

September 21, 2007

MEMORANDUM TO: Frederick D. Brown, Director
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Nancy L. Salgado, Chief */RA/*
Operator Licensing and Human Performance Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF AUGUST 24, 2007, MEETING WITH INDUSTRY FOCUS
GROUP ON OPERATOR LICENSING ISSUES

On August 24, 2007, the U.S. Nuclear Regulatory Commission (NRC) staff held a public meeting with the industry focus group on operator licensing to discuss a number of operator licensing issues. Enclosure 1 lists the attendees at the meeting; no members of the general public were present.

This meeting was the latest in a series of meetings intended to promote efficient, effective, and consistent preparation and administration of initial operator licensing examinations. The discussions addressed issues related to the pending fatigue rule (Subpart I of 10 CFR Part 26), new reactor licensing, draft supplements to NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and the NRC's Knowledge and Abilities Catalogs (NUREGs-1122 and 1123), licensed operator requalification programs, simulator fidelity and testing, and other operator licensing issues. The discussion topics are summarized in Enclosure 2.

Representatives of the NRC and the industry agreed that this meeting was useful for the exchange of information and agreed to continue the periodic meetings.

Enclosures: As stated

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List of Attendees - NRC / Industry Focus Group Meeting on Operator Licensing
August, 24, 2007

Name	Organization
Bruce Boger	NRC / HQ
Fred Brown	NRC / HQ
Stuart Richards	NRC / HQ
Nancy Salgado	NRC / HQ
Lawrence Vick	NRC / HQ
Fred Guenther	NRC / HQ
Richard Pelton	NRC / HQ
David Muller	NRC / HQ
John Munro	NRC / HQ
Mike Junge	NRC / HQ
Marvin Sykes	NRC / RI
Bob Haag	NRC / RII
Hironori Peterson	NRC / RIII
Tony Gody	NRC / RIV
Brian Haagensen	NRC / RI
Jack Roe	Nuclear Energy Institute (NEI)
Chris Earls	NEI
Phil McCullough	Institute of Nuclear Power Operations (INPO)
Chuck Sizemore	Nuclear Management Company
Gregg Ludlam	Exelon
Orrin Oliver	PG&E
John Steely	Duke Energy
Paul Hippely	Westinghouse
Gerald Gauding	PSEG
Hamer Carter	Progress Energy
Gregg Ellis	Unistar
Randy Knight	TVA
Michael Petersen	NMC
Ken Langdon	PG&E (Diablo Canyon)
Timothy Dennis	ANS Standards Committee
Kent Hamlin (via telephone)	INPO

DISCUSSION SUMMARY

GENERIC ISSUES

Simulator Fidelity and Testing

The NRC staff reiterated its desire to promote regulatory stability in this area by encouraging the industry to adopt a single version of ANSI/ANS-3.5, "Nuclear Power Plant Simulators for Use in Operator Training and Examination," that would apply to every plant-referenced simulator, including those that are planned for new reactors. When questioned about the issues that are inhibiting facility licensees from adopting the 1998 version of the standard, the Focus Group (FG) members indicated that the industry agrees with the staff's proposal to (1) accept the simulator scenario-based test (SBT) documentation regime that was demonstrated to NRC staff at the Robinson simulation facility and (2) limit the scope of simulator SBTs to those scenarios developed and used for NRC initial examinations, for NRC requalification examinations, and for performing control manipulations to meet experience eligibility requirements for an operator's license. However, the FG expressed significant concern regarding the staff's expectation that facility licensees continue to perform periodic malfunction testing even after they shift to the 1998 version of the standard. The FG suggested that there is no need to perform additional malfunction testing given that it is not required by the regulations, that about 2/3 of the 25 malfunction categories identified in ANSI-3.5 are already covered during annual transient testing, and that most, if not all, of the remaining malfunctions would be tested through the SBT process. After considerable debate, the NRC staff and FG ultimately agreed, in principle, that periodic testing of the ANS-3.5-required malfunctions would no longer be required as long as the facility licensee has performance test documentation to prove that all the required malfunctions were individually tested at least one time (e.g., as part of the simulator's original certification process) prior to shifting to a scenario-based testing regime. The NRC staff and FG members also agreed that facility licensees that are unable to provide their malfunction performance test documentation for NRC review would have to redo the tests and maintain the associated records. Moreover, any subsequent system modification that significantly affects a previously tested malfunction would require the applicable malfunction test(s) to be repeated.

