

FINAL SUPPORTING STATEMENT
FOR
COLLECTION OF OPERATOR SIMULATOR TRAINING DATA

(3150-XXXX)

NEW

Description of the Information Collection

This information collection request is to the holders of, or applicants for, a power reactor operating license under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, “Domestic Licensing of Production and Utilization Facilities,” except those that have certified that they have permanently ceased operations and have permanently removed all fuel from the reactor vessel, and the holders of, or applicants for, a power reactor combined license under 10 CFR Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants.”

This information collection is for the specified licensees to use the NRC-developed Scenario Authoring, Characterization and Debriefing Application (SACADA) software for their operator simulator training. The SACADA system was developed to collect licensed operator simulator training data to inform human reliability analysis (HRA) and to facilitate operator simulator training. The SACADA software can be used to author the simulation scenarios, facilitate the post simulation debriefing on crew performance, guide performance analysis, and generate various types of reports. The information entered into the SACADA database can be used to improve simulator training effectiveness and HRA. The South Texas Project Nuclear Operating Company (STPNOC) has used the software for its operator simulator training since 2012 and has high regard on the software. The NRC welcomes more licensees to partner with the NRC to use the software. The licensees’ participation in the information collection is voluntary. In the partnership, the NRC provides the SACADA software license, training, and technical support to the participating licensees, and the participating licensees grant NRC access to analyze the data to improve the NRC’s HRA techniques. An agreement will be developed to specify the details.

To participate in the information collection, the licensee will notify the NRC contact that it is interested in evaluating the software. Then the NRC will provide additional information including an onsite briefing. If the licensee thinks the SACADA software could be beneficial, the NRC will provide a training session, the software license, and technical support for the licensee to pilot the use of the software in its simulator training. After the pilot study, the licensee will decide on whether or not to partner with the NRC on the information collection. Either party can terminate the agreement at any time.

A. JUSTIFICATION

1. Need For and Practical Utility of the Collection of Information

The HRA methods currently used by the NRC and industry do not have a strong data basis. Expert judgment played a dominant role in developing the methods. This caused problems such as large uncertainties in the estimation results due to a lack of data supporting the method development. The data collected in SACADA would

improve HRA methods by strengthening the data basis of HRA methods and reducing uncertainty to support NRC's risk-informed decisionmaking.

2. Agency Use of Information

The NRC will use the collected information from all participating licensees to generate human performance indications with statistical basis to improve the NRC's HRA techniques. The human performance indications are expected to be generic (i.e., derived from all participating licensees' data) instead of plant-specific. The NRC will not issue any enforcement action (finding or violation) to the participating licensees for non-willful violations identified as a result of weakness discovered in the licensees' data. The use of data will be explicitly specified in the agreement for the partnership.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. In this information collection, all information are filed electronically through emails (with the NRC contact) and the electronic information transmitting function is provided in the SACADA software.

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements. The NRC has in place an ongoing program to examine all information collections with the goal of eliminating all duplication and/or unnecessary information collection.

5. Effort to Reduce Small Business Burden

Not applicable.

6. Consequences to Federal Program or Policy Activities if the Collection Is Not Conducted or Is Conducted Less Frequently

The information collection is to use the NRC's SACADA software to collect the operator performance information in simulator training. The information collection enables the NRC to analyze the operator simulator performance to improve NRC's HRA methods to support the NRC's risk-informed regulatory decision-making processes such as the Significance Determination Process of the Reactor Oversight Process. The collected information will improve the NRC's HRA methods for more realistic and reliable results for regulatory decisions.

The collected information will be used to develop human performance indications based on all participating licensees' data (i.e., generic indications instead of plant-specific indications). Not conducting or conducting the information collection with less frequency would reduce the amount of human performance information available and, thereby, limit the improvements to the realism of the NRC's HRA methods.

7. Circumstances Which Justify Variation from OMB Guidelines

The following are the circumstances and justifications apply to the information collection:

- Information is collected more often than quarterly: The licensees generally conduct five to six training cycles each year for simulator training. For a licensee participating in the information collection, the NRC expects the licensees to make the data available to the NRC at the end of each training cycle which is about once every two months. The SACADA software enables the licensee to share the information with the NRC simply and electronically.
- A statistical data classification is involved that OMB has not approved: The SACADA taxonomy to collect human performance information in simulator training has not been approved by OMB.
- Proprietary trade secrets or similar confidential information are required: The licensees are sensitive about sharing their operator performance information. The operator performance information available to the NRC will be treated as proprietary information to the information providers.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package has been published in the Federal Register on June 27, 2017 (82 FR 29120). NRC contacted five licensees and there were zero comments received from zero licensees. The following are the licensees and the licensees' staff contacted by NRC:

- South Texas Project:
- Entergy:
- Callaway:
- Palo Verde:
- Susquehanna:

9. Payment or Gift to Respondents

Not Applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with the NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b).

11. Justification for Sensitive Questions

Not Applicable.

12. Estimated Burden and Burden Hour Cost
One-time burdens

The NRC staff estimates that 76 licensees will review the Regulatory Information Summary (RIS) soliciting participants to use the SACADA software. This one-time burden is estimated to take 1 hour for each licensee (76 hours).

The NRC staff estimates that 15 licensees will opt to participate. Their response to the RIS will take approximately 30 minutes (7.5 hrs).

The total one-time burdens are estimated to be 28 hours (76 hours + 7.5 hours = 83.5 hours, annualized to 28 hours).

Ongoing annual burdens

The 15 participating licensees will incur the following burdens annually:

- Developing, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information = 60 hours (4 hrs x 15 licensees)
- Developing, acquiring, installing, and utilizing technology and systems for the purpose of processing and maintaining information = 30 hours (2 hours x 15 licensees)
- Developing, acquiring, installing, and utilizing technology and systems for the purpose of disclosing and providing information = 7.5 hrs (0.5 hrs x 15 licenses)
- Training personnel to be able to respond to a collection of information = 240 hours (16 hours x 15 licensees)
- Transmitting, or otherwise disclosing the information = 45 hours (0.5 hours x 15 licensees x 6 training cycles annually)

The total ongoing reporting burden associated with SACADA is 383 hours (60 hrs + 30 hrs + 7.5 hrs + 240 hrs + 45 hrs).

TOTAL SACADA burden

The total annual burden associated with this information collection during the three year clearance period is 411 hours (28 one-time reporting burden +383 annual reporting burden.)

The total number of responses is 95 annual responses (15 one-time responses [annualized to 5] + 90 annual responses [15 licensees x 6 annual responses])

Using the fee rate of \$267 per hour for 411 hours, the estimated burden cost is \$109,737 (411 hours x \$267/hr).

13. Estimate of Other Additional Costs

There are no additional costs.

14. Estimated Annualized Cost to the Federal Government

The NRC solicited the services of maintaining the SACADA database and providing technical support with the average annual cost of \$254,000.

15. Reasons for Change in Burden or Cost

This is a new collection to collect operator simulator exercise performance information.

16. Publication for Statistical Use

Data analysis results will be published electronically and made available in ADAMS.

17. Reason for Not Displaying the Expiration Date

The expiration date will be displayed.

18. Exceptions to the Certification Statement

None.