

July 31, 2006

MEMORANDUM TO: Bruce Boger, Associate Director  
for Operating Reactor Oversight and Licensing  
Office of Nuclear Reactor Regulation  
*/RA/ Patrick L. Hiland for*

FROM: Michael J. Case, Director  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE 2006 ANNUAL U. S. NUCLEAR REGULATORY  
COMMISSION/INSTITUTE OF NUCLEAR POWER OPERATIONS  
COORDINATION MEETING ON TRAINING-RELATED ISSUES

On May 10, 2006, a periodic public U. S. Nuclear Regulatory Commission (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 and Regional Support and INPO's Training and Accreditation Division. The list of meeting attendees is provided as Enclosure 1. The meeting agenda is provided as Enclosure 2. A summary of the discussions related to key agenda topics covered during the meeting follows.

### **Welcome and Opening Remarks**

Introductions of the members of the public and NRC and INPO personnel present were conducted. NRC/INPO provided opening remarks. As part of the opening remarks, INPO and NRC discussed organizational changes since the 2005 Coordination Meeting.

### **Accreditation Update**

INPO noted that in the continuing effort to improve the effectiveness of accreditation teams, one of four senior INPO managers participate in each accreditation team visit (ATV) by either attending the exit debrief or reviewing the report, there are eight qualified ATV team managers, and Operations training ATVs include a team member who is familiar with NUREG-1021 and examination issues, and the teams are looking harder at program implementation. INPO also mentioned that the simulator and licensed operator continuing training guidelines will be revised beginning in July and a significant event report has been developed that revised the Evaluator Team Guidance, included a training self-assessment guide, and provided additional techniques that can be used to determine and evaluate licensed operator skill and knowledge.

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As of February, 2006, no facility training programs were on probation. A post probation follow up has been conducted to determine the quality of training provided and will be presented to the Accrediting Board during the July Plenary session. The 2005 Training and Accreditation Weaknesses letter was sent to the industry in February, 2006.

## **Regulatory Issues**

### **Uniform Conditions**

The NRC discussed the expectation that the application of uniform conditions for requalification examinations is essential to the NRC license renewal process and inherent to public health and safety. The NRC acknowledged that the intent, content, and structure of requalification examinations are different from those of initial examinations. Nonetheless, the NRC contends that good examination practices are simply that and apply to both initial and requalification examinations, notwithstanding differences in examination intent and purpose. The NRC's Office of General Counsel supports this view.

The NRC discussed the development of 13 uniform conditions to reinforce a set of common quality standards of "good practices" for all utility requal exams. The construction of the uniform conditions relied on the existing Examination Standards (NUREG-1021) as a framework for examination good practices.

The NRC indicated that the Focus Group is preparing a self-policing letter, which the Focus Group hopes will dissuade the NRC from considering rulemaking in this area. The NRC also encouraged INPO to follow up on the self-policing letter during Operations Training ATVs. INPO agreed to assist in getting information about the uniform conditions out to the industry and cautioned the NRC to think through the criteria to minimize the risk of unintended consequences as a result of pushing initial examination criteria into the requalification programs. A meeting, with the Operator Licensing Focus Group, to discuss uniform examination conditions is planned for later this year. In summary, the NRC views "uniform conditions" as a set of good examination practices applicable to all requalification programs as a condition of license renewal.

### **Licensed Operator Examination Issues and Resolution**

The NRC discussed recent examples of poor examination practices encountered during licensed operator examination review and validation. The NRC stressed that exam validation, whether initial or requalification, should be performed by individuals not participating in the exam and validation prior to exam administration should prevent post-exam challenges. Proper exam validation also ensures examinations meet high quality standards.

In the initial examination area, the NRC also noted that it is the responsibility of the facility to determine which applicants are ready to sit for the NRC licensing exam, not NRC. Comprehensive review, broad-based validation, and audit exams representative of the NRC exams are the vehicles to determine if candidates are prepared.

INPO indicated that Operations ATV teams will be looking into facility examination validation practices.

### **Simulator Fidelity and Testing**

The primary purpose of the plant reference simulator is for training operators. If the simulator is to be used for other purposes, there is a need to ensure the simulator will provide the correct answer.

