

November 17, 2014

MEMORANDUM TO: Scott A. Morris, Director  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

FROM: Scott C. Sloan, Chief */RA DMuller For/*  
Operator Licensing and Training Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF OCTOBER 16, 2014, MEETING WITH INDUSTRY  
FOCUS GROUP ON OPERATOR LICENSING ISSUES

On October 16, 2014, the U.S. Nuclear Regulatory Commission (NRC) staff held a public meeting with the Nuclear Energy Institute's Operating Licensing Focus Group (OLFG) to discuss with the nuclear industry a number of operator licensing issues.

This meeting was the latest in a series of meetings intended to promote efficiency, effectiveness, and open communications with regard to initial operator licensing and licensed operator requalification. The discussions addressed a variety of issues, including status updates for: (1) Revision 10 to NUREG-1021, "Operator Licensing Examination Standards for Power Reactors;" (2) an industry-led project to revise the NRC's knowledge and ability catalogs for currently operating power reactors (NUREGs-1122 and 1123); and (3) NRC post-Fukushima rulemaking. Other areas of interest were also discussed, including the likely results from an internal NRC Operator Licensing Lessons Learned Task Force, eligibility guidelines for individuals applying for an NRC operator or senior operator license, and NRC Inspection Procedure (IP) 71111.11, "Licensed Operator Requalification Program and Licensed Operator Performance." Enclosure 2 is the agenda for the meeting, and the discussion topics are summarized in Enclosure 3. 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:

1. List of Attendees
2. Agenda
3. Discussion Topics

CONTACT: David Muller, NRR/DIRS/IOLB  
(301) 415-1412

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NAME	DMuller	SSloan (DMuller For)
DATE	11/17/2014	11/17/2014

**OFFICIAL RECORD COPY**

List of Attendees – U.S. Nuclear Regulatory Commission (NRC) / Nuclear Energy  
Institute Operator Licensing Focus Group (NEI OLFG)  
October 16, 2014

Name	Organization
Scott Morris	NRC
Allen Howe	NRC
Scott Sloan	NRC
John (Jack) McHale	NRC
Donald Jackson	NRC
Gerald McCoy	NRC
Eugene Guthrie	NRC
Hironori (Pete) Peterson	NRC
Steve Garchow	NRC
Tim Reed	NRC
David Muller	NRC
Rick Pelton	NRC
John Munro	NRC
Maurin Scheetz	NRC
David Allsopp	NRC
Gregg Ludlam	NEI OLFG
Chuck Sizemore	NEI OLFG
Nick Pappas	NEI OLFG
Michael Petersen	NEI OLFG
Robert Pope	NEI OLFG
Roger Jones	NEI OLFG
Mark Otten	NEI OLFG
Bruce Hennigan	NEI OLFG
Steve Reininghaus	NEI OLFG

List of Attendees By Telephone – Nuclear Regulatory Commission (NRC) / Nuclear Energy Institute Operator Licensing Focus Group (NEI OLF) October 16, 2014	
Name	Organization
Bob Meyer	Professional Reactor Operator Society
Enrique Asenio	Consejo de Seguridad Nuclear (Spain)
Ronald Hayden	Energy Northwest
Coy Rice	Luminant Energy
Tom Fowler	PSEG Nuclear

AGENDA FOR THE CATEGORY 2 PUBLIC MEETING WITH THE NEI OPERATOR  
LICENSING FOCUS GROUP REGARDING TRAINING, EXAMINATION, AND INSPECTION  
PROCESSES

Thursday, October 16, 2014  
9:00 a.m. to 12:00 p.m. Eastern Standard Time

NRC Three White Flint North, Room 6A39  
11601 Landsdown Street  
Rockville, MD 20852

