

APR 30 1986

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SUBJECT: OBSERVATION OF THE INPO ACCREDITATION TEAM VISIT AT THE  
PHILADELPHIA ELECTRIC COMPANY, LIMERICK GENERATING STATION

Introduction

During the week of February 24, 1986, through February 28, 1986, Joseph Buzy, DHFT, and Robert Gallo, RI, were NRC observers during the INPO Accreditation Team Evaluation at the Philadelphia Electric Company (PECO), Limerick Generating Station for the following training programs:

- Nonlicensed Operators
- Control Room (Licensed) Operators
- Senior Reactor Operator
- Shift Technical Advisor
- Technical Staff and Managers

The Limerick accreditation evaluation continued during the period of March 3, 1986, through March 7, 1986, in the following technician training programs:

- Chemistry
- Radiation Protection
- Instrumentation and Control
- Electrical Maintenance
- Mechanical Maintenance

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There were no NRC observers assigned to the March 3-7 evaluation.

The INPO accreditation visit was conducted in accordance with "Criteria for the Accreditation of Training in Nuclear Power Industry," INPO 85-002. The NRC observers utilized the "Accreditation Team Observation Visit Protocol" which is based on the Commission Policy Statement on Training and Qualification of Nuclear Plant Personnel, EP11147, USNRC, March 20, 1985.

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The accreditation team members for the Limerick review are contained in Enclosure 1.

The Accreditation Process

The accreditation process of PECO's Limerick Generating Station is the same as described in previous NRC staff reports which have included summaries of the accreditation team visits. A summary of significant milestones toward the accreditation of training programs at PECO nuclear plants included PECO participation in developing the INPO job and task analysis for BWR plants during the 1982-83 period, an INPO accreditation assist visit at Peach Bottom in March 1983 which led to the Self Evaluation Report (SER) in August of 1984 and subsequent accreditation in May 1985. Limerick submitted SERs for the 10 programs during the period of August through December 1985. In addition, Limerick also provided an update to the SERs shortly before the INPO site visit. Since PECO had one station with accredited programs, INPO policy did not include an INPO assist visit at the Limerick Station. INPO evaluation criteria for the Peach Bottom programs was based on INPO 82-011 while the Limerick programs were evaluated using criteria contained in INPO 85-002.

The programs evaluated during the accreditation review were developed using the Training System Development (TSD) model from existing programs contained in the FSAR. The STA program, which was in progress during the review, is the first Limerick program presented using the TSD model. Shortly after the accreditation review, Limerick began the first nonlicensed program using the TSD model.

Observations

We attended the entrance meeting during which members of the Limerick and PECO training and operations organization were introduced as well as the INPO team members. At the end of each day, meetings between the INPO team members were divided into content and process groups. Later, the groups met in a combined meeting. At this time, there was open exchange of information as well as identifying open items which were pursued with the training staff on the following day. The meeting with PECO staff on the following day was conducted by the INPO team leader with active discussions by the process and content group leaders. Feedback to the team members was made during the lunch breaks allowing the individual team member to resolve the open items during the afternoon or on the following morning.

The INPO team members received General Employee Training (GET) to allow access to the restricted area. GET was required to conduct reviews of training records, and interviews of training personnel as well as job incumbents. INPO had provided peer members with information on the conduct and method of data collection prior to the site unit. Peer evaluators were given additional training by individual INPO group leaders following the entrance meeting. We were informed that additional training on the details of the reviews were conducted during the evening.

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We witnessed reviews of training documents which included the licensed operators job survey, task analysis and cross-reference matrix. The team members also evaluated: classroom instruction; lesson plans; on the job training; written examinations and answer keys and also conducted sample grading of written examinations. Interviews were conducted with: training department personnel; PECO and contract instructors; job incumbents and trainees. All activities were conducted with preplanned evaluation and data collection forms. The evaluations conducted by INPO personnel and peer advisors was thorough and either confirmed the comments in the SER or revealed missing or incomplete elements in the program. With the exception of two items which we were unable to confirm, we conclude that the INPO evaluation included the criteria contained in the Observation Visit Protocol.

