



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 20, 1986

MEMORANDUM FOR: William T. Russell, Director
Division of Human Factors Technology

FROM: Bruce A. Boger, Chief
Operator Licensing Branch
Division of Human Factors Technology

SUBJECT: INPO ACCREDITATION BOARD MEETING

On May 28 and 29, 1986, I attended the INPO Accreditation Board Meeting in Atlanta as the NRC observer. The utility training programs presented to the Board were for the NLO, RO, and SRO for WNP-2, NLO, RO, SRO, EM, and MM for Prairie Island, NLO and RAD TECH for Turkey Point, and EM, MM, and RAD TECH for North Anna and Surry. For your information, all of these programs were found acceptable. This report describes my observations of the meeting and the accreditation process.

The Board members present were: Cordell Reed (Chairman), Lincoln Clark, John Palms, Charles Sener and Lee Oxsen. Lists of utility personnel present are found in the enclosed agendas for the meeting.

The conduct and protocol of the Board meeting was similar to the meeting I attended last December. I continue to be favorably impressed by the accreditation process based upon the Board's questioning and the INPO team manager's knowledge of the programs being evaluated. In particular, one individual was the team manager for four of the five facilities. I could not detect a difference in quality across the reviews conducted by this manager. This is encouraging in light of the increased workload that INPO will see later this year. However, several new team managers are "in training," thus indicating that the NRC should remain alert to changes in the quality of INPO team manager presentations and evaluations.

The following are some of the major facility-specific issues raised by the Board along with the utility response.

- I. Turkey Point (Initial visit 9/85, Follow-up visit 3/86)
 - a. The RO and SRO programs were withdrawn from Board consideration about a week before the meeting. (Due to the recent concerns over the requalification program, the utility preferred to identify and correct problems before bringing the RO and SRO programs to the Board.)

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- b. Several program weaknesses and backlogs were due to a lack of resources. (Backlogs have been eliminated through increased contractor support, although the utility acknowledged its desire to reduce reliance upon outside resources.)

II. WNP-2 (Initial visit 12/85, No follow-up visit)

The WNP-2 simulator has over 700 outstanding simulator change requests. Considerable discussion was held on the WNP-2 commitment to fix the simulator and to ensure that operators receive adequate training in light of known simulator deficiencies. (The utility has hired hardware/software personnel and has instituted procedures that alert instructors and trainees to simulator/plant differences.)

III. Prairie Island (Initial visit 7/85, Follow-up visit 4/86)

- a. There were many open items (over 25) from the initial visit with respect to implementation of program aspects such as: evaluation and feedback loop, OJT methods and standards, and continuing training. (All open items were closed out during the follow-up visit. The additional contractor assistance used to accomplish this will be decreased.)
- b. The operator requalification program received an unsatisfactory evaluation by the NRC. (Discussions in-house and with Region III resulted in concerns on NRC exam quality and upgrades in the number and intensity of facility requalification program quizzes.)

IV. North Anna and Surry (Initial visits 2/86)

Virginia Power does not include training of welders and machinists in the MM program. (Only "qualified" candidates are hired, e.g., ASME qualified welders. In addition, all candidates must pass a job sample performance test, e.g., machine a part given a blueprint.)

During a break, I discussed some issues of current interest with the Board. In particular, I emphasized the key role that the accreditation process plays in our proposed changes to 10 CFR 55. In addition, our examination development efforts and their relationship with the INPO JTA were explained. Finally, I advised the Board that Harold Denton and you would like to address them during the plenary session scheduled in July.

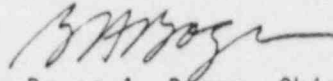
In summary, the Board continues to assess training programs by placing heavy reliance upon INPO evaluations. Consistency across programs is attained via "standard" questioning, although I noticed that the INPO team managers now anticipate some of these questions and present the information before the Board asks. Overall, the Board evaluation method appears to be effective;

William T. Russell

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June 20, 1986

however, with the projected INPO workload increase as more facilities seek accreditation, the NRC should maintain (or even increase) its involvement in Board reviews, INPO team visits, and post-accreditation audits.



