



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

August 20, 1986

MEMORANDUM FOR: Albert F. Gibson, Director
Division of Reactor Safety

THRU: Caudle A. Julian, Chief
Operations Branch
Division of Reactor Safety

FROM: Dolan P. Falconer, Reactor Engineer
Operational Programs Section
Division of Reactor Safety

SUBJECT: OBSERVATION OF INPO ACCREDITATION TEAM VISIT AT FARLEY

During the week of July 21-25, I was an NRC observer during INPO Accreditation Team Evaluation of six training programs at Farley. The training programs evaluated were:

- Instrumentation and Control Technician
- Mechanical Maintenance
- Electrical Maintenance
- Health Physics Technician
- Chemistry Technician
- Management and Technical Staff

The formal entry meeting was held on Monday morning. The team leader introduced the members of his team and outlined the qualifications of each. He emphasized the role of the NRC observers and reviewed the roles of the evaluation team, the Accreditation Board, and the process for tracking open items. 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 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 and a schedule of interviews was posted on the board in the INPO work room to prevent as much duplication of effort as possible.

I attended debrief meetings and observed interviews and documentation reviews conducted by Accreditation Team members covering the analysis, development, implementation, and evaluation phases of Training Systems Development (TSD). Team members were well qualified to assess their areas of responsibility. Assessment criteria appeared to be to a depth necessary to provide a complete and comprehensive assessment of performance based training programs. Sufficient resources were provided to accomplish assessment objectives, and the team manager provided adequate management oversight.

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

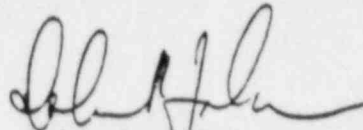
- Post training feedback evaluation forms do not provide clear evaluation criteria.
- There is no periodic management review of task lists to ensure adequacy.
- Review and document additional training needs of job incumbents prior to their qualification to perform critical tasks.
- Establish minimum training and qualification of new hires prior to their qualification to perform critical tasks.
- Develop I&C systems training materials and qualification records (OJT).
- Improve the specificity and measurability of I&C learning objectives.
- Complete the development of maintenance training materials.
- Implement maintenance on the job training.
- Improve maintenance qualification records.
- Commit to implementing feedback of industry event training into the continuing training program after all job incumbents complete their initial training programs.
- Complete the development of chemistry technician training materials.
- Complete the development of HP technician training materials.
- Implement HP technician OJT.
- Complete the development of management and technical staff training materials.
- Develop objectives and materials for management and technical staff training in fundamentals.

The accreditation team acknowledged the following noteworthy aspects of the Farley training programs evaluated:

- All current maintenance personnel (job incumbents) are required to complete the initial maintenance training program.
- Extensive outage training is provided to chemistry technicians prior to each refueling outage.

In conclusion, the INPO accreditation team visit at Farley was conducted by an adequate number of qualified personnel utilizing sufficiently detailed evaluation criteria to assess performance based training programs. I consider that the accreditation process could be improved if INPO increased the scope to include the following:

- ° Develop guidelines for the training and qualification of contracted plant personnel. In the interim, collect quantitative data concerning the ratio of contracted to permanent plant personnel for the various job classifications. This data could then be used to qualitatively determine the impact of a plant performance based training program, e.g., one plant may employ 80 percent contracted HP technicians while another may employ only 20 percent. This may indicate a difference in the effectiveness of a performance based training program.
- ° Provide a review of training attendance records against plant records to ensure that appropriate personnel are attending an implemented training program, i.e., just because lectures are given does not necessarily mean that all appropriate personnel are routinely attending.
- ° Require team managers to review NRC inspection reports and plant QA audits in the area of training to identify potential problem areas for team followup.


Dolan P. Falconer

Enclosure:
List of Accreditation
Team Personnel

August 20, 1986

ENCLOSURE

FARLEY ACCREDITATION TEAM

Ralph Reed
Bob Mullican
Robert Rodriguez
Dan Garner
Robert Fullbright
Roger Shortridge
George Hutcherson
Dennis Bean
David Stump
John Cowan
Jim Corbett

Team Manager
Team Manager (IT)
Team Manager Assistant for Program
Team Manager Assistant for Systems (TS)
Team Manager Assistant for Systems (IT)
Program Evaluator Health Physics
Program Evaluator Electrical Maintenance
Process Evaluator C&H Program
Process Evaluator Objective 1 & 3
Program Evaluator Mechanical Maintenance
Program Evaluator Chemistry

Peer Evaluators

Patrisha Hayes

Grand Gulf Nuclear Station
Mississippi Power and Light Company
Electrical, Mechanical, and I&C Process
Program Evaluator I&C Technician
WNP 2

Al Gorlich

Washington Public Power Supply System
Objective 2 & 12
Ginna Station
Rochester Gas and Electric Corp.