During the team visit, we were aware that requalification simulator, written and oral examinations for licensed personnel were in progress. The INPO team did not witness or evaluate the administration or content of these examinations; however, an INPO team was scheduled to evaluate simulator training the week of March 31 - April 4, 1986. The evaluation of simulator training (Objective 10 of INPO 85-002) will be factored into the draft accreditation report. We were informed that the simulator training evaluators consists of a number of INPO personnel plus a peer evaluator. The INPO simulator team members have experience as simulator instructors and have conducted numerous simulator training evaluations. We expect that the simulator training evaluation will be conducted as well as the other portions of the evaluation process.

INPO Exit Meeting

During the exit meeting, the following unresolved items were among those discussed with the PECO staff:

- The Training System Development (TSD) model is well defined; however, more participation from the operating organizations is necessary.
- Some of the lesson plan content or material is not identified in the lesson plan objectives. The material is often included in written examinations.
- Oral examinations need more structure so results may be fed back into training program evaluations.
- Examination keys for written examinations should be retained.
- Instructor qualifications should include equipment in the plant. In addition, instructors should have periodic assignments in the control room.
- For nonlicensed operator programs: Job descriptions are incomplete; continuing training needs to be more formal than a required reading list.

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- ° For licensed personnel and STAs: OJT tasks needs to be better defined for trainees and evaluators; simulator exercise guides need to be completed and should include specific objectives and evaluation criteria for SROs and STAs; team training should be an objective in each simulator exercise.
- ° For the technical staff and management training: initial training should review basics of instrumentation and plant chemistry; continuing training needs to be more formal than an optional reading list; remedial training and reexaminations are missing in this program.

We also attended an exit interview with the INPO Team Manager and each of the peer evaluators. The peer evaluators were asked to complete a questionnaire and comment on the preparations for the evaluation team visit, the training presented by the evaluation team, and if INPO team members had unduly influenced their findings. Most peer evaluators gave constructive comments on the preparation for the visit and were positive on the training provided. The peer evaluators felt the INPO staff had adequately addressed any questions and had not influenced their evaluations.

We were informed that the Accreditation Team Draft Report will be reviewed with PECO management about May 1, 1986. We have informally requested that one of the NRC observers (Robert Gallo) be present during the review of the draft report. The INPO Team Manager (Ralph Reed) and PECO Training Manager (John Stankiewicz) do not have any objection to NRC attendance at this time.

Conclusions

- ° The INPO and PEER evaluators were well prepared and performed a thorough review of each of the Limerick programs as they exist today.
- ° The accreditation process requires a biennial status report on the progress of ongoing actions committed to and in response to the Accreditation Board. We recommend utilities develop a plan to resolve open items and be able to track completion or resolution of open items on an annual schedule.

**Original signed by:**

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Maintenance and Training Branch  
Division of Human Factors Technology

Robert M. Gallo, Chief  
Reactor Projects Section 2A  
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Enclosure:  
As stated

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DATE	4/29/86	4/30/86	4/30/86				



INPO EVALUATION TEAM MEMBERS  
LIMERICK GENERATING STATION  
FEBRUARY 24-28, 1986

Team Manager  
Ralph Reed

Lead Content Evaluator

Robert Barmettlor  
Robert Mullican (In training)

Content Evaluators

J. D. Cantrell - NLO  
  
Dan McMillan - RO/SRO content  
GPU - Oyster Creek  
  
Mike Lyon - STA  
Illinois Power - Clinton Station  
  
Robert Barmettlor - Tech Staff

Lead Process Evaluator

Charles Fenton  
Sam Newton (In training)

Process Evaluators

Roy Goodman - NLO  
(TVA)  
Ken Rothlamp - RO/SRO  
LILCO - Shoreman  
  
Dave Gardner STA  
Niagara Mohawk - Nine Mile Point  
  
Mike Gittle - Tech Staff  
  
Joe Coppolino - Objectives 1&3  
N.Y. Power Authority

Observers     Dr. Wayne Jenz - Detroit Edison - Accreditation Board Member  
                 Robert Gallo - NRC/Region I  
                 Joseph Buzy - NRC/DHFT  
                 Phil McCollough - INPO