



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

To EDO 12/21
"AE39-2"
"PDR"

NOV 23 1992

MEMORANDUM FOR: James M. Taylor
Executive Director for Operations

FROM: Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

SUBJECT: PROPOSED AMENDMENTS TO 10 CFR PART 55 ON RENEWAL OF LICENSES
AND REQUALIFICATION REQUIREMENTS FOR LICENSED OPERATORS

Enclosed for your signature is a Commission paper related to the proposed amendments to 10 CFR Part 55, "Operator's Licenses." The proposed rule change and its associated regulatory analysis are Enclosures A and B of this Commission paper. Enclosures C and D contain the draft public announcement and the congressional letters respectively.

The proposed action to amend 10 CFR Part 55 will:

1. delete the requirement that each licensed individual pass an NRC-administered requalification examination during the term of his or her license;
2. require that facility licensees submit to the NRC their annual requalification operating tests and comprehensive requalification written examinations at least 30 days prior to the conduct of these tests and examinations, and
3. include facility licensees in the "Scope" of Part 55.

The rule as proposed will improve operational safety at each facility by redirecting NRC resources to inspect and oversee facility requalification programs rather than conducting requalification examinations, while reducing both licensee and NRC costs to administer the program.

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As part of development of the proposed rule, the CRGR was briefed on October 6, 1992, and the ACRS was briefed on October 9, 1992. Comments provided at these meetings have been addressed by the staff in preparation of this proposed rule. The enclosed proposed rule change and the regulatory analysis have been concurred in by the Offices of NRR, OE, OA, IRM, OC, and RES. OGC has no legal objection.



Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

Enclosure:
Commission Paper w/atts.

For: The Commissioners

From: James M. Taylor
Executive Director for Operations

Subject: PROPOSED AMENDMENTS TO 10 CFR PART 55 ON RENEWAL OF LICENSES
AND REQUALIFICATION REQUIREMENTS FOR LICENSED OPERATORS

Purpose: To obtain Commission approval for publication of the
proposed amendments.

Background: Section 306 of the Nuclear Waste Policy Act (NWPA) of 1982 directed the NRC to promulgate regulations or other appropriate guidance to establish "simulator training requirements . . . and . . . requirements governing NRC administration of requalification examinations." On May 26, 1987, the NRC amended 10 CFR Part 55 to require each licensed operator to pass a comprehensive requalification written examination and an operating test administered by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal.

At the time the regulation was amended, the Commission did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the Commission's expectations. The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. The new aspects included: 1) changing from a 2-year to a 6-year license term resulting in license renewal applications being submitted for NRC review much less frequently; 2) requiring

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operating tests on simulators when most of the industry's simulators were either new or still under construction; and 3) permitting requalification programs to be based on a systems approach to training when the industry had not implemented the process for accrediting these programs. Therefore, the Commission determined that during the term of a 6-year license, the staff would conduct individual operator requalification examinations for the purpose of license renewal. As a result of conducting these examinations, the staff has determined that the NRC examiners are largely duplicating tasks already required of, and routinely performed by, the facility licensees.

The staff revised its requalification examination procedures in 1988 to focus on performance-based evaluation criteria that closely paralleled the training and evaluation process used for a systems-approach-to-training based training program. This revision to the NRC requalification examination process enabled the staff to conduct comprehensive examinations for the purpose of renewing an individual's license and, at the same time, use the results of the examinations to determine the adequacy of the facility licensee's requalification training program.

In SECY-90-235, "NRC Recognition of Good Performance by Power Reactor Licensees," dated July 2, 1990, the staff proposed a pilot program that would recognize good performance at facilities that received two successive satisfactory ratings of the operator license renewal program. The staff informed the Commission in SECY-90-235 that it would make recommendations to the Commission concerning rulemaking to permanently effect a change to allow operators to renew their licenses under requalification examinations that the NRC would audit.

Since the NRC began its requalification examination program, the facility program and individual pass rates have improved from 81 to 90 percent and from 83 to 91 percent, respectively, through fiscal year 1991. The staff has also observed a general improvement in the quality of the facility licensees' testing materials and in the performance of their operating test evaluators. Of the first 79 program evaluations conducted, ten (10) programs were evaluated as unsatisfactory. The staff issued information notice IN-90-54, dated August 28, 1990, to describe the technical deficiencies that contributed to the first 10 program failures. Since that time only six additional programs, of 120 subsequent program evaluations, have been evaluated as unsatisfactory.

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In SECY-92-100, "Status and Direction of the Licensed Operator Requalification Program," dated March 19, 1992, the staff informed the Commission of the results of pilot requalification examinations that were conducted in August through December of 1991. The pilot test procedure directed the NRC examiners to focus on the evaluation of crews, rather than individuals, in the simulator portion of the operating test. In conducting the pilot examinations, the NRC examiners and the facility evaluators independently evaluated the crews and compared their results. The results were found to be in total agreement. Furthermore, the NRC examiners noted that the facility evaluators were competent at evaluating crews and individuals and were aggressive in finding deficiencies and recommending remediation for operators who exhibited weaknesses. The performance of the facilities' evaluators during the pilot examinations further confirmed that the facility licensees can find deficiencies, and remediate and retest their licensed operators' appropriately.

In SECY-92-100, the staff also informed the Commission of its intent to initiate a rulemaking to eliminate the requirement for each licensed operator to pass a comprehensive requalification written examination and operating test conducted by the Commission during the term of the operator's 6-year license. On June 2, 1992, the Commission was briefed on SECY-92-100, including the staff's intent to initiate rulemaking for 10 CFR Part 55. On June 23, 1992, the Commission issued the staff requirements memorandum (SRM) for SECY-92-100, indicating agreement to proceed with a proposed rule change.

Discussion:

In accordance with Section 55.57(b)(2)(iii), licensed operators are required to pass facility requalification examinations and annual operating tests. In Section 55.57(b)(2)(iv), licensed operators are also required to pass a comprehensive requalification written examination and operating test conducted by the NRC during the term of a 6-year license. These regulations establish requirements which impose a dual responsibility on both the facility licensee which assists in developing and conducting its own as well as NRC requalification examinations, and the NRC which supervises both the facility licensee requalification program as well as conducting a comprehensive requalification examination during the term of an operator's 6-year license.

The staff believes that it could ensure and improve operational safety at each facility by directing its

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resources to inspect and oversee facility requalification programs rather than conducting requalification examinations. The staff's experience since the beginning of the requalification program indicates that weaknesses in the implementation of the facility program are generally the root cause of significant deficiencies in the performance of operators. The staff could more effectively allocate its resources to perform on-site inspections of facility requalification examination and training programs in accordance with indicated programmatic performance rather than scheduling examiners in accordance with the number of individuals requiring license renewal. By redirecting the examiner resources, the staff expects to find and correct programmatic weaknesses earlier and thus improve operational safety.

Currently, facility licensees assist in the development and conduct of the NRC requalification examinations. The assistance includes providing to the NRC the training material used for development of the written and operating examinations and providing facility personnel to work with the NRC during the development and conduct of the examinations. The proposed amendments would reduce the regulatory burden on the facility licensees by reducing the effort expended by the facility to assist the NRC in developing and conducting NRC requalification examinations for licensed operators.

As part of the proposed rule change, the facility licensees would be required to submit to the NRC each annual operating test or comprehensive written examinations used for operator requalification at least 30 days prior to conducting such examination or test. The staff would review these examinations for conformance with 10 CFR 55.59(a)(2)(i&ii). The staff would also review other information already available to the staff to determine the scope of an on-site inspection of the facility requalification program. The staff also intends to conduct selected portions of requalification examinations at each facility at least every 6 years. The NRC would continue to expect each facility to meet all of the conditions required for conducting a requalification program in accordance with 10 CFR 55.59(c).

The proposed regulations deleting the requirement for each licensed individual to pass an NRC requalification examination during the 6-year term of the individual's license will continue to meet the requirements of Section 306 of the NWSA. The regulations will continue to require facilities to have requalification programs and conduct

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requalification examinations. The NRC will administer these programs by providing oversight for the programs and examinations through inspections. In addition, Section 55.59(a)(2)(iii) provides that the NRC may conduct requalification examinations in lieu of accepting the facility licensee's certification that a licensed individual has passed the facility requalification examination. The NRC will use this option if warranted after conducting an on-site inspection of the facility's requalification program and also to periodically conduct selected portions of requalification examinations.

The staff's estimate of the cost of the existing NRC program and projected cost for the revised NRC program indicate that the net savings to the NRC, accrued from implementing the revised program, will be the equivalent of approximately 7 full-time staff equivalents.

As part of development of the proposed rule, the CRGR was briefed on October 6, 1992, and the ACRS was briefed on October 9, 1992. Comments provided at these meetings have been addressed by the staff in preparation of this proposed rule.

Coordination: The Office of the General Counsel has no legal objection.

Recommendation: That the Commission:

- (1) Approve publication for comment of the proposed rule as set forth in Enclosure A.
- (2) In order to satisfy the requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b), certify that this rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. This certification is included in the enclosed Federal Register Notice.
- (3) Note that:
 - (a) The notice of rulemaking (Enclosure A) will be published in the Federal Register, allowing 60 days for public comment.
 - (b) A regulatory analysis will be available in the Public Document Room (Enclosure B).

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- (c) A public announcement will be issued (Enclosure C).
- (d) The Subcommittee on Nuclear Regulation of the Senate Committee on Environment and Public Works, the Subcommittee on Energy and Power of the House Committee on Energy and Commerce, and the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs will be informed by letter (Enclosure D).
- (e) This proposed rule will be submitted to the Office of Management and Budget for review and approval of the paperwork requirements.
- (f) 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.

James M. Taylor
Executive Director
for Operations

Enclosures:

- A. Federal Register Notice of Proposed Rulemaking
- B. Draft Regulatory Analysis
- C. Draft Public Announcement
- D. Draft Congressional Letters



Enclosure A

Federal Register Notice

NUCLEAR REGULATORY COMMISSION

10 CFR Part 55

RIN-AE 39

Operators' Licenses

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to delete the requirement that each licensed operator pass a comprehensive requalification written examination and an operating test conducted by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal. The proposed amendment will require facility licensees to submit copies of each annual operating test or comprehensive written examination used for operator requalification for review by the Commission at least 30 days prior to conducting the examination or the test. In addition, the proposed rule will amend the "Scope" provisions of the regulations pertaining to operators' licenses to include facility licensees.

