

September 9, 2003

MEMORANDUM TO: Catherine Haney, Director  
Policy and Rulemaking Program  
Division of Regulatory Improvement Programs, NRR

FROM: Peter C. Wen, Project Manager */RA/*  
Policy and Rulemaking Program  
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF AUGUST 7, 2003, MEETING WITH INDUSTRY FOCUS  
GROUP REGARDING OPERATOR LICENSING ISSUES

On August 7, 2003, the NRC staff held a public meeting with the industry focus group (FG) on operator licensing (sponsored by the Nuclear Energy Institute (NEI)) to discuss Draft Revision 9 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and other operator licensing issues. Attachment 1 lists the attendees at the meeting.

This was the latest in a series of public meetings intended to promote the efficient, effective, and consistent preparation and administration of initial operator licensing examinations. The primary purpose of the meeting was to compare experiences and solicit feedback on Draft Revision 9 of NUREG-1021, which was issued for trial use and public comment in January 2003. The meeting also followed up on the status of outstanding issues that had been raised during prior meetings. Attachment 2 is the agenda for the meeting; the discussion topics are summarized in Attachment 3; Attachment 4 is an industry proposal related to the maintenance of an active fuel handling license.

Representatives of the NRC and the industry agreed that this meeting was useful for the exchange of information on this subject.

Project No. 689  
Attachments: As stated  
cc w/atts: See list

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Project No. 689

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List of Attendees - NRC / NEI Focus Group Meeting - August 7, 2003

Name	Organization
Bruce Boger	NRC / HQ
Dave Trimble	NRC / HQ
George Usova	NRC / HQ
Fred Guenther	NRC / HQ
John Munro	NRC / HQ
June Cai	NRC / HQ
Richard Conte	NRC / RI
Don Jackson	NRC / RI
Mike Ernstes	NRC / RII
Tim Kolb	NRC / RII
Mark Bates	NRC / RII
Roger Lanksbury	NRC / RIII
Paul Gage	NRC / RIV
Jim Kelly	FENOC (Perry)
Fred Riedel	APS
Phillip Capehart	APS
Chuck Sizemore	NMC
Philip Nielsen	Exelon
Gregg Ludlam	Progress Energy / CP&L
Joe Arsenault	Western Technical
Robert Evans	NEI
Kurt Rauch	SCE
Richard Chin	PPL
Gary Ellis	TXU

AGENDA FOR PUBLIC MEETING WITH NEI FOCUS GROUP (FG)  
ON OPERATOR LICENSING ISSUES

August 7, 2003; 8:30 a.m. - 2:00 p.m.

<u>TOPIC</u>	<u>LEAD</u>
● Introductions and Opening Remarks	NRC/FG
● Public Input	Public
● Draft Revision 9 of NUREG-1021 - Written exam (SRO-only sample plan; upgrade waivers; split administration) - Walk-through test - Simulator test (SRO as RO/BOP; competencies/rating factors; grading non-critical errors) - LSRO exam proposed changes - Other	NRC/FG
● Operator License Eligibility - Chief Reactor Watch vs. Engine Room Supervisor - NRC Form 398 - NRC Form 396 instructions	NRC
● Generic Fundamentals Examination - Shelf life (options; grandfathering) - Exam Dates	NRC/FG
● Requalification Program - IP 71111.11 changes (test item repetition) - Sharing examination results - Shift managers rusty as control room supervisors - LSRO reactivation - Medical RIS	NRC
● Simulator Rule Change Implementation	NRC
● Focus Group Issues - Consistency of significant power changes - Requalification cycle restrictiveness - Revising the generic section of the K/A catalogs	FG
● Public Questions and Answers	Public
● Summary / Conclusion / Action Item Review	NRC/FG

