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RULEMAKING ISSUE
(Affirmation)

May 19, 1982

SECY-82-202

For: The Commissioners

From: William J. Dircks
Executive Director for Operations

Subject: AMENDMENT TO 10 CFR PART 140,
"FINANCIAL PROTECTION REQUIREMENTS AND
INDEMNITY AGREEMENTS"

Purpose: To amend 10 CFR 140.9, "Modifications of Indemnity
Agreements," as requested by a majority (3 of 5) of the
Commissioners in conjunction with Commission approval of
SECY-81-549.

Category: This paper covers a minor policy question.

Discussion: On September 15, 1981, the Executive Director for
Operations transmitted SECY-81-549, "Indemnification Of
Licensees Storing Spent Fuel At Sites Other Than The
Sites Where The Fuel Was Irradiated," to the Commission
for its consideration. This paper discussed Duke Power
Company's (Duke) request that the NRC allow Duke to
transfer spent fuel from its Oconee facility to its
McGuire facility for the purpose of storage and that
the Commission exercise its discretionary authority
under the Price-Anderson Act (section 170 of the Atomic
Energy Act of 1954, as amended) to extend indemnity
protection to this spent fuel stored at the McGuire
facility. The staff recommended that in light of an
Atomic Safety and Licensing Appeal Board decision of
August 10, 1981, (ALAB-651) approving an amendment to
the McGuire OL to permit Duke's spent fuel storage

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request, the Commission should extend indemnity coverage to the storage of this spent fuel. The Commission subsequently approved this recommendation and directed that indemnity coverage be extended to spent fuel irradiated at the Oconee facility but stored at the McGuire facility.

To ensure that spent fuel irradiated at the Oconee facility but stored at the McGuire facility was covered by Price-Anderson Act indemnity, the NRC had to make a minor modification to the definition of "radioactive material" in the Indemnity Agreement for the McGuire facility. The NRC's regulations pertaining to this modification (10 CFR 140.9) provide:

§ 140.9 Modifications of indemnity agreements.

The Commission will publish in the FEDERAL REGISTER a notice of the intent to enter into an indemnity agreement, or agreement amending an indemnity agreement, which contains provisions different from the form of the applicable indemnity agreement set forth in the appendices to this part, as such appendices may be amended from time to time. Such notices will provide at least a fifteen day period following the date of publication in the FEDERAL REGISTER in which interested persons may file petitions for leave to intervene with respect to the proposed agreement.

When considering SECY-81-549, Commissioner Ahearne stated in his ballot:

As far as I can tell, the only reason we are offering an opportunity for a hearing on the indemnity agreement language is because § 140.9 of our regulations commits us to do so. I do not see the point of having a hearing on the language of an indemnity agreement and suggest we change the regulations to avoid similar future situations.

Chairman Palladino and Commissioner Roberts agreed with Commissioner Ahearne's statement, and the staff was directed to forward to the Commission a paper proposing to amend § 140.9 by deleting the second sentence of that section. See memorandum from Samuel J. Chilk to William J. Dircks dated October 27, 1981. (Enclosure "A").

The history regarding the promulgation of § 140.9 dates back to the early 1960s. On April 7, 1960, the Atomic

Energy Commission published in the Federal Register (25 F.R. 2999) proposed amendments to 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements." Among other things the notice proposed an amendment to establish the form of indemnity agreement which the Commission would execute with licensees furnishing insurance policies as proof of financial protection (now § 140.92, Appendix B). The proposed rule did not contain any provisions such as those now present in § 140.9. After consideration of public comments and other relevant information, on April 22, 1961, the Commission published a final rule (26 F.R. 3455) setting forth, *inter alia*, the specific provisions of Appendix B. Through this same notice the Commission adopted § 140.9 in a form identical to its present form. The notice of final rulemaking contained no indication of the reasons for adding § 140.9 to the Commission's regulations. None of the documents, including comments on the proposed rule, available for inspection at the NRC's Public Document Room sheds any light on the reasons for adopting § 140.9.