DATES: The comment period expires _____. 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: Mail written comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch.

Deliver comments to: One White Flint North, 11555 Rockville Pike, Rockville, Maryland, between 7:30 am and 4:15 pm on Federal workdays. Copies of the draft regulatory analysis, as well as copies of the comments received on the proposed rule, may be examined at the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC.

FOR FURTHER INFORMATION CONTACT: Dr. Rajender Auluck, P.E., Office of Nuclear Regulatory Research, telephone: (301) 492-3794, or David Lange, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 504-3171.

SUPPLEMENTARY INFORMATION:

Background

Section 306 of the Nuclear Waste Policy Act (NWPA) of 1982 authorized and directed the NRC "to promulgate regulations, or other appropriate Commission regulatory guidance, for the training and qualifications of civilian nuclear power plant operators, supervisors, technicians and other appropriate operating personnel." The regulations or guidance were to "establish simulator training requirements for applicants for civilian nuclear power plant operator licenses and for operator requalification programs; requirements governing NRC administration of requalification examinations; requirements for operating tests at civilian nuclear power plant simulators,

and instructional requirements for civilian nuclear power plant licensee personnel training programs." On March 25, 1987 (52 FR 9453), the Commission accomplished the objectives of the NWPA that were related to licensed operators by publishing a final rule in the Federal Register that amended 10 CFR Part 55, effective May 26, 1987. The amendment revised the licensed operator requalification program by establishing (1) simulator training requirements, (2) requirements for operating tests at simulators, and (3) instructional requirements for the program (formerly Appendix A to 10 CFR Part 55). The final rule also stipulated that in lieu of the Commission accepting certification by the facility licensee that the licensee has passed written examinations and operating tests given by the facility licensee within its Commission approved program developed by using a systems approach to training (SAT), the Commission may give a comprehensive requalification written examination and an annual operating test. In addition, the amended regulations required each licensed operator to pass a comprehensive requalification written examination and an operating test conducted by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal.

Following the 1987 amendment to Part 55, the NRC began conducting operator requalification examinations for the purpose of license renewal. As a result of conducting these examinations, the NRC determined that nearly all facility requalification programs met the Commission's expectations and that the NRC examiners were largely duplicating tasks that were already required of, and routinely performed by, the facility licensees.

The NRC revised its requalification examination procedures in 1988 to focus on performance-based evaluation criteria that closely paralleled the

training and evaluation process used for a SAT based training program. This revision to the NRC requalification examination process enabled the NRC to conduct comprehensive examinations for the purpose of renewing an individual's license and, at the same time, use the results of the examinations to determine the adequacy of the facility licensee's requalification training program.

Since the NRC began conducting operator requalification examinations, the facility program and individual pass rates have improved from 81 to 90 percent and from 83 to 91 percent, respectively, through fiscal year 1991. The NRC has also observed a general improvement in the quality of the facility licensees' testing materials and in the performance of their operating test evaluators. Of the first 79 program evaluations conducted, ten (10) programs were evaluated as unsatisfactory. The NRC issued Information Notice No. 90-54, "Summary of Requalification Program Deficiencies," dated August 28, 1990, to describe the technical deficiencies that contributed to the first 10 program failures. Since that time only six programs, of 120 subsequent program evaluations, have been evaluated as unsatisfactory.

Pilot requalification examinations were conducted in August through December of 1991. The pilot test procedure directed the NRC examiners to focus on the evaluation of crews, rather than individuals, in the simulator portion of the operating test. In conducting the pilot examinations, the NRC examiners and the facility evaluators independently evaluated the crews and compared their results. The results were found to be in total agreement. Furthermore, the NRC examiners noted that the facility evaluators were competent at evaluating crews and individuals and were aggressive in finding deficiencies and recommending remediation for operators who exhibited

weaknesses. The performance of the facilities' evaluators during the pilot examinations further confirmed that the facility licensees can find deficiencies, and remediate and retest their licensed operators' appropriately.

Discussion

In accordance with § 55.57(b)(2)(iii), licensed operators are required to pass facility requalification examinations and annual operating tests. In § 55.57(b)(2)(iv), licensed operators are also required to pass a comprehensive requalification written examination and operating test conducted by the NRC during the term of a 6-year license. These regulations establish requirements which impose a dual responsibility on both the facility licensee which assists in developing and conducting its own as well as NRC requalification examinations, and the NRC which supervises both the facility licensee requalification program as well as conducting a comprehensive requalification examination during the term of an operator's 6-year license.

The NRC believes operational safety at each facility will continue to be ensured, and, in fact, will be improved, if NRC resources are directed towards inspecting and overseeing the facility requalification programs rather than continuing to conduct individual operator requalification examinations. The NRC's experience since the beginning of the requalification program indicates that weaknesses in the implementation of the facility program are generally the root cause of deficiencies in the performance of operators. The NRC could more effectively allocate its resources to perform on-site inspections of facility requalification examination and training programs in accordance with

indicated programmatic performance rather than scheduling examiners in accordance with the number of individuals requiring license renewal. The NRC expects to find and correct programmatic weaknesses more rapidly and improve operational safety by redirecting the examiner resources to inspect programs.

As of October 9, 1992, the NRC had conducted requalification examinations at 11 research and test reactor facilities for a total of 34 operators being examined. No failures were identified. For research and test reactors, this sample provides the NRC with little data to support the same rationale that is discussed above with respect to power reactors. However, the NRC believes that the flexibility to allocate resources based on indicated programmatic performance rather than on the number of individuals requiring license renewal would also improve operational safety at research and test reactors. In addition, the proposed rule does not prevent the NRC from conducting requalification examinations at research and test reactor facilities.

Currently, facility licensees assist in the development and conduct of the NRC requalification examinations. The assistance includes providing to the NRC (1) the training material used for development of the written and operating examinations and (2) facility personnel to work with the NRC during the development and conduct of the examinations. The proposed amendments would reduce the regulatory burden on the facility licensees by reducing the effort expended by the facility to assist the NRC in developing and conducting NRC requalification examinations for licensed operators.

As part of the proposed rule change, the facility licensees would be required to submit to the NRC each annual operating test or comprehensive written examination used for operator requalification at least 30 days prior

to giving the test or examination. The NRC would review these examinations on an audit basis for conformance with 10 CFR 55.59(a)(2)(i&ii). The NRC would also review other information already available to the staff to determine the scope of an on-site inspection of the facility requalification program. The NRC also intends to conduct selected portions of requalification examinations at each facility at least every 6 years. The NRC would continue to expect each facility to meet all of the conditions required for conducting a requalification program in accordance with 10 CFR 55.59(c).

Licensed operators would not have to take any additional actions. Each operator would continue to meet all the conditions of his or her license described in 10 CFR 55.53, which includes passing the facility-conducted requalification examinations for license renewal. Each licensed operator would be expected to continue to meet the requirements of the facility requalification training program. However, the licensed operator would no longer be required to pass a requalification examination conducted by the NRC during the term of his or her license as a condition of license renewal.

The "Scope" of Part 55, § 55.2, will be revised to include facility licensees. This is an addition to the regulation. It eliminates currently existing ambiguities between the regulations of Parts 50 and 55. Part 50, in § 50.54(i) through (m), already imposes Part 55 requirements on facility licensees, and Part 55 already specifies requirements for facility licensees.

The proposed amendments would meet the requirements of Section 306 of the NWPA without the requirement that each licensed individual pass a requalification examination conducted by the NRC during the 6-year term of the individual's license. The requirements of the NWPA would be met as follows:

- 1) the regulations would continue to require facilities to have

requalification programs and conduct requalification examinations; 2) the NRC would provide oversight (i.e., administration) for these programs and examinations through inspections; and 3) § 55.59(a)(2)(iii) provides that the NRC may conduct requalification examinations in lieu of accepting the facility licensee's certification that a licensed individual has passed the facility requalification examination. The NRC will use this option if warranted after an on-site inspection of the facility's requalification program and also to periodically conduct selected portions of requalification examinations. The proposed amendments would not affect the regulatory or other appropriate guidance required by Section 306 of the NWPA and established in § 55.59(a)(2)(iii) for the NRC to conduct requalification examinations in lieu of an examination given by the facility.

Invitation To Comment

Comments concerning the scope, content, and implementation of the proposed amendments are encouraged. Comments on the applicability of the proposed amendments to research and test reactor facilities are especially solicited, as are suggestions for alternatives to those rulemaking methods described in this notice.

Finding of No Significant Environmental Impact: Availability

The NRC has determined that the proposed amendments, if adopted, are the type of action described in categorical exclusion 10 CFR 51.22(c)(1).

Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this rule.

Paperwork Reduction Act Statement

This proposed rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (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 paperwork requirements.

The public reporting burden for this collection of information is estimated to average 4 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. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Information and Records Management Branch (MNBB-7714), U.S. Nuclear Regulatory Commission, Washington, DC 20555; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-3019, (3150-0018 and 3150-0101), Office of Management and Budget, Washington, DC 20503.

Regulatory Analysis

The Commission has prepared a draft regulatory analysis on this proposed regulation. The analysis examines the values (benefits) and impacts (costs) of implementing the proposed regulation for licensed operator requalification. 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 Rajender Auluck (see ADDRESSES heading).

Regulatory Flexibility Certification

As required by the Regulatory Flexibility Act of 1989, 5 U.S.C. 605(b), the Commission certifies that this rule will not have a significant economic impact upon a substantial number of small entities. This rule primarily affects the companies that own and operate light-water nuclear power reactors. The companies that own and operate these reactors do not fall within the scope of the definition of "small entity" set forth in the Regulatory Flexibility Act or the Small Business Size Standards set out in regulations issued by the Small Business Administration in 13 CFR Part 121. Since these companies are dominant in their service areas, this rule does not fall within the purview of its Act.

