



Molten Salt Thorium Reactor Water Monitor

**Real-Time Continuous Water Monitor
THORIUM, TRITIUM, & OTHER NUCLIDES**

Model – MSTR-H20

Features

- Real Time, In-Line, Continuous
- Detects:
 - Alphas (Including Thorium 232 & Uranium 238)
 - Betas
 - Gammas
 - Tritium
- No Reagent Tanks to Fill
- No Waste Stream
- Easy Calibration
- Prevent Acute Health Effects
- Reduce Risk of Chronic Exposure
- Full SCADA compatibility

Problem

Molten Salt Thorium Reactors are now under development in the U.S., China, India, and Japan. They have a unique architecture and require unique radiation monitoring instrumentation.

Most nuclear power stations have high range water

monitors for monitoring coolant leaks, but low range water monitors for real-time, on-line use have not been available until now.

So, as yet very few power plants have real-time radiation monitors in place to **protect the water and the public, to spot problems early and to ensure compliance with current regulations.**

Solution

For the first time in a **Continuous Real Time** water monitor the Model **MSTR-H20** solves this problem by continuously monitoring water measuring Thorium 232, its decay products, fission products, and its activation products including Tritium.

Using Alpha, Beta and Gamma, and Tritium detectors and Gamma-MCA isotope identifier (multi-channel analyzer) the information from these detectors is analyzed and displayed in units of picoCuries per liter. The calculations are updated every 2 minutes, every hour and every day. The longer update times correspond with greater precision and increased sensitivity. Using TA Tried and True sample collection and measurement technology these detectors measure Alpha, Beta and Gamma from any radioactive liquids. Measurements of radiation discharge concentration are logged 24 hr/day, 7 days a week.



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