

Agreement Act of 1937, as amended (7 U.S.C. 601-674). The rule was recommended by the Spearmint Oil Administrative Committee, at its August 13, 1986, meeting. The proposed rule was published in the *Federal Register* on December 19, 1986, (51 FR 45475) and provided interested persons the opportunity to file written comments through January 20, 1987. No comments were received.

The salable quantity and allotment percentage for each class of spearmint oil for the 1987-88 marketing year, which begins June 1, 1987, is based upon recommendations of the committee and the following data and estimates:

(1) Class I Oil (Scotch Spearmint)

(A) Estimated carryin on June 1, 1987—60,382 pounds.
 (B) Estimated trade demand (domestic and export) for the 1987-88 marketing year, based on an average of producer sales for the past six marketing years, beginning with the 1980-81 marketing year through the 1985-86 marketing year—758,914 pounds.

(C) Recommended desirable carryout on May 31, 1988—0 pounds.

(D) Salable quantity required from 1987 production—698,532 pounds.

(E) Total allotment bases for Class I oil—1,650,497 pounds.

(F) Computed allotment percentage—42.3 percent.

(G) The committee's recommended salable quantity—693,209 pounds.

(H) Recommended allotment percentage—42 percent.

(2) Class III Oil (Native Spearmint)

(A) Estimated carryin on June 1, 1987—179,599 pounds.

(B) Estimated trade demand (domestic and export) for the 1987-88 marketing year, based on an average of producer sales for the past six marketing years, beginning with the 1980-81 marketing year through the 1985-86 marketing year—859,648 pounds.

(C) Recommended desirable carryout on May 31, 1988—0 pounds.

(D) Salable quantity required from 1987 production—680,049 pounds.

(E) Total allotment bases for Class III oil—1,826,673 pounds.

(F) Computed allotment percentage—37.2 percent.

(G) The committee's recommended salable quantity—675,869 pounds.

(H) Recommended allotment percentage—37 percent.

The salable quantity is the total quantity of each class of oil which handlers may purchase from or handle on behalf of producers during a marketing year. Each producer is allotted a share of the salable quantity by applying the allotment percentage to

the producer's allotment base for the applicable class of spearmint oil.

The establishment of these salable quantities and allotment percentages will allow for anticipated market needs based on historical sales and provide spearmint oil producers with information on the amount of oil which should be produced for next season. Spearmint oil has an extremely inelastic demand and excess production normally is placed into the industry's reserves. Current reserves are equal to more than 50 percent of the volume of spearmint oil utilized by the market on a yearly basis. These reserve stocks are sufficient to meet any unanticipated marketing opportunities in the coming season. The regulation this season should aid the industry in reducing its burdensome and price depressing reserves.

Pursuant to the order, the committee issued additional allotment bases to both new and existing producers for the 1987-88 marketing year. The issuance of additional allotment base to both new and existing producers is expected to increase the total supply available for sale of Class I oil by 16,608 pounds and Class III oil by 18,080 pounds.

List of Subjects in 7 CFR Part 985

Agricultural Marketing Service, Marketing agreements and orders, Far West, and Spearmint oil.

1. The authority citation for 7 CFR Part 985 continues to read as follows:

Authority: Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674.

2. A new § 985.207 under Subpart—Salable Quantities and Allotment Percentages is added to read as follows:

Note.—The following provisions will not be published in the Code of Federal Regulations.

PART 985—SPEARMINT OIL PRODUCED IN THE FAR WEST

Subpart—Salable Quantities and Allotment Percentages

§ 985.207 Salable quantities and allotment percentages—1987-88 marketing year.

The salable quantity and allotment percentage for each class of spearmint oil during the marketing year which begins June 1, 1987, shall be as follows:

(a) Class I oil—a salable quantity of 693,209 pounds and an allotment percentage of 42 percent.

(b) Class III oil—a salable quantity of 675,869 pounds and an allotment percentage of 37 percent.

Dated: March 20, 1987.

Joseph A. Gribbin,

Director, Fruit and Vegetable Division.

[FR Doc. 87-6501 Filed 3-24-87; 8:45 am]

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Animal and Plant Health Inspection Service

9 CFR Part 78

[Docket No. 87-041]

Brucellosis in Cattle; State and Area Classifications

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Interim rule.

SUMMARY: We are amending the regulations governing the interstate movement of cattle because of brucellosis by changing the classification of Alabama from Class B to Class A. This action is necessary because we have determined that Alabama meets the standards for Class A status. The effect of this action is to relieve certain restrictions on the interstate movement of cattle from Alabama.

