

Standardized Task Evaluation Program



Maintaining the operational safety and performance of nuclear power plants requires sustaining a qualified nuclear workforce. This includes qualification of workers that perform the same tasks at different nuclear power plants. Standardized and portable qualifications (qualifications that can be transferred from one nuclear power plant to another) can enable workers to go from site to site without being requalified on the specific task. Through this project, participants gain access to standardized task evaluations (STE) that enable nuclear power plant owners and workforce providers to qualify supplemental workers on a variety of tasks.

The Electric Power Research Institute's (EPRI's) STE project has historically focused on maintenance tasks such as industrial rigging. To address evolving industry needs, the project is being expanded to include:

- Radiation protection standardized tasks
- Chemistry standardized tasks
- Engineering standardized tasks
- Accelerated implementation of existing STEs

Background, Objectives, and New Learning

The goal of the STE Program is to facilitate standardized, portable task qualifications. Standardized task evaluations (STE) can be used to ensure that the workforce is competent to reliably perform the many tasks associated with operating and maintaining industry facilities. EPRI and program participants collaboratively review and update existing evaluation tests as well as develop new evaluation tests that support high-priority industry needs.

EPRI's Standardized Task Evaluation Program provides a streamlined process for qualifying supplemental workers and for enabling a portable workforce on many common tasks. Potential benefits include:

- Reduction in time spent in training and on-site waiting to start work
- Improvement in worker performance through more efficient completion of tasks with less likelihood of rework
- Expansion of pool of supplemental workers available to support outages

The task evaluations, which cover tasks performed by utility and supplemental workforce during outage work, include a task analysis and objectives, written knowledge test items, and performance (practical) evaluations. The results from these evaluations are documented into a completion registry of personnel who have demonstrated competency in specific task areas. The completion registry enables portability of supplemental workers. More than 80 evaluations have been developed within the STE program and are available on www.epri.com.

The STE Program includes an administrative protocol to assess the capability of workforce providers to administer STEs. This enables nuclear plant owners to accept evaluations administered by providers, resulting in significant time and cost savings when using supplemental workers.

Benefits

The nuclear industry can realize a number of benefits from the use of STEs:

- Reduced time and cost associated with processing supplemental personnel for refueling outages and other activities
- Access to tools that can ensure personnel (both site employees and supplemental personnel) are technically competent to perform their assigned tasks, resulting in improved performance, less rework, less probability of lost generation, and fewer challenges to nuclear safety systems

- Ability to maintain fewer qualification exams, thereby conserving site resources
- Support for workforce provider administration of STEs through the EPRI AP3 compliance process (establishes the standards that EPRI and nuclear plant owners expect of workforce providers for administration of STEs, thus enabling utility organizations to accept worker completion results that were administered by a workforce provider)
- Access to an EPRI on-line test bank and completion database

A number of U.S. utilities have reported savings and efficiency gains through use of STEs. One utility documented a 50% reduction in training costs, along with a significant reduction in rework after implementing the STE program (see *Dominion Uses Standardized Task Evaluations to Save Time and Money Qualifying Supplemental Workers* [EPRI Product 1024815]). Note that STEs are not restricted to U.S. applications; in Canada, for example, evaluations have been adapted to that country's standards.

Project Approach and Summary

The EPRI STE project has historically focused on maintenance tasks such as industrial rigging. To address industry needs, the project is being expanded to include radiation protection, chemistry, and engineering tasks and to facilitate accelerated implementation of existing STEs.

The tasks associated with the scope expansion include the development of standardized radiation protection tasks, delivery of implementation workshops, acceleration of workforce provider AP3 compliance, assessment and development of chemistry and engineering STEs, the development of standardized training for select maintenance STEs, and improvements to the STE website.

Each STE includes a task analysis and objectives, written knowledge test, and a performance (practical) evaluation. These three elements of an STE are developed by industry working groups. The industry working groups are task discipline specific and formed on an as needed basis. EPRI holds working group meetings to develop new STEs and revise existing STEs.

EPRI upgrades and maintains an STE website that is used to host the STEs (task analysis and objectives, written knowledge test, and a performance evaluation), to administer the written tests, and to host the STE completion registry.

EPRI developed a process called *Administration Protocol for Portable Practicals (AP3) in Standardized Task Evaluations* (EPRI product 1021072) for assessing the administration of an STE program by organizations without an INPO accredited training department. EPRI performs an assessment of the organization's administration of the STE performance evaluation against the standards in EPRI Product 1021072.

Anticipated Deliverables

- Radiation protection STEs
- Implementation workshops
- Chemistry and engineering STEs
- Standardized training for select maintenance STEs
- Website improvements

Price of Project

The price for nuclear plant operators is a function of nuclear generating capacity. Participation is priced per year according to the following formula: \$20,000 per participant plus \$3/MW. Note that non-nuclear non-hydro assets can be included at an incremental price of \$1/MW per year.

Project Status and Schedule

The scope expansion to Radiation Protection tasks is expected to start in January 2017 with completion in December 2017. The scope expansion to Chemistry and Engineering tasks is expected to start in January 2018 with completion in December 2019. Implementation workshops will be held throughout the duration of the project. Website improvements are expected on a periodic and as-needed basis.

Who Should Join

The project results will be applicable to nuclear power plants, to organizations that provide outage services, to trade unions, and to other nuclear support entities.

Contact Information

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

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