TOPIC

LEAD

Introductions and Opening Remarks	NRC/NEI panel
Public Comments	Public
Status of NUREG-1021, Revision 10	NRC
K/A Catalog Update	NEI/NRC
Post Fukushima Beyond-Design-Basis Rulemaking Update	NRC
Overview of recommendations from Operator Licensing Lessons Learned Task Force	NRC
General topics for discussion (e.g., definition of “related science,” RO experience at a non-comparable reactor, etc.)	NRC/NEI
Public Comments	Public
Summary/Conclusions/Action Items	NRC/NEI

## DISCUSSION SUMMARY

### **Status of NUREG-1021, Revision 10**

The U.S. Nuclear Regulatory Commission (NRC) staff provided to the Operator Licensing Focus Group (OLFG) a status update for the issuance of Revision 10 to NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." The staff informed the OLFG that the primary purpose for issuing Revision 10 is to add guidance for developing written examinations for new reactors (Advanced Boiling Water Reactors and AP-1000), and that a final for-use version of Revision 10 was expected to be issued in December of 2014. The staff further indicated that Revision 10 would likely include changes to the letter the NRC sends an individual if they fail a portion of their licensing examination, and that Revision 10 would not include any changes recommended by NRC's Operator Licensing Lessons Learned Task Force.

### **K/A Catalog Update**

The NRC staff and the Operator Licensing Focus Group (OLFG) discussed the status of an industry-led initiative to update the knowledge and abilities (K/A) catalogs for currently operating power reactors (NUREG-1122 for pressurized water reactors, NUREG-1123 for boiling water reactors). In the discussions it was noted that the updated catalogs should eliminate redundant K/A statements and clarify others. With regard to scheduling, the OLFG stated that the two updated catalogs are on-track to receive a final industry review by late 2014, such that the updated catalogs may be delivered for NRC review by early 2015. The NRC staff responded that upon receipt of the new catalogs, it would likely take approximately eight months for the new catalogs to be published and ready for use.

### **Post Fukushima Rulemaking Update**

The NRC staff presented the following items to the OLFG regarding NRC post Fukushima Rulemaking efforts:

- Post Fukushima Rulemaking which will impact licensed operators (additional training and drills associated with beyond design basis accidents, integration of emergency response procedures and guidelines) has been combined with other post Fukushima Rulemaking.
- The NRC is very sensitive to the proper amount of focus given to beyond design basis accidents, due to their very low probability for occurrence. Included in this sensitivity, is a desire not to unduly impact operator response to design basis accidents and existing operator training programs, due to any additional training associated with beyond design basis accidents.
- Any additional training associated with beyond design basis accidents will likely employ the systems approach to training. It is also possible that K/A statements associated with beyond design basis accidents will be added to the K/A catalogs.
- At this point in time, it is unknown whether severe accident management guidelines,

and/or other beyond design basis guidelines, will become required by regulations.

- The approximate schedule for this Rulemaking is: (1) proposed rule to the Commission by December 2014, (2) final rule to the Commission by the end of 2016, (3) final rule complete by 2017, and (4) final rule becomes fully effective by 2018. The OLFG acknowledged the information presented, and also stated their sensitivity to adding beyond design basis accident training to existing operator training programs.

### **Operator Licensing Lessons Learned Task Force**

The NRC staff presented information regarding the NRC's Operator Licensing Lessons Learned Task Force. This Task Force was formed in March 2014, in response to an overturned NRC licensing decision by the Atomic Safety and Licensing Board (ASLB). The key information presented to the OLFG included:

- The final report from the Task Force has not been issued yet, but is expected within a few weeks.
- Shortly after the report is issued, the NRC will assemble a team to review the report, prioritize any recommendations, and determine necessary follow up actions.
- Follow up actions could include changes to NUREG-1021, Rulemaking, and changes to internal NRC operator licensing practices. These changes will follow normal NRC processes, and will include input, as appropriate, from the OLFG, the nuclear industry, and NRC stakeholders (e.g., public comment periods for NUREG revisions and Rulemakings).
- One likely specific outcome will be a change in the grading methodology for the dynamic simulator operating test, as the current methodology contains a fair amount of subjectivity.