EFFECTIVE DATE: March 25, 1987. We will consider your comments if we receive them on or before May 26, 1987.

ADDRESSES: Send written comments to Steven B. Farbman, Assistant Director, Regulatory Coordination, APHIS, USDA, Room 728, Federal Building, Hyattsville, MD 20782. Please state that your comments refer to Docket No. 87-041. Comments received may be inspected in Room 728 of the Federal Building between 8 a.m. and 4:30 p.m., Monday through Friday, except holidays.

FOR FURTHER INFORMATION CONTACT: Dr. Jan Huber, Senior Staff Veterinarian, Domestic Programs Support Staff, VS, APHIS, USDA, Room 812, Federal Building, 6505 Belcrest Road, Hyattsville, MD 20782 (301) 436-5965.

SUPPLEMENTARY INFORMATION:

Background

The brucellosis regulations (contained in 9 CFR Part 78 and referred to below as the regulations) provide a system for classifying States or portions of States according to the rate of brucella infection present and the general effectiveness of a brucellosis control and eradication program. The classifications are Class Free, Class A, Class B, and Class C. States or areas that do not meet the minimum standards for Class C are required to be placed under Federal quarantine. The State of Alabama is designated as a Class B status. This document amends the regulations to change the brucellosis program status of Alabama from Class B to Class A.

The brucellosis Class Free classification is based on a finding of no

known brucellosis in cattle for the period of 12 months preceding classification as Class Free. The Class C classification is for States or areas with the highest rate of brucellosis, with Class A and Class B in between. Restrictions on the movement of cattle are more stringent for movements from Class A States or areas compared with movements from Free States or areas, and are more stringent for movements from Class B States or areas compared with movements from Class A States or areas, and so on.

The basic standards for the different classifications of States or areas concern maintenance of: (1) A cattle herd infection rate, based on the number of herds found to have brucellosis reactors, not to exceed a stated level during 12 consecutive months; (2) a rate of infection in the cattle population, based on the percentage of brucellosis reactors found in Market Cattle Identification (MCI)—testing at stockyards and slaughtering establishments—not to exceed a stated level; (3) a surveillance system that requires testing of dairy herds, participation of all slaughtering establishments in the MCI program, identification and monitoring of herds at high risk of infection, including herds adjacent to infected herds and herds from which infected animals have been sold or received; and (4) minimum procedural standards for administering the program.

Prior to the effective date of this document, Alabama was classified as a Class B State because of the herd infection rate and the MCI reactor prevalence rate. However, a review of the brucellosis program establishes that Alabama should be changed to Class A status.

In order to attain and maintain Class A status, a State or area must (1) not exceed a cattle herd infection rate, due to field strain *Brucella abortus* of 0.25 percent or 2.5 herds per 1,000 based on the number of reactors found within the State or area during any 12 consecutive months, except in States with 10,000 or fewer herds; (2) maintain a 12 consecutive months MCI reactor prevalence rate not to exceed one reactor per 1,000 cattle tested (0.10 percent); and (3) have an approved individual herd plan in effect within 15 days of locating the source herd or recipient herd. Alabama now meets the criteria for classification as Class A.

Executive Order 12291 and Regulatory Flexibility Act

We are issuing this rule in conformance with Executive Order 12291, and we have determined that it is

not a "major rule" Based on information compiled by the Department, we have determined that this rule will have an effect on the economy of less than \$100 million; will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; and will not cause a significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

For this action, the Office of Management and Budget has waived its review process required by Executive Order 12291.

Cattle moved interstate are moved for slaughter, for use as breeding stock, or for feeding. Changing the status of Alabama reduces certain testing and other requirements on the interstate movement of these cattle. However, cattle from certified brucellosis-free herds moving interstate are not affected by these changes in status. We have determined that the changes in brucellosis status made by this document will not affect market patterns and will not have a significant economic impact on those persons affected by this document.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action will not have a significant economic impact on a substantial number of small entities.

Executive Order 12372

This program/activity is listed in the Catalog of Federal Domestic Assistance under No. 10.025 and is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials. (See 7 CFR Part 3015, Subpart V.)

Emergency Action

Dr. John K. Atwell, Deputy Administrator of the Animal and Plant Health Inspection Service for Veterinary Services, has determined that an emergency situation exists, which warrants publication of this interim rule without prior opportunity for public comment. Immediate action is warranted in order to delete unnecessary restrictions on the interstate movement of certain cattle from Alabama.

