

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-483/94006(DRS)

Docket No. 50-483

License No. NPF-30

Licensee: Union Electric Company
Post Office Box 620
Fulton, MO 65251

Facility Name: Callaway Nuclear Plant

Inspection At: Callaway site, Steedman, MO

Inspection Conducted: May 23 - 27, 1994

Inspectors:

J. Hansen

6/13/94
Date

R. Bailey

6/13/94
Date

Approved By:

T. Burdick, Chief
Operator Licensing Section 2

6/13/94
Date

Inspection Summary

Inspection on May 23 - 27, 1994 (Report No. 50-483/94006(DRS))

Licensed operator requalification program evaluation inspection in accordance with NRC inspection procedure 2515/71001.

Results: The inspectors concluded that the licensee is implementing the licensed operator requalification training program in accordance with 10 CFR Part 55 requirements. The following strengths and weaknesses were noted:

Strengths:

- Operations' direct involvement in the review and administration of the process was consistent with program expectations (Section 3.1)
- Action Tracking System effectively identified required lesson plan revisions based upon operational performance, industry events and license event reports (Section 3.2)
- Unnecessary stress and delays were minimized through effective communication of expected performance standards and advanced scheduling (Section 3.3)

Weaknesses:

- Lack of procedural controls to prevent overlap of repeat items from practice exam to final exam (Section 3.1)
- For the most part, personnel assigned as evaluators during exam administration are neither trained or evaluated to ensure mastery of necessary skills (Section 3.3)
- Training feedback system does not always provide loop closure by giving reply to originator upon implementation of resolution (Section 3.4)
- Lack of adequate procedural coverage to address the use of an initial examination to replace the requalification examination for an upgrade license (Section 3.6)

DETAILS

1.0 Persons Contacted

Licensee Representatives

- *+J. Blosser, Manager, Callaway Plant
- *+R. Affolter, Manager, Operations Support
- *+J. Laux, Manager, Quality Assurance (QA)
- * J. Peevy, Manager
- *+G. Czeschin, Superintendent, Training
- * D. Young, Superintendent, Operations
- *+J. Dampf, Senior Training Supervisor, Operations
- *+T. Moser, Supervising Engineer, Reactor/Computer Systems
- *+S. Henderson, Operating Supervisor, Operations Training
- *+M. Henry, QA Engineer
- +S. Halverson, Senior Training Supervisor, Simulator Engineer
- * F. Bierman, Operating Supervisor, Training
- * T. Ramatowski, Operating Supervisor, Training

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- M. Farber, Section Chief, Reactor Projects Section 3A
- B. Barnett, Senior Resident Inspector, Callaway
- *+D. Calhoun, Resident Inspector, Callaway

*Denotes those present at the inspection entrance meeting on May 23, 1994.
+Denotes those present at the inspection exit meeting on May 27, 1994.

Other persons were contacted as a matter of course during the inspection.

2.0 Inspection Scope and Objectives

The licensed operator requalification program evaluation included a review of training administrative procedures, requalification training records, examination material, examination administration practices, remedial training program, and conformance with operator license conditions. Additionally, the inspectors observed and coevaluated operator performance during the requalification examination. Further, the inspectors assessed simulator fidelity. The inspection's primary objectives were to:

- verify the licensee's requalification program for licensed operators ensured safe plant operation by adequately evaluating operators skills;
- assess the licensee's effectiveness in evaluating and revising the licensed operator requalification program based on operational performance, including requalification examinations;
- assess the licensee's effectiveness in ensuring that the individuals licensed to operate the facility satisfy the conditions of their licenses as specified in 10 CFR 55.53;

3.0 Licensed Operator Requalification Program Assessment

3.1 Requalification Examination Material

The inspectors concluded that the licensee's requalification examinations were developed in accordance with their training administrative procedures. Operations input into the program was a strength. The examinations reviewed met the guidance contained in NUREG-1021, "Operator Licensing Examiner Standards," Revision 7, and NUREG/BR-0122, "Examiners Handbook for Developing Operator Licensing Examinations," Revision 5 with a few minor exceptions.