Backfit Analysis

Currently, facility licensees assist in developing and coordinating the NRC-conducted requalification examinations. The assistance includes providing to the NRC the training material used for development of the written examinations and operating tests and providing facility personnel to work with the NRC during the development and conduct of the examinations. The Commission has concluded on the basis of the documented evaluation required by 10 CFR Part 50.109(a)(4), that complying with the requirement of this proposed rule would: (1) reduce the regulatory burden on the facility licensees by

reducing the effort expended by the facility licensees to assist the NRC in developing and conducting NRC requalification examinations for licensed operators, and (2) increase the regulatory burden on the facility licensees by requiring them to submit all requalification examinations at least 30 days prior to conducting the examinations.

As part of the proposed amendments, the facility licensees would be required to submit to the NRC each annual requalification operating test or comprehensive written requalification examination at least 30 days prior to conducting such test or examination. The NRC would review these examinations on an audit basis for conformance with 10 CFR 55.59(a)(2)(i&ii). The NRC would conduct this review and review other information already available to the NRC to determine the scope of an on-site inspection of the facility requalification program. The NRC would continue to expect each facility to meet all of the conditions required of a requalification program in accordance with 10 CFR 55.59(c).

Licensed operators would not have to take any additional actions. Each operator would be expected to continue to meet all the conditions of his or her license described in 10 CFR 55.53, which includes passing the facility requalification examinations for license renewal. Each licensed operator would be expected to continue to meet the requirements of the facility requalification training program. However, the licensed operator would no longer be required to pass a requalification examination conducted by the NRC during the term of his or her license, in addition to passing the facility licensee's requalification examinations, as a condition of license renewal.

The "Scope" of Part 55, 10 CFR 55.2, would be revised to include facility licensees. This is an addition to the regulation. It eliminates

currently existing ambiguities between the regulations of Parts 50 and 55. Part 50, in sections 50.54(i) through (m), already imposes Part 55 requirements on facility licensees, and Part 55 already specifies requirements for facility licensees.

The Commission believes that licensed operators are one of the main components and possibly the most critical component of continued safe reactor operation, especially with respect to mitigating the consequences of emergency conditions. Two-thirds of the requalification programs that have been evaluated as "unsatisfactory" had significant problems in the quality or implementation of the plant's emergency operating procedures (EOPs). In some of these cases, the facility licensees did not train their operators on challenging simulator scenarios or did not retrain their operators after the EOPs were revised. The Commission believes that it could have identified these problems sooner by reviewing facility requalification examinations and operating tests and inspecting facility requalification training and examination programs. Facility licensees could have then corrected these problems and improved overall operator job performance sooner.

This proposed rule is intended to improve operational safety by providing the means to find and correct weaknesses in facility licensee requalification programs more rapidly than provided for under the current regulations. The experience gained from conducting NRC requalification examinations indicates that the NRC is largely duplicating the efforts of the facility licensees. The NRC could more effectively use its resources to oversee facility licensee requalification programs rather than conducting individual operator requalification examinations for all licensed operators. The staff's estimate of the cost of the existing NRC program and projected cost for the revised NRC program indicate that the net savings to the NRC,

accrued from implementing the revised program, will be the equivalent of approximately 7 full-time staff equivalents.

Each facility licensee would continue in its present manner of conducting its licensed operator requalification program. However, this proposed rule would reduce the burden on the facility licensees because each facility licensee would have its administrative and technical staff expend fewer hours than are now needed to assist in developing and conducting the NRC requalification examinations. Facility licensees are expected to realize a combined annual operational cost savings of approximately \$820K.

In summary, the proposed rule is expected to result in improved operational safety by providing more timely identification of weaknesses in facility licensees' requalification programs. In addition, the proposed rule would also reduce the resources expended by both the NRC and the licensees. The Commission has, therefore, concluded that the proposed rule meets the requirements of 10 CFR 50.109, that there would be a substantial increase in the overall protection of public health and safety and the costs of implementations are justified.

List of Subjects 10 CFR Part 55

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

Text of Final Regulation

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, the Nuclear Waste Policy Act of 1982, and 5 U.S.C. 553, the NRC is proposing to adopt the following amendments to 10 CFR Part 55 as follows:

PART 55 - OPERATORS' LICENSES

1. The authority citation for 10 CFR 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 (427 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).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 55.3, 55.21, 55.49, and 55.53, are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and 55.9, 55.23, 55.25, and 55.53(f) are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. In § 55.2, paragraph (c) is added to read as follows:

§ 55.2 Scope

* * * * *

(c) Any facility licensee.

§ 55.57 [Amended]

3. Section 55.57(b)(2)(iv) is amended by removing paragraph (b)(2)(iv).

4. In § 55.59 the introductory text of paragraph (c) is revised to read as follows:

§ 55.59 Requalification

* * * * *

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

* * * * *

Dated at Rockville, Maryland, this ____ day of _____, 1992.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,
Secretary of the Commission.

Enclosure B
Draft Regulatory Analysis

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SUMMARY

In 1987, the NRC amended 10 CFR Part 55 to add requirements for the requalification and renewal of operators' licenses. The regulations required licensed operators to pass facility requalification examinations and annual operating tests. In addition, the amended regulations required licensed operators to pass a comprehensive requalification written examination and operating test administered by the NRC during the term of a 6-year license. Prior to 1987, NRC regulations did not require facility licenses to conduct continuous and rigorous examinations and training regulations programs for operators' licenses.

This additional requirement was added because at the time the regulation was amended, the NRC did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the NRC's expectations for the evaluation process outlined in 10 CFR 55.59(c)(4). The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. The new aspects included: 1) changing from a 2-year to a 6-year license term resulting in license renewal applications being submitted for NRC review much less frequently; 2) requiring operating tests on simulators when most of the industry's simulators were either new or still under construction; and 3) permitting requalification programs to be based on a systems approach to training when the industry had not implemented the process for accrediting these programs. After conducting these examinations over a 3-year period, however, NRC now has the confidence that facility licensees can successfully implement their own requalification programs. As a result, the NRC is considering amending the current requalification regulations in 10 CFR Part 55.

It is now believed that rather than requiring NRC-conducted requalification examinations, NRC can ensure safety and more effectively use its resources by periodically inspecting the licensee's requalification program. The proposed rulemaking, which would eliminate the need for each licensee to pass an NRC requalification examination, is intended to ensure and improve the continued effectiveness of the Part 55 requalification requirements.

The NRC is expected to incur one-time costs associated with development and implementation of the proposed rulemaking. These one-time NRC costs are estimated to total approximately \$200,000. If the NRC continues conducting requalification examinations for all licensed operators, the staff estimates that it would require approximately 22 FTE each year. Implementing the proposed requalification inspection program would save the equivalent of about 7 FTE (or \$1.25 million) each year over conducting requalification examinations for all licensed operators. Facility licensees are expected to realize a combined annual operational cost savings of approximately \$820,000. On a 1992 present worth basis, assuming an average 25-year remaining lifetime and a 5% real discount rate, the NRC and industry savings are equivalent to \$17.6 million and \$11.6 million, respectively.

ABBREVIATIONS

CFR - Code of Federal Regulations

FR - Federal Register

FY - Fiscal Year

NRC - U.S. Nuclear Regulatory Commission

1.0 INTRODUCTION

The NRC is considering amending the current requalification regulations for nuclear power reactor operating personnel contained in 10 CFR Part 55. Section 1 of this Regulatory Analysis includes background information, a discussion of the existing operator requalification examination requirements in 10 CFR Part 55, a statement of the issue, and the objectives of the proposed rulemaking. Section 2 identifies and discusses the proposed action and the alternative actions. Section 3 discusses the projected benefits and estimates the costs associated with adopting the proposed rulemaking. Section 4 provides the decision rationale and Section 5 discusses the implementation schedule.

1.1 BACKGROUND

Section 306 of the Nuclear Waste Policy Act of 1982 (42 USC 10226, Public Law 97-425, January 7, 1983) authorized and directed the U.S. NRC to promulgate regulations or other appropriate regulatory guidance for the training and qualifications of civilian nuclear power plant operators. Such regulations or regulatory guidance were required to establish, among other things, requirements governing the NRC's administration of requalification examinations. The NRC accomplished this objective by revising 10 CFR Part 55, to add Section 55.59(a)(2)(iii) to provide that the NRC could conduct a comprehensive requalification written examination and operating test in lieu of accepting certification that the licensee had passed written examinations and operating tests administered by the facility. The NRC also developed guidance for examiners to conduct NRC requalification examinations.

In SECY-86-348, dated November 21, 1986, the NRC described the revisions that it made to 10 CFR Part 55 in response to Section 306 of the Nuclear Waste Policy Act. On February 12, 1987, the Commission approved the proposed amendments in SECY-86-348, adding the requirement in 10 CFR 55.57(b)(2)(iv) for each licensee to pass an NRC-administered requalification examination during the 6-year term of the individual's license.

1.2 STATEMENT OF THE ISSUE

In 1987, the NRC amended 10 CFR Part 55 to add requirements for the requalification and renewal of operators' licenses. In accordance with Section 55.57(b)(2)(iii), licensed operators are required to pass facility requalification examinations and annual operating tests. In Section 55.57(b)(2)(iv), licensed operators are also required to pass a comprehensive requalification written examination and operating test conducted by the NRC during the term of a 6-year license. These regulations establish requirements which impose a dual responsibility on both the facility licensee which assists in developing and conducting its own as well as NRC requalification examinations, and the NRC which supervises both the facility licensee requalification program as well as conducting a comprehensive requalification examination during the term of an operator's 6-year license.

Prior to 1987, NRC regulations did not require facility licenses to conduct continuous and rigorous examinations and training and requalification programs. As a result, the Commission did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the staff's expectations for the evaluation process outlined in 10 CFR 55.59(c)(4). The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. The new aspects included: 1) changing from a 2-year to a 6-year license term resulting in license renewal applications being submitted for NRC review much less frequently; 2) requiring operating tests on simulators when most of the industry's simulators were either new or still under construction; and 3) permitting requalification programs to be based on a systems approach to training when the industry had not implemented the process for accrediting these programs.