Further, pursuant to administrative procedure provisions in 5 U.S.C. 533, it is found upon good cause that prior notice and other public procedures with

respect to this interim rule are impracticable and contrary to the public interest, and good cause is found for making this interim rule effective less than 30 days after the publication of this document in the *Federal Register*. Comments are being solicited for 60 days after publication of this document, and a final document discussing comments received and any amendments required will be published in the *Federal Register* as soon as possible.

List of Subjects in 9 CFR Part 78

Animal diseases, Brucellosis, Cattle, Hogs, Quarantine, Transportation.

PART 78—BRUCELLOSIS

Accordingly, 9 CFR Part 78 is amended as follows:

1. The authority citation for Part 78 continues to read as follows:

Authority: 21 U.S.C. 111-114a-1, 114g, 115, 117, 120, 121, 123-126, 134b, 134f; 7 CFR 2.17, 2.51, and 371.2(d).

§ 78.41 [Amended]

2. Section 78.41, paragraph (b) is amended by adding "Alabama" immediately before "Arizona".

3. Section 78.41, paragraph (c) is amended by removing "Alabama".

Done in Washington, DC, this 20th day of March, 1987.

B. G. Johnson,

Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service.

[FR Doc. 87-6421 Filed 3-24-87; 8:45 am]

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NUCLEAR REGULATORY COMMISSION

10 CFR Parts 50 and 55

Operators' Licenses and Conforming Amendments

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission is amending its regulations to (1) clarify the regulations for issuing licenses to operators and senior operators; (2) revise the requirements and scope of written examinations and operating tests for operators and senior operators, including a requirement for a simulation facility; (3) codify procedures for administering requalification examinations; and (4) describe the form and content for operator license applications. The rule is necessary to meet NRC responsibilities under Section

306 of the Nuclear Waste Policy Act of 1982.

DATES: Effective Date: May 26, 1987.
Public meeting dates: April 9, 14, 16, and 20, 1987.

ADDRESSES: Public meeting locations: Public meetings will be held to discuss implementation of the requirements of this rule. The meetings will be held as follows:

A. April 9, 1987 for Region II, Richard B. Russell Federal Building, Strom Auditorium, Lower Level, 75 Spring Street, SW., Atlanta, Georgia.

Point of Contact: Mr. Kenneth E. Brockman, U.S. Nuclear Regulatory Commission, Region II, 101 Marietta Street, Suite 3100, Atlanta, GA 30323, (404) 331-5594.

B. April 14, 1987 for Regions IV and V, Stouffer Concourse Hotel, 3801 Quebec Street, Denver, Colorado (Across from Stapleton Airport).

Points of Contact: Mr. Ralph Colley, U.S. Nuclear Regulatory Commission, Region IV, Parkway Central Plaza Building, 611 Ryan Plaza Drive, Suite 1000, Arlington, TX 76011, (817) 860-8147.

Mr. Phillip Morrill, U.S. Nuclear Regulatory Commission, Region V, 1450 Maria Lane, Suite 210, Walnut Creek, CA 94596, (415) 943-3740.

C. April 16, 1987 for Region III, Ramada Hotel O'Hare, 6600 N. Mannheim Road (corner of Higgins), Rosemont, Illinois (One mile from O'Hare Airport), Phone: (312) 827-5131.

Point of Contact: Mr. Thomas Burdick, U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, IL 60137, (312) 790-5566.

D. April 20, 1987 for Region I, Hilton Hotel Valley Forge, 251 West DeKalb Pike, King of Prussia, Pennsylvania, Phone: (215) 337-1200.

Point of Contact: Mr. Noel F. Dudley, U.S. Nuclear Regulatory Commission, Region I, 631 Park Avenue, King of Prussia, PA 19406, (215) 337-5211.

Background information for the rule includes a copy of the regulatory analysis, the supporting statement for the Office of Management and Budget clearance of the information collection requirements, Regulatory Guides, ANSI/ANS standards, NUREG-series documents, other documents discussed in this notice, and reports that contain a detailed analysis of the public comments received during the public comment period and their resolution may be examined at the NRC Public Document Room, 1717 H Street NW., Washington, DC.

A single copy of the reports concerning public comments may be obtained from Chief, Operator Licensing

Branch, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Telephone: 301-492-4868.