ANSI 3.5, "Nuclear Power Plant Simulators for Use in Operator Training and Examination" is being revised and will be released for comment later this year. When the new version is approved, the NRC will announce the endorsement of the new version of ANSI 3.5 and is considering the retraction of the NRC endorsement for previous versions. A workshop to develop acceptable (minimum) scenario based testing (SBT) guidance is planned for later this year. A goal of the workshop will be to agree to a standard for SBT. Verification for the SBT standard will follow the workshop.

INPO noted that it rarely gets into simulator testing and only does so as necessary to follow up on simulator training issues.

### **Grid Reliability**

NRC reported that in addition to holding several workshops, Generic Letter 2006-02, "Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power" had been issued and responses had been received from all utilities. Responses to the generic letter were being evaluated.

INPO reported that grid reliability recommendations have been reviewed at 27 facilities as part of the plant evaluation process. 21 facilities were evaluated as satisfactorily implementing the recommendations and 6 were in the process of implementing the recommendations.

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

The update of the generic section of NUREG 1122, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Pressurized Water Reactors, Revision 2" continues. The purpose of the initiative is to improve clarity and revalidate importance of the generic KA statements. During the Phase 2 validation it was noted that several of the ratings have increased above 2.5. Plans have been made with the BWR Owners Group to update the generic section of NUREG 1123, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Boiling Water Reactors," Revision 2 to conform with the PWR catalog.

### **New Reactor Licensing and Accreditation**

INPO's plan continues to be to treat new reactor licensees as an initial accreditation with an ATV and Accrediting Board prior to fuel load and startup. The accreditation process for new reactor licenses should be finalized later this year.

### **Other Items of Mutual Interest Related to Training**

The NRC noted that the operating reactor inspection program is being adjusted to allow the program to react to identified performance deficiencies. The adjustments will help determine if identified performance deficiencies are illustrative of problems in the area of safety culture.

Concerns with implementation of the systems approach to training (SAT) process have been communicated to the industry. Failing to understand the SAT process was a contributor to facilities being placed on probation in the recent past. Accreditation teams are placing increased emphasis on the SAT process during onsite visits. Weaknesses in technical fundamental knowledge have been identified, communicated to industry, and will be evaluated to determine how to close the knowledge gap.

The National Academy for Nuclear Training has unveiled an eLearn program for “portable qualification” in the areas of radiation worker fundamentals and general employee training. The training is intended for contractors to allow easier site access. All stations have agreed to accept satisfactory completion of the training.

INPO noted that organizational issues have been identified in that reactor operators (RO) are tending to stay in the RO position and senior reactor operators standing RO watch for long periods of time could display weakened supervisory skills.

There is an increasing shortage of qualified, experienced operations instructors. This could become significant given the new reactor licensing efforts.

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## **ATTENDEES**

### **INPO-NRC Coordination Meeting, May 10, 2006**

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

Phil McCullough, Vice President, Training and Accreditation  
Kent Hamlin, Director, Accreditation  
Bill Fitzpatrick, Manager Industry and External Relations

#### **Nuclear Regulatory Commission**

Bruce Boger, Associate Director for Operating Reactor Oversight and Licensing, NRR  
Pat Hiland, Deputy Director, Division of Inspection and Regional Support, NRR  
Neil O'Keefe, Acting Chief, Operator Licensing and Human Performance Branch, 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  
Marvin Sykes, Chief, Operational Safety Branch, RI

#### **Other**

Paul Hippely, Westinghouse AP 1000 Training Lead  
Michael Bourgeois, Entergy New Reactors  
Tomoho Yamada, Japan Nuclear Energy Safety Organization  
Jerry Phillabaum, Enercon Services  
Robert Meyer, Professional Reactor Operator Society (connected via telephone bridge)

**AGENDA**  
**INPO-NRC Coordination Meeting, May 10, 2006**

	<b>Topic</b>	<b>Lead</b>
0800	Welcome and Opening Remarks	INPO/NRC
0815	Public Input	Public
0830	Accreditation Update	INPO
0900	Regulatory Issues	NRC
	Uniform Conditions	
	Licensed Operator Examination Issues and Resolution	
	Simulator Fidelity and Testing	
1000	Grid Reliability	INPO/NRC
1100	Knowledge and Ability Catalog Enhancement Project	INPO/NRC
1200	New Reactor Licensing and Accreditation	NRC
1300	Other Items of Mutual Interest Related to Training	INPO/NRC
1400	Public Questions and Answers	Public
1430	Adjourn	