



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 21, 2004

MEMORANDUM TO: R. William Borchardt, Deputy Director  
Office of Nuclear Reactor Regulation

FROM: Bruce A. Boger, Director */RA/*  
Division of Inspection Program Management  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE ANNUAL NRC/INPO COORDINATION MEETING  
ON TRAINING-RELATED ISSUES

On May 18, 2004, a periodic public NRC/Institute of Nuclear Power Operations (INPO) coordination meeting on training-related issues was held at NRC Headquarters, Rockville, Maryland. Such meetings are conducted in accordance with the NRC/INPO Memorandum of Agreement dated December 24, 1996. The purpose of the meeting was to discuss items of mutual interest concerning INPO's training program accreditation process. Participants included representatives of the NRC's Division of Inspection Program Management and INPO's Training and Accreditation Division. The list of meeting attendees is provided as Attachment 1. The meeting agenda is provided as Attachment 2. A summary of the discussions related to key agenda topics covered during the meeting follows.

### **Welcome and Opening Remarks**

Introductions of the NRC/INPO personnel present were conducted. NRC/INPO provided opening remarks. As part of the opening remarks, INPO discussed organizational changes since the 2003 Coordination Meeting.

### **Knowledge and Ability Catalog Enhancement Project**

Charles Sawyer of Duke Energy discussed (via telephone) the Westinghouse Owners Group (WOG) initiative to update the generic section of NUREG 1122, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Pressurized Water Reactors, Revision 2." At the time of this meeting, the project was in the preliminary stages and had not yet been funded by the WOG. The NRC stated that licensees are already provided the flexibility to adjust examination sample plans to eliminate outdated, inapplicable, or vague generic knowledge and abilities elements and to substitute more appropriate questions. NRC recognizes that some of the catalog is dated, but before committing resources in support of this effort is awaiting answers to outstanding questions on the need for the update.

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## **Accreditation Process Update**

A full round of Accreditation Team visits have been completed using the new accreditation objectives and criteria. No programs have been placed on probation. Multi-site visits have been conducted for some Exelon Operations programs and TVA technical programs. Exelon Mid-Atlantic operator programs are scheduled for the summer of 2004. Sites that are part of a multi-site visit still have individual Board accreditation presentations and decisions. No great savings for either the industry or INPO have been identified for this type visit. The first international accreditation of operations training programs was conducted during 2003.

Exemption criteria for appearance before the National Nuclear Accrediting Board (NNAB) were discussed. Exemption criteria are: no accreditation team findings, no open station identified findings, all training programs renewed last time without probation and with utility appearance before the NNAB, World Association of Nuclear Operators performance indicator index greater than or equal to the industry median, and a request for exemption made by a company executive with exemption approval by the NNAB. Pilot testing of the program was initiated in October 2003 and four exemptions have been granted to date. If an exemption is granted, the facility does not appear before the NNAB and questions are answered by the Accreditation Team Manager. If an exemption is not granted, the facility appears before the NNAB the following month.

## **Plant Evaluation Process Modifications**

INPO described changes to the Plant Evaluation process. Modifications to the process include a pre-evaluation analysis, a Plant Evaluation Self Evaluation Report (similar to the Accreditation Self Evaluation Report), and peer reviewers at the Department Head level or above. The modifications should be implemented during calendar year 2004.

## **National Examination Question Bank**

The National Examination Question Bank contains 24,000 questions in two categories, pre-1998 (11,000 items archived) and active (13,000 items). Questions are available in three formats, Access 97, Excel, and comma separated value. The Question Bank is updated weekly. A third-party exam generator has been added which aids in the development of exams and provides "as-is" questions. INPO does not provide technical support for the generator. The backlog of exams for input into the Bank is currently 10 exams.

## **Miscellaneous Training Programs**

INPO discussed supervisor training, non-station personnel issues, and security officer training. Supervisor training and performance is a common area for findings in Plant Evaluations. INPO is preparing a guidance document for a supervisor performance improvement program. The Nuclear Energy Institute (NEI) is using a graded systems approach to training to develop training for security officers. INPO is providing advice and assistance to NEI in this effort. Security officer training will not be accredited by the National Academy for Nuclear Training. Non-station personnel are defined as anyone not assigned full time to the site. INPO is developing a process document describing the role of the supervisor relative to non-station personnel.

## Regulatory Issues

### Requalification Inspection Results

NRC discussed recent indications, some gained through recent inspections and others which have not yet been confirmed, of potential weaknesses in licensed operator requalification programs. These weaknesses included the following issues: more than 50% overlap between requalification exams delivered to successive crews of operators, test questions that are insufficiently discriminatory, test bank control and usage weaknesses, insufficient number of higher cognitive level questions, weak exam security procedures, and indications of performance slippage based on requalification examination failures at a limited number of facilities. NRC stated that absent a commitment to the requalification standards in NUREG 1021, "Operator Licensing Examination Standards for Power Reactors," licensees are not obligated to adhere to those standards. Thus, INPO's objectives and criteria are generally the governing standard for accredited utility operator requalification programs. As accreditation standards do not contain the level of specificity in the area of examination practices that NUREG 1021 does, the NRC asked INPO to consider enhancing its examination practices guidance in the areas of exam bank usage, sample plan development, cognitive level, and security protocols.

