

## CL86 Plus Offers Robust, Reliable Integrated Monitoring System For Spent Fuel Pools in Nuclear Power Plants



San Marcos, CA — The new 1E qualified [CL86 Plus Spent Fuel Pool Multi-Monitor System](#) from [Fluid Components International \(FCI\)](#) 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 revealed the need to monitor water level and conditions within the spent fuel pool. Maintaining water levels within spent fuel pools is of vital importance to ensure that spent fuel is kept cool and insulated, preventing the release of radiation. FCI, a leading supplier of level, temperature and flow instrumentation for the nuclear industry, including SFP level measurement installations, has developed the CL86 Plus System in response to this critical process need. Since the events at Fukushima, this solution has already been selected by nuclear power plants for SFP level measurement.

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 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.

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For installations challenged by overhead constraints the probe assembly can be manufactured with strategically placed flex-joints. 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 requirements currently being proposed by the Nuclear Energy Institute (NEI) and Nuclear Regulatory Commission (NRC) 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.

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