A telephone conversation with an attorney who represents utility applicants and licensees in proceedings before the Commission and who commented on the proposed rule published April 7, 1960, revealed a plausible reason for adoption of § 140.9. This section may have been adopted to protect persons such as component part manufacturers and suppliers. These persons supply reactor component parts and systems to utilities under contracts with these utilities. These suppliers want to be certain that in the event of a nuclear incident they are protected from public liability by the omnibus coverage feature of the insurance and indemnity agreements executed by the utility licensee. Prior to 1976, about 75% of the funds available to pay public liability claims resulting from a nuclear incident at a large power reactor were the funds available under the indemnity agreements executed between the Commission and the utility licensees.^{1/} Thus, these suppliers would want to know of, and have an opportunity to act on, any changes in a specific indemnity agreement that might reduce the scope of the omnibus coverage under that

^{1/} Since the 1975 amendments to the Price-Anderson Act, the amount of government indemnity available to satisfy public liability claims resulting from a "nuclear incident" at a large nuclear power reactor has been reduced from \$435 million to its present amount of \$20 million.

agreement and thereby increase their potential public liability in the event of a nuclear incident.

A second plausible explanation for the Commission's adoption of § 140.9 is asserted by the NRC staff. This section may have been added to assure each indemnified licensee that it would be afforded the same protection as any other indemnified licensee from public liability claims resulting from a nuclear incident. Thus, § 140.9 would serve to notify all licensees if any single licensee were able to negotiate an indemnity agreement with the government giving that licensee better coverage. The other indemnified licensees, of course, would want the opportunity to secure this same coverage.

As best as can be ascertained by the staff, this provision of 10 CFR Part 140 has been used only twice in situations involving nuclear power plants (and the Standard Form indemnity agreements contained in the Appendices to 10 CFR Part 140) since its adoption on April 22, 1961 (26 F.R. 3455). In addition to its use in the Oconee-McGuire situation, it was used in September 1977 for a similar request by the Carolina Power and Light Company for the Brunswick and Robison facilities. See SECY-77-403. In both instances a Federal Register notice was published as required by § 140.9.

The substantive issue in these situations is whether the spent fuel generated at one reactor site can be transported to and stored at a second reactor site without unduly endangering the public health and safety. This action would require an amendment to one or more facility licenses. It is at this stage (amendment of a license) that any person whose interest may be affected may request a hearing on the proposed action. Persons objecting to the proposed action should make their views known at this hearing. The second opportunity to file a petition to intervene under § 140.9 is, therefore, unnecessarily duplicative. Further, it is not appropriate for a person to wait until the Commission's licensing action is completed, and a Federal Register notice is published pursuant to § 140.9, before filing a petition for leave to intervene in an attempt to raise a substantive objection to the licensing action. The § 140.9 Federal Register notice indicates that the Commission will consider only comments pertaining to the implementation of the Commission's policy decision through the language proposed to modify the indemnity agreements. Comments addressing the policy issue of whether the Commission should exercise its discretionary authority under the Price-Anderson Act to

provide indemnity coverage for spent fuel generated by one reactor but stored at a different reactor will not be considered. The opportunity for hearing and public comment by affected persons at the license amendment stage satisfies the "due process" requirements of the law without the necessity of soliciting public comment on the same issue several weeks later.

Recommendation:

That the Commission:

Approve: Publication of the proposed rule (Enclosure "B") to amend 10 CFR 140.9 by deleting the second sentence in that section.

Certify: In order to satisfy the requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b), that this rule if adopted will not have a significant economic impact on a substantial number of small entities.

Note:

1. That the proposed rule will be published in the Federal Register allowing a period of 30 days for public comment;
2. If after expiration of the comment period no significant adverse comments or significant questions have been received and no substantial changes in the text of the rule are indicated, the Executive Director for Operations will arrange for publication of the amendment in final form. If significant questions have been received or substantial changes in the text of the rule are indicated, the revised amendment will be submitted to the Commission for approval;
3. That this proposed rule contains no new or amended requirements for record keeping, reporting, plans or procedures, applications or any other type of information collection.
4. That, pursuant to § 51.5(d)(2) of Part 51 of the Commission's regulations, neither an environmental impact statement nor a negative declaration need be prepared in connection with the amendment since the proposed rule is non-substantive and insignificant from the standpoint of environmental impact;

5. That the appropriate Congressional committees will be informed;
6. That no public announcement will be prepared in connection with this rulemaking action; and
7. That the Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification and the reasons for it as required by the Regulatory Flexibility Act.



