

April 8, 1997

FOR: The Commissioners

FROM: L. Joseph Callan /s/  
Executive Director for Operations

SUBJECT: PROPOSED RULE - INITIAL LICENSED OPERATOR EXAMINATION REQUIREMENTS

## PURPOSE:

To obtain Commission approval to publish a proposed rule in the Federal Register that would amend [10 CFR Part 55](#) to require power reactor facility licensees to prepare the entire initial examination for reactor operators (ROs) and senior reactor operators (SROs) and to proctor and grade the written portion of the examination. This proposed rule would also retain NRC's authority to prepare, administer, proctor, and grade these tests and examinations to maintain its proficiency in doing so and in the event that it loses confidence in a facility licensees' ability to prepare acceptable tests and examinations.

## BACKGROUND:

**CONTACT:** Siegfried Guenther, NRR  
(301) 415-1056  
Harry S. Tovmassian, RES  
(301) 415-6231

On March 24, 1995, SECY-95-075, "Proposed Changes to the NRC Operator Licensing Program," informed the Commission of the NRC staff's intent to revise the operator licensing program to allow greater participation by facility licensees and to eliminate contractor assistance in this area. In a staff requirements memorandum (SRM) dated April 18, 1995, the Commission approved the staff's proposal to initiate a transition process to revise the operator licensing program and directed the staff to carefully consider experience from pilot examinations before fully implementing the changes. On August 15, 1995, the NRC staff issued [Generic Letter \(GL\) 95-06](#), "Changes in the Operator Licensing Program," outlining the revised process for developing examinations and soliciting volunteers to participate in pilot examinations to evaluate and refine the methodology.

Between October 1, 1995, and April 5, 1996, the NRC staff reviewed and approved 22 operator licensing examinations that had been prepared by facility licensees in accordance with Revision 7 of NUREG-1021, "Operator Licensing Examiner Standards" (June 1994), as supplemented by guidance contained in GL 95-06. These examinations were then used to test 146 RO and SRO applicants.

The NRC staff documented the results of the pilot examinations in SECY-96-123, "Proposed Changes to the NRC Operator Licensing Program," and briefed the Commission on June 18, 1996. In an SRM dated July 23, 1996, the Commission directed the staff to prepare a rulemaking plan to justify the changes to 10 CFR Part 55 and to provide additional information regarding a number of issues related to the revised examination process.

On September 25, 1996, the NRC staff issued SECY-96-206, "Rulemaking Plan for Amendments to [10 CFR Part 55](#) To Change Licensed Operator Examination Requirements." The Commission approved the rulemaking plan in an SRM dated December 17, 1996.

## DISCUSSION:

Pursuant to the SRM of December 17, 1996, in February 1997, the NRC staff issued an interim version of Revision 8 of NUREG-1021, which has been retitled "Operator Licensing Examination Standards for Power Reactors." The NRC staff will implement the interim revision on a voluntary basis until the rulemaking is complete. NUREG-1021 was updated to incorporate lessons learned during the pilot examination program and will be further revised, as necessary, based on industry and public comments in response to the enclosed Federal Register notice. The NRC staff has also issued a supplement to GL 95-06 to inform power reactor facility licensees of the results of the pilot examination program and the NRC's decision to continue the pilot process on a voluntary basis using interim Revision 8 of NUREG-1021, while in parallel pursuing mandatory implementation by the industry.

As directed by the Commission, the Office of Nuclear Reactor Regulation (NRR) has continued to monitor the results of the facility-prepared examinations for indications that might dissuade the Commission from approving the proposed rulemaking. As an extension of the original pilot program, NRR has asked the NRC examiners to respond to a survey on various aspects of the revised examination process. Furthermore, as noted in SECY-96-206, NRR will continue to audit and review the level of knowledge and the level of difficulty of selected written examinations and operating tests.

Between August 19, 1996, when the NRC staff resumed conducting pilot-style examinations, and the end of December 1996, the staff reviewed, approved, and administered 12 examinations that were developed by facility licensees based on the guidance in GL 95-06. This raised the total number of examinations completed using the pilot process to 34, including the 22 examinations that were conducted under the original pilot program between October 1, 1995, and April 5, 1996. Facility-prepared examinations were administered to 84 RO applicants and 144 SRO applicants during the pilot program through December 31, 1996. The results of these examinations are summarized below; the power reactor licensing examination results for fiscal year 1995 are provided for comparison. The pass rates for the facility-prepared examinations administered did not vary significantly from those prepared by the NRC.

Power Reactor Examinations	Pass Rates					
	RO Written	RO Operating	RO Total	SRO Written	SRO Operating	SRO Total
Facility-Prepared Since October 1, 1995	93%	95%	88%	94%	96%	91%
Fiscal Year 1995	94%	98%	92%	95%	95%	92%

The most common problem identified by the NRC examiners regarding the facility-prepared examinations was that the level of knowledge and difficulty of the submitted examinations did not consistently discriminate at the appropriate level and that considerable effort was required to work with the facility licensee to revise the examinations to correct this condition. As noted in SECY-96-206, NUREG-1021 has been modified to establish a standard that at least half of the examination questions be written at the comprehension or analysis level. This criterion will take effect when Revision 8 of NUREG-1021 is implemented and should help improve the level of knowledge tested by the submitted examinations.

Although NUREG-1021 contains criteria that should help establish an appropriate level of difficulty for the examinations, the personal experience and judgment of the author and reviewer of the examination remain the most important factors in controlling the level of difficulty. Traditionally, an NRC or contract examiner established the level of difficulty of the examination. The facility licensee was given an opportunity to review the examination before it was administered. In most cases, the review with the facility licensee focused on technical issues which the NRC examiner and facility reviewer could easily resolve. On occasion, the facility reviewers have complained that an examination was too difficult. However reviewers seldom recommended changes that would increase the difficulty of the examination if it was perceived to be easier than normal. Under the revised examination process, the facility licensee would establish the level of difficulty of the examination. The NRC examiner would work with the facility author to make whatever changes are necessary to ensure that the examination discriminates at the appropriate level. Consequently, the facility-prepared examinations are generally more difficult to finalize because of the facility licensees' tendency to resist the NRC examiners' efforts to make the examinations more difficult. The revised examination process has significantly changed the focus of the examiners' job from ensuring the technical accuracy of examinations prepared by the NRC or its contractors to the much more demanding task of ensuring that the facility licensees maintain the level of difficulty of the examinations that they submit to the NRC for review and approval. Nevertheless, most NRC examiners who responded to the NRR survey continue to believe that the revised examination process is as effective as the traditional method.