ATTACHMENT 2

Operator Licensing Meeting With Industry Focus Group (FG) on August 7, 2003

Agenda Item	Discussion Summary
<p>Draft Revision 9 of NUREG-1021</p>	<ul style="list-style-type: none"> <li>- With regard to the senior reactor operator (SRO) portion of the written examination, the NRC staff proposed to increase the scope of the random sample to include all the knowledge and ability (K/A) categories related to fuel handling systems. This would be consistent with the 10 CFR 55.43(b)(7) sampling requirements and would help differentiate between RO and SRO levels of knowledge in the systems area. The FG did not object to the proposal and, additionally, volunteered to develop more guidance on how to prepare SRO-level questions.</li> <li>- The NRC staff reviewed the results of the trial written examinations to date, noting that several SRO upgrade applicants had taken advantage of the option to obtain a waiver of the RO portion of the examination. The FG indicated that it continues to support the waiver option even though it may place applicants at greater risk of failure because the value of each question is increased with the smaller number of questions on the exam. In response to an earlier clarification that had been posted on the web site, the FG asked the staff (and the staff agreed) to consider crediting SRO upgrade applicants with completing the RO requalification program if they attended the appropriate portions of the upgrade training program and passed the comprehensive audit examination.</li> <li>- In response to a question raised during the February workshop, the NRC staff indicated that it is not in favor of splitting the RO and SRO written examinations over two days.</li> <li>- The NRC staff noted that it was seeing greater use of "double distractor set" questions and cautioned the FG that the distractors need to be plausible to maintain the questions' discriminant validity. The FG noted, and the staff acknowledged, that this style of question is useful for testing two-part K/A statements and should not be eliminated.</li> <li>- The FG questioned whether the NRC might reconsider its policy on open reference questions, but the staff indicated that it was opposed to increasing the number because they often devolve to direct lookup questions and can give unintended clues to other items.</li> <li>- The NRC staff noted that it is planning to develop additional guidance for its examiners to follow when reviewing the amount of question repetition from the previous two licensing examinations at the facility; the guidance would probably not include a specific limit.</li> <li>- The NRC staff noted that it had detected a potential vulnerability in the 30 percent test-item overlap criterion for the walk-through portion of the operating test because it does not apply separately to the administrative and systems tasks, thereby making it possible for a facility to repeat all of the administrative tasks during successive tests; the FG voiced no objection to the staff's proposal to clarify this criterion.</li> <li>- The FG noted that it had gotten generally favorable feedback on the draft walk-through changes but reiterated its desire to shorten the RO test from 15 tasks (4 administrative and 11 systems) to 10 tasks (2 - 3 administrative and 7 - 8 systems) as a means of saving resources and reducing applicant stress. The NRC staff responded, for the record, that it still considers 10 tasks to be too small a sample to make a valid and reliable licensing decision.</li> <li>- The FG had no comments on the clarified guidance that allows instant SRO applicants to perform their RO scenario in either the primary or balance of plant watch station.</li> <li>- The NRC staff noted that it is considering some additional changes affecting the scope and grading of the technical specification (TS) competency for SROs to ensure that the simulator test will discriminate in that area. Specific changes might include increasing the minimum number of TS evaluations required for each SRO and reducing the number of TS rating factors from three to two. The FG indicated that it would discuss the issue internally and provide feedback to the NRC.</li> <li>- The NRC staff reviewed its experience with the revised simulator grading criteria for non-critical errors and noted that they have not resulted in any additional failures. The staff pointed out that the purpose for changing the criteria was to ensure that the test assesses the applicants' competence based on all their performance errors, even in the absence of tangible safety consequences. The staff further noted that it remains sensitive to the industry's concerns about grading soft skills (e.g., communications) and is considering the need to further clarify the guidance in that area, possibly by limiting the impact of errors that have no effect on the outcome of the scenario. The FG stated its opinion that the revised criteria appear more subjective, since the "behavioral anchors" have been eliminated, and asked the NRC to keep an open mind and solicit examiner feedback before abandoning the Revision 8 grading process. Everyone agreed to revisit the issue during the next meeting.</li> <li>- The NRC staff briefly reviewed the changes that are being considered for the LSRO (limited to fuel handling) examination process and informed the FG that a draft of ES-701 would be posted on the web site with the next Revision 9 clarification.</li> <li>- The FG again asked whether an RO could take the SRO examination and "bank" it. The staff responded that it would not be possible because of appeal issues.</li> </ul>