William J. Dircks
Executive Director for Operations

Enclosures:

1. "A" - Memo from S. Chilk
to W. Dircks dated 10/27/81
2. "B" - Notice of Proposed Rulemaking

Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b. Friday, June 4, 1982.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Thursday, May 27, 1982, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

This paper is tentatively scheduled for affirmation at an Open Meeting during the Week of June 7, 1982. Please refer to the appropriate Weekly Commission Schedule, when published, for a specific date and time.

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ENCLOSURE A



ENCLOSURE A

(1 RESPONSE REFER TO SR1-549

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

October 27, 1981

OFFICE OF THE SECRETARY

Action: SP/ELD Cys: Dircks Cornell Rehm Shapak Denton Minogue Stello Davis Felton Philips Dinitz

MEMORANDUM FOR: William J. Dircks, Executive Director for Operations FROM: Samuel J. Chilk, Secretary SUBJECT: SECY-81-549 - INDEMNIFICATION OF LICENSEES STORING SPENT FUEL AT SITES OTHER THAN THE SITES WHERE THE FUEL WAS IRRADIATED

This is to advise you that the Commission (with all Commissioners approving) has approved publication of a Federal Register Notice (FRN) (Appendix "B") that would announce the Commission's intent to modify Duke's indemnity agreement at McGuire to extend indemnity coverage to Oconee irradiated fuel stored at the McGuire reactor. A majority of the Commission (Chairman Palladino and Commissioners Ahearne and Roberts) has also agreed to a policy authorizing the EDO to handle similar requests on a case-by-case basis, with the Commission being informed of any action taken.

In connection with his approval, Commissioner Ahearne provided the following statement: "I assume a request involving transfer of irradiated fuel from one utility to another would not be a 'similar' request and would be referred to the Commission."

Although approving the McGuire Amendment, Commissioners Gilinsky and Bradford have disapproved the proposed policy which delegates authority to the EDO. Their statement on this matter is as follows: "We should modify the standard indemnity provision to extend coverage to spent fuel irradiated elsewhere, if the transfer has been approved by NRC. It seems obvious that the key decision is whether to authorize a transfer. Once a transfer has been authorized, the extension of the Price-Anderson coverage should be automatic."

On a related matter, Chairman Palladino and Commissioner Roberts agree with the following statement of Commissioner Ahearne: "As far as I can tell, the only reason we are offering an opportunity for a hearing on the indemnity agreement language is because §140.9 of our regulation commits us to do so. I do not see the point of having a hearing on the language of an indemnity agreement and suggest we change the regulations to avoid similar future situations."

CONTACT: E. W. McGregor (SECY) 41410

The Office of State Programs was informed of this action on October 26, 1981.

The staff is requested to accomplish the following:

1. Forward a copy of the FRN to the Office of the Secretary after signature and dispatch by the EDO.
(SECY SUSPENSE: 11/10/81) *complete, FRN signed EDO 10-28-81 and sent to Secy.*
2. Forward a paper which proposes to amend 10 CFR § 140.9 "Modifications of Indemnity Agreements," by deletion of the second sentence which reads: "Such notices will provide at least a fifteen day period following the date of publication in the Federal Register in which interested persons may file petitions for leave to intervene with respect to the proposed agreement."
(SECY SUSPENSE: 12/30/81) *E L D*

cc: Chairman Palladino
 Commissioner Gilinsky
 Commissioner Bradford
 Commissioner Ahearne
 Commissioner Roberts
 Commission Staff Offices
 Director, State Programs
 Exec. Legal Director
 Director, NMSS
 Director, NRR

ENCLOSURE B

NUCLEAR REGULATORY COMMISSION

10 CFR Part 140

Modification of Indemnity Agreements

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Commission's regulations provide that if the Commission intends to enter into an indemnity agreement with provisions different than those in a standard form indemnity agreement or intends to modify a standard form indemnity agreement, then the Commission must publish notice of this intent in the Federal Register and allow 15 days for interested persons to file petitions for leave to intervene with respect to the proposed amendment. The Commission is proposing to amend its regulations to retain the public notice provision but delete the opportunity for public intervention and comment. The Commission is proposing this action because it considers that any person whose interests may be affected will have had ample opportunity to voice its views at the facility license amendment stage which, of necessity, must precede the notice of intent to amend the indemnity agreement.

DATES: Comment period expires _____, 1982.* Comments received

*Insert date 30 days from publication in the FEDERAL REGISTER.

after this date will be considered if it is practical to do so, but assurance of consideration cannot be given except as to comments received on or before this date.