Pursuant to its audit and review function, NRR has determined that 1 of the 12 pilot-style examinations conducted since resuming the program in August 1996 discriminated at a lower level than is currently the norm for NRC- or facility-prepared examinations. NRR concluded that the examination still provided an adequate basis for licensing the applicants but that the review conducted by the NRC Regional Office was weak and failed to identify and correct a number of test items that were too simplistic for use on a licensing examination. The region is implementing a corrective action plan, with oversight by NRR. Furthermore, in response to the SRM of December 17, 1996, NRR has issued a memorandum to the Regional Administrators emphasizing the importance of assigning adequate resources to carry out the operator licensing task, completing a thorough review of every facility-prepared examination, and not giving any examination that does not meet NRC standards for quality and level of difficulty. In closing, it should be noted that this type of problem is not new to the pilot examination process and that similar deficiencies have been noted in the past on examinations prepared by NRC examiners or contractors.

As noted in SECY-96-206, another problem that surfaced during the pilot examination program involved an unexplained increase in the number of applicants who appealed their examination failures. The staff has not questioned the applicants about their reasons for challenging the examination results, but it surmises that the pilot examination applicants may feel compelled to contest their failures when they perceive that their facility licensee is not sufficiently assertive in getting the NRC to delete questions or accept additional answers, which would reflect badly on the quality of the examination that the facility prepared. In an effort to address this possibility, the staff has recommended in Revision 8 of NUREG-1021 that facility licensees solicit and address concerns from the individual license applicants during the process of grading the written examinations. Another theory regarding the increase in appeals is unrelated to the pilot process and maintains that facility licensees have generally become more cost-conscious and less willing to give applicants a second chance to pass the NRC licensing examination, so the applicants have nothing to lose by filing an appeal. Regardless of the cause for the increase, NRR has revised the guidance in NUREG-1021 to afford the staff the option of resolving selected appeals internally without convening a panel of examiners.

#### COORDINATION:

The Office of the General Counsel has no legal objection. The Office of the Chief Financial Officer has no objection to the resource estimates contained in this paper. The Office of the Chief Information Officer concurs that there will be no information technology impacts. The ACRS and CRGR have been contacted and have deferred review until the public comments are available for final rulemaking.

#### RESOURCES:

Resources to develop this rulemaking are included in the current budget and are estimated to be 0.5 FTE. This proposed action would allow the staff to eliminate between \$3 million and \$4 million in contractor support for operator licensing program. The FY 1997 and FY 1998 budget request has been developed to be consistent with this proposal and reflects the anticipated reduction and elimination of contractor support for the operator licensing program. If the Commission decides not to amend 10 CFR Part 55 as proposed by the NRC staff, it would require agency resources to be reprogrammed

to increase the contract support for the operator licensing program or the direct examiner resources in each regional office to satisfy the demand for initial licensing examinations.

SCHEDULING:

The staff requests that the Commission provide its approval of this proposed rulemaking by April 18, 1997. This request is made to avoid a potential budgetary problem at the beginning of FY 1998. If the final rule is not effective by that time and a need arises for additional NRC prepared examinations in the interim, it is anticipated that NRR will need to divert staff from other planned activities or reprogram contractual resources to meet this obligation.

RECOMMENDATION:

That the Commission:

1. **Approve** the notice of proposed rulemaking ([Enclosure 1](#)) for publication in the Federal Register.
2. **Certify** that this rule, if promulgated, would not have a significant economic impact on a substantial number of small entities to satisfy the requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b).
3. **Determine** that the backfit rule [10 CFR 50.109](#) does not apply to this proposed rule.
4. **Determine** that neither an environmental impact statement nor an environmental assessment has been prepared because this proposed rule is eligible for a categorical exclusion as defined in [10 CFR 51.22\(c\)\(1\)](#).
5. **Note:**
  - a. This proposed rulemaking will be published in the Federal Register for a 75-day public comment period;
  - b. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification regarding economic impact on small entities and the reasons for it as required by the Regulatory Flexibility Act;
  - c. The proposed rule contains information collection requirements that are subject to review by the Office of Management and Budget (OMB);
  - d. A regulatory analysis has been prepared ([Enclosure 2](#));
  - e. The appropriate Congressional committees will be informed ([Enclosure 3](#));
  - f. A public announcement will be issued ([Enclosure 4](#)); and
  - g. Copies of the notice of proposed rulemaking will be distributed to all licensees. The notice will be sent to other interested parties upon request.

original /s/ by  
L. Joseph Callan  
Executive Director for Operations

Enclosures: As stated (4)

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ATTACHMENT 1

[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 55

RIN 3150-AF62

Initial Licensed Operator Examination Requirements

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to require all nuclear power facility licensees to prepare, proctor, and grade the written examinations and prepare the operating tests that the NRC currently uses to evaluate the competence of individuals applying for operator licenses at those plants. The proposed amendment would require the licensee to submit each examination and test for the NRC's

review and approval and would preserve the NRC's authority to prepare the examinations and tests, as necessary, if it loses confidence in a licensee's ability to prepare these examinations acceptably. In addition, the NRC would periodically invoke this authority in order to maintain the proficiency of its own license examiners.

**DATES:** Submit comments by [Insert the date 75 days after publication in the Federal Register]. Comments received after this date will be considered if it is practical to do so, but the Commission is able to assure consideration only for comments received on or before this date.

**ADDRESSES:** Comments may be sent to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Attn: Docketing and Service Branch. Hand deliver comments to 11545 Rockville Pike, Rockville, Maryland, between 7:30 am and 4:15 pm on Federal workdays. For information on submitting comments electronically, see the discussion under Electronic Access in the Supplementary Information section.

Single copies of this proposed rulemaking may be obtained by written request or telefax ((301) 415-2260) from Harry S. Tovmassian, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington DC 20555. Certain documents related to this rulemaking, including comments received, may be examined at the NRC Public Document Room, 2120 L Street NW (Lower Level), Washington, DC. These same documents may also be viewed and downloaded electronically via the Electronic Bulletin Board established by NRC for this rulemaking as indicated in the Supplementary Information section.

**FOR FURTHER INFORMATION CONTACT:** Harry S. Tovmassian, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 415-6231; e-mail hst@nrc.gov.