### Simulator Rule Implementation

NRC discussed recent findings related to simulator fidelity issues. Many simulator performance discrepancies appear to be legacy issues from the original simulator certifications that are either not yet resolved or are only now revealing themselves as the industry transitions to the new rule change that allows simulators to be used for reactivity manipulations by operator license candidates in initial training. Examples of problems include: deviations of the simulator from the referenced plant and poor modeling of decay heat and reactor water level post-scrum shrink/swell response. Modifications to simulators for training in advance of modifications to the plant need to be discussed with the NRC and may require NRC approval. The purpose of these discussions/approvals is to avoid negative training and ensure impacts on operators are fully understood and accommodated.

The NRC expressed concern about apparent deficiencies in the rigor of the original simulator testing and validation processes as well as knowledge and expertise of current simulator supervisors and technicians. None of the NRC findings have reached the level that would require either canceling an initial operator license exam or calling into question requalification exam results.

A list of frequently asked simulator rule implementation questions is posted on the NRC Operator Licensing web site. Included in the responses are the NRC's expectations for scenario based testing and core performance testing.

### **Licensed Operator Requalification Program Changes**

NRC indicated that the Operator Requalification Human Performance Significance Determination Process will be revised to resolve inconsistencies with the criteria contained in NUREG 1021 and inspection procedure IP 71111.11, "Licensed Operator Requalification Program." INPO will provide any comments via NEI once the proposed revisions are made available for comment

### **Licensed Operator Eligibility, Proficiency, and Activation**

The NRC is receiving a number of requests for waivers from licensed operator eligibility requirements. INPO was asked to reinforce with members of the National Academy for Nuclear Training that eligibility requirements are program entry requirements, not just criteria to be addressed as candidates near the end of the training program when the NRC license application form is being prepared. NRC stated that during a transitional period the deletion of eligibility credit for the U.S. Navy Chief Reactor Watch position applies only to future candidates, i.e., current candidates enrolled in a direct SRO program that used this experience for training program entry are permitted to complete the program. NRC also stated that questions and answers related to senior operators limited to fuel handling (LSROs) have been added to the Operator Licensing web site. NRC discussed the proficiency requirements for licensed senior operators standing watch strictly as reactor operators.

Attachments: As stated

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\* See Previous concurrence

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NAME	R Pelton	D Trimble	F Costello	B Boger
DATE	08/31/04	9/3/04	9/3/04	9/10/04

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## **ATTENDEES**

### **INPO-NRC Coordination Meeting, May 18, 2004**

#### **Institute of Nuclear Power Operations**

Phil McCullough, Vice President, Training and Accreditation  
Kent Hamlin, Manager, Accreditation  
James Lynch, Manager, Industry Leadership and Development  
Charlie Brooks, Industry and External Relations

#### **Nuclear Regulatory Commission**

Bruce Boger, Director, Division of Inspection Program Management, NRR  
William Beckner, Chief, Reactor Operations Branch, NRR  
Dave Trimble, Chief, Operator Licensing and Human Performance Section, NRR  
Fred Guenther, Senior Reactor Engineer, NRR  
Larry Vick, Reactor Engineer, NRR  
George Usova, Training and Assessment Specialist, NRR  
Richard Pelton, Training and Assessment Specialist, NRR  
June Cai, Human Factors Analyst, NRR  
Rich Conte, Chief, Operational Safety Branch, RI\*  
Rick Baldwin, Operator Licensing and Human Performance Branch, RII\*  
Roger Lanksbury, Chief, Operations Branch, RIII\*

#### **Other**

David Tune, Cooper Nuclear Station  
John Kahanca, Cooper Nuclear Station  
Carey Fleming, Winston & Strawn LLP\*  
Charles W. Sawyer, Duke Energy\*

C Connected via telephone bridge

**AGENDA**  
**INPO-NRC Coordination Meeting, May 18, 2004**

	<b>Topic</b>	<b>Lead</b>
0800	Welcome and Opening Remarks	INPO/NRC
0815	Public Input	
0830	Knowledge and Ability Catalog Enhancement Project	NRC
0900	Update on the Accreditation Process	INPO
	Multi-site Team Visits	
	Waiver of Board Appearance	
	Plant Evaluation Process Modifications	INPO
	National Exam Bank	INPO
	Miscellaneous Training Programs	INPO/NRC
	Security Officer Training	
	Supervisor Training	
	Non-station Personnel Training	
1200	Regulatory Issues	NRC
	Simulator Rule Implementation	
	Results of Requalification Inspections, Licensed Operator Requalification Examinations	
	Changes to IP 71111.11, "Licensed Operator Requalification Program", "Operator Requalification Human Performance Significance Determination Process (SDP)"	
	Licensed Operator Eligibility, Proficiency, and Activation	
	NUREG-1021, Revision 9 update	
1545	Closing Remarks	INPO/NRC
1600	Adjourn	