



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

8/3/93 "AE39-2"
"PDR"
Russell
Comments
included

MEMORANDUM FOR: William T. Russell, Associate Director
for Inspection and Technical Assessment
Office of Nuclear Reactor Regulation

FROM: Bruce A. Boger, Director
Division of Reactor Controls
and Human Factors
Office of Nuclear Reactor Regulation

SUBJECT: OPERATOR LICENSING REQUALIFICATION PROGRAM ISSUES

On May 20, 1993, the NRC published a Federal Register notice (FRN) proposing to amend 10 CFR Part 55 to delete the requirement that each licensed operator pass a comprehensive requalification written examination and an operating test conducted by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal. The proposal also included a requirement that facility licensees submit copies of each annual operating test or comprehensive written examination used for operator requalification for review by the Commission at least 30 days prior to conducting the examination or test. In addition, the staff also proposed to amend the "Scope" of the regulation to include facility licensees. The public comment period for the proposed amendment ended on July 19, 1993.

We have completed a preliminary review of the 37 public comments that were received as of July 27, 1993, and analyzed the major policy issues that we believe should be addressed as we proceed with the final rulemaking. The issues discussed in Enclosure 1 are directly related to the proposed regulation, while those in Enclosure 2 involve the requalification inspection program that is being developed in conjunction with the amended rule. If you concur with the staff's recommendation for each of the issues, please indicate your approval by initialing the spaces provided on the enclosures.

If you have any questions or comments regarding any of these issues, please contact me or Bob Gallo, on 504-1004 or 504-1031, respectively. The staff will work closely with the Office of Research to incorporate any views you may have on the issues, evaluate all the comments in detail, and resolve any conflicts.

Cecil O. Thomas
for Bruce A. Boger, Director
Division of Reactor Controls
and Human Factors
Office of Nuclear Reactor Regulation

Enclosures:
As stated

10 CFR PART 55 RULEMAKING ISSUES
AND RECOMMENDATIONS

1. SHOULD THE NRC PROCEED WITH THE PROPOSAL TO DELETE THE REQUIREMENT FOR EACH LICENSED OPERATOR TO PASS AN NRC-CONDUCTED REQUALIFICATION EXAMINATION DURING THE TERM OF A 6-YEAR LICENSE?

Discussion

SECY-92-430, "Proposed Amendments to 10 CFR Part 55 on Renewal of Licenses and Qualification Requirements for Licensed Operators," provided a strong technical justification for deleting this requirement. The results of NRC requalification examinations and inspections (using Temporary Instruction (TI) 2515/117, "Licensed Operator Requalification Program Evaluation") conducted since that SECY paper was issued (December 28, 1992) continue to support the staff's proposal to eliminate the requirement to pass an NRC-conducted examination. The staff has evaluated only one requalification program as unsatisfactory in the past two years (i.e., Millstone Unit 1 was determined to be UNSAT in September 1991 and again in September 1992) and has found that the inspection procedure (TI) is an effective means of evaluating facility licensees' compliance with 10 CFR 55.59. The staff has concluded that a core inspection module based upon TI-2515/117 could adequately replace most current NRC-conducted evaluations, provided the NRC retains the option to conduct NRC examinations, for cause, in accordance with NUREG-1021, "Operator Licensing Examiner Standards."

As expected, the industry's response to this portion of the proposed rulemaking was overwhelmingly positive. Every power and non-power reactor licensee and every industry advocate group that chose to comment on the amendment was in favor of deleting the requirement for licensed operators to pass an NRC-conducted requalification examination during the 6-year term of their license. However, there were some respondents who disagreed (i.e., dissenters) with the staff's proposal.

Although the dissenters included a couple from California and a nurse from Massachusetts who thought that the NRC should continue conducting requalification examinations and not allow the facilities to regulate themselves, the principal opposition came from the States of Vermont and Illinois. The State of Vermont pointed out that the Vermont Yankee requalification program would not have been evaluated as unsatisfactory if the facility licensee's grading had been used (i.e., the licensee failed only 1/3 crews, while the NRC failed 2/3) and stated that it does not have confidence that the program's deficiencies would have been detected and corrected if the proposed rule change were in effect. The State of Illinois contends that the present system provides a strong incentive for licensees to maintain quality operator training programs and that the likelihood of further improving, or even maintaining, that quality in the absence of periodic, independent involvement by the NRC is highly unlikely. The State recommends a combination of routine NRC inspections of "crew examinations" on a plant simulator and a periodic, independent test administered simultaneously to all licensed operators every 6 years.