As a result, the NRC determined that during the first term of a 6-year license issued after the 1987 amendment to Part 55, the NRC would conduct requalification examinations to operators for the purpose of license renewal. As a result of conducting these examinations over a 3-year period, it has been determined that the NRC examiners are largely duplicating the tasks already required of, and routinely performed by, the facility licensees. The proposed rulemaking is therefore being considered to ensure and improve the continued effectiveness of the Part 55 requalification requirements.

If the NRC adopts the proposed rulemaking and deletes the requirement for each licensed individual to pass an NRC requalification examination during the 6-year term of the individual's license, the regulations in 10 CFR 55.57, "Renewal of Licenses," and 10 CFR 55.59, "Requalification," will continue to meet the requirements of Section 306 of the Nuclear Waste Policy Act (NWPA). The regulations will continue to require facilities to have requalification programs and conduct requalification examinations. The NRC will provide oversight for these programs and examinations through inspections. In addition, Section 55.59(a)(2)(iii) provides that the NRC may administer requalification examinations in lieu of accepting the facility licensee's certification that a licensed individual has passed the facility requalification examination.

The NRC will use this option if warranted after conducting an onsite inspection of the facility's requalification program and also to periodically conduct selected portions of requalification examinations. The proposed rule would not affect the regulatory and other appropriate guidance required by Section 306 of the NWPA and described in Section 55.59(a)(2)(iii) for administering NRC requalification examinations in lieu of facility examinations.

1.3 OBJECTIVES

The objective of the proposed rulemaking is to improve the effectiveness of the current regulations for operator requalification and renewal of operators' licenses. The current regulations, which were amended in 1987, require

licensed operators to pass a comprehensive requalification written examination and operating test administered by the NRC during the term of a 6-year license. At the time the regulation was amended in 1987, the NRC did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the NRC's expectations for the evaluation process outlined in 10 CFR 55.59(c)(4). The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. The new aspects included: 1) changing from a 2-year to a 6-year license term resulting in license renewal applications being submitted for NRC review much less frequently; 2) requiring operating tests on simulators when most of the industry's simulators were either new or still under construction; and 3) permitting requalification programs to be based on a systems approach to training when the industry had not implemented the process for accrediting these programs.

The experience gained from conducting these examinations over a 3-year period indicates that the NRC examiners are largely duplicating the efforts of the facility licensees. Furthermore, the industry has since developed criteria for accrediting licensed operator requalification programs at facilities. Based on this experience, NRC now has the confidence that facility licensees can implement their own requalification program in accordance with 10 CFR 55.59(c)(4). As a result, it is now believed that rather than conducting these requalification examinations, NRC can ensure safety and more effectively use its resources by periodically inspecting the licensee's requalification program.

2.0 REGULATORY ALTERNATIVES

This section discusses the reasonable alternatives considered for meeting the regulatory objective identified in Section 1.3.

2.1 TAKE NO ACTION

One alternative to the proposed rule changes would be to take no action. Taking no action would allow current licensed operator requalification practices to continue. However, this alternative would disregard the insights gained from conducting the NRC requalification examinations over a 3-year period. This alternative also neglects consideration of the industry-related progress that has been made over the past several years in the area of operator requalification programs.

2.2 PROPOSED ACTION

The regulations have to be amended in two places to implement the proposed rule change. First, delete 10 CFR 55.57(b)(2)(iv) requiring each licensed individual to pass an NRC-conducted requalification examination during the term of his or her license. Second, amend 10 CFR 55.59(c) to require each facility licensee to submit a copy of each requalification written examination and annual operating test to the NRC for review 30 days prior to conducting such examination or test. These actions will ensure that the margin of safety for plant operations is not reduced and remove the dual responsibility of the facility licensee and the NRC for the conduct of licensed operator requalification examinations.

In addition, 10 CFR 55.2, "Scope," will be revised to include facility licensees. This will eliminate the currently existing ambiguities between the regulations of Part 50 and 55. Part 50, in Sections 50.54(i) through (m), already imposes Part 55 requirements on facility licensees, and Part 55 already specifies requirements for facility licensees.

Licensed operators would not be required to take any additional actions. Each operator would continue to meet all the conditions of his or her license described in 10 CFR 55.53, which includes passing the facility requalification examinations for license renewal. However, the facility licensees would be required to submit to the NRC their annual operating tests and comprehensive written examinations used for operator requalification 30 days prior to administration. The NRC would review these examinations for conformance with 10 CFR 55.59(a)(2)(i&ii). The NRC would conduct this review and review other information already available to the NRC to determine the scope of an onsite inspection of the facility requalification program. The NRC would continue to expect each facility to meet all of the conditions required for conducting a requalification program in accordance with 10 CFR 55.59(c).

3.0 CONSEQUENCES

This section discusses the benefits and costs that may result from the proposed rulemaking. The benefits and costs of the proposed rulemaking are compared with those associated with the status quo using the current regulations as a baseline. Table 3.1 identifies the potential effects associated with the proposed rulemaking.

Table 3.1. Checklist for Identification of Potential Effects

<u>Potential Effect</u>	<u>Quantified Change</u>	<u>Qualitative Change</u>	<u>No Significant Change</u>
Public Health & Safety		X	
Public Property			X
Occupational Health & Safety			X
Industry Property			X
Industry Implementation Costs			X
Industry Operation Costs	X		
NRC Development Costs	X		
NRC Implementation Costs	X		
NRC Operation/Review Costs	X		
Regulatory Effectiveness		X	
Reduced Regulatory Burden		X	

3.1 ESTIMATION OF VALUES (SAFETY-RELATED CONSEQUENCES)

The benefits of the proposed rulemaking are evaluated in terms of the general objectives stated in Section 1.3, namely, to ensure safety and improve the effectiveness of the NRC examiner resources. These benefits are not readily quantifiable and, as a result, are discussed here qualitatively. The primary qualitative benefits associated with the proposed rulemaking accrue from increased effectiveness of the NRC examiner resources.

The experience gained since the NRC requalification program began in 1988 indicates that the root cause of deficiencies in the performance of individual licensed operators is generally caused by a weakness in the implementation of the facility requalification program. The performance on NRC-conducted examinations of licensed operators who have participated in comprehensive facility requalification programs has been very good. The failure rate of individual licensed operators was 9% in FY91. As of March 1992, the FY92 failure rate of individual licensed operators was only 5%.

Based on this experience, it is believed that NRC examiner resources could be more effectively used to perform onsite inspections of facility requalification examination and training programs in accordance with indicated programmatic performance rather than scheduling examiners in accordance with the number of individuals requiring license renewal. By redirecting the NRC

examiner resources toward facility programs rather than individuals, programmatic weaknesses should be identified and corrected more rapidly.

The proposed regulatory action directing the NRC examiners to inspect and oversee facility requalification programs rather than conducting requalification examinations would ensure that licensed individuals and operating crews are qualified to safely operate the facility and that operational safety would be improved at each facility.

3.2 ESTIMATION OF IMPACTS (ECONOMIC CONSEQUENCES)

The proposed rulemaking would reduce the burden on the facility licensee because the administrative and technical staff would expend fewer hours than are now required to assist in developing and conducting the NRC requalification examination. Similarly, a net savings would accrue to the NRC due to the elimination of most NRC requalification examinations.

In estimating the impact of the proposed regulatory action, the following types of costs were considered. For the industry, costs include onsite property costs, implementation costs, and operation costs. For the NRC, costs include development costs, implementation costs, and operation costs.

3.2.1 Onsite Property and Industry Implementation Costs

Since the proposed rulemaking is expected to have no significant impact on the accident frequency, there is no expected impact on potential onsite property damage. Similarly, since implementation of the proposed rulemaking does not require licensees to purchase special equipment or materials, nor does it involve additional facility labor requirements, there are no expected industry implementation costs.

3.2.2 Industry Operation Costs

Under the current regulations, facility licensees provide assistance to the NRC in the development and conduct of the NRC requalification examinations. This assistance includes providing to the NRC the training materials used for development of the written and operating examinations. In addition, the current regulations require that an examination team made up of NRC examiners and facility evaluators co-conduct, validate, and co-supervise the NRC examinations to ensure that the NRC examinations are valid and appropriate for the facility at which the examinations are being given.

The labor burden and amount of material that each facility licensee currently provides to the NRC for the routine NRC requalification examinations is judged to be larger than the amount expected under the proposed regulatory action. Under the proposed rulemaking, each facility licensee is expected to continue in its present manner of conducting requalification training programs. However, adopting the proposed rulemaking would reduce the regulatory burden on the facility licensees by removing the dual effort expended by the facility

to assist the NRC in developing and conducting NRC requalification examinations for all licensed operators. As a result, fewer hours would be expended by its technical and administrative staff which are now required to assist in developing and conducting the NRC requalification examination. Table 3.2 provides a summary of the estimated current industry costs associated with the NRC requalification examinations. Table 3.3 provides a summary of the estimated industry costs associated with the NRC requalification program inspections after implementation of the proposed rulemaking.

Table 3.2. Affected Current Industry Costs (per NRC examination)

<u>Cost Element</u>	<u>Best Estimate (\$)</u>
 SALARIES AND BENEFITS	
Facility administrative staff (to prepare reference materials for NRC)	1,000 ^a
Facility technical staff (to assist NRC with developing and conducting the NRC examinations)	28,800 ^b
Facility administrative staff (to assist NRC with conducting the NRC examinations)	<u>1,000^a</u>
Total Direct Salaries	30,800
 MATERIALS AND SERVICES	
Expendable Supplies (to provide the NRC all the material used for development of the written and operating examinations)	100
Reproduction Expenses	100
Shipping Expenses	<u>1,000</u>
Total Materials and Services	1,200
 TOTAL FACILITY COSTS TO SUPPORT NRC EXAMINATIONS	 32,000

^a20 person-hours @ \$50/person-hour. The value of \$50/person-hour is rounded from the standard labor rate of \$48/person-hour from the most recent draft of the Regulatory Analysis Technical Evaluation Handbook.