The inspectors reviewed the licensee's requalification examinations that were administered this cycle (1994/1995). Additionally, the inspector compared these examinations with those administered last cycle (1992/1993). The following strengths and weaknesses were observed:

Strengths:

- Significant operations involvement with review and approval of training and examination material was noted. Additionally, appropriate operations management oversight was noted during crew evaluations (training and examinations).
- Examination material was consistent with the sample plan and no repeats from previous cycle's training and evaluation material were noted. For the most part, expected performance standards were clearly stated and relevant.

Weaknesses:

- One of the two dynamic scenarios used during the examination consisted mostly of unrelated events. In contrast, NUREG-1021 points out that a scenario should not consist of a series of totally unrelated events but should flow from event to event and the sequence should be linked to add credibility to the scenario.
- Individual evaluation criteria (objectives) used during JPM and dynamic scenario performance did not clearly differentiate between reactor operator (RO) and senior reactor operator (SRO) task requirements. For example:
 - 1) A selected RO objective referenced the verification of technical specification requirements which is an SRO position expected task.
 - 2) Two of the three SRO (Shift Supervisor/Control Room Supervisor) and both RO (Reactor Operator/Balance of Plant) positions contained similar expectations for their respective assigned position.
 - 3) The crew was evaluated based upon a five member compliment but the third SRO (Field Supervisor/Shift Technical Advisor) position operated without an evaluation criteria.

- Dynamic scenario set used during the examination identified critical tasks based upon the SRO (SS/CRS) and RO (RO/BOP) group positions. For the most part, the critical tasks designated in each scenario tended to be panel specific (RO or BOP position). With board operators rotating between each scenario, the possibility exists that one operator would perform a majority or all of the critical tasks within a scenario set.
- Dynamic scenario set used during the examination contained only one event involving technical specification application. The SRO position should be expected to apply technical specifications during each scenario examination.
- Evaluation period included administration of a practice exam at the beginning of the week. One concern was identified in which the same instrument failure was included on both the practice and final examination. The selection of practice and final examination material is not proceduralized to prevent or identify duplication of exam material. While the overlap was not significant in this case, program guidance does not exist to prevent a reoccurrence.

The inspectors determined that the minor exceptions noted did not adversely affect examination validity. The inspectors considered the licensee's requalification examinations adequate as well as effective in evaluating the licensed operators mastery of the training objectives.

3.2 Systems Approach To Training Controls

The inspectors concluded that the licensee's program had controls in place which effectively revised the training program as needed based on operational performance, industry events (LER), modification packages and the like.

The inspectors reviewed a sample of recent LERs and plant modifications with operational implications. The following strengths regarding the program's systems approach to training (SAT) controls were identified:

- The Training Action Tracking System effectively tracks training items (i.e. requests for training submitted by individuals, identified training commitments, identified operator deficiencies/performance issues). Each specific item gets assigned a training action plan number when entered into the system. The item would be closed when the specific training actions were completed.
- A lesson plan is developed and presented each year during the requalification training cycle to cover Suggestion, Occurrence, Solutions (SOS), LERs and industry events with operational implications that occurred during that time period. Many of the individuals interviewed also considered the innovative training

techniques interesting and very valuable. In addition to this, LERs with operational concerns were incorporated into the appropriate system lesson plans.

3.3 Requalification Examination Administration

The inspectors concluded that the licensee's requalification examinations were administered in accordance with their procedures and allowed for an effective evaluation of the licensed operator skills. The examination process included administration of practice examinations to the crew at the beginning of the week. This practice examination was designed to prepare the crew for the requalification examination.

The inspectors observed administration of the annual requalification operational examinations and attended the dynamic scenario crew critique conducted by the licensee's evaluators. Additionally, the inspectors evaluated the operators' performances and compared them with the licensee's evaluation process. The following strengths and weaknesses were observed:

Strengths:

- Unnecessary stress on the licensed individuals was minimized by effectively communicating expected performance standards and implementing the examination schedule with staggered operator arrival time which minimized unnecessary delays. One delay occurred due to a simulator failure but did not significantly impact the exam schedule or appear to increase the operators' stress level.
- Use of actual shift turnover checklists during the dynamic simulator examinations added realism to the examination process.
- Board operator verbal responses during emergency operating procedures (EOP) implementation provided needed information to the crew regarding current plant parameter trends. This helped to ensure all members of the crew maintained adequate awareness of plant status. These type of responses added to the "team concept".