**SUPPLEMENTARY INFORMATION:**

- [Background](#)
- [Discussion](#)
- [Availability of Guidance Document for License Examination Preparation](#)
- [Proposed Rule](#)
- [Electronic Access](#)
- [Environmental Impact: Categorical Exclusion](#)
- [Paperwork Reduction Act Statement](#)
- [Public Protection Notification](#)
- [Regulatory Analysis](#)
- [Regulatory Flexibility Certification](#)
- [Backfit Analysis](#)
- [List of Subjects in 10 CFR Part 55](#)

**BACKGROUND**

Section 107 of the Atomic Energy Act (AEA) of 1954, as amended, requires the NRC to determine the qualifications of individuals applying for an operator license, to prescribe uniform conditions for licensing such individuals, and to issue licenses as appropriate. Pursuant to the AEA, [10 CFR Part 55](#) requires applicants for operator licenses to pass an examination that satisfies the basic content requirements specified in the regulation. Although neither the AEA nor Part 55 specifies who must prepare, proctor, or grade these examinations, the NRC has traditionally performed those tasks itself or through its contract examiners. In accordance with [10 CFR 170\(i\)](#), NRC staff and contractual costs are recovered from facility licensees who receive examination services. The NRC and its contract examiners have used the guidance in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," to prepare the initial operator licensing examinations. This document has been revised as experience has been acquired in preparing these examinations. The current version is designated Interim Revision 8.<sup>(1)</sup>

The intended modifications to [10 CFR Part 55](#) would allow facility licensees to have greater participation in the initial operator licensing process and enable the NRC to eliminate contractor assistance in this area. Between \$3 million and \$4 million in contractor support for the preparation and administration of the initial operator licensing examinations and for support of requalification program inspections would be eliminated. On April 18, 1995, the Commission approved the NRC staff's proposal to initiate a transition process to revise the operator licensing program and directed the NRC staff to carefully consider experience from pilot examinations before fully implementing the changes. On August 15, 1995, the NRC staff issued Generic Letter (GL) 95-06, "Changes in the Operator Licensing Program,"<sup>2</sup> outlining the revised examination development process and soliciting volunteers to participate in pilot examinations to evaluate and refine the methodology.

Between October 1, 1995, and April 5, 1996, the NRC staff reviewed and approved 22 operator licensing examinations, including both the written examinations and the operating tests, prepared by facility licensees as part of a pilot program. These examinations were prepared using the guidance in Revision 7 (Supplement 1) of NUREG-1021<sup>1</sup> and the additional guidance in GL 95-06.<sup>(2)</sup> These examinations were used to test 146 reactor operator (RO) and senior reactor operator (SRO) applicants.

The results of the pilot examinations were discussed in SECY-96-123, "Proposed Changes to the NRC Operator Licensing Program," dated June 10, 1996. Based on the results of the pilot program, the staff recommended that the Commission approve the implementation of the new examination process on a voluntary basis until rulemaking could be completed to require all power reactor facility licensees to prepare the entire initial examination for reactor operators and senior reactor operators and to proctor the written portion of the examination. On July 23, 1996, the Commission authorized the staff to continue the pilot examination process on a voluntary basis and requested the staff to develop a detailed rulemaking plan to justify the changes that may be necessary to [10 CFR Part 55](#). The Commission also directed the staff to address a number of additional items (e.g., pros, cons, and vulnerabilities) regarding the revised examination process to facilitate a Commission decision on whether to implement the revised process on an

industry-wide basis.

On September 25, 1996, the staff forwarded the requested rulemaking plan and a response to the additional items to the Commission in SECY-96-206, "Rulemaking Plan For Amendments to 10 CFR Part 55 to Change Licensed Operator Examination Requirements." On December 17, 1996, the Commission directed the staff to proceed with the proposed rulemaking.

With Commission approval, the staff resumed conducting pilot-style examinations on August 19, 1996, and by the end of December 1996 had reviewed, approved, and administered 12 additional examinations that were developed by facility licensees based on the guidance in GL 95-06. This raised the total number of examinations completed using the pilot process to 34 and the number of applicants tested to 84 ROs and 144 SROs.

#### DISCUSSION

The pilot program demonstrated that the revised process, using licensee developed examinations, can be both effective and efficient. Comments from the NRC staff and industry personnel who participated in the pilot examinations were generally favorable. The quality of the licensee-developed examinations (as modified by the NRC) was generally comparable to the examinations prepared by the NRC staff or its contractors. All of the licensee-developed examinations required some modifications subsequent to NRC review; however, several of these examinations required significant rework, indicating that some licensees did not fully understand the criteria for preparing examinations which meet NRC standards. With training and experience, it is expected that the industry would gain proficiency in preparing the examinations. The monitoring and assessment of this voluntary pilot program has demonstrated that facility licensee developed examinations, as modified by the NRC, are comparable in terms of their quality to those prepared by the NRC and its contract examiners under the existing process; therefore, the safe operation of the facility in question is in no way compromised. The fact that the pass/fail results on the 34 pilot examinations administered to the 84 ROs and 144 SROs through the end of December 1996 were comparable to the power reactor licensing examination results during Fiscal Year 1995, when all the examinations were prepared by the NRC or its contractors, supports this conclusion. The provisions of the proposed rule in 55.40(a)(2), which require NRC staff review and approval of facility licensee developed tests and examinations, should facilitate the monitoring of the quality of the submittals and the modification of those which do not meet NRC standards.

#### AVAILABILITY OF GUIDANCE DOCUMENT FOR LICENSE EXAMINATION PREPARATION

Although 10 CFR Part 55 does not specify who will prepare, administer, and grade the written examinations and operating tests for reactor operator and senior reactor operator licenses, the NRC or its contract examiners have traditionally performed these tasks. As a consequence of performing the tasks associated with preparing and administering the initial licensing examinations, the NRC has developed a substantial body of guidance, which has been published in various versions of NUREG-1021 to aid both NRC and its contract examiners. The latest version of NUREG-1021 (Interim Revision 8) incorporates the pilot examination criteria in GL 95-06, lessons learned during the pilot examinations, and a number of refinements prompted by the comments submitted in response to the Federal Register notice dated February 22, 1996 (61 FR 6869), which solicited public comments on the proposed NUREG changes. A copy of Interim Revision 8 of NUREG-1021 has been mailed to each facility licensee. Copies may be inspected and/or copied for a fee at the NRC's Public Document Room, 2120 L Street NW (Lower Level), Washington, DC. NUREG-1021 is also electronically available for downloading from the Internet at "<http://www.nrc.gov>." All interested parties are invited to comment on Interim Revision 8 of NUREG-1021 in addition to the proposed rule. These public comments will be addressed, and Revision 8 will be published as a final NUREG document.