The staff believes that an annual requalification inspection based on TI 2515/117, which includes the observation and assessment of facility examination activities (e.g., Do the facility evaluators effectively identify individuals and crews requiring remediation and indicate when removal from shift activities is warranted?), and provisions for NRC-conducted requalification examinations, "for cause," will continue to provide a strong incentive for licensees to maintain the quality of their requalification training programs. Furthermore, it is not inconceivable that the proposed inspection program could actually improve facility requalification programs because the pilot inspections performed in accordance with the TI have identified several problems that went undetected during previous NRC-conducted examinations.

Recommendation

The staff recommends no changes to this provision of the proposed amendment (i.e., to delete § 55.57(b)(2)(iv)).

Concurrence:

Agree no change needed.

Need to address how concerns are addressed by staff inspection/overseen via exam.

2. SHOULD THE NRC PROCEED WITH THE PROPOSAL TO REQUIRE FACILITY LICENSEES TO SUBMIT TO THE NRC EACH ANNUAL OPERATING TEST OR COMPREHENSIVE WRITTEN EXAMINATION USED FOR OPERATOR REQUALIFICATION AT LEAST 30 DAYS BEFORE CONDUCTING SUCH EXAMINATION OR TEST?

Discussion

As noted in SECY-92-432, "Status of the Licensed Operator Requalification Program - Response to Staff Requirements Memorandum (M920602)," the Office of the General Counsel (OGC) agreed that the proposed requalification evaluation program will satisfy the statutory requirements in Section 306 of NWSA because it will require the NRC to actively oversee the facility licensees' requalification training programs. This conclusion was based, in part, on the fact that the Commission's regulations will continue to contain legally binding requirements that apply to the conduct of operator requalification examinations by facility licensees.

In his vote on SECY-92-430, Commissioner Remick questioned the efficacy of this requirement in light of the fact that the staff could audit the tests and exams on site as part of its inspection program or during the initial examination process, as was done in the past. He expressed concern that this requirement would place a drain on NRC resources and prove unduly burdensome to licensees. This view was reflected in the Staff Requirements Memorandum (SRM) of April 27, 1993, which directed the staff to solicit public comments on this provision and to address the concerns as part of its preparation of the final rule. The SRM encouraged the staff to consider arranging for test submittal on a case-by-case basis, consistent with its inspection program needs.

Power reactor licensees, nonpower reactor licensees, the Nuclear Management and Resources Council, and the Professional Reactor Operator Society were overwhelming opposed to this proposal. Most respondents believed that submitting all examinations and tests to the NRC 30 days

before their administration would place an undue burden on facility licensees and the NRC, with little return on the investment. Several respondents offered alternatives including shortening the lead time, requiring that the examinations and tests be submitted after they are administered, submitting the question banks from which the examinations are developed, and simply having the examinations available for on-site inspection.

This requirement was included in the proposed regulation so that the staff could use the proposed examination materials, in conjunction with other information already available to the staff, to determine the scope of the on-site inspection. However, the pilot inspection program has demonstrated that the facility's proposed examinations are not an absolute necessity in preparing for the on-site activities. Although being able to review the proposed examinations in the office would allow more efficient use of on-site inspection effort, the inspectors were still able to complete the TI within the time allowed (i.e., two inspectors on-site for one week) without having the examinations before the inspection.

Recommendation

Although it may not be necessary to have all the examinations submitted to the NRC 30 days in advance all the time, the staff believes that there will be situations when it will be advantageous to have the facility licensee's proposed examinations available for in-office review. Therefore, the staff recommends that the proposed amendment to § 55.59(c) be revised as follows:

good compromise
"(c) Requalification program requirements. A facility licensee shall have a requalification program reviewed and approved by the Commission and shall upon request, submit a copy of each its comprehensive requalification written examinations or annual operating tests to the Commission at least 30 days prior to conducting such examination or test. The requalification program must meet the requirements of paragraphs (c)(1) through (7) of this section. In lieu of paragraphs (c)(2), (3), and (4) of this section, the Commission may approve a program developed by using a systems approach to training."