^b576 staff-hours @ \$50/hour.

Table 3.3. Affected Industry Costs (per NRC inspection) After Proposed Changes

<u>Cost Element</u>	<u>Best Estimate (\$)</u>
SALARIES AND BENEFITS	
Facility administrative staff (to prepare examination materials for NRC)	750 ^a
Facility technical staff (to assist NRC in the inspection of the facility requalification program)	14,400 ^b
Facility administrative staff (to assist NRC in the inspection of the facility requalification program)	<u>1,000^c</u>
Total Direct Salaries	16,150
MATERIALS AND SERVICES	
Expendable Supplies (to provide the NRC all the material used for inspection of the facility requalification program)	50
Reproduction Expenses	50
Shipping Expenses	<u>500</u>
Total Materials and Services	600
TOTAL FACILITY COSTS TO SUPPORT NRC INSPECTIONS	16,750

^a15 person-hours @ \$50/hour.

^b288 staff-hrs @ \$50/hour.

^c20 person-hrs @ \$ 50/hour.

There are 75 facility licensee requalification programs. Current practices involve one NRC requalification examination per program-year for 65 of these 75 programs. This results in an annual industry cost of $(\$32,000/\text{program-yr})(65 \text{ programs}) = \$2.08 \times 10^6/\text{yr}$. Assuming that, after the proposed changes, NRC would administer one requalification program inspection per program-year, at a total of 75 programs, this results in an annual industry cost of $(\$16,750/\text{program-yr})(75 \text{ programs}) = \$1.26 \times 10^6/\text{yr}$. This indicates an annual industry cost savings of $\$8.2 \times 10^5$ associated with the proposed rulemaking.

3.2.3 NRC Development Costs

NRC development costs are the costs of preparations prior to implementation of the proposed regulatory action. These costs usually consist of labor costs and overhead within the NRC and the cost of procuring contractors to perform tasks not undertaken within the NRC. Only incremental costs resulting from adoption of the proposed action should be included.

Much of the development work has been completed on this proposed action and, as such, is a sunk cost. These costs are not included in this analysis since they will be incurred both for the proposed action and for the alternative. It is expected, however, that additional NRC staff time will be required before implementation of the proposed rulemaking can occur. This staff time is primarily associated with the development of the new inspection program and inspection module.

Some of these costs will be incurred regardless of whether the proposed action is adopted or rejected. For example, an NRC Tiger Team is presently developing a new inspection program. As a result, these costs are not included in this analysis. It is estimated that the equivalent of 0.5 staff-year will be required to complete all phases of the development process. Based on an NRC labor cost estimate of \$50/person-hr, the above labor requirement results in an NRC development cost of approximately \$50,000.^a

3.2.4 NRC Implementation Costs

NRC implementation costs are those costs that the NRC will incur to implement the action once a proposed action is defined and the Commission endorses its application. It is estimated that implementation of the proposed action will require one professional NRC staff person-year at a cost of \$100,000/person-year.

In addition, the NRC will also incur one-time implementation costs associated with:

^aThe value of \$50/person-hour is rounded from the standard NRC labor rate of \$48/person-hour from the most recent draft of the Regulatory Analysis Technical Evaluation Handbook.

- training of NRC & contractor examiners on the new inspection module requirements
- conduct of pilot inspections
- modification of the inspection module

The incremental, one-time costs associated with these three implementation activities are estimated to be \$50,000. As a result, the total NRC implementation costs are estimated to be \$150,000.

3.2.5 NRC Operation Costs

NRR, the office responsible for administering and budgetary planning for the requalification examination program has estimated the NRC cost implications of the proposed rule change. Their analysis focussed solely on NRC staff resources and contractor support because these were the only cost factors judged to be affected by the proposed rule change.

In FY92 the NRC resources committed to this program for NRC staff and contractor support were approximately 12 FTE and \$1.3 million, respectively. The staff projects that a slightly larger average number of examinations, requiring approximately 1.5 additional FTE and an additional \$200,000, would be conducted in future years if the NRC continues conducting requalification examinations for all licensed operators. Thus, if it is assumed that without the rule change, this program would continue into the future, the relevant baseline NRC burden would approximate \$2.85 (1.35 + 1.5) million per year in 1992 dollars for FY93 through FY97. For regulatory analysis purposes, the 13.5 (12 + 1.5) NRC staff years (FTE) were converted to \$1.35 million (\$100,000 per staff year) based on allowances for composite wage rates and direct benefits.^a

Under the proposed rule change, NRR's analysis indicates that NRC staff could perform all necessary inspections of requalification exam programs with 13 FTEs and \$300,000 per year. At \$100,000 per FTE, this converts to an annual cost in 1992 dollars of \$1.6 million. Thus, the annual savings in NRC operating costs is estimated to be on the order of \$1.25 million (\$2.85 million less \$1.6 million). Over an assumed 25 year remaining life, based on a 5% real discount rate, the 1992 present worth savings in NRC resources is estimated at about \$17.6 million in 1992 dollars.

^aNRC labor costs presented here differ from those developed under the NRC's license fee recovery program. For regulatory analysis purposes, labor costs are developed under strict incremental cost principles wherein only variable costs that are directly related to the development, implementation, and operation and maintenance of the proposed requirement are included. This approach is consistent with guidance set forth in NUREG/CR-3568, "A Handbook for Value Impact Assessment," and general cost benefit methodology. Alternatively, NRC labor costs for fee recovery purposes are appropriately designed for full cost recovery of the services rendered and as such include non-incremental costs (e.g. overhead and administrative and logistical support costs).

3.3 VALUE-IMPACT ASSESSMENT SUMMARY

The overall objective of this analysis was to assess the values and impacts (costs and savings) expected to result from implementation of the proposed rulemaking. Values were qualitatively discussed in Section 3.1. Impacts were assessed for the proposed rulemaking in Section 3.2 relative to the status quo. These impacts are summarized in Table 3.4.

Table 3.4 Summary of Cost Savings to Industry and the NRC (1992 Dollars)

	<u>Annual</u>	<u>Lifetime (1992 Present Worth)^a</u>
INDUSTRY SAVINGS		
Operation	\$ 820,000	\$11,560,000
NRC SAVINGS		
Development (one-time cost)		-\$50,000
Implementation (one-time cost)		-\$150,000
Operation	\$1,250,000	\$17,625,000
TOTAL NRC SAVINGS		\$17,425,000

3.4 IMPACT ON OTHER REQUIREMENTS

The principal impact of the proposed rulemaking would be on affected licensees and licensee employees. The cost impact on licensees is discussed in Section 3.2. Impacts on other government agencies are expected to be minimal. The impacts on NRC programs and requirements are also expected to be relatively small. The NRC has had existing personnel and procedures for conducting licensed operator requalification examinations since the program began in 1988. It is not anticipated that the NRC would need to add any additional staff or administrative personnel as a result of this proposed rulemaking. The administration of the revised regulations would be absorbed by current NRC personnel and staff.

4.0 DECISION RATIONALE

NRC staff has found that, in light of experience gained over the past several years, the proposed revisions would ensure the overall effectiveness of the regulations in Part 55. This would be accomplished by eliminating the dual responsibility for the licensee and the NRC to conduct individual operator requalification examinations for the purpose of license renewal. Resources of the operator licensing program would be used more effectively.

The proposed action will continue to assure that licensed operators can operate controls in a safe manner and provide for direct inspection of the quality of the facility licensees' requalification programs. In fact, the NRC staff believes that the proposal will improve operational safety by allocating resources based on the performance of each facility, rather than on the number of individuals that need their license renewed. The NRC staff believes that the proposed action will result in earlier identification and correction of programmatic weaknesses. The staff has found that these are generally the root cause of individual operator performance deficiencies.

5.0 IMPLEMENTATION SCHEDULE

It is assumed that all licensees will be able to implement the requirements of the rule within 60 days after the effective date of the rule. This assumption is based on the fact that no changes to the industry's existing operator requalification programs will be required other than to begin submitting copies of the comprehensive written examinations or annual operating tests 30 days prior to conducting such examinations or tests.

6.0 REFERENCES

Gallucci, et al., Regulatory Analysis Technical Evaluation Handbook. Draft. November 1991. Pacific Northwest Laboratories. Richland, WA.

Auluck, R., ISSUE PAPER for Proposed Revisions to 10 CFR Part 55 --
Requalification and Renewal of Operators' Licenses. 7/13/92. U.S. Nuclear
Regulatory Commission. Washington, DC.

Enclosure C

Draft Public Announcement

NRC PROPOSES TO AMEND REQUIREMENTS GOVERNING RENEWAL OF
LICENSES OF NUCLEAR POWER PLANT AND NON-POWER REACTOR OPERATORS

The Nuclear Regulatory Commission is proposing to amend its requirements governing the renewal of licenses of nuclear power plant and non-power reactor operators.

The proposed amendment would eliminate the present requirement for a licensed operator to pass a comprehensive requalification written examination and operating test administered by the NRC during the term of a six-year license as a prerequisite for license renewal.

Instead, requalification examinations would continue to be conducted by individual facility licensees who employ the operators. The existing NRC resources would then be devoted to inspecting and overseeing facility requalification programs.

The proposed amendment reflects experience gained since the requirement was put in place in May 1987 when:

- The term for operator licenses was changed from two years to six.

- Operating tests had to be conducted on plant reference simulators when they either were new or still under construction.

- Requalification programs were permitted to be based on a systems approach to training when the industry had not yet implemented the process for accrediting these programs.

Experience with this program has shown that NRC examiners largely are duplicating tasks already required of and routinely performed by the facility licensees as part of their requalification program.

In addition, in 1988, the NRC staff revised its requalification examination procedures to focus on performance-based evaluation criteria which enabled it to conduct comprehensive examinations for the purpose of renewing an individual operator's license and, at the same time, to use the results of the individual operator requalification examinations to determine the adequacy of a facility licensee's requalification training program.

Since 1987, the pass rates for individual operator requalification examinations have increased from 83 to 91 percent and the pass rate for facility licensees' requalification training programs have increased from 81 to 90 percent.