The NRC plans to prepare, administer, and grade initial operator licensing examinations at least four times per year, using NUREG-1021 as guidance. Licensees would also be expected to use the guidance contained in NUREG-1021 to prepare the licensing examinations. The NRC staff would review and approve any deviations from this guidance. The NRC will not approve any deviation that would compromise its statutory responsibility of prescribing uniform conditions for the operator licensing examinations. Examples of unacceptable deviations include, but are not limited to, the use of essay questions in place of multiple choice questions and the administration of open book examinations.

#### PROPOSED RULE

This proposed regulation would add a new section, 55.40, "Implementation," to Subpart E of 10 CFR Part 55 which would require power reactor facility licensees to prepare the written examinations and operating tests, to submit them to the NRC for review and approval, and to proctor and grade the written examinations. These requirements would be contained in 55.40(a)(1), (2), and (3), respectively.

Each power reactor facility licensee would be required to prepare and submit the proposed examinations (including the written examination, the walk-through, and the dynamic simulator tests) to the NRC consistent with the guidance contained in NUREG-1021. The NRC staff would review the entire examination and direct whatever changes are necessary to ensure that adequate levels of quality, difficulty, and consistency are maintained. After the NRC staff reviews and approves an examination, the facility licensee would proctor and grade the written portion consistent with the guidance in NUREG-1021. The NRC staff would continue to independently administer and grade the operating tests, review and approve the written examination results, and make the final licensing decisions. The facility licensee would not conduct parallel operator evaluations during the dynamic simulator or the walk-through tests.

Pursuant to proposed requirements in 55.40(b), the NRC staff would maintain the authority to prepare the examinations and tests and to proctor and grade the site-specific written examinations. This proposed rule would allow NRC to maintain its staff capability to perform these activities. Also, if the NRC has reason to question a licensee's ability to prepare an acceptable examination, 55.40 (b) provides the NRC authority to prepare and administer the examinations and tests.

Paragraph (c) of 55.40 reasserts that the NRC would continue to prepare and administer the written examinations and operating tests at non-power reactor facilities. The NRC has taken this position because the non-power reactor community does not have an accreditation process for training and qualification or the resources to prepare the examinations. However, the process will be implemented using only NRC examiners, thereby allowing the elimination of all routine contract assistance in that area.

#### ELECTRONIC ACCESS

Comments may be submitted electronically, in either ASCII text or WordPerfect format (version 5.1 or later), by calling the NRC Electronic Bulletin Board (BBS) on FedWorld. The bulletin board may be accessed using a personal computer, a modem, and one of the commonly available communications software packages, or directly via Internet. Background documents on the rulemaking are also available, as practical, for downloading and viewing on the bulletin board.

If using a personal computer and modem, the NRC rulemaking subsystem on FedWorld can be accessed directly by dialing the toll free number (800) 303-9672. Communication software parameters should be set as follows: parity to none, data bits to 8, and stop bits to 1 (N,8,1). Using ANSI or VT-100 terminal emulation, the NRC rulemaking subsystem can then be accessed by selecting the "Rules Menu" option from the "NRC Main Menu." Users will find the "FedWorld Online User's Guides" particularly helpful. Many NRC subsystems and data bases also have a "Help/Information Center" option that is tailored to the particular subsystem.

The NRC subsystem on FedWorld can also be accessed by a direct dial phone number for the main FedWorld BBS, (703) 321-3339, or by using Telnet via Internet: fedworld.gov. If using (703) 321-3339 to contact FedWorld, the NRC subsystem will be accessed from the main FedWorld menu by selecting the "Regulatory, Government Administration and State Systems," then selecting "Regulatory Information Mall." At that point, a menu will be displayed that has an option "U.S. Nuclear Regulatory Commission" that will take you to the NRC Online main menu. The NRC Online area also can be accessed directly by typing "/go nrc" at a FedWorld command line. If you access NRC from FedWorld's main menu, you may return to FedWorld by selecting the "Return to FedWorld" option from the NRC Online Main Menu. However, if you access NRC at FedWorld by using NRC's toll-free number, you will have full access to all NRC systems, but you will not have access to the main FedWorld system.

If you contact FedWorld using Telnet, you will see the NRC area and menus, including the Rules Menu. Although you will be able to download documents and leave messages, you will not be able to write comments or upload files (comments). If you contact FedWorld using FTP, all files can be accessed and downloaded but uploads are not allowed; all you will see is a list of files without descriptions (normal Gopher look). An index file listing all files within a subdirectory, with descriptions, is available. There is a 15-minute time limit for FTP access.

Although FedWorld also can be accessed through the World Wide Web, like FTP that mode only provides access for downloading files and does not display the NRC Rules Menu.

For more information on NRC bulletin boards call Mr. Arthur Davis, Systems Integration and Development Branch, NRC, Washington, DC 20555, telephone (301) 415-5780; e-mail axd3@nrc.gov.

#### ENVIRONMENTAL IMPACT: CATEGORICAL EXCLUSION

The NRC has determined that this proposed rule is the type of action described as a categorical exclusion in 10 CFR 51.22(c)(1). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this proposed regulation.

#### PAPERWORK REDUCTION ACT STATEMENT

This proposed rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq). This rule has been submitted to the Office of Management and Budget for review and approval of the information collection requirements.

The public reporting burden for this collection of information is estimated to average 500 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information (i.e., preparing the examinations). The U. S. Nuclear Regulatory Commission is seeking public comment on the potential impact of the collection of information contained in the proposed rule and on the following issues:

1. Is the proposed collection of information necessary for the proper performance of the functions of the NRC, including whether the information will have practical utility?
2. Is the estimate of burden accurate?
3. Is there a way to enhance the quality, utility, and clarity of the information to be collected?
4. How can the burden of the collection of information be minimized, including the use of automated collection techniques?

Send comments on any aspect of this proposed collection of information, including suggestions for reducing the burden, to the Information and Records Management Branch (T-6F-33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail at bjs1@nrc.gov; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0018, and 3150-0101), Office of Management and Budget, Washington, DC 20503.

Comments to OMB on the collections of information or on the above issues should be submitted by [insert date 30 days after publication in the Federal Register). Comments received after this date will be considered if it is practical to do so, but assurance of consideration cannot be given to comments received after this date.

#### PUBLIC PROTECTION NOTIFICATION

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

#### REGULATORY ANALYSIS

The Commission has prepared a draft regulatory analysis on this proposed regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. The draft analysis is available for inspection in the NRC Public Document Room, 2120 L Street NW (Lower Level), Washington, DC. Single copies of the analysis may be obtained from Harry S. Tovmassian at (301) 415-6231.