ADDRESSES: Submit written comments and suggestions on the proposal to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch. Copies of comments received by the Commission may be examined in the Commission's Public Document Room at 1717 H Street, NW, Washington, D.C.

FOR FURTHER INFORMATION CONTACT: Eric E. Jakel, Esq., Office of the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Telephone: (301) 492-8691.

SUPPLEMENTARY INFORMATION: On April 7, 1960, the Atomic Energy Commission published in the Federal Register (25 FR 2999) proposed amendments to 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements." Among other things the notice proposed an amendment to establish the form of indemnity agreement which the Commission would execute with licensees furnishing insurance policies as proof of financial protection (10 CFR 140.92, Appendix B). The proposed rule did not contain any provisions such as those now present in § 140.9. After consideration of public comments and other relevant information, on April 22, 1961, the Commission published a final rule (26 FR 3455) setting forth, inter alia, the specific provisions of

Appendix B. Through this same notice the Commission adopted § 140.9 in a form identical to its present form. Currently, § 140.9 provides:

§ 140.9 Modifications of indemnity agreements.

The Commission will publish in the FEDERAL REGISTER a notice of the intent to enter into an indemnity agreement, or agreement amending an indemnity agreement, which contains provisions different from the form of the applicable indemnity agreement set forth in the appendices to this part, as such appendices may be amended from time to time. Such notices will provide at least a fifteen day period following the date of publication in the FEDERAL REGISTER in which interested persons may file petitions for leave to intervene with respect to the proposed agreement.

Since the Commission adopted § 140.9 over 20 years ago, this section has only been used twice in situations involving nuclear power plants (and the Standard Form indemnity agreements contained in the Appendices to 10 CFR Part 140). In both instances an NRC licensee requested Commission approval of a plan to move spent fuel from one of its nuclear power facilities to a different nuclear power facility (for which it was also the licensee). The request involved the transportation of spent fuel from the first facility to the second facility, storage of the spent fuel at the second facility, and Commission extension of indemnity coverage to the storage of this spent fuel at the second facility. The first instance involved Commission approval of a request by Carolina Power and Light Company to transport spent fuel generated at its H. B. Robinson facility to its Brunswick facility for the purpose of storage and to have the storage indemnified (42 FR 44617, September 6, 1977).

The second instance involved Commission approval of a similar request by Duke Power Company with respect to its Oconee and McGuire facilities (46 FR 55024, November 5, 1981).

To ensure that the fuel irradiated at the first reactor would be covered by Price-Anderson Act indemnity during storage at the second reactor, the NRC had to make a minor modification to the definition of "radioactive material" in Article I, paragraph 9, of the indemnity agreement applicable to the storing reactor. (See 10 CFR 140.92, Appendix B.) However, under the existing provisions of § 140.9, the Commission must publish notice of the specific amendment and allow 15 days for interested persons to file petitions for leave to intervene with respect to the proposed agreement, even where it makes only a small change of several words in the standard form of indemnity agreement.

The Commission has interpreted § 140.9 to mean that it only need solicit and consider written public comments on whether the language proposed to modify the indemnity agreements effectively implements the Commission's policy decision to exercise its discretionary authority to extend Price-Anderson indemnity coverage in any given situation. See 42 FR 44617, September 6, 1977; 46 FR 55024, November 5, 1981. Comments addressing any other issue are not considered relevant.

The substantive issue in the situations described above in which the provisions of § 140.9 were involved was whether the spent fuel generated at one reactor site could be transported to and stored at a second reactor site without unduly endangering the public health and safety. This issue is resolved in the context of a proceeding to amend one or more facility licenses and, in this proceeding, any person whose interest may be affected may request a hearing on the proposed action. Persons objecting to the proposed action should make their views known at this hearing. To provide a second opportunity for public comment or intervention later on the indemnity agreement would be unnecessarily duplicative. Therefore, the Commission proposes to delete the second sentence of § 140.9. The first sentence of § 140.9 requiring that the Commission publish in the Federal Register a notice of its intent to modify (or use an agreement which differs from) a standard form indemnity agreement would be retained.

PAPERWORK REDUCTION ACT STATEMENT:

Pursuant to the provisions of the Paperwork Reduction Act of 1980 (Pub. L. 96-511), the NRC has made a determination that this proposed rule would not impose new recordkeeping, application, reporting, or other types of information collection requirements.