This will permit the staff arrange for test submittal consistent with its inspection program needs. The lead time would be negotiated with the facility licensee but would not exceed 30 days before the start of on-site activities.

Concurrence: _____

ok - upon request; if Exam Banks / Simulator Banks are improved, this should be followed through and for come request to submit Expt.

3. SHOULD NONPOWER REACTOR LICENSEES RECEIVE THE SAME TREATMENT AS POWER REACTORS?

Discussion

The Federal Register Notice (FRN) issuing the proposed amendment to 10 CFR Part 55 specifically invited comments on the applicability of the

amendments to research and test reactor facilities. A total of 13 nonpower reactor licensees, the National Organization of Test, Research, and Training Reactors (TRTR), and a former research reactor director unanimously agreed that the requirement for each licensed operator to pass an NRC-conducted requalification examination as a condition for license renewal should be eliminated. Several respondents suggested that the NRC return to the program that was in effect prior to the 1987 rule change (i.e., facility-conducted examinations with periodic NRC inspections), and some respondents endorsed the NRC's intent to conduct requalification examinations only "for cause."

Most respondents were strongly opposed to the provision that facilities submit copies of all their comprehensive examinations and tests to the NRC 30 days before their administration. They viewed that requirement as unnecessary, cumbersome, costly, and a waste of valuable resources.

At the time that SECY-92-430 was developed, the NRC had conducted relatively few requalification examinations at nonpower facilities, so the technical justification for applying the amended rule to those facilities was not as strong as for power reactor. Although the staff has not conducted requalification examinations at every nonpower facility, the 95% (53/56) pass rate for fiscal year 1993 is consistent with that observed at power reactor facilities.

Recommendation

The staff recommends that the proposed regulations apply equally to power and nonpower reactor licensees.

Concurrence: ayee

4. SHOULD FACILITY LICENSEES BE INCLUDED IN THE "SCOPE" OF THE REGULATION?

Discussion

The staff proposed this change to eliminate the ambiguities between the regulations of Parts 50 and 55. Section 50.54(i) through (m) already imposes Part 55 requirements on facility licensees, and Part 55 already specifies requirements for facility licensees.

Only one of the 34 respondents to the FRN addressed and endorsed this provision of the proposed rulemaking. The staff believes that the absence of comments regarding this proposal substantiates the staff's position that this is simply an administrative correction that does not materially change the intent of the regulations.

Recommendation

The staff recommends no change to this provision of the proposed rulemaking.

Concurrence: ayee

REQUALIFICATION INSPECTION PROGRAM
ISSUES AND RECOMMENDATIONS

1. HOW OFTEN SHOULD THE NRC CONDUCT REQUALIFICATION PROGRAM INSPECTIONS?

Discussion

As noted in SECY-92-432, OGC agreed that the proposed requalification evaluation program will satisfy the statutory requirements in Section 306 of NWSA because it will require the NRC to actively oversee the facility licensees' requalification training programs. This conclusion was based, in part, on the fact that the program would include annual on-site inspections by the NRC.

The period of opportunity to conduct requalification inspections would be either annually or biennially, to coincide with the facility licensee's examination schedule. At the present time, the staff lacks sufficient confidence to schedule biennial requalification program inspections at all facilities. Currently, 50% of the facilities have a SALP category 2 rating in operations, which may be the result of training deficiencies, but which are clearly indicative of a need to improve the control of activities. Therefore, the staff believes that periodic inspections will provide an incentive for improvement.

When the staff developed the proposed rulemaking and the associated TI, it estimated that each core inspection would require approximately 196 staff hours and include approximately 96 hours of direct inspection effort. The staff has now completed eight pilot inspections using the TI and determined that the resource estimates were reliable and that the inspectors had adequate time on-site to accomplish the stated objectives for the TI. Although the resource estimates stated in SECY-92-432 for fiscal years 1994 to 1997 (i.e., 13 FTE) included funding for several periodic NRC requalification examinations, those resources would be used to conduct program inspections at the facilities that would have received periodic examinations and to conduct whatever number of "for cause" requalification examinations that become necessary.