The Commission requests public comment on the draft regulatory analysis. Comments on the draft analysis may be submitted to the NRC as indicated under the ADDRESSES heading.

#### REGULATORY FLEXIBILITY CERTIFICATION

In accordance with the Regulatory Flexibility Act of 1980, (5 U.S.C. 605(b)), the Commission certifies that this rule will not, if promulgated, have a significant economic impact on a substantial number of small entities. This proposed rule affects only the licensing and operation of nuclear power plants. The companies that own these plants do not fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the Small Business Size Standards set out in regulations issued by the Small Business Administration at 13 CFR Part 121.

#### BACKFIT ANALYSIS

The Commission has concluded that requiring the facility licensees to prepare the initial operator licensing examinations is not a backfit pursuant to 10 CFR 50.109.

The proposed change does not result in a modification of or an addition to systems, structures, components, or the design of a facility. The change does not affect the design approval or manufacturing license for a facility. The procedures required to design or operate a facility would not be affected by the proposed change. The proposed change would require each nuclear power plant licensee to develop the tests that are used to qualify, in accordance with the requirements of 10 CFR Part 55, those nuclear power plant operators whom the nuclear power plant licensee wishes to employ. Development of such tests are not considered to be "procedures...required to...operate a facility." Any procedure necessary to develop the test would not be useful in actually "operating" the facility, even if one broadly interprets "operating" as including any action necessary to comply with the Commission's regulations with respect to operation. The organization required to design or operate a facility would not be affected because all facility licensees already have a training staff to train and evaluate applicants for operator licenses and to train other members of the plant staff, as required by 10 CFR Part 55 and by 10 CFR 50.120.

#### LIST OF SUBJECTS IN 10 CFR PART 55

Criminal penalties, Manpower training programs, Nuclear power plants and reactors, Reporting and recordkeeping requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 553; the NRC proposes to adopt the following amendments to 10 CFR Part 55.

#### PART 55--OPERATOR'S LICENSES

1.The authority citation for Part 55 continues to read as follows:

AUTHORITY: Secs. 107, 161, 182, 68 Stat. 939, 948, 953 , as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2137, 2201, 2232, 2282); secs. 201, as amended, 202, 88 Stat. 1242, as amended, 1244 (42 U.S.C. 5841, 5842).

Sections 55.41, 55.43, 55.45, and 55.59 also issued under sec. 306, Pub. L. 97-425, 96 Stat. 2262 (42 U.S.C. 10226). Section 55.61 also issued under secs. 186, 187, 68 Stat. 955 (42 U.S.C. 2236, 2237).

2. In 55.8 paragraph (b) is revised to read as follows:

##### **55.8 Information Collection Requirements; OMB Approval.**

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(b) The approved information collection requirements contained in this part appear in 55.40, 55.45, 55.53, and 55.59.

3. A new 55.40 is added to read as follows:

##### **55.40 Implementation.**

(a) Power reactor facility licensees shall --

- (1) Prepare the required site-specific written examinations and operating tests;
- (2) Submit the written examinations and operating tests to the Commission for review and approval; and
- (3) Proctor and grade the NRC-approved site-specific written examinations.

(b) In lieu of requiring a specific power reactor facility licensee to prepare the examinations and tests or to proctor and grade the site-specific written examinations, the Commission may elect to perform those tasks.

(c) The Commission will prepare and administer the written examinations and operating tests at non-power reactor facilities.

Dated at Rockville, Maryland, this \_\_\_\_ day of \_\_\_\_\_, 1997.

For the Nuclear Regulatory Commission.

\_\_\_\_\_  
John C. Hoyle,

**PROPOSED REGULATORY ANALYSIS FOR RULEMAKING ON REQUIREMENTS  
FOR INITIAL LICENSED OPERATOR EXAMINATIONS**

- 1. Statement of Problem and Objective
- 2. Background
- 3. Identification and Preliminary Analysis of Alternative Approaches
  - 3.1 Alternative 1 - Take No Action
  - 3.2 Alternative 2 - Provide Regulatory Guidance
  - 3.3 Alternative 3 - Amend 10 CFR Part 55
- 4. Regulatory Impact - Qualitative Costs and Benefits
- 5. Decision Rationale
- 6. Implementation
  - 6.1 Schedule

#### 1. STATEMENT OF PROBLEM AND OBJECTIVE

Section 107 of the Atomic Energy Act of 1954 (AEA), as amended, requires the NRC to determine the qualifications of individuals applying for an operator license, to prescribe uniform conditions for licensing such individuals, and to issue licenses as appropriate. To implement this statutory mandate, operator license applicants are required by [10 CFR Part 55](#), "Operators' Licenses," to pass a written examination and an operating test. The written examination must satisfy the basic content requirements that are specified in the regulation. Although neither the AEA nor Part 55 specifies who must prepare, administer, or grade these examinations, the NRC has traditionally performed those tasks itself or through its contract examiners. Because this has been a costly process in terms of NRC staff manpower and contractual support, the NRC staff has evaluated an alternative approach which would require nuclear power plant licensees to prepare the examinations and submit them to the NRC for review and approval. This approach has been tested and assessed through a voluntary pilot program and has been deemed by the NRC staff to be feasible. The monitoring and assessment of this voluntary pilot program has demonstrated that facility licensee prepared examinations, as modified by the NRC, are comparable in terms of their quality to those prepared by the NRC and its contract examiners under the existing process, therefore, the safe operation of the facility in question is not compromised. Thus, the NRC is proposing to amend [10 CFR Part 55](#) to require nuclear power plant licensees to prepare these examinations and has published Interim Revision 8 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," as guidance. This proposed action would eliminate the need for \$3 million to \$4 million in contractual support to the NRC. The FY 1997 and FY 1998 budget request is consistent with this proposal and reflects the elimination of contract support for the operator licensing program.

The NRC staff's primary objective in shifting responsibility for preparing the initial operator licensing examinations to the power reactor facility licensees is to reduce the amount of NRC resources used in this area. This change in policy is part of the NRC's continuing effort to streamline the functions of the Federal Government consistent with the Administration's initiatives and to accommodate NRC resource reductions. Pursuant to the provisions of the AEA, the NRC will ensure that the quality of the operator licensing examinations, and the effectiveness of the operator licensing program are maintained. These changes are not intended to affect the format, content, length, and level of difficulty of the examinations, thereby minimizing the impact of the rule change on the operator license applicants.