Further, the staff has seen a general improvement in the quality of the facility licensees' testing materials and in the performance of the facility test evaluators. Of the first 79 programs evaluated, 10 were found to be unsatisfactory; since that time, an additional 120 programs have been evaluated and only six additional programs were found to be unsatisfactory.

The proposed amendment also would require facility licensees to submit their annual operating tests and comprehensive written examinations used for operator requalification to the NRC so that the staff could assure that they conform to NRC requirements. The tests and examinations would be used, together with other

information already available to the staff, to determine the scope of an annual on-site requalification inspection.

Written comments on the proposed amendment to Part 55 of the Commission's regulations should be received by _____.

They should be addressed to the Secretary of the Commission,
Nuclear Regulatory Commission, Washington, D.C. 20555,
Attention: Docketing and Service Branch.

Enclosure D
Draft Letters to Congress

The Honorable Peter H. Kostmayer, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed for the information of the subcommittee is a copy of a proposed rule to be published in the Federal Register that contains additions to 10 CFR Part 55. Section 306 of the Nuclear Waste Policy Act (NWPA) of 1982 directed the NRC to promulgate regulations or other appropriate guidance to establish "simulator training requirements . . . and . . . requirements governing NRC administration of requalification examinations." On May 26, 1987, the NRC amended 10 CFR Part 55 to require each licensed operator to pass a comprehensive requalification written examination and an operating test administered by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal.

At the time the regulation was amended, the Commission did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the Commission's expectations. The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. Therefore, the Commission determined that during the term of a 6-year license, the staff would conduct individual operator requalification examinations for the purpose of license renewal. As a result of conducting these examinations, the staff has determined that the NRC examiners are largely duplicating tasks already required of, and routinely performed by, the facility licensees.

The proposed rule will delete the requirement that each licensed operator pass a comprehensive requalification written examination and an operating test conducted by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal. The proposed amendment will require facility licensees to submit copies of the annual operating test or comprehensive written examination used for operator requalification for review by the Commission at least 30 days prior to conducting the examination or the test. In addition, the proposed rule will amend the "Scope" provisions of the regulations pertaining to operators' licenses to include facility licensees.

The Honorable Philip R. Sharp, Chairman
Subcommittee on Energy and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed for the information of the subcommittee is a copy of a proposed rule to be published in the Federal Register that contains additions to 10 CFR Part 55. Section 306 of the Nuclear Waste Policy Act (NWPA) of 1982 directed the NRC to promulgate regulations or other appropriate guidance to establish "simulator training requirements . . . and . . . requirements governing NRC administration of requalification examinations." On May 26, 1987, the NRC amended 10 CFR Part 55 to require each licensed operator to pass a comprehensive requalification written examination and an operating test administered by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal.

At the time the regulation was amended, the Commission did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the Commission's expectations. The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. Therefore, the Commission determined that during the term of a 6-year license, the staff would conduct individual operator requalification examinations for the purpose of license renewal. As a result of conducting these examinations, the staff has determined that the NRC examiners are largely duplicating tasks already required of, and routinely performed by, the facility licensees.

The proposed rule will delete the requirement that each licensed operator pass a comprehensive requalification written examination and an operating test conducted by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal. The proposed amendment will require facility licensees to submit copies of the annual operating test or comprehensive written examination used for operator requalification for review by the Commission at least 30 days prior to conducting the examination or the test. In addition, the proposed rule will amend the "Scope" provisions of the regulations pertaining to operators' licenses to include facility licensees.

The Honorable Bob Graham, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Enclosed for the information of the subcommittee is a copy of a proposed rule to be published in the Federal Register that contains additions to 10 CFR Part 55. Section 306 of the Nuclear Waste Policy Act (NWPA) of 1982 directed the NRC to promulgate regulations or other appropriate guidance to establish "simulator training requirements . . . and . . . requirements governing NRC administration of requalification examinations." On May 26, 1987, the NRC amended 10 CFR Part 55 to require each licensed operator to pass a comprehensive requalification written examination and an operating test administered by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal.

At the time the regulation was amended, the Commission did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the Commission's expectations. The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. Therefore, the Commission determined that during the term of a 6-year license, the staff would conduct individual operator requalification examinations for the purpose of license renewal. As a result of conducting these examinations, the staff has determined that the NRC examiners are largely duplicating tasks already required of, and routinely performed by, the facility licensees.

The proposed rule will delete the requirement that each licensed operator pass a comprehensive requalification written examination and an operating test conducted by the NRC during the term of the operator's 6-year license as a prerequisite for license renewal. The proposed amendment will require facility licensees to submit copies of the annual operating test or comprehensive written examination used for operator requalification for review by the Commission at least 30 days prior to conducting the examination or the test. In addition, the proposed rule will amend the "Scope" provisions of the regulations pertaining to operators' licenses to include facility licensees.

The staff believes that it could ensure and improve operational safety at each facility by directing its examiners to inspect and oversee facility requalification programs rather than conducting requalification examinations. By redirecting the examiner resources, the staff expects to find and correct programmatic weaknesses earlier and thus improve operational safety.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure:
Notice of Proposed Rulemaking

cc: Senator Alan K. Simpson

Distribution: [CONG2.LET]
Subj-circ-chron
DRA/Rdg/Subj
DRathbun,
EBeckjord
CHeltemes
BMorris w/enclosure
FCostanzi
PLohaus
RAuluck

Offc:	<i>R. Auluck</i> DRA:RES	DRA:RES	DD:DRA:RES	D:DRA:RES	DD:GLINES
Name:	RAuluckjw	PLohaus <i>sm</i>	FCostanzi <i>sm</i>	BMorris <i>sm</i>	CHeltemes
Date:	11/20/92	11/23/92	11/23/92	11/23/92	11/20/92

Offc:	D:RES <i>B</i>	OCA
Name:	EBeckjord	DRathbun
Date:	11/23/92	1/ /92

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RIII - CHICAGO (2)		ATOMIC SAFETY AND LICENSING BOARD PANEL (2)	
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RETURN ORIGINAL TO: *R. Aulick, NL/S-129*

- (c) A public announcement will be issued (Enclosure C).
- (d) The Subcommittee on Nuclear Regulation of the Senate Committee on Environment and Public Works, the Subcommittee on Energy and Power of the House Committee on Energy and Commerce, and the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs will be informed by letter (Enclosure D).
- (e) This proposed rule will be submitted to the Office of Management and Budget for review and approval of the paperwork requirements.
- (f) 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.

James M. Taylor
Executive Director
for Operations

Enclosures [RENEWAL.REV]:

- A. Federal Register Notice of Proposed Rulemaking
- B. Draft Regulatory Analysis
- C. Draft Public Announcement
- D. Draft Congressional Letters

RECORD NOTE: A draft copy of the proposed rule was sent to OIG for review on 11/23/92.

*See previous concurrence

Offc:	RDB:DRA:RES	LOLB:NRR	LOLB:/NRR	RDB:DRA:RES	DD:DRA:RES	D:DRA:RES
Name:	RAuluck/jw*	DLange*	RGallo*	PLohaus*	FCostanzi*	BMorris*
Date:	09/10/92	9/10/92	9/10/92	09/10/92	09/10/92	09/10/92
Offc:	DD:GIR:RES	D:NRR	OGC	D:OE	D:ADM	D:IRM
Name:	CHeltemes*	TMurley*	STreby*	JLieberman*	PNorry*	GCranford*
Date:	09/10/92	9/17/92	11/20/92	9/15/92	9/28/92	9/29/92
Offc:	D:RES	EDO				
Name:	EBeckjord*	JMTaylor				
Date:	11/23/92	/ /92				

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- (f) 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.

James M. Taylor
 Executive Director
 for Operations

- Enclosures [RENEWAL.REV]:
- A. Federal Register Notice of Proposed Rulemaking
 - B. Draft Regulatory Analysis
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Record Note: A draft copy of the proposed rule was sent to OIG for review on 11/23/92.

*See previous concurrence

Offc:	RDB:DRA:RES	LOLB:NRR	LOLB:/NRR	RDB:DRA:RES	DD:DRA:RES	D:DRA:RES
Name:	RAuluck/jw*	DLange*	RGallo*	PLohaus*	FCostanzi*	BMorris*
Date:	09/10/92	9/10/92	9/10/92	09/10/92	09/10/92	09/10/92
Offc:	DD:GIR:RES	D:NRR <i>with MSH</i>	OGC <i>no objection</i>	D:OE by <i>telephone</i>	D:ADM <i>memo</i>	D:IRM <i>memo + phone</i>
Name:	CHeltemes*	TMurley	STreby	JLieberman*	PNorry*	GCranford*
Date:	09/10/92	9/17/92	11/20/92	9/15/92	9/28/92	9/29/92
Offc:	D:RES <i>B</i>	EDO				
Name:	EBeckjord	JMTaylor				
Date:	" 12/3/92	/ /92				

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The Honorable Peter H. Kostmayer

2

The staff believes that it could ensure and improve operational safety at each facility by directing its examiners to inspect and oversee facility requalification programs rather than conducting requalification examinations. By redirecting the examiner resources, the staff expects to find and correct programmatic weaknesses earlier and thus improve operational safety.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure:
Notice of Proposed Rulemaking

cc: Representative John J. Rhodes

Distribution: [CONG2.LET]
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CHeltemes
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Offc: ~~DRA:RES~~
Name: RAuluckjw
Date: 11/20/92

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DD:DRA:RES FCostanzi 11/27/92
D:DRA:RES BMorris 11/23/92
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Offc: D:RES
Name: EBeckjord
Date: 11/23/92

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1/92

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The Honorable Philip R. Sharp

2

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Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure:
Notice of Proposed Rulemaking

cc: Representative Carlos J. Moorhead

Distribution: [CONG2.LET]
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CHeltemes
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Name: RAuluckjw
Date: 11/20/92

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PLOhaus
11/27/92

DD:DRA:RES
FCostanzi
11/27/92

D:DRA:RES
BMorris
11/13/92

DD:GIR:RES
CHeltemes
11/20/92

Offc: D:RES
Name: EBeckjord
Date: 11/27/92

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1/ /92

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Multiple Addressees

SEP 11 1992

rulemaking which was sent to OGC and NRR for comments on July 23, 1992. The enclosed proposed rule includes their comments.