Recommendation

The staff recommends that the nominal periodicity for the operator requalification program inspections remain at once per year as proposed in SECY-92-430 and SECY-92-432. However, the staff does advocate that the Regions be permitted to decrease the inspection frequency for those facilities that are proven good performers to once every 2 years. This would be consistent with NRC Inspection Manual Chapter 2515 guidance which states that, for a plant rated as SALP category 1 in the functional area of operations, it may be appropriate to perform only the core inspection procedures in that area plus any needed area of emphasis inspections.

Concurrence:

2. UNDER WHAT CIRCUMSTANCES SHOULD THE NRC CONDUCT "FOR CAUSE" REQUALIFICATION EXAMINATIONS?

*Self cycle
vice
years.*

*minimum once per SALP cycle
not to exceed two years between
inspections. If good = 2 yrs
If poor = 1 yr.*

Discussion

Even though the staff is proposing to delete the requirement that every licensed operator pass an NRC requalification examination during their 6-year license term, the regulations will continue to require facilities to have requalification programs and to conduct requalification examinations. As noted in SECY-92-430, § 55.59(a)(2)(iii) provides that the NRC may conduct requalification examinations in lieu of accepting the facility licensee's certification that a licensed individual has passed the facility's requalification examination. The NRC will use this option if warranted after conducting an on-site inspection of the facility's requalification program.

Several of the parties that responded to the proposed rulemaking endorsed the staff's intent to conduct "for cause" examinations at any facility where ineffective training is causing operators to commit errors. None of the respondents questioned the NRC's authority to do so.

As noted in SECY-92-432, regional managers will consider overall facility performance (e.g., SALP ratings), the results of the NRC's inspection programs (e.g., requalification, emergency operating procedure, and resident), the results of routine initial and requalification examinations, and other factors when determining the scope of the requalification inspection and examination activities at a facility. Those activities could include a full "Training and Qualification Effectiveness" inspection in accordance with Inspection Procedure (IP) 41500, "for cause" examinations in accordance with the Examiner Standards, or operational evaluations of on-shift crews, if there are immediate safety concerns. The regional managers will coordinate with the headquarters program office before conducting any NRC requalification examinations "for cause."

Given the broad range of possible approaches built into the inspection process, the NRC would conduct an examination only when it is the most effective tool to evaluate and understand the programmatic issues. Since there is no reason to abandon the staff's goal of minimizing undue stress and impact on operating crews, the NRC should normally conduct its examinations in coordination with the facility licensee's annual examination schedule. The goal of conducting an NRC requalification examination is the same as that for conducting a program inspection, i.e., to address programmatic concerns on a long-term basis. Although they share the same goal, the examination is more resource-intensive and has a greater impact on facility and individual licensees. Therefore, NRC administered examinations should only be used when the staff believes that the inspection process will not provide the needed insight. Since the inspection process relies on sampling a basically sound facility program, the NRC would conduct examinations only when it has lost confidence in the facility licensee's ability to conduct its own examinations. ~~Among the factors which are envisioned to result in the NRC's loss of confidence are the following:~~

~~A significant number of reportable events, licensee event reports (LERs), or plant transients that have identified operator error as a~~ ^② ~~major contributor.~~

-2-

① - Requal Inspection Results which indicate an ineffective licensee requalification program.

Examples which could result in a regional management decision for a "for cause" requal exam include

~~root cause.~~

- A SALP category 3 rating ⁱⁿ ~~or a decrease in rating from category 1 to category 2 in the area of plant operations, attributed to operator performance.~~
- Inspection findings or initial examination results indicating an ineffective operator training program.
- Allegations regarding significant training program deficiencies.

Recommendations

The staff believes that the amended regulations will allow the NRC to conduct "for cause" examinations as required and that no further changes are necessary.

The staff recommends that the Regional Offices consider conducting requalification examinations during the next annual examination cycle scheduled by the facility when any of the conditions identified above exist. The consideration should be implemented through the normal resource planning system, such as the QPPR and MIPS process, since an inspection activity will be replaced with more resource-intensive examinations. Further, use of the existing inspection planning process will ensure that the Regional Office and NRR discuss the need for conducting examinations versus the alternative expanded inspection tools available and allocate the required resources.

The staff will incorporate the above guidance in the IP that will be used to evaluate licensee requalification programs.

Concurrence: agree w/ rewrite as indicated