

Examination Report No.: 50-361/OL-89-02
 Facility: San Onofre Nuclear Generating
 Station Units 2 and 3
 Facility Docket Nos: 50-361, 50-362
 Facility License Nos: NPF-10, NPF-15

Examinations administered at San Onofre Nuclear Generating
 Station Units 2 and 3, San Clemente, California

Licensed Operator Requalification Program evaluation.

Chief Examiner: Thomas R. Meadows 10/5/89
 Date

Examiner: Philip J. Morrill 10/5/89
 Date

Other Accompanying Personnel:
 Leo Defferding, Contract Examiner, PNL
 Bob Gruel, Contract Examiner, PNL

Approved By: L. F. Miller Jr. 10/6/89
 Date
 Operations Section

Summary: A NRC administered Requalification Program Evaluation was conducted at the San Onofre Nuclear Generating Station Units 2 and 3 during the period of August 15, 1989 through September 1, 1989 (Report No. 50-361/OL-89-02).

Results: The facility Licensed Operator Requalification Program was determined to be satisfactory. However, two findings of particular concern were identified. First, the majority of the examined operators exhibited a weak performance in the area of normal operations. Second, the NRC examiner team observed that non-licensed operators routinely are permitted to operate the electrical panels in the control room without direct supervision.

Operating and written examinations were administered to 20 licensed operators in accordance with the requirements and guidelines of NUREG-1021, ES-601, Revision 5.

Nineteen of the twenty operators individual performances were judged satisfactory by the NRC and facility evaluation teams. One Reactor Operator failed the written portion of the examination, as determined by the independent parallel grading of the NRC and facility evaluation teams. All five operating crews were judged satisfactory by both the NRC and facility evaluation teams.

The final results are: nine of the ten Reactor Operators (90%) passed the examination, and ten of the ten Senior Reactor Operators (100%) passed the examination. All five operating crews were judged satisfactory by both the NRC and facility evaluation teams.

REPORT DETAILS

1. Personnel

NRC Personnel:

- * D. Kirsch, Chief Reactor Safety Branch, RV
- * T. Meadows, Chief Examiner, RV
- * P. Morrill, Examiner, RV
- * L. Defferding, Examiner, PNL
- B. Gruel, Examiner, PNL
- * C. Caldwell, Senior Resident Inspector

Southern California Edison Personnel:

- * J. Reeder, Manager Nuclear Training
- * V. Fisher, Plant Superintendent Units 2 & 3
- M. Cooper, Shift Superintendent Units 2 & 3
- R. Mette, Supervisor of Operator Training
- * L. Simmons, Operations Training Administrator
- Units 2 & 3
- * K. Rauch, Operations Training Instructor
- * D. Daily, Operations Training Instructor
- * W. Seiler, Operations Training Instructor
- * W. Lyke, Operations Training Instructor
- * D. Miller, Operations Training Instructor
- R. Grabo, Operations Training Instructor
- A. Moreno, Simulator Support Staff
- L. Hodak, Simulator Support Staff
- W. Stevenson, Simulator Support Staff
- P. Lio, Simulator Support Staff
- D. Lokker, Simulator Support Staff
- P. Sills, Simulator Support Staff

Washington Public Power Supply System:

- G. Fisher, Observer/ Supervisor WNP-2 Requalification
- Training Program

* Identifies those present at the Exit Meeting on August 31, 1989

2. NRC Requalification Evaluation Program

The evaluation was conducted to determine the effectiveness of the San Onofre Unit 2/3 Operator Requalification Program and to evaluate operators for renewal of their six year term licenses.

This evaluation was administered in accordance with NUREG-1021, ES-601, Revision 5, "Administration of NRC Requalification Program Evaluations."

Prior to the evaluation the facility staff prepared a complete set of simulator scenarios and Job Performance Measures as required. The facility staff was also required to prepare a question bank of a significant number of questions, from which the written examinations would be selected. The Chief Examiner reviewed the current bank of questions and determined that the facility staff was on schedule to produce the 350 questions per section that were required by October 1, 1989. It appears that the facility staff was producing the target 30 questions per month, and will meet minimum question bank requirements. The facility had, at the time this evaluation's written examinations were finalized, over 300 questions in their bank, which met the policy requirement.

3. Examination Development

The Chief Examiner administrated in office previews of the facility's proposed examinations. This was accomplished by assigning a NRC lead staff examiner review responsibility for a specific portion of the examinations as they were being built by his facility counterpart. During this review, the NRC staff validated the use of the facility sampling plan, and supplemented the draft examinations form and content to ensure validity. The NRC staff also validated the adequate testing of recent facility LER issues.

Following the in office previews, the on site review was administrated during the week of August 7, 1989. During this week all of the required examinations were codified to encompass the two evaluation weeks. The exams were subsequently finalized by the responsible lead NRC examiner, his facility counterpart evaluator, and then finally, the Chief Examiner. Examination security was maintained throughout the evaluation in accordance with the Examiner Standards, as documented in Attachment A, "Requalification Examination Security Agreements."