Bruce A. Böger, Chief
Operator Licensing Branch
Division of Human Factors Technology

Enclosure:
Agendas

cc: J. Sniezek

NATIONAL NUCLEAR ACCREDITING BOARD

May 28, 1986

3:00 a.m. Coffee, juice, and doughnuts
INPO Board Room (1505)

8:15 a.m. Opening remarks by Chairman Cordell Reed
Introduction of INPO staff Walt Coakley

8:30 a.m. Staff discussion Dale Sperry

8:45 a.m. Board review of Turkey Point Nuclear
Power Plant's training programs: Cordell Reed

- non-licensed operator - radiological protection technician
- o INPO Team Manager presentation Dale Sperry
- o Florida Power & Light Company's presentation
 - Joe Dickey, Vice President, Nuclear Operations
 - Bill Waylett, Manager, Nuclear Training
 - Chris Baker, Plant Manager, Nuclear, Turkey Point
 - Bill Miller, Training Superintendent
 - Don Grandage, Operations Superintendent

10:00 a.m. Board deliberations

10:30 a.m. Staff Discussion Ron Fritchley

10:45 a.m. Board review of North Anna and
Surry Power Stations' training programs: Cordell Reed

- electrical maintenance personnel - radiological protection technician
- mechanical maintenance personnel
- o INPO Team Manager presentation Ron Fritchley
- o Virginia Power's presentation
 - Bill Stewart, Vice President, Nuclear Operations
 - Dave Cruden, Manager, Maintenance and Performance Services
 - Terry Williams, Manager, Power Training Services
 - Bryce Shriver, Director, Nuclear Training
 - Wayne Harrell, Station Manager, North Anna
 - Bob Saunders, Station Manager, Surry
 - Larry Edmonds, Superintendent, Nuclear Training, North Anna
 - Jack Bailey, Superintendent, Nuclear Training, Surry
 - Jerry Pederson, Supervisor, Training Power Station Support, North Anna
 - Bob Miller, Supervisor, Training Power Station Support, Surry

2:00 p.m. Board Deliberations
3:00 p.m. Board Business
4:00 p.m. Adjournment
4:15 p.m. Van leaves for Waverly Hotel
5:30 p.m. Meet in lobby of Waverly to walk to dinner in Galleria Mall.

NATIONAL NUCLEAR ACCREDITING BOARD

May 29, 1986

| | | |
|------------|---|------------------------------|
| 8:00 a.m. | Coffee, juice, and doughnuts INPO Board Room (1505) | |
| 8:15 a.m. | Opening remarks by Chairman Introduction of INPO staff | Cordell Reed Walt Coakley |
| 8:30 a.m. | Staff discussion | Ron Fritchley |
| 8:45 a.m. | Board review of WNP-2 Nuclear Generating Plant's training programs: | Cordell Reed |
| | - non-licensed operator - senior reactor operator/ - reactor operator shift supervisor | |
| | o INPO Team Manager presentation | Ron Fritchley |
| | o Washington Public Power Supply System's presentation | |
| | - Jack Shannon, Deputy Managing Director - Jerry Martin, Assistant Managing Director, Operations - Rich Stickney, Manager, Technical Training - Chris Powers, WNP-2 Plant Manager - John Wyrick, Manager, Nuclear License Training | |
| 10:45 a.m. | Board deliberations | |
| 11:30 a.m. | Lunch | |
| 12:30 p.m. | Staff Discussion | Ron Fritchley |
| 12:45 p.m. | Board review of Prairie Island Nuclear Generating Plant's training programs: | Cordell Reed |
| | - non-licensed operator - electrical maintenance - reactor operator personnel - senior reactor operator/ - mechanical maintenance shift supervisor personnel | |
| | o INPO Team Manager presentation | Ron Fritchley |
| | o Northern States Power Company's presentation | |
| | - Jack Larson, Vice President, Nuclear Generation - Neil's, General Manager, HQ Nuclear Group - Bob Eliason, General Manager, Nuclear Plants - Bob Gonyeau, Manager, Production Training - Ed Watzl, Plant Manager - Ted Amundson, Training Superintendent, Prairie Island Training Center - Clem Yares, Training Superintendent, Riverside Training Center - Dick Lindsey, Plant Superintendent, Operations and Maintenance - George Lenertz, Superintendent of Maintenance | |

2:45 p.m.