The NRC staff inquired about the status of the "200X" revision of ANSI/ANS-3.5 and was informed by the ANS standards committee representative that it should be out for public comment in the near future. The NRC staff committed to review the standard and to clarify its regulatory position with regard to malfunction, surveillance, and core performance testing, as well as reactivity experience, when it develops the associated revision to Regulatory Guide (RG) 1.149, "Nuclear Power Plant Simulation Facilities for Use in Operator Training and Licensing Examinations." With respect to core performance testing, the FG acknowledged that the BWR community needs to develop a standard similar to that in use at PWR facilities and agreed to promote that activity. The NRC staff and FG members also committed to continue their dialog on these issues and to consider the possibility of establishing a joint working group to resolve the remaining differences and expedite development of the regulatory guidance. The NEI representative offered to provide a "white paper" if desired and indicated that when the guidance is clear, they would encourage facility management to adopt the revised standard at every station, with the understanding that if at least 80% of the stations voted to do so, the standard would become binding on the entire industry. The NRC staff acknowledged that it was prepared to exercise enforcement discretion for a period of time to facilitate the transition process.

ENCLOSURE 2

Operator Medical Update

The NRC staff provided a brief overview of the August 9 – 10, 2007, licensed operator medical issues seminar sponsored by Scientech in Las Vegas, Nevada. While most of the 42 industry attendees specialized in the medical field (e.g., nurses and physicians), a small number of training, regulatory compliance, and licensing staff were also in attendance. The staff's presentations appeared to be well-received, stimulated lively discussion among the attendees, and prompted numerous questions and answers, some of which will be posted on the operator licensing web page. The staff encouraged facility licensees to do a better job of communicating NRC medical policy and guidance clarifications to their medical personnel and to call or email their Regional Office to seek advice on whether or not to report a change in an operator's medical status. The staff also noted that Scientech is considering the possibility of making the seminar an annual event, however the staff could not commit to support the meetings on a repetitive basis.

The NRC staff also requested an update from the FG on a suggestion that the staff had made during the previous meeting related to the development a standardized medical examination form that would track the ANSI/ANS-3.4 requirements to ensure that all the pertinent criteria are evaluated and documented for NRC review while, at the same time, minimizing the inspectors' exposure to private medical information that has no bearing on the operators' ability to safely perform licensed duties. The FG indicated that nothing has been done in that regard but agreed to reconsider the suggestion.

New Reactor Licensing

The industry representatives provided a brief overview of two white papers, involving cold license training at new reactors and revisions to the NRC's knowledge and abilities (K/A) catalogs, that NEI had recently submitted to the NRC for review in preparation for an upcoming meeting that will focus exclusively on operator licensing issues at new reactors. The industry representatives suggested that improvements in simulator technology, implementation of the systematic approach to training, and plant standardization should facilitate the cold license training process but indicated that it would still be a challenge to concurrently build the plant and train the operators to run it. The industry hopes to minimize the need for experience and training waivers by clarifying the eligibility pathways in advance and proposing alternate methods of obtaining the required experience. The NRC staff acknowledged that Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," needs to be revised and noted that it is looking forward to working with the industry during the upcoming meeting.

10 CFR Part 26 (Fatigue Rule and Fitness for Duty (FFD))

The NRC staff provided a brief overview of Subpart I, the fatigue management provisions of the pending 10 CFR Part 26 rule change that is expected to be issued in final form within the next few months. The associated briefing slides, covering the regulatory background, limitations of the current regulatory framework, new requirements for managing work hours, time off, training, assessments, and self-declarations, and the implementation plan for the new rule are available in ADAMS at Accession Number ML072390123.

The NRC staff also informed the industry that the Agency's enforcement policy regarding licensed operators who report to work under the influence of alcohol has been evolving. Until recently, an operator actually had to take the watch under the influence of alcohol before being

subject to enforcement action. However, the NRC recently cited an operator who reported for requalification training while under influence, rather than issue a cautionary letter.

INITIAL LICENSING ISSUES

NUREG-1021, Revision 9, Supplement

The NRC staff provided a brief introduction of the proposed supplement to Revision 9 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," that recently completed its public comment period, before allowing the FG to take the lead on their specific areas of concern. During the ensuing discussions, the staff obtained clarification from the FG regarding the industry's previously-submitted written comments related to the use of surrogates during the simulator operating tests, the freezing of plant procedures in advance of the license examination, the distribution of the administrative walk-through topics given the proposed revisions to Section 2 of the K/A catalogs, the requirement to associate written exam comments with applicant docket numbers, and the use of memory-level JPMS. The staff indicated that it would take the FG's feedback and concerns into consideration when preparing the final NUREG revision, which the staff predicted would be published about the end of September and implemented 180 days, thereafter.