During this development process the NRC examiner staff noted two generic weaknesses in the facility's examination banks. First, the written examination questions were not exclusively objective. This led to some minor grading differences during the parallel grading process, but did not affect the overall pass/fail agreement results. The facility evaluator staff agreed with this observation and agreed to modify the current bank. Additionally, the facility staff agreed to implement a writer's guide for written examination development to incorporate the lessons learned from this effort and to standardize future exam bank development. Second, the simulator dynamic scenarios lacked depth in the areas of electrical and balance of plant control board operations. They were also lacking in normal plant evolutions. This latter finding became significant in the evaluations results.

Finally, the facility's scenario bank was developed to examine four licensed operators per crew. However, after the initial development was completed, facility management proposed to test with five operators per crew (one of whom could be non-licensed) for this evaluation and in future requalification cycles.

The Chief Examiner recommended that this evaluation be administrated as originally scheduled for a four man licensed crew, as supported by the facility's current scenario bank, and to upgrade their current bank appropriately to remediate the above findings for future evaluations. The facility management identified in paragraph (1) agreed, and committed to accomplish these tasks by the next NRC evaluation cycle.

4. Operator Selection

The operating crews were selected by the facility as scheduled within their approved requalification evaluation cycle. This was validated and approved by the Chief Examiner in accordance with the Examiner Standards. A smaller group of substitutes was maintained to ensure that inadvertent absences would not affect the evaluation schedule, once in progress.

5. Examination Administration

During the weeks of August 14, 1989 and August 28, 1989 the NRC conducted an evaluation of the San Onofre Unit 2/3 Operator Requalification Program.

The simulation facility's performance was evaluated as adequate to support NRC evaluations and the licensee's requalification program. However, minor fidelity problems were identified by the NRC examiner staff. These are documented in Enclosure 4, "Simulation Facility Report."

6. Operator and Crew Performance:

Nineteen of the twenty operators individual performances were judged satisfactory by the NRC, and will be eligible for renewal of their six year term licenses. The individual identified by the NRC who failed the written portion of the examination was reported to have been immediately removed from licensed duties and then remediated in the areas of weakness. The individual was then returned to licensed duties consistent with the approved requalification program. The NRC will arrange to readminister a requalification examination for this individual, in the area of deficiency, within six months of the initial failure notification letter.

All five of the operating crews performances were judged satisfactory by the NRC.

7. Evaluation of Facility Evaluators

The facility evaluators conducted the evaluations objectively and with apparent forethought. There were some occasions of performance that could be categorized as marginal. Instances did occur where the facility evaluator inadvertently led the operator to a correct response during the Job Performance Measure (JPM) portion of the test. These instances, however, did not affect the final evaluation of the operator, and did not involve critical tasks that would have invalidated the JPM evaluation.

8. Program Evaluation

Based on the NRC evaluation, conducted in accordance with ES-601, the San Onofre Unit 2/3 Operator Requalification Program is satisfactory. However, two findings of particular concern were identified, and discussed with the licensee.

The first finding is that the majority of the operators examined exhibited a weak performance in the area of normal operations. This was particularly evident in the results of the written examinations. Twelve operators performed at a level of below 80% in this specific functional area. Furthermore, some of the operators in this group scored less than 60%. Although the "normal operations" functional area is only a small portion of the overall program evaluation, it becomes significant when considering recent events involving operator error at the facility. Therefore, this finding raised the concern about the operating crews ability to efficiently perform basic plant operations without challenging safety systems. The facility's management staff, identified in paragraph (1), concurred with this finding and agreed to take immediate action to correct the program training weaknesses that contributed to this condition.

The second finding was that not all of the facility's Auxiliary Control Room Operators (ACO's) are licensed. 10 CFR 50.54; requires that "apparatus and mechanisms other than controls" which may affect the reactivity or power level of the reactor shall be manipulated only with the "knowledge and consent" of a licensed operator or senior operator. It is not clear in licensee procedures or apparent in the operator training program how licensed operators maintain "knowledge and consent" of ACO manipulations of safety related control room electrical switchgear. The facility management staff, identified in paragraph (1), committed to the licensing of all ACO's in order to ensure the requirements of 10 CFR 50.54.j were always met. They also affirmed that this would be accomplished within your next two requalification program cycles.

9. Exit Meeting:

On August 31, 1989, the NRC staff examiners met with the Senior Resident Inspector and representatives of the licensee's staff to discuss the evaluation. As noted above, licensee representatives acknowledged the Chief Examiner's findings.

ATTACHMENT A

REQUALIFICATION EXAMINATION SECURITY AGREEMENTS

(Preexamination, ES-601, Attachment 2)
(Postexamination, ES-601, Attachment 3)
(Vidio Tape Agreement, ES-601, Attachment 9)