

U.S. NUCLEAR REGULATORY COMMISSION
REGION III

Report No. 50-456/95012 (DRS);
50-457/95012 (DRS)

Docket Nos. 50-456; 50-457

Licenses No. NPF-72; NPF-77

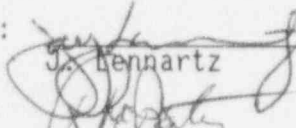
Licensee: Commonwealth Edison Company
Opus West III
1400 Opus Place
Downers Grove, IL 60515

Facility Name: Braidwood Nuclear Station

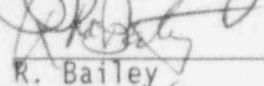
Inspection At: Braceville, Illinois

Inspection Conducted: August 21 - 25, 1995

Inspectors:

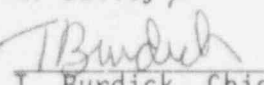

J. Kennartz

9/7/95
Date


R. Bailey

9/7/95
Date

Approved By:


T. Burdick, Chief
Operator Licensing

9/7/95
Date

Inspection Summary

Inspection conducted on August 21-25, 1995 (Report Nos. 50-456/95012(DRS);
50-457/95012(DRS)).

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

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

Strengths:

- Operations involvement with the training program (Section 3.2).
- License reactivation certification checkoff forms (Section 3.6.1).
- Year to year examination overlap for individuals (Section 3.1).
- Remediation training (Section 3.5).

Weaknesses:

- Simulator training records (Section 3.6.3).
- Management audits of facility evaluators during in-plant JPM administration (Section 3.3).
- One evaluator did not require an operator to demonstrate skills necessary to ensure job performance measure (JPM) task mastery (Section 3.3).
- Two JPMs administered did not accurately reflect existing plant and/or procedure conditions (Section 3.1).

REPORT DETAILS

1.0 Persons Contacted

Licensee Representatives

T. Tulon, Station Manager
D. Cooper, Operations Manager
L. Weber, Shift Operations Supervisor
R. Wegner, Shift Operations Supervisor, Byron Station
T. Printz, Shift Operations Supervisor, Zion Station
E. Hendrix, Operations Training Coordinator
E. Roche, Executive Assistant
L. Rhoden, Technical Group Leader (acting)
J. Lewand, Regulatory Assurance
R. Coon, Operating Staff Supervisor
B. Coovert, Operations Training
J. Kinsella, Senior SQV Inspector
B. Claveau, Requalification Training

Nuclear Regulatory Commission

E. Duncan, Resident Inspector

All of the above individuals were present at the inspection exit meeting on August 25, 1995.

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 previous inspection findings, training administrative procedures, examination material, examination administration practices, systems approach to training (SAT) controls, training feedback system, remedial training program, and conformance with operator license conditions.

Additionally, the inspectors observed and co-evaluated operator performance on the requalification examination, observed simulator and classroom requalification training, and conducted interviews with members of the operations and training departments. Further, the inspectors assessed simulator fidelity.

The inspection's primary objectives were to:

- verify the licensee's requalification program for licensed operators ensures 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 Examination Material

The inspectors reviewed the operational examinations administered during the current requalification cycle. The licensee did not administer a written examination this cycle. The following observations were made regarding the operational examinations:

- Training Department Instruction (TDI) 150-2, Licensed Operator Requalification Program Administration and Course Management Information Index, revision 03, section V.D.2.a.3. stated in part "to minimize duplication of dynamic simulator exams, or Job Performance Measures given to an individual from year to year, a copy of tracking numbers is maintained."

Duplication of simulator scenarios and JPMs administered on last years examinations with those administered this year for individual operators and crews was minimized. This was considered a strength. However, no clearly defined management expectation of acceptable duplication existed.

- The dynamic simulator examination bank scenarios have been revised to incorporate events that adversely affect the mitigation strategy and is considered an improvement. This was considered a weakness in the last requalification inspection report (Nos. 50-456/457 94024 (DRS)). Additionally, a low power scenario was included in the examination bank and a shutdown scenario was in the developmental stage.
- TDI-150-2, revision 03, section V.D.2.e.2 stated in part "JPM walkthrough examinations will be prepared using the JPMs from the examination bank. All JPMs shall be validated using Attachment AF."

