



---

## Optimization of Calibration Intervals of Nuclear Plant Pressure Transmitters

**PI:** Brent Shumaker, AMS Corporation

**Collaborators:** N/A

**Program:** DE-FOA-0001817 Pathway 3

---

**ABSTRACT:**

The Nuclear Regulatory Commission (NRC) approved AMS Topical Report AMS-TR-0720R2-A, *Online Monitoring Technology to Extend Calibration Intervals of Nuclear Plant Pressure Transmitters*, in August 2021 (NRC Accession No. ML21237A490). The AMS Topical Report was sponsored by a U.S. Department of Energy (DOE) Contract #DE-NE0008822 for a project to resolve regulatory and technical issues with implementation of online monitoring (OLM) technologies to extend the calibration intervals of safety-related transmitters in nuclear power plants. The report outlines the actions for a licensee to implement as part of a plant-specific license amendment request (LAR) for Pressurized Water Reactors (PWRs) and Boiling Water Reactors (BWRs). Several utilities are interested in pursuing LARs but there is still risk and uncertainty addressing the plant-specific items for all of the nuclear plant types and a lengthy review process for the NRC for each plant LAR.

Under this proposal, the proposing firm, Analysis and Measurement Services (AMS) Corporation will develop a Technical Specification Task Force (TSTF) traveler to provide a generic blueprint for developing a LAR for each nuclear plant type (Westinghouse PWR, Westinghouse Advanced Passive 1000 PWR, Babcock and Wilcox PWR, Combustion Engineering PWR, General Electric BWR/4, and General Electric BWR/6). AMS will submit the TSTF traveler to the NRC and work with regulators to obtain formal approval of the TSTF.

The proposed TSTF traveler will help dramatically simplify the LAR preparation and expedite its NRC approval. This will benefit both the nuclear utilities and the NRC by getting this OLM technology implemented in a timely fashion to reduce transmitter calibration maintenance costs and reduce outage time thus providing safe, efficient, and reduced priced electricity to the general public.