REGULATORY FLEXIBILITY CERTIFICATION:

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C.

605(b), the NRC certifies that this rule will not, if promulgated, have a significant economic impact on a substantial number of small entities. The proposed rule affects the licensing and operation of nuclear reactors. The companies and institutions that own these reactors do not fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or in the Small Business Size Standards set out in regulations issued by the Small Business Administration at 13 CFR Part 121. Since the companies that will be affected by this rule are dominant in their service areas, this rule does not fall within the purview of the Act.

LIST OF SUBJECTS IN 10 CFR PART 140:

Extraordinary nuclear occurrence, insurance, intergovernmental relations, nuclear materials, nuclear power plants and reactors, penalty, reporting requirements.

PROPOSED RULE CHANGE:

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and section 553 of title 5 of the United States Code, notice is hereby given that adoption of the following amendment to 10 CFR Part 140, is contemplated.

PART 140 - FINANCIAL PROTECTION REQUIREMENTS AND INDEMNITY AGREEMENTS.

1. The authority citation for Part 140 is revised to read as follows:

AUTHORITY: Secs. 161, 170, 68 Stat. 948, 71 Stat. 576, as amended (42 U.S.C. 2201, 2210); secs. 201, 202, 88 Stat. 1242, as amended, 1244 (42 U.S.C. 5841, 5842).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 140.11(a), 140.12(a), 140.13 and 140.13a are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); and § 140.6 is issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. Remove the authority citations following: §§ 140.2, 140.3, 140.5, 140.6, 140.7, 140.10, 140.11, 140.13a, 140.14, 140.18, 140.20, 140.21, 140.22, 140.91, 140.92, 140.93, 140.94, 140.95, 140.107, and 140.108.

Section 140.9 is revised to read as follows:

§ 140.9 Modification of indemnity agreements.

The Commission will publish in the FEDERAL REGISTER a notice of the intent to enter into an indemnity agreement, or agreement amending an indemnity agreement, which contains provisions different from the form of the applicable indemnity agreement set forth in the

appendices to this part, as such appendices may be amended from time to time.

Dated at Washington, D.C. this day of , 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Chilk
Secretary of the Commission

D. Beckham

June 7, 1982

SECY-82-232

For: The Commissioners

From: William J. Dircks
Executive Director for Operations

Subject: USE OF NON-PLANT-SPECIFIC SIMULATORS FOR INITIAL, REPLACEMENT,
AND REQUALIFICATION EXAMINATIONS FOR LICENSED REACTOR OPERATORS
AND SENIOR OPERATORS

Purpose: To request the Commission to continue the requirement to conduct
examinations on plant-specific simulators and to remove the
requirement for NRC-administered examinations on non-plant-specific
simulators for initial and replacement licensing and for requal-
ification of reactor operators and senior reactor operators.

Category: Minor Policy Question Notation Vote. Resource estimates
Category 2.

Discussion: I. Examination on Non-Plant-Specific Simulators
In response to SECY 79-330E, "Qualifications of (Power)
Reactor Operators", the Commission in a memo from S. Chilk
to L. Gossick, dated November 27, 1979, directed the staff
to administer simulator examinations to all new, replacement,
and requalification license candidates.

Since October 1, 1981, OLB examiners have examined approx-
imately 600 license candidates on non-plant-specific sim-
ulators, and approximately 200 candidates on plant-specific
simulators. Based on this experience, the staff does not
believe that the information gained from a non-plant-specific
simulator provides a basis to accurately judge the ability
or competence of an operator with sufficient confidence to
justify denial of a license.

Contact:
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D. H. Beckham, NRR, 49-24868

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However, the staff recognizes the differences between a training device and an examination tool on which approval or denial of an operator's license will be based.

Non-plant-specific simulators qualify reasonably well as training tools, but are not effective examination tools for operator licensing. There are several reasons for this:

1. In most cases, the scope of the examination on a non-plant specific simulator is severely limited because of differences between the simulator and the plant. Since the areas of commonality generally encompass only the reactor controls, coolant system, and steam generating equipment, many areas of protective systems, emergency power supplies and radiological protection response are not conducive to examination on the simulator.

Response to transients cannot be done in real time because of the plant differences noted above, therefore, the transient is discussed with the candidate to identify what has happened and what the appropriate response to the transient would be at his/her actual plant. This can be done with the same effect during the part of the oral examination conducted at the plant that stresses the control room operations.

