuel Pools in Nuclear Power Plants

San Marcos, CA — A new video from Fluid Components International (FCI) highlights the new 1E qualified CL86 Plus Spent Fuel Pool Multi-Monitor System, which integrates three critical measurements: continuous level, point level and temperature into a multi-variable solution designed specifically for spent fuel pool (SFP) applications in nuclear power plants.

Recent events at Japan’s Fukushima Daiichi nuclear power plant have re-emphasized the importance of monitoring water level and conditions within the spent fuel pool, ensuring that spent fuel is kept cool and insulated to prevent the release of radiation. FCI instrumentation and technical expertise have supported this application in nuclear power plants around the world both prior to and since the incident at Fukushima.

As a leading supplier of level, temperature and flow instrumentation for the nuclear industry, including SFP level measurement installations, FCI has developed the new CL86 Plus System in response to this critical process need. FCI’s CL86 Plus System provides several important advantages in this application.

The new CL86 Plus Monitoring System features integrated continuous water level, multiple point level wet/dry indication and alarms, and water temperature sensors. These precision sensors operate independently from one another, offering the reliability and dependable accuracy required in demanding nuclear power plant installations. The CL86 Plus provides discrete and independent outputs of each measurement for interface with the plant control room and alarm systems.

The CL86 Plus is ideal for both new and retrofit SFP installations. It consists of a unified probe assembly that is immersed in the SFP and manufactured to the exact length specified for the depth of the application. The sensor design is an extension of FCI’s proven

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thermal dispersion technology for the nuclear industry. The sensor wires and electronics interface junction box are housed in a rugged metal enclosure that is water-tight and resistant to falling debris. The electronics are remote mounted up to 1000 feet [300 meters] away in a stainless steel NEMA rated enclosure for installation wire-up to power and to provide the outputs to the control room.

The CL86 Plus meets or exceeds all reliability requirements currently being required by the Nuclear Regulatory Commission (NRC) and the Nuclear Energy Institute (NEI) for SFP monitoring. It can be used as a solution to meet the U.S. Nuclear Regulatory Commission’s recent order EA-12-051, and interim staff guidelines, which outlines requirements for SFP level measurement and the time lines for its implementation.

The CL86 Plus is available with FCI’s proprietary in-situ verification of level operation. With this option, plant operators can verify proper operation and outputs from the CL86 Plus without having to alter or drain water from the pool or remove the CL86 Plus from its installation.

For operator’s who prefer individual instruments for each parameter or where installation constraints do not allow use of the CL86 Plus, FCI can supply specific, dedicated instruments. FCI is the world’s leading manufacturer of thermal dispersion technology-based level and flow instrumentation. The company has been a continuous, nuclear industry 1E qualified supplier since 1978.

Fluid Components International is a global company committed to meeting the needs of its customers through innovative solutions to the most challenging requirements for sensing, measuring and controlling flow and level of air, gases and liquids.