Al Jones

NRC Observer

Dolan Falconer

Region II

Maine Yankee

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MEMORANDUM FOR: Gregory C. Cwalina, Acting 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. Morisseau, Training and
Assessment Specialist
Personnel Training Section
Maintenance and Training Branch, DHFT

SUBJECT: OBSERVATION OF INPO ACCREDITATION TEAM VISIT
AT MAINE YANKEE

Introduction

During the week of July 28 - August 1, I was the NRC observer during the INPO Accreditation Team Evaluation of four training programs at Maine Yankee. The programs that were evaluated against Revision 1 of INPO Criteria 85-002 are:

- Nonlicensed Operator
- Licensed RO
- Licensed SRO
- Radiation Protection

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 leaders reviewed the week's agenda. Team members were reminded that although Maine Yankee had a good performance record before the existence of INPO, the programs still had to meet the objectives and criteria for accreditation. Team leaders reviewed interview and other data gathering techniques.

The formal entry meeting was held on Monday afternoon. As in previous Evaluation Team visits, the team leader introduced team members and reviewed their qualifications. He reminded utility personnel that the NRC observer was watching the process, not the utility. He also gave a brief outline of the role of the team members, the Accreditation Board, and the process for tracking open items. Maine Yankee training staff gave an overview of the system.

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The Accreditation Process

The process was the same as that described in previous trip reports. The process and program content groups met with their respective leaders each afternoon prior to the combined group meeting. Open items, questions, and concerns discussed at these meetings were communicated to utility personnel each morning by team and group leaders. Posting of the interview and class observation schedule in the INPU workroom has now become a standard part of the procedure. During the first afternoon meeting of the week, team members realized that many of them needed a better understanding of the job analysis process as Maine Yankee conducted it. To obviate the need for numerous interviews, the team leader arranged for the lead personnel involved in the Maine Yankee job analysis to make a presentation and answer questions for all team members concerned. A unique feature of this evaluation was the method used by the process group leader to present open items at the team meetings each afternoon. He wrote the problem statements for each program on blank transparencies and displayed them with an overhead projector. This made these items easier to follow during the meeting.

Interviews

I observed both individual and group interviews. The group interview on the job analysis was very thorough and saved a great deal of time for training personnel. In addition to regular interviews to review the evaluation process, several members of the team observed a meeting of the Training and Qualifications Review Board. This board reviews the progress of all current trainees and also makes decisions about marginal students in the various training programs. To ensure that this board meeting was not atypical, minutes of the meetings for several years were reviewed by team members. I observed an individual interview on lesson plan development for the nonlicensed program. The evaluator was extremely thorough and knowledgeable in this area. As with all the other team evaluations I have observed, the evaluators conducted thorough reviews and persisted in tracking down open items until they felt satisfied that every available piece of information had been supplied by the utility.

Class Observation

I observed a class in the use of Germanium/Lithium Detectors with the evaluator for content of the Radiation Protection program. The evaluator followed the lesson plan throughout the class. He asked if I would compare notes with him at the end of the class. Our observations were nearly identical on both positive and negative points. Although there were not too many opportunities for me to observe classes during this week, I am satisfied that they were thoroughly evaluated. Most of the classes available for observation were attended by two observers. The limited number of available seats would have made my attendance an obstruction to the evaluators' attending. However, the candid observations and the thoroughness with which findings were articulated indicates adequate review.