2. In many plants, particularly the older ones, differences in technical specifications and operating procedures further compromise the non-plant-specific simulator examination's validity. For example, limits on axial flux differences or control rod deviation may vary between the actual plant and the simulator, or limiting conditions for operation may differ from the actual plant because the simulator is based on an earlier design. The alarms and indications available to alert operators to transient conditions can be quite different from those the operator must know to safely operate the actual plant.
3. Unless the candidates are thoroughly familiar with the layout of the boards, they can do little more than perform a startup of the reactor or increase or decrease power. This is because the candidate must recognize how the differences affect the evolution being conducted and locate the correct indicators and controls in real time simulation. This has caused such significant problems in the performance of operations on the non-plant specific simulator (e.g., the difference in controls and response of auxiliary feedwater systems with electric driven pumps and flow control valves or steam turbine driven, variable speed pumps) that the number and scope of malfunctions or casualties that the candidate can be expected to know are severely limited. For example, on most non-plant-specific simulators, casualties involving actuation of the engineered

safety features systems, D.C. power supplies or control air systems cannot be conducted satisfactorily because of plant differences. If the simulator is significantly different from the plant to be operated, the candidate must "train to pass the exam" and then return to the plant and retrain to become an operator at that plant.

II. Resource Impact of Non-Plant-Specific Simulator Examinations

A compounding factor has been the resource requirements associated with conducting simulator exams. Although a group of license candidates can be given written and oral walkthrough examinations at the site in one visit, the availability of the limited number of operational simulators has resulted in the problems listed below. Only nine plant specific simulators, as listed in Enclosure 1, are operational.

1. Simulator time is normally contracted one to two years in advance for scheduled operator training to meet training program commitments and NRC requirements. Simulator examinations increase the amount of training time required because the training departments have had to increase the amount of time in simulator training to provide the operator with the familiarity with the control board in addition to normal conceptual training programs.
2. Simulator availability problems sometimes force utilities to buy time on simulators not normally used in their training programs. This results in the license candidate being even less familiar with the simulator controls and indicators. It also increases overall training time, provides a higher probability of confusing the operator, and further limits the validity of the examination.
3. Even a small group of license candidates may result in several trips to different simulators to complete the exams. For example, replacement examinations for Kewaunee required two trips to two different simulators (SNUPPS and Sequoyah) to complete the examinations for four candidates. An additional trip would have been required but three candidates were withdrawn by the utility.

III. Resources For Requalification Examinations

In addition to the problem of simulator availability for scheduling and conducting requalification examinations, the staff has also experienced problems providing qualified NRC and contractor personnel available to conduct requalification examinations as directed by the Commission. In response to SECY 79-330E the staff was directed to conduct written, oral and simulator examinations for all requalification candidates. This was modified for FY 82 to include 100% simulator and 20% written and oral examinations. The reasons for the unavailability of personnel are three fold.

1. Lack of simulator availability has resulted in more trips being needed to simulator facilities to conduct examinations. This has increased the overhead associated with examinations, primarily due to increased time in travel status.
2. Requests for initial and replacement exams have increased beyond the rate budgeted due to the requirement to have two Senior Reactor Operators on shift by July 1, 1982. Budget estimates for FY 82 assumed 137 site visits for the entire year for all replacement and 20% requalification examinations. Actual requirements for the first quarter of FY 82 totaled 208 trips to give replacement examinations (8.5 psy equivalents were expended, an annual rate of 34 psy compared to 36.4 psy equivalents, contractor and NRC examiners, budgeted for all requalification and replacement examinations). This rate of resource use was for license examinations only, and did not include requalification examinations. To meet the minimum time as a reactor operator and the requirement for an SRO candidate to have three months on shift as an extra person, utilities are forced to have more reactor operators available to fill in and to provide the base for SRO selection. While this has caused a significant increase in RO and SRO applications, it has provided a large number of operators who have recently passed the licensing examination at operating plants.
3. Although contract funds were available to augment staff resources, it was difficult to obtain personnel through contractors with the necessary qualifications and training to conduct examinations. Therefore, extensive training programs had to be undertaken at three national laboratories (Oak Ridge, Idaho, and Battelle Pacific Northwest). The first classes have completed training and are conducting examinations now. There are second classes completing training, and we are evaluating proposals for a third class of limited size at some of the labs. However, the examiners in the second and third classes must be restricted to written

examination administration and grading until they have sufficient experience and the staff has sufficient confidence to ensure they will do competent work in simulator or oral examinations. Therefore, all of the contract personnel will not be available for full examination work until later in this fiscal year.