Weaknesses:

- Lack of program guidance to ensure an operator placed on accelerated requalification training will be independently evaluated following retraining by the class coordinator.
- Lack of program guidance to address the training and qualifications of assigned evaluators. It was not apparent that operations or training personnel assigned as evaluators are audited by management to ensure expectations are being met. Familiarity with techniques necessary to adequately administer and evaluate operator performance based exams are not being addressed. This is considered a significant program weakness.

3.1 Simulator Fidelity

The inspectors also assessed simulator fidelity and determined it to be satisfactory. Two simulator fidelity items and two simulator failures were noted and are identified in Enclosure 1, "Simulation Facility Report." Only one of the simulator fidelity items had not been previously identified by the licensee. The inspectors concluded that none of the simulator fidelity deficiencies would result in any negative training that could create a safety concern.

3.4 Training Feedback System

The inspectors concluded that the training feedback system was effective in addressing training issues identified by plant personnel with one exception. Administrative procedures controlling feedback do not require a response to the comment initiator. Also, personnel interviewed indicated that a response was not always being provided to individuals who took the time to submit comments and that this did not encourage individuals to utilize the system. The inspectors consider this a program weakness.

3.4.1 Quality Assurance Audit Review

The inspectors reviewed the last licensee QA audit report (AP93017) for licensed operator requalification training to see if appropriate comments had been incorporated into the training program. The inspectors concluded that the licensee's quality assurance program was adequately auditing and addressing the licensed requalification program performance.

The inspectors determined the training program evaluations conducted met the licensee's program requirements. The inspectors review of the QA audit identified areas that were considered performance based in that observation of classroom and simulator training sessions was conducted.

3.5 Remedial Training

The inspectors reviewed remediation training that had been administered during the last training cycle. The remediation training administered was appropriate for the weaknesses identified which resulted in successful completion of the Accelerated Requalification program. Also, personnel were removed from shift duties as appropriate while in accelerated remedial training.

3.6 Conformance of Operator License Conditions

The inspectors concluded that the program in place ensured that individuals licensed to operate the facility satisfied the conditions of their licenses as specified in 10 CFR Part 55.

The inspectors determined that the licensee's program to track and post the status (active/inactive) of individual operator's licenses was accurate and effective for the records reviewed. Tracking of requalification program attendance was good with one exception. An individual's attendance for one training class could not be documented.

Training department procedure TDP-ZZ-00022, Rev. 3, exempts a newly licensed individual from the biennial written and annual operational requalification examination if the start of the examination period is within six months of receipt of the license. Procedural requirements necessary to address the use of an initial examination to replace a requalification examination have not been addressed. The inspectors consider this a program weakness.

The inspectors identified that all of the licensed operators whose records were reviewed currently met the requirements regarding medical examinations performance and documentation.

4.0 Exit Meeting

The inspectors conducted exit meetings on May 27, 1994, with the licensee's plant management and training staff to discuss the major areas reviewed during the inspection, the strengths and weaknesses observed, and the inspection results. Licensee representatives in attendance at the exit meetings are documented in Section 1.0 of this report. The team also discussed the likely informational content of the inspection report with regard to documents reviewed by the inspectors during the inspection. The licensee did not identify any documents or processes as proprietary.

SIMULATION FACILITY REPORT

Facility Licensee: Callaway Nuclear Plant

Facility Licensee Docket No. 50-483

Operating Tests Administered On: Callaway Plant simulator

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of noncompliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information that may be used in future evaluations. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, the following items were observed:

<u>ITEM</u>	<u>DESCRIPTION</u>
1. Simulator failure	During performance of the second planned scenario, the simulator had a failure. No root cause was determined at the time due to the need to continue the examination but it is believed to be a model problem.
2. RM-11 failure	The RM-11 failed just prior to the termination of scenario number 3(replacement scenario) This failure did not affect the scenario. This problem had been identified in November and is running correctly in the test system. Plans are to implement this change following completion of the requalification examination cycle.
3. AB-HIS-69	Switch failed to make contact at the indicated position. This caused the wrong accumulator to be dumped. The problem could not be repeated.