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Docket Number 50-346

License Number NPF-3

Serial Number 1-1114

January 17, 1997

Mr. A. B. Beach
Regional Administrator
United States Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Subject: Supplemental Response to Operator Licensing Examination Report
Number 50-346/OL-96-02

Dear Mr. Beach:

On December 23, 1996, Toledo Edison (TE) provided the initial response (Serial Number 1-1113) to Operator Licensing Examination Report Number 50-346/OL-96-02 (Log Number 1-3756). The initial response summarized the methodology utilized by the Independent Safety Engineering (ISE) unit in conducting a comprehensive assessment of why four candidates failed to achieve qualification as a Senior Reactor Operator (SRO). The assessment was completed by the ISE unit and the report was issued on December 20, 1996. In the initial response, TE committed to complete assessment of plant operations for similar problems and submit a summary of the findings to the Nuclear Regulatory Commission (NRC) by January 17, 1997.

The ISE root cause assessment focused on failure modes associated with the program in which these SRO candidates were trained. The key focus was on organizational, programmatic and management failure modes. Due to the breadth of the failures, individual candidate capabilities were not assessed in detail. The assessment included a review of the candidates training program, training schedule, and remediation efforts following the first NRC exam failures. The data collection phase included a review of examinations, walk-through evaluations, candidate feedback information, portions of the Qualification Manual, audit exam information, written assessments, and NRC exam reports. Interviews were held with training instructors, license candidates, previous license candidates, on-shift licensed operators, the NRC, and management personnel from Operations, Training, and Nuclear Assurance.

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A change analysis was performed to help develop the issues and problems explored during the failure modes analysis. A sequence of events chart was developed to help realize the time relationship of events and to ensure there were no obvious deficiencies in the sequence of events.

During the failure mode determination, the issues and problems were plotted on a Management Failure Mode Chart and an Organization/Programmatic Failure Mode Chart. Failure scenarios were then developed by assessing the individual issues for identification of the key failure mode strings and the key drivers for the failure mode strings.

The results of the assessment identified failure modes associated with management aspects of the training program. The ISE assessment identified the following primary causes.

- Assessment of Remediation Program Activities

Formal and structured on-going assessment and remediation program activities were not adequate. Lacking well-documented historical data on candidate performance, decisions regarding candidate readiness were based on their performance on the final examination taken rather than their performance throughout the program as a whole. Remediation activities were focused on the last weaknesses shown instead of historical weaknesses. Documentation for the remediation program did not include specific criteria, other than the final examination, to support the decision for the candidates to be re-examined.

- Standards for Candidates

Standards for verifying the candidates would be highly skilled and knowledgeable operators were weakened. This key issue is reflected in each of the causes discussed herein. Candidate selection and assessment standards are vital to the success of the candidates program. On two occasions, verification walk-throughs were conducted too early and were tailored to fit the candidate's training to date rather than evaluate all topics contained in the SRO Qualification Manual. Criteria for the performance of walk-throughs was not adequate to ensure the candidates had sufficient knowledge and skills to perform licensed duties and to be examined by the NRC.

- Implementation of a New Approach to Training

A significant change to the initial license training group functional structure occurred within the past few years. The initial license training group was re-organized from a traditional "supervisory" led group to a "self directed work team". The dynamics and integration of the team members was not well implemented. This diluted the individual team members understanding of their responsibilities to the team. Post implementation monitoring of this new approach was not adequate to ensure that it was effective. No single individual had responsibility for the initial license candidates. This led to a lack of accountability that impacted communications concerning candidate weaknesses and led to ineffective candidate management.

- Ownership of the Candidates

In accordance with the Nuclear Training procedure for these candidates, the Nuclear Operations Training Program Lead is responsible for reporting the candidate's progress to the Operations Manager who in turn is responsible for ensuring the candidates maintain satisfactory qualification progress. However, the candidates job assignment reporting relationship was not transferred to the Plant Operations section. Ownership and accountability for the candidates was weakened.