- 7. No additional resources are anticipated to implement the rule. A copy of this concurrence package has been forwarded to the Office of the Controller for coordination of resources issues per the EDO memorandum of June 14, 1991.

We are requesting that you review the enclosed proposed rulemaking package and provide us with your comments and approval by the date requested.

Original Signed by:

C. J. Heltemes, Jr., Deputy Director
for Generic Issues and Rulemaking
Office of Nuclear Regulatory Research

Enclosure:
Commission Paper w/encls.

cc w/encls: R. M. Scroggins, OC

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 RDB R/F
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 RAuluck

OFFC: <i>RAuluck</i> RDB: DRA NAME: RAuluck:dm DATE: 9/10/92	RDB: DRA P: Lohaus <i>PM</i> 9/10/92	DD: DRA: RES NCostanzi 9/10/92	D: DRA: RES MBorris 9/10/92	DD: <i>GM</i> CJHeltemes 9/10/92
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The Commissioners

- (d) The Subcommittee on Nuclear Regulation of the Senate Committee on Environment and Public Works, the Subcommittee on Energy and Power of the House Committee on Energy and Commerce, and the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs will be informed by letter (Enclosure D).
- (e) This rule will be submitted to the Office of Management and Budget for review and approval of the paperwork requirements.
- (f) 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.

James M. Taylor
 Executive Director
 for Operations

Enclosures:

- A. Federal Register Notice
 - B. Regulatory Analysis
 - C. Public Announcement
 - D. Congressional Letters
- } To be developed

*See Heltemes memo to Office Directors, dtd 9/11/92

Offc:	*RDB:DRA:RES	LOLB:NRR	LOLB:/NRR	*RDB:DRA:RES	*DD:DRA:RES	*D:DRA:RES
Name:	RAuluck/cj:dm	DLange	RGallo	PLohaus	FCostanzi	BMorris
Date:	09/10/92	/ /92	/ /92	09/10/92	09/10/92	09/10/92
Offc:	*DD:GIR:RES	OGC	OGC	D:OE	D:ADM	D:IRM
Name:	CHeltemes	TMurley	TMurley	WParler	JLieberman	PNorry
Date:	09/10/92	9/11/92	9/11/92	/ /92	/ /92	/ /92
Offc:	D:RES	EDO				
Name:	EBeckjord	JMTaylor				
Date:	/ /92	/ /92				

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

SEP 29 1992

MEMORANDUM FOR: Michael T. Lesar, Chief
Rules Review Section
Regulatory Publications Branch
Division of Freedom of Information and
Publications Services
Office of Administration

FROM: Brenda Jo. Shelton, Chief
Information and Records Management Branch
Division of Information Support Services
Office of Information Resources Management

SUBJECT: REQUEST FOR COMMENT AND CONCURRENCE ON THE PROPOSED
RULE, 10 CFR 55, OPERATORS' LICENSES

In response to your subject memorandum, the Information and Records Management Branch (IRMB) provides the following:

- The Paperwork Reduction Act Statement (PRAS) is correct.
- Change the PRAS to Enclosure 1.
- The "Information Collection Requirements: OMB Approval" section is correct.
- Add the enclosed "Information Collection Requirements: OMB Approval" section.
- Do not publish the "Federal Register Notice" until further notice.
- The "Federal Register Notice" can be published.
- Enclosed is a copy of the IRMB memorandum to the program office addressing our concerns.
- A copy of the IRMB memorandum to the program office addressing our concerns will be forwarded at a later date.
- An IRMB memorandum to the program office is not required.

Brenda Jo. Shelton, Chief
Information and Records Management Branch
Division of Information Support Services
Office of Information Resources Management

Enclosures:
As stated

cc: R. Auluck, RES
S. Hudson, RES

~~9403180208~~

ROUTING AND TRANSMITTAL SLIP

Date

12/21/92

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Bruce Boger		
2. William Russell		
3. Frank Gillespie		
4. Frank Miraglia		
B.		

Action	File	Note and Return
<input checked="" type="checkbox"/> Approval	For Clearance	Per Conversation
<input type="checkbox"/> As Requested	For Correction	Prepare Reply
<input type="checkbox"/> Circulate	For Your Information	See Me
<input type="checkbox"/> Comment	Investigate	Signature
<input type="checkbox"/> Coordination	Justify	

REMARKS

Please approve and forward the attached changes to the Commission papers and proposed rule package in response to Jim Blaha's meeting with DRCH staff on 12/18/92 regarding the operator requalification program. The changes made are attached to the back of each paper and are shaded in gray.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
	10-D-15
Bob Gallo	Phone No.
	504-3171

5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

Ray - Final Pt 55
package with final changes
to FTE figures worked
out by NRR + 600. Mrs
Stop by on your return
& I'll discuss with you.
Paul 12/21



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

Bill
Paul
Kaj w/encel
File

SEP 28 1992

MEMORANDUM FOR: Clemens J. Heltemes, Jr., Deputy Director
for Generic Issues and Rulemaking
Office of Nuclear Regulatory Research

FROM: Patricia G. Norry, Director
Office of Administration

SUBJECT: OFFICE CONCURRENCE ON PROPOSED RULE ENTITLED,
"OPERATORS' LICENSES," 10 CFR PART 55

The Office of Administration concurs on the proposed rule package that will amend 10 CFR Part 55 by deleting the requirement that each licensed operator pass a comprehensive requalification written examination and an operating test administered by the NRC during the term of an operator's 6-year license as a prerequisite for license renewal. NRC will provide oversight for these programs and examinations through inspections. The proposed amendment will also require facility licensees to submit copies of the annual operating test and comprehensive written examination 30 days prior to administration for review by the Commission. We have attached a marked copy of the proposed rule package that presents our comments.

We have suggested a number of adjustments in the presentation of regulatory text necessary to comply with the publication requirements of the Office of the Federal Register. Additionally, in the Summary and Introductory text of the Regulatory Analysis, we have recommended adding a general statement regarding regulatory requirements for operator license requalification prior to the 1987 amendment.

We have forwarded a copy of the proposed rule to the Information and Records Management Branch, IRM, for their comment or concurrence concerning the paperwork management aspects of this rulemaking action. We have requested that they respond directly to you.

In order to assist in the preparation of the list of documents centrally relevant to this rulemaking action that is required by NRC's regulatory history procedures, the designator "AE39" should be placed in the upper right-hand corner of each document concerning the rule that is forwarded to the Nuclear Document System.

~~9453180201~~

DOC. FILE NAME: RENEWAL.REV
LONG DISPLAY: Commission Paper re 10 CFR Part 55 Proposed Amendments
CREATED:
AUTHOR: R. Auluck
REVISED: 09/23/92 09/24/92 09/25/92 09/28/92 10/09/92
TYPIST: CJones CJ CJ CJ CJ
TIME: 2:40 pm 8:33 am 2:10 pm 10:18 am 3:30 pm
10/19/92 10/22/92 11/16/92 11/19/92
JWilliams JWilliams JWilliams JWilliams
4:45 pm 5:30 pm 5:30pm 2:10

EXCERPT:
For: The Commissioners
From: James M. Taylor
Executive Director for Operations
Subject: PROPOSED AMENDMENTS TO 10 CFR PART 55 ON RENEWAL OF LICENSES
AND REQUALIFICATION
Purpose: To obtain Commission approval for publication of the
proposed amendments.
Background: Section 306 of the Nuclear Waste Policy Act (NWPA) of 1982
directed the NRC to promulgate regulations or other

DOC. FILE NAME: 10-55RPT.PNL

LONG DISPLAY: PACIFIC-N'WEST REGULATORY ANALYSIS

CREATED:

AUTHOR: R. Auluck

REVISED:	09/23/92	09/24/92	09/25/92	09/25/92	09/25/92
TYPIST:	CJones	CJ	CJ	CJ	CJ
TIME:	4:40 pm	10:55 am	12:05 pm	2:15 pm	3:15 PM
	10/05/92	10/05/92	10/20/92	10/23/92	
	CJones	CJ	JWilliams	JWilliams	
	3L35 pm	4:55 pm	8:45 am	9:00 am	

EXCERPT:

DRAFT

Regulatory Analysis of Proposed Revisions to
10 CFR Part 55 -- Operators' Licenses

DOC. FILE NAME: CONGAU.LTR
LONG DISPLAY:
CREATED: 11/2/92
AUTHOR: R. Auluck/jw
REVISED:
TYPIST:
TIME:

EXCERPT:
The Honorable Peter H. Kostmayer, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, DC 20515

tatives

Chairman
Regulation
Works

IDENTICAL LETTERS TO:
The Honorable Philip R. Sharp,
Chairman
Subcommittee on Energy and Power
Committee on Energy and Commerce
United States House of Represent-

Washington, DC 20515
cc: Rep. Carlos J. Moorhead

The Honorable Bob Graham,
Subcommittee on Nuclear
Comm. on Environment and Public

United States Senate
Washington, DC 20510
cc: Senator Alan K. Simpson

Dear Mr. Chairman:

Enclosed for the information of the subcommittee is a copy of a proposed rule to be published in the Federal Register that contains additions to 10 CFR Part 55. Section 306 of the Nuclear Waste Policy Act (NWPA) of 1982 directed the NRC to promulgate regulations or other appropriate guidance to establish "simulator training requirements . . . and . . . requirements governing NRC

DOC. FILE NAME: PRPSDRQL.ONE

LONG DISPLAY: Operators' Licenses

CREATED:

AUTHOR: R. Auluck

REVISED:	08/27/92	08/28/92	09/03/92	09/15/92
TYPIST:	CJones	CJ	CJ	CJ
TIME:	10:45 am	2:30 pm	9:55 am	2:20 pm
	09/24/92	09/25/92	09/25/92	09/28/92
	CJ	CJ	CJ	CJ
	9:20 am	12:05 pm	3:10 pm	10:22 am
	10/13/92	10/14/92	10/19/92	11/16/92
	STaylor	STaylor	JWilliams	JWilliams
	4:15 pm	3:45 pm	5:05 pm	5:30pm
	11/19/92			
	jw			
	5:40pm			

EXCERPT:

[7590-01]

NUCLEAR REGULATORY COMMISSION
 10 CFR Part 55
 RIN-AE 39
 Operators' Licenses

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to delete the requirement that each licensed operator pass a comprehensive requalification written examination and an operating test conducted by the NRC during the term of the operator's 6-year license as a

The Commissioners

requalification examinations. The NRC will administer these programs by providing oversight for the programs and examinations through inspections. In addition, Section 55.59(a)(2)(iii) provides that the NRC may conduct requalification examinations in lieu of accepting the facility licensee's certification that a licensed individual has passed the facility requalification examination. The NRC will use this option if warranted after conducting an on-site inspection of the facility's requalification program and also to periodically conduct selected portions of requalification examinations.