This training effort has also demanded staff attention. As of January 15, 1982 the OLB section leaders have been removed from use in preparing and conducting examinations in order to monitor and train these additional examiners. Until these examiners and the additional personnel hired for the Bethesda and Chicago sections are fully trained, the rate at which examinations can be given will continue to be manpower limited.

The staff has estimated that based on first quarter expenditures, using the resources saved by removing the requirements for non-plant-specific simulator examinations, requalification examinations could be conducted for 25-30% of the currently licensed operators, if the requalification examinations were given during scheduled site visits for replacement examinations. This will require coordination with the utilities to ensure that the operators to be administered requalification examinations will be available from their licensed duties on a schedule consistent with the replacement examinations. A generic letter to all utilities establishing the requalification examination program is attached as Enclosure 2.

For plants with plant-specific simulators, only a simulator requalification examination of 2 to 3 hour duration would be given. For plants without plant specific simulators, a combination of a written examination and a oral test in the facility will be given for requalification. This will provide additional impetus for upgrading requalification training programs and benefit those plants with plant-specific simulators. A preliminary schedule for conducting requalification examinations for the third and fourth quarters of FY 1982 is attached as Enclosure 3. This schedule is based primarily on the current schedule for conducting replacement examinations. Multiple visits may be made to one facility to accommodate the normal replacement examination schedule requested by the utility. The staff schedule will not commence until 30 days after Commission approval of the recommendations of this paper.

This method of auditing requalification programs should result in significant improvements in any requalification programs that are weak. Since the specific operators to be examined will not be announced in advance, the training of all operators will have to be reviewed and updated as necessary. Weaknesses noted in a requalification program will serve to focus NRC resources on those utilities that need improvements in their programs. This will result in improvements similar to those expected of a 100% NRC examination program with considerably fewer staff resources expended.

IV. Comprehensive Review of Examination Process

NRR presently has underway programs to determine the validity and reliability of the current examinations and to evaluate alternate methods for the examination process. Subjects to be covered include:

1. Validation of the written, oral and simulator examinations.
2. Further evaluation of the role of simulators in operator licensing to determine whether they should be required for all facilities.
3. Consideration of the use of non-NRC or industry examiners ("check-pilot concept").
4. Examination of the requalification/license renewal process.

Results from the review programs discussed above are expected to be available by mid 1983 and should provide the basis for changes to the current examination process and for defining the role of simulators in operator licensing.

Recommendation: That the Commission:

1. For power reactors with a plant-specific simulator, continue the requirements of a simulator licensing exam of all new and replacement candidates and require, for the NRC-administered requalification exam, only a simulator exam of at least 20% (per year) of the currently licensed operators. For power reactors without a plant-specific simulator, require an operating test (oral exams) in accordance with 10 C.F.R. § 55.23 as well as a written exam of all new and replacement candidates and require, for the NRC-administered requalification exams, oral and written exams of at least 20% (per year) of the currently licensed operators.
2. Note that under 10 C.F.R. § 55.11(b), the Commission may prescribe an operating test to determine that the candidate has learned to operate in a competent and safe manner. Up until the mid-1970's, this test generally included requesting the candidate to start up the reactor from a subcritical condition to a designated power level. Since then, actual plant manipulation has not been required for licensing exams in accordance with the approved staff guidance in NUREG-0094. For plants without a plant-specific simulator, this requirement could be re-instituted, depending upon results of the studies of the examination process presently underway.

3. Note that the staff-administered requalification examinations of the reactor operators and senior reactor operators will not commence until the schedule and content of the exams have been reviewed by the CRGR. A tentative schedule for administering those exams is at Enclosure 3.
4. Note that the staff will issue renewal licenses to candidates who have completed approved requalification programs and filed applications for renewal prior to June 1, 1982.
5. Note that the staff will submit a status of the program to improve the examination process, discussed under IV above, by July 1, 1983.

This program will include proposed changes to 10 CFR Part 55 to clarify the requirements for acceptability of simulators in the training and examination of reactor operators and senior reactor operators.

Scheduling: Prompt Commission action is requested so that requalification examinations can commence as soon as possible.