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Results

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

- Initial and continuing training programs for instructors need to be formalized and implemented in order to ensure that instructors maintain technical skills.
- Some of the enabling learning objectives in operator programs are written as action items; however, test questions appear to test the knowledge associated with these actions. It needs to be made clear whether the trainee will be tested on the action, the knowledge, or both.
- In-plant training for nonlicensed operators is not effectively presented.
- Performance on OJT items is not consistently evaluated.
- There are not enough items on the nonlicensed operator qual cards to indicate good performance.
- There is no assurance that qual card items will be performed in a sequence related to prerequisite knowledge. This applies to both the nonlicensed program and the Radiation Protection program.
- Qual card items not associated with procedures do not all have standards for performance.
- Better guidance is needed for those who conduct oral examinations to ensure consistency with respect to number of questions and topic areas.
- In-plant training for RO/SRO trainees is not defined well enough to ensure repeatability or consistency.
- In the Radiation Protection program, approximately 30 tasks normally associated with this position were not selected for training. The personnel who perform these tasks are therefore not trained under the Maine Yankee Systems Approach to Training (MYSAT). Since these tasks are assigned at Maine Yankee, they should be trained appropriately and be included in a program that is subject to INPO evaluation. (Maine Yankee objected to having learned this too late, i.e., at the time of the team visit.)
- Several topics should be added to training for Radiation Protection personnel, i.e., industrial operating experience, ALARA, plant operations and maintenance. (Maine Yankee stated that these topics

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don't fit into performance-based training because they have nothing to do with the Radiation Protection position. The INPO subject matter expert for this program explained that these were relevant areas in which RP personnel might play a support role.)

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

- Technical reference materials for operators and trainers are readily available.
- Evaluation procedures are good although the cycle has not been completed to allow implementation.
- The Training and Qualifications Review Board is extremely thorough and takes a serious look at each trainee and his potential.

Conclusions

- The INPO Evaluation Team and Peer Evaluators all had appropriate qualifications for the program areas they were evaluating.
- All document reviews, interviews, and class observations were comprehensive.
- The Team Manager and Team Manager-in-Training did an especially good job of dealing with several tense situations that arose because of Maine Yankee disagreement with some of the INPO findings.
- The major inadequacies of the sole Radiation Protection instructor were not communicated as well as they might have been. I believe this was due to the fact that he was present at the exit meeting.

Original Signed by

Dolores S. Morisseau, Training and Assessment Specialist
Maintenance and Training Branch
Division of Human Factors Technology

Enclosure:
As stated

- cc: W. Russell
P. McKee, IE
H. Kister, RI
C. Julian, RII
M. Phillips, RIII
R. Cooley, RIV
J. Crews, RV
N. Reed, RRR

DW/DSM1/ACCREDITATION TEAM VISIT-MY

OFFICE ▶	PTS Staff	MTB/DHFT	MTB/DHFT		
URNAME ▶		DMorisseau/dr	JRensensky		
DATE ▶		8/8/86	8/8/86		

INFORMATION SHEET

INPO ACCREDITATION TEAM VISIT

MONDAY, JULY 28 THROUGH FRIDAY, AUGUST 1, 1986

July 27, 1986

TEAM MEMBERS

TEAM MANAGER: WALTER POPP

TEAM MANAGER (TRAINEE): LARRY DURHAM

TEAM MANAGER ASSISTANT (SYSTEMS REVIEW): GEOFF EDELMAN

TEAM MANAGER ASSISTANT (PROGRAMS): JERRY OLSEN

MEMBERS: TONY HINSON, INPO, Licensed Operator Process

JIM CANTRELL, INPO, NLO Program Content

FRANK SWIHEL, Omaha Public Power, Ft. Calhoun, RO Content

ERIC PUGH, TVA, Browns Ferry, RP Content

ED O'NEIL, FP&L, St. Lucie, Objectives 1&3

AL RIVERS, INPO, Objectives 2 & 12, Team Lunch Coordinator

LEE CATALFOMO, PSE&G, NJ, NLO Process

LARRY DOOLEY, Boston Edison, Pilgrim, RP Process

OBSERVERS

BOARD MEMBER: LINCOLN CLARKE- MIT Professor, Tuesday PM to Thursday 1900.

BOARD MEMBER: JOHN PALMS- Academic Vice President, Emory University, All Week.

NRC OBSERVER: DOLORES MORISSEAU- J. Perzysenski's Offices, All Week.

SENIOR MANAGEMENT REPRESENTATIVE: WALTER COAKLEY, INPO Accreditation Division Director, Thursday Noon to 1030 Friday.

MOTEL

HOLIDAY INN, BATH, MAINE.