



M. S. Tuckman
Executive Vice President
Nuclear Generation

June 19, 2000

Mr. David L. Meyer, Chief
Rules and Directives Branch
Division of Administrative Services
Office of Administration
Mail Stop T-6 D59
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Comments on Draft Supplementary Changes to Revision 8
of NUREG-1021, "Operator Licensing Examination
Standards for Power Reactors"
65FR15020, dated March 20, 2000

Dear Mr. Meyer:

Duke Energy offers the attached comments relative to the solicitation for public comments regarding the draft supplementary changes to Revision 8 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors."

Please address any questions to Jeff Thomas at (704) 382-5826.

Thank you for the opportunity to provide these comments.

Very truly yours,

M. S. Tuckman

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(704) 382-2200 OFFICE
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65FR# 15020
20 march 00
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Template-ADM-013

E-RIDS=ADM-03
Add: David Trimble (DCT)

**Draft Supplementary Changes to Revision 8 of NUREG-1021
Duke Comments**

1. **It is recommended that the SRO only requirements for written exam questions be clarified:** The issue of the appropriateness of SRO only questions remains unsolved despite effort to update the K/A catalogue in 1995. Although 10CFR55.43 lists a number of areas that are appropriate for SRO level testing, the K/A catalogue implicitly requires all SRO only questions to be written to K/As that are explicit references to 10CFR55.43. Unfortunately, there are many examples of tasks that SROs must perform that are not included within the restrictive limitations of either System A2 or EAPE EA2 areas.

2. **It is recommended that the limitations of the SRO written exam regarding the selection of SRO-only questions be reconsidered:** The new process for selecting SRO only questions has the potential to cause the cognitive level of the exam to exceed 60% higher cognitive level questions. Currently, both the RO and SRO exams must have between 50% and 60% higher cognitive level questions. The changes to the examiner standards imply that the 25 SRO only questions be written at a higher level of knowledge. In order to maintain the exam question writing level of effort at 125 questions, one of the following two options should be exercised:
 - a. write only 10 of the 25 SRO only questions at the higher cognitive level, or

 - b. replace some of the higher cognitive level questions on the RO exam with memory level questions while writing most of the SRO only questions at a higher cognitive level.

For example, if the RO exam has 52 higher cognitive level questions, and 20 of the 25 SRO only questions are written at the higher cognitive level, then 72 (52 + 20) higher cognitive level questions will be on the SRO exam unless 12 of the RO & SRO questions are replaced with memory level

questions to reduce the number of higher cognitive level questions to 60. These 12 questions must then be replaced with new memory level questions, which increase the total number of questions from 125 to 137.

There is not an explicit requirement that SRO only questions be at the higher cognitive levels. However, present practice by NRC examiners is to require the majority of the SRO only questions to be at higher cognitive levels. There is no reason why the SRO examination should not include a greater number of higher cognitive level questions than the limit on the RO exam. Perhaps the best approach is to determine what the upper range requirement should be for higher cognitive level questions between the RO and SRO exam and either decrease the upper range for the RO exam, or increase the upper range for the SRO exam to prevent increasing the number of written questions that must be prepared.

3. **The return to the previous method of identifying system and EAPE generic K/As is recommended:** The combination of the only plant wide generic K/As with the system and EAPE specific generic K/As has produced difficulties during the random sample plan selection process. Under the previous K/A catalogue, system generic K/As were provided in a separate list. Each of the generic system K/As were applicable to each system. When the K/A catalogue was revised, system and EAPE generic K/As were combined with the list of plant wide generic K/As. As a result, when the exam author randomly selects a generic K/A for a system or EAPE, a large number of the generic K/As do not apply to the system or EAPE. This requires the exam author to reselect until a generic K/A is selected that is appropriate for that system or EAPE. This can take numerous selection tries for each K/A and can result in judgment calls regarding the whether a certain generic K/A is applicable or not. By the strict rules of the random selection process, any random selection of a generic K/A that does not fit the system or EAPE must be justified to the NRC Chief Examiner unless the author has pre-screened out all generic K/As that are applicable prior to "throwing the dice". Prescreening must be done for each system and

EAPE. This represents a huge workload. It would be far more efficient to return to the old process of identifying certain K/As as system-generics and EAPE-generics. Once randomly selected, they would almost always apply to the system or EAPE.

4. **It is recommended that Section A (administrative topics) and Section B (in-plant walkthrough) be combined for the determination of pass-fail criteria:** The administrative section (Section A) of the examination should be combined with the plant walkthrough section (Section B) for determination of pass-fail results. The pass-fail results should then become greater than 80% of the 15 JPMS. This would improve the overall reliability of the exam. Current practice requires a separate pass-fail decision for four administrative areas and five JPMS/question combinations. This has resulted in the NRC examiners requiring safety significant administrative JPMS to adequately test this area. Conversely, as the number of test items decreases, the confidence level in the pass-fail determinations also decreases. There is the potential for more false passing grades and more false failures, thus resulting in a test that is less reliable. Combining the two sections would also potentially mask a candidate who performed very well on the Section B JPMS but did not have a similar grasp of the administrative areas (and vice versa). However, this is not as significant today because administrative Section A JPMS are testing tasks that are directly related to individual plant activities.

From: Duke Energy <cjthomas@duke-energy.com>
To: TWFN_DO.twf4_po(CAG)
Date: Mon, Jun 19, 2000 12:53 PM
Subject: Comments on Draft Supplement 1 to Revision 8 of NUREG-1021

Received
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20 March 00
(2)

Below is the result of your feedback form. It was submitted by
Duke Energy (cjthomas@duke-energy.com) on Monday, June 19, 2000 at 12:53:39

Comments:
Subject:

Comments on Draft Supplementary Changes to Revision 8 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors" 65FR15020, dated March 20, 2000

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Date: Mon, 19 Jun 2000 12:53:42 -0400 (EDT)
Message-Id: <200006191653.MAA13986@www.nrc.gov>
To: cag@nrc.gov
From: cjthomas@duke-energy.com (Duke Energy)
Subject: Comments on Draft Supplement 1 to Revision 8 of NUREG-1021