#### 2. BACKGROUND

[10 CFR 55.31\(a\)\(3\)](#) requires the applicant for an operator's license to submit a written request from an authorized representative of the facility licensee that the written examination and the operating test be administered to the applicant. Furthermore, [10 CFR 55.33\(a\)\(2\)](#) states that the Commission will approve an initial application for a license if it finds that the applicant has passed the requisite written examination and operating test in accordance with [55.41](#) and [55.45](#) or [55.43](#) and [55.45](#). These written examinations and operating tests determine whether the applicant for an operator's license has learned to operate a facility competently and safely, and additionally, in the case of a senior operator, whether the applicant has learned to direct the licensed activities of licensed operators competently and safely.

As stated above, the NRC or its contract examiners have traditionally prepared, administered, and graded the written examinations and operating tests. In recent years, the NRC has spent between \$3 million and \$4 million per year to retain contractor support for the operator licensing program. In accordance with [10 CFR 170.12\(i\)](#), the NRC staff and contractual costs are recovered from the facility licensees that receive examination services.

The proposed rule would change the current practice in which the NRC prepares and proctors the initial examination for reactor operators and senior reactor operators and, instead, would require each power reactor facility licensee to prepare the entire examination and proctor the written portion of the initial examination. This action does not constitute a backfit pursuant to [10 CFR 50.109](#).

#### 3. IDENTIFICATION AND PRELIMINARY ANALYSIS OF ALTERNATIVE APPROACHES

##### 3.1 ALTERNATIVE 1 - TAKE NO ACTION

As discussed in SECY-96-206, the proposed change would allow the NRC staff to eliminate between \$3 million and \$4 million in contractor support for examination preparation and administration and for inspection support. The budget request for Fiscal Years (FYs) 1997 and 1998 is consistent with this proposal and reflects the current reduction (due to savings made possible by the ongoing pilot program) and eventual elimination of contract support. If the Commission decides not to amend 10 CFR Part 55 as proposed by the NRC staff, it would require agency resources to be reprogrammed to increase the contract support for the operator licensing program or the direct examiner resources in each regional office to satisfy the demand for initial licensing examinations and to conduct the licensed operator requalification inspections.

### 3.2 ALTERNATIVE 2 - PROVIDE REGULATORY GUIDANCE

This alternative was rejected because the NRC staff considers implementation of the new process on a voluntary basis alone unworkable over the long term. If the NRC does not require facility licensees to prepare the initial operator licensing examinations, there would be no guarantee that each licensee would elect to prepare these examinations. With the elimination of contractor support and the increased uncertainty about examination quality, the NRC staff may no longer have sufficient examiner resources to prepare examinations consistent with the scheduling needs of facility licensees. This resource problem is further compounded by the unpredictable nature of the examination workload and by other unanticipated demands on the examiner work force, such as the increase in the number of examination appeals during the pilot examination program.

### 3.3 ALTERNATIVE 3 - AMEND 10 CFR PART 55

This alternative would require every power reactor facility licensee to prepare the initial operator licensing examinations and to proctor the written portion of the examination. This would enable the NRC to eliminate the use of contractors in the operator licensing program (with the exception of the generic fundamentals examinations) and result in an estimated savings of \$3 million to \$4 million per year. Under this alternative, the NRC staff would undertake other tasks that are currently performed by contractors, including examination administration and inspections of licensee administration of requalification programs.

## 4. REGULATORY IMPACT - QUALITATIVE COSTS AND BENEFITS

### Facility Licensees

The NRC currently depends on NRC employees and contractors to prepare and administer the initial operator licensing examinations required by [10 CFR Part 55](#). NRC contractors also assist in the inspection of facility licensee administration of requalification examinations. In accordance with [10 CFR 170.12\(i\)](#), the cost of NRC time spent and any related contractual costs are billed directly to the facility licensees that receive the examination services.

Under the proposed change, each power reactor facility licensee would assume responsibility for preparing the site-specific initial operator licensing examinations at its facilities, thereby allowing the NRC to discontinue the use of contract examiners for that purpose. Facility licensees would be expected to prepare and submit proposed examinations (including the written examination, the walk-through, and the dynamic simulator tests) to the NRC based on the guidance contained in NUREG-1021.

The training staffs at power reactor facilities already have the basic knowledge, skills, and abilities necessary to evaluate operator performance and develop test items for the initial licensing examination. During the mid-to-late-1980s, the industry's emphasis in the training area increased significantly. All power reactor licensees established formal training programs that were based on a systems approach to training (SAT) and accredited by the National Academy for Nuclear Training. Pursuant to [10 CFR 50.120](#) and [55.4](#), SAT-based training programs must include the evaluation of the trainee's mastery of training objectives. NRC inspections of licensee requalification programs for licensed operators have also found that training staffs generally possess the skills needed to evaluate the trainee's knowledge.

The NRC would review and approve the facility prepared examinations consistent with the guidance provided in NUREG-1021. However, the NRC will not approve any examination which would have the effect of compromising its statutory responsibility of prescribing uniform conditions for these examinations. Examples of unacceptable deviations include, but may not be limited to, the use of essay questions in lieu of multiple choice and the administration of open- rather than closed-book examinations. After the NRC reviews and approves an examination, the facility licensee would proctor and grade the written portion based on the guidance contained in NUREG-1021. The NRC staff will continue to administer and grade the operating tests, review and approve the written examination results recommended by the facility licensee, and make the final licensing decisions.

Feedback from the pilot examination program indicates that the average time spent by a facility licensee to prepare the written examination and operating tests was approximately 600 to 800 staff-hours. A portion of that time (about 200 hours) would have been spent reviewing and assisting with the administration of NRC-developed examinations under the process now in place and should be subtracted from the total. The resulting average burden of approximately 400 to 600 staff-hours was somewhat higher than the 400 hours that NRC staff or its contract examiners typically take to prepare an examination. The extra burden is generally attributable to the facility licensees' lack of familiarity with specific NRC examination expectations and to the additional administrative requirements, such as documenting the source of the examination questions, that are required to maintain examination integrity. It should be noted that some of the facility licensees that participated in the pilot program expended less time than is commonly used by NRC contractors to prepare the examinations. Furthermore, in a few cases, the examinations that facility licensees submitted for review and approval were, in the judgment of NRC chief examiners, as good as or better than those prepared by an NRC contractor. The NRC staff expects that most facility licensees will eventually be able to prepare quality examinations in less time than the NRC or a contractor because the facility employees have more detailed knowledge of their facility and easier access to the reference materials required to prepare the examinations.