However, Attachment AF did not exist. The licensee was using an alternate form to validate the JPMs which was not identified in the procedure. Additionally, the inspectors identified two JPMs that did not match existing plant and/or procedure conditions, one of which was not identified during JPM validation.

- JPM N-100, "Rod Drive MG Set Startup" was to be conducted in accordance with procedure BwOP RD-1, "Control Rod Drive MG Set Startup," revision 5. BwOP RD-1 was last revised in May 1994. However, JPM N-100 did not contain BwOP RD-1 step 17 which required the operator to verify the local lift disconnects closed. This JPM deficiency was not identified by the licensee during their validation of the JPM.

The JPM did contain procedure step 17 nor the appropriate cues. Therefore, the potential existed for a task evaluator to inappropriately cue the operator during execution of step 17.

- o JPM S-17, "Verify Dilution Paths Isolated" required the task to be performed in accordance with procedure BwFR S.1 "Response to Nuclear Generation ATWS," revision 1, step 9. BwFR S.1 step 9 required the operator to verify CV chemical mixing tank valves 1CV8435 and 1CV8453 closed. However, the valves were actually locked closed in the plant. This could have delayed task completion while keys were obtained from the control room to unlock and verify valve position. Additionally, the potential existed for a task evaluator to provide inappropriate cues during JPM administration since the JPM did not match existing plant conditions.

This JPM deficiency was identified by the licensee but no changes were made to the procedures or the JPM due to examination security concerns. The licensee had developed a procedure change request which will be issued after the requalification examinations are completed. The inspectors concluded there was no safety significance regarding the required procedure change and therefore the licensee's actions were appropriate.

The inspectors did not observe any inappropriate cuing during JPM administration. However, the licensee should ensure that all evaluators are aware of identified JPM deficiencies to preclude any potential for inappropriate cuing. Additionally, the validation of JPM N-100 appeared inadequate in that omission of BwOP step 17 was not identified. This was considered a weakness.

The inspectors concluded that the licensee's operational requalification examinations were developed in accordance with their training administrative procedures. Additionally, the inspectors concluded that the examination material met the intent of 10 CFR Part 55.

3.2 Requalification Examination Administration

The inspectors observed administration of selected annual requalification operational examinations and related crew critiques conducted by the licensee evaluators. Additionally, the inspectors evaluated operator performance on the examinations and compared them with the evaluations conducted by the licensee evaluators. The following observations were made:

- Operations management routinely observed and evaluated crews on the simulator. The Shift Operations Supervisor (SOS) was the lead evaluator which provided consistent evaluations based on operations expectations. This was considered a **strength**. Additionally, two SOSs from other PWR nuclear stations in the ComEd network observed the simulator examinations administered to

one crew. The intent was to perform these observations on a routine bases at all three sites to provide comments regarding requalification training programs.

- An evaluation of the Shift Engineer's (SE) ability to implement emergency procedures as the Unit Supervisor (US) was conducted in training cycle 4. This adequately addressed a weakness identified in the last requalification inspection report (Nos. 50-456/457 94024 (DRS)).
- The inspectors determined, based on observations and interviews with licensed operators and training personnel, that examination security practices were effectively implemented.
- The licensee evaluators assessment of crew and individual performance on the dynamic simulator examinations and JPM walkthrough examinations were consistent with and often more conservative than the NRC inspectors.
- No simulator fidelity deficiencies were identified during the course of the inspection.
- The licensee administered only the operating examination this cycle. The written examination will be administered next cycle. Individuals interviewed indicated this format was much less stressful and an improvement over years past when both the operational and written examinations were administered the same week.

The inspectors concluded that the licensee's requalification examinations were administered in accordance with their administrative procedures and provided for an effective evaluation of licensed operator skills and abilities.

3.3 Evaluation of Licensee Evaluators

The inspectors observed the licensee evaluators during dynamic simulator and JPM walkthrough examination administration. The following weaknesses were observed:

- A licensee evaluator did not require the operator to properly demonstrate skills required to ensure task mastery during administration of one in-plant JPM. Instead, the operator read the procedure and simply pointed out the components and instrumentation that would be utilized to complete the task. The evaluator had to infer that the task could be completed without the operator demonstrating the required actions.

The inspectors concluded evaluator performance on this particular JPM was unsatisfactory and that operator performance was not objectively evaluated. Further, the inspectors observed the remainder of the JPMs administered to the operator and concluded

they were objectively evaluated and operator performance was satisfactory.