K/A Catalog Supplements

After reviewing its concerns on the NUREG-1021 supplement, the FG immediately segued to a similar discussion on the proposed supplements to NUREGs-1122 [and 1123], "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Pressurized Water Reactors, [Boiling Water Reactors]." The FG's only concern was that raising the RO importance rating of K/A 2.2.25 (knowledge of technical specification bases) from 2.5 to 3.2 would cause it to be tested more frequently. However, the staff allayed the concern when it reminded the FG that the K/A was testable before and that rate at which a K/A is sampled is not proportional to its importance rating. The FG also informed the staff that the note between K/As 2.4.2 and 2.4.3 is confusing and may not be necessary; the staff agreed to review the matter and delete the note, if appropriate.

RIS 2007-17 Exam Projections

The NRC staff called the industry's attention to the recently published Regulatory Issue Summary (RIS) 2007-17, "Preparation and Scheduling of Operator Licensing Examinations." The staff noted that a number of facility licensees are increasing their class sizes and/or requesting additional examinations and that the extra work could exceed the Regions' capacity to meet everyone's examination needs in a timely manner; moreover, the predicted wave of new reactor construction could also significantly increase the demand for licensing examinations. Consequently, the staff strongly encouraged facility licensees to submit realistic examination needs estimates to ensure that the NRC staff budgets sufficient resources during the upcoming budget cycle for fiscal years 2009 and 2010; the 2010 budget will likely include additional examiner resources to prepare for new reactor licensing.

Examination Results

The NRC staff noted that it had received feedback from the recent Region I / Mid-Atlantic Nuclear Training Group (MANTG) conference suggesting that the operator licensing

examinations have been getting more difficult over time. The staff reported that it had recently reviewed the examination results through the end of June 2007, in response to a similar NRC management concern regarding a possible negative trend in operator performance, and concluded that operator performance, at a national level, appears to be relatively stable over time, despite some possible Regional declines that are largely driven by a small number of examinations with bad results. The staff briefly enumerated a number of factors, other than examination difficulty, that could be affecting operator performance: e.g., more difficulty in recruiting qualified applicants; trying to reduce cost by training more operators with fewer instructors; experienced trainers are retiring; old-school training techniques may be less effective with the current generation of trainees; and less rigorous pre-exam screening criteria. The NRC staff acknowledged that its license examiners do expect facility licensees to maintain examination quality and integrity in accordance with NUREG-1021 guidance but found no basis to conclude that the examinations are getting more difficult. The FG indicated that it was aware of the comment from the MANTG meeting but agreed with the staff's conclusion that a host of other factors are likely responsible for any changes in operator performance.

REQUALIFICATION ISSUES

Inspection Procedure 71111.11 Changes

The NRC staff informed the industry that the inspection program branch is in the process of realigning a number of the baseline inspection procedures (IPs) that feed into the reactor oversight process (ROP); this is a routine maintenance activity to ensure that the available resources are focused on those inspection activities that have historically had the greatest impact on reactor safety. Consequently, the staff is planning to set up a working group of Regional and Headquarters examiners/inspectors to review IP 71111.11, "Licensed Operator Requalification Program," in its entirety and recommend any changes that might be necessary to ensure the proper focus on training, examinations, and simulator fidelity. The staff assured the FG that it would review any proposed changes with the industry before they are implemented.

License Proficiency Watches

The NRC staff informed that industry, in connection with the NUREG-1021 supplement discussion, that it had not received any comments on the license proficiency watch clarifications that were added to the draft revision of ES-605. The staff also noted that it plans to issue a RIS to announce the availability of the NUREG supplement when it is published and to direct the readers' attention to these particular clarifications. The FG made no additional comments on the subject.

FOCUS GROUP ISSUES

The FG identified one new issue that came up during the recent MANTG meeting related to placing the initial operator licensing examinations in the Agency-wide Documents Access and Management System (ADAMS). In an effort to save resources, some facility licensees had expressed a desire to reuse the initial operator licensing examinations to audit or screen the applicants in the next license class, rather than have to develop a new examination. The fact that the NRC makes the licensing examinations available to the public (and future applicants) soon after they are administered limits their usefulness as future screening tools. The staff indicated that it would consider the FG's request to wait two years before placing new examinations in ADAMS and asked the FG to review the possible implications with respect to the INPO question bank.