- Candidate Selection

The desired goal for SRO license candidates is to strive to become highly skilled and knowledgeable operators. The training program for these candidates was adapted from an SRO training program that was long successful in meeting this goal. However, over time, the goal of some of the candidates shifted from striving to become highly skilled and knowledgeable operators to completing the program to enhance career opportunities.

- Less Critical Candidate Performance Feedback Than Required

A major initiative that Nuclear Training undertook was to improve the instructor/student relationship. This philosophy contributed to the instructors focusing immoderately on satisfying the initial license candidates desires. This led to instructors providing feedback to the students that was less critical than necessary to alter the students performance. Lack of critical feedback may have allowed behavior that did not meet the expectations and standards associated with licensed operator duties.

- Training Focus

Because of the changed instructor/student focus, Training staff members may have placed too much effort on NRC testable material during the training of these candidates. As a result, the delivery of knowledge and skills needed to operate the plant was diminished.

- Attention to Detail Issues

Assessment of "attention-to detail" issues for the students were not adequately monitored and reinforced. It became evident that, although some "attention-to-detail" issues were being identified and corrected, this process was not sufficiently documented to ensure the candidates were progressing satisfactorily.

- Training on Administrative Duties

Administrative duties for the SRO are initially covered during classroom training and further addressed during on-the-job training and simulator training. The current methodology for conducting classroom training on administrative topics did not provide needed practical exercises. Although administrative duties are addressed during OJT and simulator training, the candidates progress in administrative duties was not adequately emphasized in these training settings for these SRO candidates.

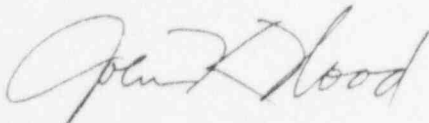
The NRC Operator Licensing Examination Report Number 50-346/OL-96-02 requested TE to provide the results of an investigation into these failures along with any similar demonstrated weaknesses in plant operations. The DBNPS Plant Operations section performed an assessment to determine if Plant Operations exhibited similar deficiencies and weaknesses as noted in the Operator Licensing Examination Reports for these candidates.

The three primary areas assessed were calculation of critical rod position, nuclear instrumentation operability determination, and interpretation of plant drawings for safety tagging clearance. In addition, other areas related to administrative controls were assessed to determine whether weaknesses exist with other administrative responsibilities of the SRO position. The Operations Performance Indicators which are a series of measures used to track and trend performance of all Plant Operations personnel activities, including administrative controls, were used in the assessment. There were no problems or deficiencies related to calculations of critical rod position or any other type of reactivity calculation. There were no safety tagging or operational problems related to improper interpretation of plant drawings. Along with using the Operations performance indicators, a review of over six months worth of Heat Balance procedures performed identified that in one instance during a manual heat balance calculation, calculated power was above Rated Thermal Power when the Nuclear Instrumentation operability determination was made. This is being tracked and resolved under a Potential Condition Adverse to Quality Report. This assessment did not reveal any generic weaknesses associated with the administrative duties of the SRO position. The continued professionalism demonstrated by plant operators indicates that similar problems have not influenced the continued safe operation of the DBNPS. The recent licensed operator requalification examination results also demonstrate that adequate training is being provided for the licensed operators of the DBNPS.

Corrective actions for the primary causes for the failure of the four SRO candidates identified in the ISE assessment are being finalized. Toledo Edison has received notification that two of the four SRO license candidates have been granted SRO licenses as a result of their appeals. This does not alter the DBNPS view of the significance of the findings summarized in this letter or the corrective actions being finalized. Corrective action plans will be submitted to the NRC by February 20, 1997.

Should you have additional questions or require additional information, please contact Mr. James L. Freels, Manager - Regulatory Affairs, at (419) 321-8466.

Sincerely yours,



DLM/dlc

cc: A. G. Hansen, NRC Project Manager
S. Stasek, DB-1 NRC Senior Resident Inspector
USNRC Document Control Desk
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