Operator License Eligibility	<p>The NRC staff reported that it had identified an inconsistency in how it treats military experience when making eligibility determinations. Both ES-202 and ACAD-00-003 incorrectly identify the chief reactor watch (CRW) as one of the positions that is considered equivalent to an RO. However, since neither the CRW nor its submarine equivalent, the engine room supervisor (ERS), stands watch in the reactor control room, neither position can be considered responsible nuclear power plant experience or equivalent to an RO. The staff indicated that it would make the correction in final Revision 9 and work with the Institute of Nuclear Power Operations (INPO) to correct the ACAD. The FG stated a preference for adding the ERS rather than removing the CRW because it considers experience in either position to be better than a degree.</p>
Generic Fundamentals Examination (GFE)	<ul style="list-style-type: none"> <li>- The NRC staff reviewed the background of the “shelf life” issue (i.e., how long an applicant can be given credit for previously passing a GFE), including the regulatory basis for expecting license applicants to maintain proficiency in the generic fundamentals topics or retake the GFE if (at the date of license application) more than two years have transpired since passing the examination. The staff indicated that its preferred method for reestablishing proficiency would be to complete a classroom or self-study period, as determined appropriate by the individual and his or her facility licensee, and then pass a GFE that was randomly selected from the bank or a facility-developed examination based on GFE bank questions. The staff noted that the other options that were posted on the web site as a clarification to Draft Revision 9 (i.e., enrollment in a non-licensed operator requalification program or an initial license training program that covers and reinforces GFE topics) are more problematic because they would be subject to inconsistency and make it difficult for the staff to verify that an adequate level of proficiency had been maintained.</li> <li>- The FG acknowledged that the approach appears reasonable for a non-licensed operator who was trained on the GFE topics but then never actually put them into practice as a control room operator, but it asked the NRC staff to consider giving experienced licensed operators credit for GFE proficiency if they transfer to another facility. The NRC staff noted that its policy is driven by the regulations but that it would review the merits of extending the “shelf life” based on the operator’s actual experience and continued participation in a requalification training program.</li> <li>- The FG questioned whether there is a safety basis for shifting away from the “good for life” policy and why the GFE cannot be treated like other professional certifications. The NRC staff pointed out that a number of events have shown evidence of weakness in generic fundamentals knowledge and noted that most professional certifications do require some type of refreshment to stay current.</li> <li>- One of the FG members questioned why the NRC does not just turn the entire GFE program over to the industry. The NRC staff responded that the GFE question banks are not large enough to support the elimination of new and modified questions; moreover, the current process appears to be the most economical.</li> <li>- The NRC staff noted that the GFE will be given four times next year, in March, June, September, and December; the web site will be updated after the GFE contract renewal is complete.</li> <li>- As a follow-up on a previous NRC staff proposal, the FG indicated an interest in reviewing the GFEs before they are administered. Single BWR and PWR reviewers, under security agreements, will be selected from facilities that will not be fielding applicants during the upcoming GFE. The reviewers will have five days to review the examinations (including the new, modified, and previously validated questions as desired) and provide feedback to the NRC staff; if the comments are not received within the allotted time, the examinations will proceed without comment. The NRC staff agreed to work out the details with a designated FG representative.</li> </ul>
Simulator Rule Change Implementation	<ul style="list-style-type: none"> <li>- The NRC staff updated the FG on the status of its efforts to clarify the guidance regarding scenario-based testing of plant-referenced simulators, including the frequency of testing, test acceptance criteria, and documentation requirements. With regard to the core performance testing required in order to take credit for reactivity manipulations done on the simulator, the staff noted that the best way to validate the core model is to run the same tests that are done on the actual plant. The staff reminded the FG that the goal for all the testing is to ensure that the simulator is not providing negative training to the licensed operators.</li> <li>- The NRC staff informed the FG that it will be addressing the simulator testing issue during the SimWorld conference in September, and that it may issue a regulatory issue summary (RIS) to further clarify the requirements.</li> </ul>