The OLFG acknowledged the information presented, and stated that they were somewhat surprised by some of the wording contained in the ASLB decision. The OLFG further stated a concern that the NRC might overreact to the ASLB decision and the Task Force report, and that the OLFG would provide to the NRC any necessary assistance in developing sound changes to the operator licensing process. Both the NRC staff and the OLFG agreed that communications between the NRC and the nuclear industry are very important when considering changes to operator licensing, as is the consistent implementation of operator licensing practices.

### **General Discussion Topics**

Four additional topics were discussed at the meeting: (1) eligibility requirements for individuals seeking a reactor operator or senior reactor operator license; (2) proposed changes to Chapter 13 of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition;" (3) industry concerns with NRC Inspection Procedure (IP) 71111.11, "Licensed Operator Requalification Program and Licensed Operator Performance;" and (4) licensing examination pass/fail rates

### Eligibility

The NRC staff stated one concern regarding how to properly credit experience acquired at a non-comparable facility towards obtaining a reactor operator license. The staff stated that they approved a previous suggestion to address this issue and wanted an update on any industry action taken in response. The OLFG stated that the resolution to this issue will be included in a 2015 revision to ACAD 10-001, "Guidelines for the Initial Training and Qualification of Licensed Operators."

The NRC staff stated another concern regarding what constituted a "related science" degree towards eligibility credit. For example, would a degree in biology be considered a "related science" degree? The OLFG agreed to look into this issue.

Lastly, the NRC stated their concerns regarding eligibility waivers; both the number of waivers received and that some waivers are received very late in the licensing process. The OLFG agreed to also look into this issue.

### Proposed Changes to Chapter 13 of NUREG-0800

The OLFG was interested in changes proposed by the NRC to Chapter 13 of NUREG-0800, specifically to proposed changes to sections 13.1, 13.2, and 13.5. The NRC staff responded that the proposed changes were intended to clarify acceptance criteria and improve these sections, and that no specific requirements were added.

### IP 71111.11

The OLFG expressed a concern that determining the level of difficulty of licensed operator requalification written examination questions was largely subjective, and that the IP does not provide guidance in this area. In addition, the OLFG stated a concern that some items contained in the IP's Appendices are not particularly tied to any regulatory requirement, nor are some items tied to the "uniform conditions" agreed upon by the industry in 2006, and that changes to the IP generally do not go out for public comment. A third concern stated by the OLFG was that the ES-600 sections of NUREG-1021, which pertain to operator requalification examinations, have not been updated to reflect the 2012 re-write to IP 71111.11. The NRC staff acknowledged these issues and agreed to look into them.

Another issue brought up by the OLFG was that some NRC examiners were reviewing all of the requalification examinations for a given testing cycle, and that was well in excess of the sample size specified in IP 71111.11. The NRC staff replied that IP 71111.11 only specifies the minimum sample size, and that if an NRC examiner chooses to look at more examinations, then that is up to that examiner's judgment and within the allowances of the NRC's inspection program.

### Licensing Examination Pass/Fail Rates

The NRC staff asked the OLFG if they were aware of any trend of more individuals failing their NRC licensing examinations, and if there was any trend of more individuals not successfully completing initial licensing training classes. The OLFG replied that their appeared to be a

sudden sharp recent increase in the number of senior reactor operators failing their NRC examination, but that in general, class completion rates and examination pass rates have been increasing since 2009.

### **Public Comments**

Comments from the Professional Reactor Operator Society to the NRC staff included:

- Always consider the impacts on licensed operators, and individuals applying for a license, of any changes to the operator licensing process.
- Consider using open reference questions on initial licensing examinations.
- Try not to cause a lot of undue stress with changes made to operator licensing.
- Keep up the good dialog between the NRC and the OLFG.

### **Summary/Conclusions/Action Items**

The NRC and OLFG agreed that this meeting was very useful, and that past meetings have been useful as well. No specific action items were identified.