



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-8064**

January 19, 2001

MEMORANDUM TO: David C. Trimble, Chief
Operator Licensing and Human Performance Section
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

FROM: John L. Pellet, Chief /RA/
Operations Branch
Division of Reactor Safety

SUBJECT: COMMENTS ON PROPOSED SUPPLEMENTARY CHANGES TO
REVISION 8 OF NUREG-1021, "OPERATOR LICENSING
EXAMINATION STANDARDS FOR POWER REACTORS"

In response to Mr. Boger's memorandum of January 4, 2001, we are providing comments on the proposed supplementary changes to NUREG-1021, Revision 8. We strongly support the nature of the changes reflected in the proposal. Our detailed comments attached are intended to enhance clarity and consistent application of the new guidance reflected in the proposed changes. Our detailed comments include suggested reworded standards for each issue.

However, we also noted that the proposed ES-401 could involve a potential unnecessary regulatory burden that we recommend be evaluated further. The change proposes to allow increased use of item test banks for up to 75 percent of test items on an examination, which we endorse. However, the proposed change continues to require certifying that at least 10 new test items were developed for each written examination. We believe that tracking, which test items are new, separately from those that were modified from the bank is a regulatory burden on the licensee. It also creates an area for subjective and inconsistent interpretation during our review as to what constitutes just modification of a bank item versus creation of a new test item derived from a bank item. While NUREG-1021 sets a minimum level of change to be considered modified, in practice, many bank items will be modified substantially further during the development and validation process. However, the standard defines no threshold between extensive modification and new. We recommend that the NUREG limit written examinations to no more than 75 percent of the test items directly from a bank without substantive modification. Our experience developing examinations has been that, given the current test item banks' quality and size, combined with a random sampling methodology, we will develop at least 15 new questions for each test and a substantial number of additional bank items will be modified so extensively as to be treated as new.

We appreciate the opportunity to comment on these changes. Please feel free to contact me if you have any questions.

cc: w/Attachment
A. Howell

ATTACHMENT

RIV COMMENTS ON PROPOSED NUREG-1021, Revision 8, Supplement 1

Except as noted, we have no detailed comments on the proposed supplement to NUREG-1021.

ES-201

1. The following two sections should be revised to reflect the requirement for an independent review, rather than directing that the review be performed by the chief examiner. The NUREG does not need to specify who actually performs the review.
 - C.3 e. The chief examiner will ensure the examination outlines are independently reviewed using Form ES-201-2, "Examination Outline Quality Checklist," as a guide, by an examiner not involved in their development. A thorough and timely review (i.e., within 5 working days) will minimize the potential for significant problems with the examinations.
 - C.3.f. The chief examiner will ensure the written examinations and operating tests are independently reviewed for quality by an examiner not involved in their development, in accordance with the applicable checklists (refer to ES-301 and ES-401) forwarded with the examination. The regional office may conduct additional reviews at its discretion if resources permit.
2. The following section should be revised as noted, to better reflect the goal of sharing examination information before the examination. This change better reflects the objective of the standards.
 - D.2.a. Although there is no specific upper limit, the facility licensee shall ensure there is a specific need for access for each person who is given knowledge of the NRC licensing examination. Moreover, the facility licensee should limit each person's access to only those portions of the examination for which the individual bears responsibility (e.g., the individuals who prepare the simulator scenarios may not require access to the written examination).
3. The following reworded section better describes NRC expectations for licensee developed examinations. Our goal should be to clarify expectations for security when various alternatives are used rather than specify the tools to be used.

Attachment 1, Section 2

The examination outlines and final examinations) shall be positively and continuously controlled and protected as sensitive information (e.g., under lock-and-key or in the custody of someone who has signed the security agreement). The number of copies of outlines or examinations should be limited and each should be uniquely identified and controlled (e.g., with sign-out custody) at all times. Drafts, copies, and waste materials must also be controlled and disposed of properly.

The NRC recommends that consideration of additional security measures be given when using a computer network to develop examinations if the license applicants or

other persons not on the security agreement could gain access to the material. Although the use of passwords should provide adequate security if normal computer security practices (e.g., selecting and changing passwords) are observed, special cases may need additional consideration. For example, if a trainee has extended access to the LAN in his normal position, additional security measures might be appropriate.

4. Form ES-201-2 specifies in a footnote that two independent NRC reviews are required. Clarify the footnote to state, "The Chief Examiner and NRC Supervisor review signature shall document independent reviews by different individuals."
5. Attachment 2 should be revised to include appropriate drawings. Suggested wording is as follows:
 13. System operating procedures and associated system drawings and diagrams.

ES-302

Section D.2.f, as written, does not establish sufficient guidance for consistent application. It requires the examiner to ask the applicant if the applicant is done, but does not establish guidance on how to follow up. We need a consistent method to maintain control of the test, rather than allowing applicants' unrestricted time to complete JPM's. This could be reworded as follows to enhance consistency.

- D.2.f. If the applicant is not making progress toward the completion of a JPM, the examiner should enquire whether the applicant believes the task has been completed. If the applicant states that the JPM is not complete, then the examiner should ask the applicant to describe the work to be done and how long it should require to complete the JPM. If either (1) the applicant cannot describe the effort remaining and the time estimated for it, or (2) the applicant does not then make progress toward accomplishing the described actions in a timely manner, and the total time spent on the JPM is at least double the validated time, then the examiner should inform the applicant that the allowed time for the JPM has elapsed and the applicant will be evaluated on the work completed. The examiner should then proceed to the next JPM.

ES-401

The following section should be revised to reflect the requirement for an independent review, rather than directing that the review be performed by the Chief Examiner. The NUREG does not need to specify who actually performs the review.

- D.1.g. The NRC chief examiner will ensure the outline is independently reviewed, by an examiner not involved in its development, within 5-working days (or as otherwise agreed with the facility licensee) and provide comments and recommended changes, as appropriate. The review shall include review of the sampling methodology, including all K/A rejections and changes, to ensure it is unbiased. The review shall also include review and approval of the site-specific item or topic substitutions.

APPENDIX E

Part D, Section 5 should be revised along the lines below to better express the time limit on JPM completion.

5. Time-critical JPM's have been validated by your facility and must be completed within the predetermined time interval in order to obtain a satisfactory grade for that JPM. You will be permitted to take the time necessary to complete JPM's that are not time-critical, provided you are making reasonable progress toward achieving the task standard. If the examiner believes that you are not making reasonable progress, he will discuss what remains to be done and how long it should take with you before stopping the task. You will be permitted at least twice the validated time to complete the task, whether you are making progress or not.