- The licensee did not provide management audits of JPM evaluator's skills during administration of in-plant JPMs. In-plant JPMs require additional skills involving cuing and evaluating actions taken by the operator. This was also identified as a weakness in the last requalification inspection report (Nos. 50-456/457 94024 (DRS)).

The inspectors concluded that the licensee evaluators could adequately administer the requalification examinations and objectively evaluate licensed operator performance with the exceptions as noted.

3.4 Systems Approach To Training

The inspectors reviewed Systems Approach to Training (SAT) controls which included the feedback program and an assessment of operations department conducted by the licensee's Site Quality Verification Group (SQV) dated 8/1/95. The following observations were made:

- Interviews of operations and training personnel indicated that the electronic form for providing training feedback was an improvement. Use of computerized feedback form allows operators the opportunity to provide input into training, at any time, and receive prompt acknowledgment. This adequately addressed the weakness identified in the last requalification inspection report (Nos. 50-456/457 94024 (DRS)).
- The assessment performed by SQV identified recommended improvements to the TDIs. These recommended improvements were assessed and incorporated into the TDIs by the training department in a timely manner.
- The training program was revised to incorporate industry events (LERs) and the specific training provided for the LERs reviewed was considered adequate.

The inspectors concluded that the licensee had SAT controls in place which effectively revised the training program as necessary.

3.5 Remediation Training

The inspectors reviewed the licensee's remediation training program. Adequate remediation training was provided to crews that failed the annual requalification operational examination. Additionally, crews are routinely evaluated during weekly simulator training sessions. Any crew evaluated as unsatisfactory during training sessions was required to receive remediation training prior to resuming on-shift licensed duties. This was considered a strength.

3.6 Conformance of Operator License Conditions

3.6.1 Maintenance of Operators License Status

The inspectors reviewed the licensee's program for tracking active license requirements. The following observations were made:

- Responsibility for tracking active license requirements was recently transferred to Operations Department. The tracking program will be computerized and maintained by the Operations Scheduler. No discrepancies were noted.
- A "Reactivation Certification Checkoff Sheet" is completed when an operator's license is reactivated. There is a specific sheet for each of the licensed shift positions. The sheets contain various tasks specific to the shift position that must be signed off as well as a final authorization signature by the SOS or designee. Use of these sheets was considered a strength.

3.6.2 Licensed Operator Medical Examinations

The inspectors examined a representative sample of licensed operators' medical records and determined that the required physical examinations were performed and documented with special license conditions noted. The inspectors concluded that the licensee's program for ensuring the medical fitness of its licensed operators was in compliance with 10 CFR 55, Subpart C, and 10 CFR 55.53(i).

3.6.3 Requalification Attendance

The inspectors reviewed a random sample of requalification training records for licensed individuals. The following observations were made:

- Licensed operator requalification training attendance is adequately tracked. Contingencies regarding missed training was proceduralized and appears adequate to ensure all training requirements will be met. This adequately addressed the weakness identified in the last requalification inspection report (No. 50-456/457 94024(DRS)).
- The licensee's program as stated in TDI-150-2, revision 3, section VI.A.2 requires retention of records pertaining to individual performance during each training week. The licensee identified that a crew evaluation during a simulator training session had been destroyed. This failed to meet program record retention requirements.

Additionally, records maintained pertaining to simulator training were not very concise and difficult to audit. The ability to determine that all simulator training requirements were met, through records review, was difficult. The inspectors identified a simulator training set that was not attended by one operator.

The inspectors verified that the operator received the required manipulations during a separate training set. Maintenance of records pertaining to simulator training was considered a weakness.

The inspectors concluded that attendance at requalification training was satisfactory and that all simulator training requirements were completed.

3.7 Requalification Training

The inspectors observed various classroom requalification training and a simulator training session during the inspection week. The simulator training observed was a "Team Training" session. The training provided a challenging and productive learning tool to enforce good communications amongst crew members.

Additionally, the inspectors concluded, based on interviews, that classroom training sessions and the training departments perceived credibility by operations have improved. Rotating operators into training and training department personnel into operations has had the biggest impact on improving the training departments perceived credibility. This addressed the identified weaknesses in the last requalification inspection report (Nos. 50-456/457 94024(DRS)).

4.0 Exit Meeting

The inspectors conducted an exit meeting on August 25, 1995, with the licensee's training staff and plant management 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 meeting 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.