The staff's estimate of the cost of the existing NRC program and projected cost for the revised NRC program indicate that the net savings to the NRC, accrued from implementing the revised program, will be the equivalent of approximately 7 full-time staff equivalents.

As part of development of the proposed rule, the CRGR was briefed on October 6, 1992, and the ACRS was briefed on October 9, 1992. Comments provided at these meetings have been addressed by the staff in preparation of this proposed rule.

Coordination: The Office of the General Counsel has no legal objection.

Recommendation: That the Commission:

- (1) Approve publication for comment of the proposed rule as set forth in Enclosure A.
- (2) In order to satisfy the requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b), certify that this rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. This certification is included in the enclosed Federal Register Notice.
- (3) Note that:
 - (a) The notice of rulemaking (Enclosure A) will be published in the Federal Register, allowing 60 days for public comment.
 - (b) A regulatory analysis will be available in the Public Document Room (Enclosure B).

currently existing ambiguities between the regulations of Parts 50 and 55. Part 50, in sections 50.54(i) through (m), already imposes Part 55 requirements on facility licensees, and Part 55 already specifies requirements for facility licensees.

The Commission believes that licensed operators are one of the main components and possibly the most critical component of continued safe reactor operation, especially with respect to mitigating the consequences of emergency conditions. Two-thirds of the requalification programs that have been evaluated as "unsatisfactory" had significant problems in the quality or implementation of the plant's emergency operating procedures (EOPs). In some of these cases, the facility licensees did not train their operators on challenging simulator scenarios or did not retrain their operators after the EOPs were revised. The Commission believes that it could have identified these problems sooner by reviewing facility requalification examinations and operating tests and inspecting facility requalification training and examination programs. Facility licensees could have then corrected these problems and improved overall operator job performance sooner.

This proposed rule is intended to improve operational safety by providing the means to find and correct weaknesses in facility licensee requalification programs more rapidly than provided for under the current regulations. The experience gained from conducting NRC requalification examinations indicates that the NRC is largely duplicating the efforts of the facility licensees. The NRC could more effectively use its resources to oversee facility licensee requalification programs rather than conducting individual operator requalification examinations for all licensed operators. The staff's estimate of the cost of the existing NRC program and projected cost for the revised NRC program indicate that the net savings to the NRC,

accrued from implementing the revised program, will be the equivalent of approximately 7 full-time staff equivalents.

Each facility licensee would continue in its present manner of conducting its licensed operator requalification program. However, this proposed rule would reduce the burden on the facility licensees because each facility licensee would have its administrative and technical staff expend fewer hours than are now needed to assist in developing and conducting the NRC requalification examinations. Facility licensees are expected to realize a combined annual operational cost savings of approximately \$820K.

In summary, the proposed rule is expected to result in improved operational safety by providing more timely identification of weaknesses in facility licensees' requalification programs. In addition, the proposed rule would also reduce the resources expended by both the NRC and the licensees. The Commission has, therefore, concluded that the proposed rule meets the requirements of 10 CFR 50.109, that there would be a substantial increase in the overall protection of public health and safety and the costs of implementations are justified.

List of Subjects 10 CFR Part 55

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

SUMMARY

In 1987, the NRC amended 10 CFR Part 55 to add requirements for the requalification and renewal of operators' licenses. The regulations required licensed operators to pass facility requalification examinations and annual operating tests. In addition, the amended regulations required licensed operators to pass a comprehensive requalification written examination and operating test administered by the NRC during the term of a 6-year license. Prior to 1987, NRC regulations did not require facility licenses to conduct continuous and rigorous examinations and training regulations programs for operators' licenses.

This additional requirement was added because at the time the regulation was amended, the NRC did not have sufficient confidence that each facility would conduct its annual operating tests and written examinations in accordance with the NRC's expectations for the evaluation process outlined in 10 CFR 55.59(c)(4). The lack of confidence was due to the implementation of new aspects of the operator requalification program with which neither the NRC nor the industry had very much experience. The new aspects included: 1) changing from a 2-year to a 6-year license term resulting in license renewal applications being submitted for NRC review much less frequently; 2) requiring operating tests on simulators when most of the industry's simulators were either new or still under construction; and 3) permitting requalification programs to be based on a systems approach to training when the industry had not implemented the process for accrediting these programs. After conducting these examinations over a 3-year period, however, NRC now has the confidence that facility licensees can successfully implement their own requalification programs. As a result, the NRC is considering amending the current requalification regulations in 10 CFR Part 55.

It is now believed that rather than requiring NRC-conducted requalification examinations, NRC can ensure safety and more effectively use its resources by periodically inspecting the licensee's requalification program. The proposed rulemaking, which would eliminate the need for each licensee to pass an NRC requalification examination, is intended to ensure and improve the continued effectiveness of the Part 55 requalification requirements.

The NRC is expected to incur one-time costs associated with development and implementation of the proposed rulemaking. These one-time NRC costs are estimated to total approximately \$200,000. If the NRC continues conducting requalification examinations for all licensed operators, the staff estimates that it would require approximately 22 FTE each year. Implementing the proposed requalification inspection program would save the equivalent of about 7 FTE (or \$1.25 million) each year over conducting requalification examinations for all licensed operators. Facility licensees are expected to realize a combined annual operational cost savings of approximately \$820,000. On a 1992 present worth basis, assuming an average 25-year remaining lifetime and a 5% real discount rate, the NRC and industry savings are equivalent to \$17.6 million and \$11.6 million, respectively.

- training of NRC & contractor examiners on the new inspection module requirements
- conduct of pilot inspections
- modification of the inspection module

The incremental, one-time costs associated with these three implementation activities are estimated to be \$50,000. As a result, the total NRC implementation costs are estimated to be \$150,000.

3.2.5 NRC Operation Costs

NRR, the office responsible for administering and budgetary planning for the requalification examination program has estimated the NRC cost implications of the proposed rule change. Their analysis focussed solely on NRC staff resources and contractor support because these were the only cost factors judged to be affected by the proposed rule change.

In FY92 the NRC resources committed to this program for NRC staff and contractor support were approximately 12 FTE and \$1.3 million, respectively. The staff projects that a slightly larger average number of examinations, requiring approximately 1.5 additional FTE and an additional \$200,000, would be conducted in future years if the NRC continues conducting requalification examinations for all licensed operators. Thus, if it is assumed that without the rule change, this program would continue into the future, the relevant baseline NRC burden would approximate \$2.85 (1.35 + 1.5) million per year in 1992 dollars for FY93 through FY97. For regulatory analysis purposes, the 13.5 (12 + 1.5) NRC staff years (FTE) were converted to \$1.35 million (\$100,000 per staff year) based on allowances for composite wage rates and direct benefits.^a

Under the proposed rule change, NRR's analysis indicates that NRC staff could perform all necessary inspections of requalification exam programs with 13 FTEs and \$300,000 per year. At \$100,000 per FTE, this converts to an annual cost in 1992 dollars of \$1.6 million. Thus, the annual savings in NRC operating costs is estimated to be on the order of \$1.25 million (\$2.85 million less \$1.6 million). Over an assumed 25 year remaining life, based on a 5% real discount rate, the 1992 present worth savings in NRC resources is estimated at about \$17.6 million in 1992 dollars.

^aNRC labor costs presented here differ from those developed under the NRC's license fee recovery program. For regulatory analysis purposes, labor costs are developed under strict incremental cost principles wherein only variable costs that are directly related to the development, implementation, and operation and maintenance of the proposed requirement are included. This approach is consistent with guidance set forth in NUREG/CR-3568, "A Handbook for Value Impact Assessment," and general cost benefit methodology. Alternatively, NRC labor costs for fee recovery purposes are appropriately designed for full cost recovery of the services rendered and as such include non-incremental costs (e.g. overhead and administrative and logistical support costs).

3.3 VALUE-IMPACT ASSESSMENT SUMMARY

The overall objective of this analysis was to assess the values and impacts (costs and savings) expected to result from implementation of the proposed rulemaking. Values were qualitatively discussed in Section 3.1. Impacts were assessed for the proposed rulemaking in Section 3.2 relative to the status quo. These impacts are summarized in Table 3.4.

Table 3.4 Summary of Cost Savings to Industry and the NRC (1992 Dollars)

	<u>Annual</u>	<u>Lifetime (1992 Present Worth)^a</u>
INDUSTRY SAVINGS		
Operation	\$ 820,000	\$11,560,000
NRC SAVINGS		
Development (one-time cost)		-\$50,000
Implementation (one-time cost)		-\$150,000
Operation	\$1,250,000	\$17,625,000
TOTAL NRC SAVINGS		\$17,425,000

3.4 IMPACT ON OTHER REQUIREMENTS

The principal impact of the proposed rulemaking would be on affected licensees and licensee employees. The cost impact on licensees is discussed in Section 3.2. Impacts on other government agencies are expected to be minimal. The impacts on NRC programs and requirements are also expected to be relatively small. The NRC has had existing personnel and procedures for conducting licensed operator requalification examinations since the program began in 1988. It is not anticipated that the NRC would need to add any additional staff or administrative personnel as a result of this proposed rulemaking. The administration of the revised regulations would be absorbed by current NRC personnel and staff.