Board Deliberations

3:30 p.m.

Adjournment

3:45 p.m.

Van leaves for Atlanta Airport

Davis Besse

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MEMORANDUM FOR: Harold R. Booher, Chief
Maintenance and Training Branch
Division of Human Factors Technology

THRU: Julius J. Persensky, Section Leader
Personnel Training Section
Maintenance and Training Branch, DHFT

FROM: Dolores S. Morrisseau, Training
and Assessment Specialist
Personnel Training Section
Maintenance and Training Branch, DHFT

SUBJECT: OBSERVATION OF INPO ACCREDITATION TEAM VISIT AT DAVIS-BESSE
(TOLEDO EDISON)

Introduction

During the week of June 16 - June 20, Pat Eng (RIII) and I were NRC observers during the INPO Accreditation Team Evaluation of six training programs at Davis-Besse. The programs that were evaluated against Revision 1 of INPO Criteria 85-002 are:

- Nonlicensed Operator
- Licensed RO
- Licensed SRO
- Instrument and Control Technician
- Electrical Maintenance
- Mechanical Maintenance

The training and orientation session for Peer Evaluators was conducted on Monday morning. (The list of Accreditation Team personnel, including Peer Evaluators, is enclosed.) The team was also given an overview of the Davis-Besse organization, the Training System Development (TSD) Model, job analysis methods, and the training materials matrix. Ms. Eng attended the morning portion of this meeting. We both participated in a tour of the training facility.

The formal entry meeting was held on Monday afternoon. The team leader introduced the members of his team and outlined the qualifications of each. He emphasized the role of the NRC observers, i.e., "they're here to watch us, not Davis-Besse." He also reviewed the roles of the evaluation team, the Accreditation Board, and the process for tracking open items.

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The Accreditation Process

The process was the same as that described in previous trip reports. The program content and process groups met with their respective leaders each afternoon; the combined groups met after these meetings. Open items and concerns were discussed and then communicated to utility personnel each morning by team and group leaders. A schedule of interviews was posted on the board in the INPO workroom to prevent as much duplication of effort as possible.

Interviews

I observed interviews that covered the analysis, development, implementation and evaluation phases of Training Systems Development. The interview on task analysis was extremely thorough and established what methods were used to select and validate tasks. The interviewers asked many questions designed to provide understanding of how the Training Information Management System (TIMS) was developed and maintained. It was particularly interesting that a lesson plan package was prepared to explain the TSD process and the validation process to the subject matter experts, job incumbents, and operations support personnel who participated in the validation. Other interviews covered the development of the training material and the evaluation of both trainees and program. No interviewer was satisfied until he or she had covered every possible phase of that aspect of the process being examined. If the team leaders had additional questions, the interviewers generally went back to find answers.

Class Observation

Opportunities to observe training were severely limited by the strike at Davis-Besse. A smaller team of INPO personnel will return, possibly in July, to observe simulator training and operator training classes. There was a mechanical maintenance class and a lab on packing valves. The class was conducted for the management level personnel required to cover maintenance during the strike. Two observers evaluated this class -- one before and one after the break. I attended the entire class. The lab was evaluated by a peer evaluator who was part of the content evaluation group. I also attended the lab. In both classroom and lab, the INPO team observers used the training department's evaluation form which covered both content and instructor skills. These observers also followed the lesson plans during the instruction.