<p>Requalification Program</p>	<ul style="list-style-type: none"> <li>- The NRC staff reviewed its position regarding the repetition of test items on successive comprehensive written requalification examinations. The staff informed the FG that it is in the final stages of revising IP 71111.11 (the "Licensed Operator Requalification Program" baseline inspection procedure) to require inspectors to evaluate the written examination results for evidence of grade creep if more than half the questions on any examination are repeated from prior examinations in the same testing cycle. The revision will not actually limit the facilities' use of repeat questions, but, rather, will set a threshold at which the NRC will increase its inspection efforts to ensure that examination integrity is maintained. The FG objected to the implication that licensed operators would share exam information and questioned whether the NRC has data to show there is a problem. The staff acknowledged the lack of operator data but pointed out that cheating is a widespread problem in our society and that the NRC is obligated to the public to ensure licensed operators remain proficient. The FG proposed a random, three-exam model with at least 50 percent different questions on each exam, which the staff pointed out could result in all six crews getting the same examination. The FG finally acknowledged that the staff's proposal makes sense and that it would not place an additional burden on facility licensees. The staff noted that it would check protocol and, if possible, share the revision with the FG.</li> <li>- The NRC staff raised a new issue regarding an informal request it had received from a facility licensee to obtain the requalification examination results for other facilities. The staff noted that it would likely have to make the data available under the Freedom of Information Act (FOIA) but, in fairness to other facilities, wanted to give the FG an opportunity to review the issue. The FG indicated it would bring the issue up for discussion with the regional training associations.</li> <li>- The NRC staff informed the FG that a facility recently determined that its shift managers required additional coaching to function effectively in the control room supervisor position. The staff cautioned the FG that shift managers need to maintain proficiency as emergency operating procedure (EOP) readers even though they may not normally perform that function. The FG acknowledged the concern.</li> <li>- The NRC staff updated the FG on the status of the LSRO license reactivation issue discussed during previous meetings. The staff summarized the regulatory basis for and the details of its current policy related to the timing, location, and level of supervision required when performing an under-instruction watch for the purpose of reactivating a license to supervise fuel handling activities; the staff plans to post its policy on the operator licensing web site in the near future. The FG raised a concern that putting an operator on the refueling floor just to reactivate another operator's license would result in unnecessary radiation exposure. Moreover, the FG proposed that a license should be considered active if the individual worked one or more shifts as an LSRO during the previous refueling at the facility; a copy of the proposal is attached. The NRC staff noted that it will take the FG proposal into consideration during the next Part 55 rulemaking and reminded the FG that facilities should consider requesting exemptions from the regulatory requirements when they are justifiable.</li> </ul>
<p>Industry Focus Group Issues</p>	<ul style="list-style-type: none"> <li>- The FG enquired, based on a recent question raised during an NRC review of a license application, whether the NRC has changed its policy regarding the five required control manipulations (i.e., do they all have to be 10 percent or greater?). The NRC staff responded that the policy has not changed and that the manipulations may have been questioned because it was not possible to determine based on the data provided whether they were distinct and diverse. The staff also noted that it would expect manipulations done on the simulator to be larger than those done in the plant.</li> <li>- The FG thanked the staff for issuing RIS-2003-10, "Licensed Operator Requalification Training: Written Examination Frequency," and reminded the staff that the FG would like it to consider changing the regulation to allow greater flexibility.</li> <li>- The issue about revising the generic section of the K/A catalogs was not addressed because of time constraints.</li> </ul>
<p>Public Input</p>	<p>No members of the general public attended the meeting.</p>

## **Palo Verde LSRO Proficiency Proposal**

During the last meeting between the NRC and the ILOTF [Initial Licensed Operator Task Force], the NRC discussed an emerging potential issue with proficiency requirements for LSRO's. I believe since 10 CFR is silent on defining proficiency parameters for this category of license, that we have an opportunity to do the right and intelligent thing.

I propose that adequate proficiency is maintained by participating in LSRO duties every refueling outage at the facility. The proposed minimum participation to maintain proficiency would be at least two eight hour or one 12 hour shift per refueling. If a refueling outage is missed, reactivation will occur under instruction for one 12 hour or two 8 hour shifts.

The reason this makes sense is that the most proficient people for LSRO job scope are the ones that perform this activity frequently (each refueling outage, on average). It makes little sense to take a control room SRO and designate him proficient if he has not moved fuel during a recent refueling outage. Likewise, it makes sense that with a small, focused set of responsibilities, proficiency would be maintained for those continuing to support this job scope as they participate each time the fuel handling opportunity presents itself at the facility. I believe that this is the right call when employing a Nuclear Safety perspective.