William J. Dircks
Executive Director
for Operations

Enclosure:

1. List of Operating Plant-Specific Simulators
2. Generic Letter to All Power Reactor Applicants and Licensees
3. Schedule for Requalification Audit Examinations at Nuclear Power Plants

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Note: Commissioner's comment should be provided directly to the Office of the Secretary by c.o.b. Wednesday, June 23, 1982.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Wednesday, June 16, 1982, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

ENCLOSURE ONE

ENCLOSURE 1
LIST OF OPERATING PLANT-SPECIFIC SIMULATORS

Browns Ferry 1/2/3
Dresden 2/3
Hatch 1/2
Indian Point 2/3
McGuire 1/2
Sequoyah
Surry 1/2
Susquehanna
Zion 1/2

ENCLOSURE TWO

Enclosure 2

To: All Power Reactor Applicants
and Licensees

Subject: Reactor Operator and Senior Reactor Operator Requalification
Examinations

Gentlemen:

This letter is to inform you that NRC-administered requalification examinations for licensed reactor operators and senior reactor operators will be scheduled at your facility prior to October 1, 1982.

In response to SECY 79-330E, "Qualifications of (Power) Reactor Operators", the Commission directed the staff to administer examinations as part of the requalification program for all licensees and applicants. This requirement was incorporated into TMI Task Action (NUREG 0660) Item I.A.3.1 and clarified in NUREG 0737. To implement this directive, the Operator Licensing Branch will be conducting requalification examinations at your facility at the same time that regularly scheduled initial or replacement examinations are given.

We plan to administer a written and an operating test to at least 20% of your licensed personnel per year. In this way all licensed personnel will be examined at least every five years and the impact on your requalification training program will be minimized. Detailed schedules will be worked out between OLB and your training staff in conjunction with your initial or replacement license examinations.

The requalification examinations will be conducted in a manner similar to the original license examination, with emphasis on procedures and operating experience. If your plant has a plant-specific simulator, the examinations will be conducted on that simulator. Otherwise, a written examination and a practical test will be conducted at your facility. Unsatisfactory performance will necessitate accelerated retraining, in weak areas. This is consistent with your in-house requalification program presently in place. Re-examination by OLB may be required in unsatisfactory areas. Renewal licenses will continue to be issued to licensed personnel who are enrolled in your approved requalification program, provided the NRC requalification examinations do not indicate significant weaknesses in that program.

It should be pointed out that this program does not represent a significant departure from the requalification program you already have in place. You are required to conduct examinations at the RO or SRO level as part of that program. We encourage you to submit training material and examination questions and answer keys to OLB for their use in developing examinations.

- 2 -

No response to this letter is required. You will be contacted by OLB to schedule requalification examinations. If you have any questions on this program, please contact Mr. Don H. Beckham at (301)492-4868.

Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

ENCLOSURE THREE

ENCLOSURE 3
PRELIMINARY SCHEDULE FOR REQUALIFICATION AUDIT EXAMINATIONS AT NUCLEAR POWER PLANTS

<u>Week Started</u>	<u>Plant Visited</u>
6/7/82	Ft. Calhoun Yankee Rowe
6/14/82	St. Lucie 1 Crystal River
6/21/82	Zion* Duane Arnold Nine Mile Pt. 1
6/28/82	TMI 1 Browns Ferry 1/2/3*
7/5/82	None
7/12/82	H. B. Robinson Indian Point 2*
7/19/82	North Anna 1/2 Connecticut Yankee Vermont Yankee
7/26/82	Surry 1/2* Kewaunee Hatch 1/2 Pilgrim 1
8/1/81	Farley Salem
8/8/82	Nine Mile Pt. 1 Brunswick 1/2 Indian Point 3*
8/15/82	None
8/22/82	Ft. Calhoun Oyster Creek McGuire 1*
8/29/82	St. Lucie 1 Nine Mile Pt. 1
9/6/82	ANO-2 Palisades Farley

*Plant-specific simulator exam.

9/13/82

SONGS 1
Ft. Calhoun
Cooper 1

9/20/82

Calvert Cliffs 1/2
ANO-1
Fitzpatrick 1

9/27/82

TMI 1
St. Lucie

Not Yet Scheduled
Rancho Seco (11/82)
Big Rock Pt.
Humboldt Bay
Quad Cities 1/2
Turkey Point