The fact that contract examiners will not be used by the NRC in the revised examination process will eliminate the need for duplicate sets of reference materials to be provided to the NRC staff and to its contractors by facility licensees. Feedback from the industry in response to the NRC staff's solicitation of public comments on the draft revision of NUREG-1021 indicated that facility licensees had been spending an additional 80 to 160 hours to prepare and ship the reference materials under the existing examination process. Under the proposed process, the facility licensee would generally submit only materials which are needed to verify the accuracy of the examination questions. This is considered to be a significant reduction but has not been quantified in this analysis.

The additional burden of having to prepare the site-specific initial operator licensing examinations is expected to be offset by reductions in [10 CFR Part 55](#) review fees billed to the facility licensees pursuant to [10 CFR 170.12\(i\)](#). Each facility licensee would be billed only for the time that the NRC staff spends to review the examination prepared by the facility licensee and to rework the examination, as necessary, to bring it up to NRC standards. Although several of the draft pilot examinations were of poor quality and took the NRC staff more time than expected to review and rework, the staff believes that additional cost reductions would be realized as facility licensees gain experience with the NRC examination requirements and the quality of

the facility developed examinations improves.

This rule change would give facility licensees more control over the cost of their examination services because they would be in a position to manage the quality of the product that is submitted to the NRC. The higher the quality of the examination that the facility licensee submits, the lower the resulting charges. Under the existing examination process, facility licensees are responsible for the entire cost of preparing the examination, even if the NRC contractor's submittal is of poor quality and requires significant rework by the NRC staff before it can be administered.

Facility licensees would have the option of retaining the services of a contractor to prepare the license examination as the NRC often does under the current examination process. The NRC staff understands that NRC's examination contractors have expressed an interest in providing their services directly to facility licensees.

In summary, the present system for developing licensing examinations relies primarily on NRC contractors to develop the examinations, with the cost then billed to the licensees. These particular examinations are highly plant-specific, requiring time for familiarization with plant procedures and equipment, and for the collection and transfer of information (library of procedures and documents) to enable this process to occur. Hence, to appropriately prepare and administer the examinations, the NRC staff and contractors must learn the details of the operation of each specific plant. In effect, this necessitates that the examining staff duplicate expertise already resident at each site simply to prepare the examinations. Clearly, efficiency could be gained if the NRC efforts were focused on the appropriate scope and depth of the examinations, leaving the preparation of the detailed material to the licensee. The proposed rule would eliminate these inefficiencies by placing the responsibility for preparing the examinations upon each licensee. Licensees would still have the option of using contractor assistance in preparing the examinations. There may be an initial period of inefficiency while licensees learn the process for preparing these examinations. However, this period is expected to be short as the practice of relying on licensee personnel or their contractors to prepare this highly technical, plant-specific examination becomes routine. It is expected that with experience the facility licensee would be preparing quality examinations requiring less NRC review resources to be used with a larger potential savings to the licensee.

An accurate cost savings to the industry is difficult to quantify because the NRC does not have a basis to estimate the magnitude of the efficiencies that might be gained by having the licensee and/or its contractors prepare the examinations. However, if it is assumed that the facility licensees can prepare the examinations in the same amount of time that the NRC currently allots its contract examiners to perform the task (i.e., approximately 400 hours) and that the time would be equally distributed between contractors and the licensee's own in-house staff at an incremental cost of \$120 per hour and \$60 per hour, respectively, it would translate into an annual industry burden of \$2.16 million, assuming 60 examinations per year. This would be roughly the same cost if the NRC were to prepare the examinations relying equally on in-house and contractor staff efforts. Assuming that the facility licensees will be able to avail themselves of the aforementioned efficiencies and that a 10% reduction in the burden is attained, there would be a small industry-wide savings of about \$0.22 million per year. The staff also anticipates that a small savings may accrue because of the reduced need for the facility licensee to prepare and ship a large amount of reference materials to the NRC to enable the Commission and/or its contractors to prepare the examinations.

### **Operator License Applicants**

The format, content, length, and level of difficulty of the examinations would remain unchanged, thereby minimizing the impact of the rule change on the operator license applicants. NRC examiners would continue to review and approve every written examination and operating test before it is administered. The examiners would work with the facility licensee's staff to modify the submitted examinations, as necessary, based on the guidance contained in NUREG-1021 in order to maintain consistency with prior licensing examinations at both that facility as well as among all other facilities.

If the NRC decides to prepare the examination in lieu of accepting an examination prepared by the facility licensee, the NRC examiners would use the same procedures and guidance (i.e., NUREG-1021) that the facility licensee would have used to prepare the examination.

### **NRC Staff**

As noted in SECY-96-123, the NRC examiners required an average of about 350 hours to review, prepare for, administer, grade, and document each of the 22 pilot examinations. Assuming the same resource utilization rate and a stable examination workload, the NRC staff should be able to implement the new examination process and the requalification inspection program at all power reactor facilities with the same level of direct NRC resources as is currently allotted to the operator licensing program; no contractor support should be required (with the exception of the generic fundamentals examinations).

The variable nature of the examination workload was evident during the pilot examination program, when the number of examination appeals increased unexpectedly, thereby placing a significant burden on the examiner work force to review and resolve the applicants' concerns. Before starting the pilot examination transition process, the examiners' workload was shared approximately equally between the NRC staff and its contractors. Therefore, discontinuance of operator licensing contracts could limit the NRC staff's ability to assign personnel to meet peaks in facility licensee requests for examinations. The impact of the loss of examiners due to reassignments, transfers, promotions, and other personnel actions will have a greater impact without the contract examiners available to offset the loss. Furthermore, if the quality of an examination prepared by a facility licensee is significantly deficient, it will be difficult to predict the amount of time necessary to review or modify the examination so that it meets NRC standards. This was the case with several of the pilot examinations, and the staff expects that this problem may expand as more facility-prepared examinations are submitted for NRC review. This uncertainty in the examination review process could increase the risk of broken examination commitments.

To address this issue, the NRC plans to have a larger pool of examiners available at each regional office. The exact number of examiners has not yet been determined and will vary from region to region depending on the number and major type of reactors involved. However, it is anticipated that an approximate increase of 10-20 percent in the number of examiners may be necessary. This would be accomplished by training other staff members performing inspection activities to also be qualified as examiners. As mentioned above, although the overall expenditure of NRC resources in this area

should remain about the same, having additional qualified examiners would help to alleviate peaks in scheduling.

This rulemaking is expected to take approximately 0.5 NRC staff years to complete and needs no contractor support.