Results

The following are concerns and open items that the INPO evaluation team communicated to the utility with respect to the Davis-Besse training programs being evaluated:

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- The process for analyzing new task information needs to be procedurally formalized to ensure repeatability.
- Revision of system study guides needs to be completed.
- Lesson plan development for the NLO program needs to be completed.
- There is no core of performance items on the NLO qualification cards.
- The "instant SRU" program needs to be formalized.
- Lesson plans for the three maintenance programs need to be completed.
- Classroom, lab, and OJT for maintenance programs are not consistently sequenced, i.e., classroom first, lab and/or OJT second.
- The I&C program does not presently include splicing and termination.
- The course materials on Process Control do not have all objectives covered.
- The Mechanical Maintenance program does not include a course on properties of metals.

The INPO team noted the following strengths in the six programs evaluated:

- There was extensive involvement of plant personnel in the analysis process. 94% of Davis-Besse job incumbents participated in task validation.
- The training department has a TSD course module on the PLATO system for all members of the training department and other interested personnel.
- There is extensive training for OJT evaluators.
- The training facilities are excellent.
- There are a number of feedback mechanisms to determine training effectiveness. Interviews and document review ascertained that these mechanisms are used and are thorough.
- The NLO program includes a proficiency manual with refresher knowledge components. This applies even to senior level NLOs and necessitates them going back to review lower level tasks.
- The use of shop training councils and training foremen on shift provide invaluable advisory review and coordination.

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At the conclusion of the exit briefing, the team leader noted that the final report to the Board may be delayed because of the strike since several team members will have to return to observe operator training.

Conclusions

- The INPO Evaluation Team and Peer Evaluators all had appropriate qualifications for the program areas they were evaluating.
- All document reviews and interviews were thorough.
- The team reviewed continuing training as an integral element of TSU. (Davis-Besse identified tasks for continuing training in the analysis phase of program development.)
- The analysis data is very thorough and appears to be well maintained.
- The Davis-Besse Training Division has made a great deal of progress in all phases of TSD since the NRC review last October.

Original signed by:

Dolores S. Morisseau, Training
and Assessment Specialist
Personnel Training Section
Maintenance and Training Branch, DHFT

Enclosure:
As stated

- cc: W. Russell
P. Eng, RIII
P. McKee, IE
H. Kister, RI
C. Julian, RII
M. Phillips, RIII
R. Cooley, RIV
J. Crews, RV
A. DeAgazio, NRR
PDR
PTS Staff

DW/DSM1/DAVIS-BESSE TEAM VISIT

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Team Assignments
Davis-Besse Accreditation Team Visit
June 16-20, 1986

| | |
|---|---|
| Ron Fritchley | Team Manager |
| Larry Durham | Team Manager in Training |
| Dan Garner | Team Manager Assistant for Systems Review |
| Bob Simmons (Peer Evaluator-Arizona Public Service Company) | Organization and Management/Resources and Facilities |
| David Stump | Training Staff and Training Effectiveness Evaluation |
| Henry Wiedrich (Peer Evaluator-Public Service Company of Colorado) | Non-licensed Operator Training Process |
| Barbara Heriton (Peer Evaluator-Consumers Power Company) | Licensed Operator Training Process |
| Bill Nevins | Maintenance Training Process |
| Pete Steele | Team Manager Assistant for Programs Review |
| Len Cloutier | Non-licensed Operator Program Content |
| Steve Allen (Peer Evaluator-Carolina Power & Light Company) | Reactor Operator Program Content |
| Ed Force (Peer Evaluator-Arkansas Power & Light Company) | Senior Reactor Operator Program Content |
| John Cowan | Instrument & Control Technician Program Content |
| Bob Rothermel (Peer Evaluator-Commonwealth Edison Company) | Electrical Maintenance Personnel Program Content |
| Richard Baum (Peer Evaluator-Sacramento Municipal Utility District) | Mechanical Maintenance Personnel Program Content |

Davis-Besse Team Assignments
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Harold Ray
(VP and Site Manager, San
Onofre Nuclear Generating
Station, Southern California
Edison Company)

National Nuclear Accrediting Board
Observer

Pat Eng

Observer, NRC Region III

Dolores Morisseau

Observer, NRC Division of Human Factors
Technology