## 5. DECISION RATIONALE

The proposed amendments to [10 CFR Part 55](#) would require power reactor facility licensees to prepare the entire initial operator licensing examinations and proctor and grade the written portion of the examinations. The qualitative assessment of costs and benefits discussed above, leads the NRC to the conclusion that the overall impact of the rulemaking would not significantly increase licensee costs and could result in a savings to licensees over time as they become more familiar with the NRC examination guidelines. The improvements in efficiency would be primarily due to the facility employees' better understanding of the plant design and operating characteristics and their ready access to the reference materials required to prepare and validate the examinations. Based on the fact that this action has the potential to provide a cost savings to facility licensees as they become proficient in preparing the examinations, has negligible impact upon operator license applicants, provides a substantial cost savings to the NRC, and has no effect on safety, Alternative 3 has been selected as the preferred alternative.

## 6. IMPLEMENTATION

### 6.1 SCHEDULE

No implementation problems are expected. No effect on other schedules is anticipated.

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ATTACHMENT 3

The Honorable Dan Schaefer, Chairman  
Subcommittee on Energy and Power  
Committee on Commerce  
United States House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

The NRC has sent the enclosed proposed amendments to the Commission's rules in [10 CFR Part 55](#) to the Office of the Federal Register for publication. This rulemaking, if promulgated, would require facility licensees to prepare the entire initial examination for reactor operators and senior reactor operators and to proctor and grade the written portion of the examination. Facility licensees would be required to submit the examinations and tests to the NRC for review and approval. This rulemaking would preserve the NRC's authority to prepare the examinations and tests, as necessary. Historically, the NRC has spent between \$3 million and \$4 million annually on contractor support for the operator licensing program.

Section 107 of the Atomic Energy Act of 1954 (AEA), as amended, requires the NRC to determine the qualifications of individuals applying for an operator license, to prescribe uniform conditions for licensing such individuals, and to issue licenses as appropriate. Operator license applicants are required by [10 CFR Part 55](#), "Operators' Licenses," to pass an examination satisfying the basic content requirements that are also specified in the regulation. Although the AEA is not specific as to who will prepare and administer the examination, the NRC has traditionally performed these functions through its staff or contract examiners.

Sincerely,  
Dennis K. Rathbun, Director  
Office of Congressional Affairs

Enclosure: Federal Register Notice

cc: Representative Ralph Hall

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The Honorable James M. Inhofe, Chairman  
Subcommittee on Clean Air, Wetlands, Private  
Property and Nuclear Safety  
Committee on Environment and Public Works  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

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Section 107 of the Atomic Energy Act of 1954 (AEA), as amended, requires the NRC to determine the qualifications of individuals applying for an operator license, to prescribe uniform conditions for licensing such individuals, and to issue licenses as appropriate. Operator license applicants are

required by 10 CFR Part 55, "Operators' Licenses," to pass an examination satisfying the basic content requirements that are also specified in the regulation. Although the AEA is not specific as to who will prepare and administer the examination, the NRC has traditionally performed these functions through its staff or contract examiners.

Sincerely,  
Dennis K. Rathbun, Director  
Office of Congressional Affairs

Enclosure: Federal Register Notice

cc: Senator Bob Graham

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ATTACHMENT 4

**COMMISSION PUBLISHES PROPOSED RULE FOR UTILITY ROLE  
IN INITIAL REACTOR OPERATOR LICENSE EXAMINATIONS**

The Nuclear Regulatory Commission has published a proposed rule in the Federal Register which would require that all nuclear power plant licensees prepare, proctor, and grade their initial written reactor operator license examinations and prepare their operating tests subject to NRC approval. Until a final rule is adopted, applicants for operator licenses will continue to be examined by using either NRC-prepared tests or those prepared by utilities participating voluntarily in an NRC-supervised pilot program begun in 1995.

Reactor operator applicants seeking a license to manipulate the controls of a nuclear power plant must pass both a comprehensive, site-specific multiple-choice, written examination and a practical, hands-on operating test. The generic fundamentals examination, a separate written test that each applicant must pass to be considered for the site-specific license examination, will continue to be written and administered by the NRC.

All examinations drafted by utilities would be subject to review, modification, and approval by NRC examiners before the tests are given. If the submitted test or examination fails to meet NRC's quality standards, the NRC would have the option of preparing the test or examination in lieu of accepting or modifying one prepared by a utility. The NRC will continue to administer and grade the operating portion of the test, including a control room simulator examination and a one-on-one demonstration of specific operating tasks.

In order for the examinations to be approved by the NRC, they must comply with detailed NRC guidance which deals with matters such as the appropriate level of knowledge and difficulty, maintenance of examination security, and restrictions on test preparation by those significantly involved in training the license applicants. "Operator Licensing Examination Standards for Power Reactors" (NUREG-1021) has been revised as guidance for implementation of the new process.

After the revised licensing examination process has become fully operational, the NRC staff will prepare at least one examination annually in each of the agency's four regions to ensure that proficiency in examination writing is maintained and to serve as a quality check on the process.

Historically, either NRC staff examiners or NRC contractors have prepared and administered all operator license tests. In April 1995, the Commission approved an NRC staff proposal to begin a pilot program in which nuclear power plant licensees would prepare the tests under NRC oversight. The Commission took this action in recognition of the substantial improvements in industry training programs, to make the operator licensing program more efficient, and to realize budgetary savings.

The NRC staff solicited volunteers for a pilot program in a letter sent to all nuclear utilities in August 1995 and launched the program 2 months later. Between October 1995 and April 1996, the NRC staff reviewed and approved 22 operator licensing examinations prepared by utilities in accordance with published NRC guidance. These examinations were used to test 146 applicants for reactor operator and senior reactor operator licenses.

Based on information provided in an NRC staff briefing in June 1996 and the rulemaking plan in drafted September 1996, the Commission authorized continuation of the pilot program on a voluntary basis in December 1996 to provide time for the rulemaking process to be completed.

Historically the NRC has spent between \$3 million and \$4 million annually on contractor support for the operator licensing program. Licensing of operators for research and test reactors who will continue to be examined by the NRC would be unaffected by this proposed rule. The present system whereby utilities prepare and administer requalification examinations to licensed operators as part of an NRC-approved training program would also be unchanged.

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1. Copies are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW., Washington, DC 20555; the PDR's mailing address is Mail Stop LL-6; telephone (202) 634-3273; fax (202) 634-3343. Interim Revision 8 is also available for downloading from the Internet at "<http://www.nrc.gov>."

2. Copies are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW., Washington, DC 20555; the PDR's mailing address is Mail Stop LL-6; telephone (202) 634-3273; fax (202) 634-3343.