FOR FURTHER INFORMATION CONTACT: Chief, Operator Licensing Branch, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Telephone: (301) 492-4868.

SUPPLEMENTARY INFORMATION:

I. Background

Section 107 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2137), requires the Nuclear Regulatory Commission to prescribe uniform conditions for licensing individuals as operators of production and utilization facilities and to determine the qualifications of these individuals and to issue licenses to such individuals. The regulations implementing these requirements are set out in Part 55 of Title 10, Chapter 1, of the Code of Federal Regulations. To assist licensees and others, the Commission also has issued regulatory guides and generic letters that provide guidance on acceptable methods of meeting these regulatory requirements.

The Commission has become increasingly aware of the need to update its operator licensing regulations and related regulatory guides. These revisions are needed to clarify the extent to which simulators should be used in licensing examinations and to reflect upgraded requirements for licensed operator selection, training, and requalification programs resulting from the accident at TMI-2. Although the Commission has been actively engaged in investigating these matters, the schedule for completing these activities was further accelerated by the enactment of January 7, 1983, of the Nuclear Waste Policy Act of 1982, Pub. L. 97-425. Section 306 of that act (42 U.S.C. 10226, 96 Stat. 2201 at 2262-2263) directs the NRC to establish (1) simulator training requirements for applicants for operator licenses and for operator requalification programs, (2) requirements governing NRC administration of requalification examinations, and (3) requirements for operating tests at civilian nuclear power plant simulators.

On November 26, 1984, the Commission published proposed amendments to 10 CFR Part 55, "Operators' Licenses" in the *Federal Register* (49 FR 46428). These amendments proposed granting, in part, a petition for rulemaking (PRM-55-1) that was filed by KMC, Inc. PRM-55-1 is discussed more fully under Section II.B,

"Medical Requirements." A 90-day comment period expired on February 25, 1985. Comments were received from 88 respondents. An additional 47 respondents commented on the three associated regulatory guides, also issued for public comment. Reports that contain a detailed analysis of these comments and their resolution are available as indicated under "ADDRESSES".

These proposed revisions to 10 CFR Part 55 were to improve the operator licensing process and to achieve the following objectives:

(1) Improve the safety of nuclear power plant operations by improving the operator licensing process and examination content,

(2) Provide the NRC with an improved basis for administering operator licensing examinations and conducting operating tests, and

(3) Respond to the specific direction given by Congress in Section 306, Nuclear Waste Policy Act of 1982, Pub. L. 97-425, to promulgate regulations and guidance in the area of examinations.

On March 20, 1985, the Commission published a Final Policy Statement on Training and Qualification of Nuclear Power Plant Personnel (50 FR 11147) that describes the Commission's current policy regarding training of operators. In addition to this policy statement, the Commission is publishing the new rules described in this notice; these rules supercede all current regulations for operator licenses. Those facility licensees that have made a commitment that is less than that required by these new rules must conform to the new rules automatically. Those facility licensees that have made a commitment different from or more than that required by these new rules for license amendments and technical specification changes, may apply to the Commission so that they can conform to these new rules. Other changes should be made in accordance with 10 CFR 50.59.

Production facilities previously included in Part 55 are not referenced in the revisions since there are no operators at production facilities currently licensed by the Commission. Although special consideration has been given to the smaller size and scope of test and research reactors the requirements in this notice apply to all utilization facilities licensed under 10 CFR Part 50, including test and research reactors. Consequently, except where specific wording has been used to note different requirements, these rules apply to test and research reactors.

II. Summary of Public Comments and Final Actions

The proposed amendments to improve the operator licensing process have been modified in response to the comments received. A summary of the public comments and, where appropriate, a description of the changes that resulted from them follows.

(A) *General Comments*—(1) *General purpose of these amendments*. Several commenters provided general support for the proposed rule. Other commenters suggested changes to clarify the purpose and exemptions sections. These sections were reworded as a result of the evaluation of these comments. In particular, the purpose of the rule indicates that terms and conditions of operators' licenses and renewal are covered. Exemption for trainees at a facility is clarified to indicate that a trainee is only exempted while participating in an NRC-approved training program to qualify for an operator license. In addition, employees involved in fuel handling are exempt if they are supervised by a licensed senior operator.

(2) *Definitions*. Many commenters were concerned with the specific definitions in the rule. A number of commenters addressed the definitions of "simulation facility" and "Plant-referenced simulator," and requested clarification of the NRC's intent for the use of such devices in the partial conduct of operating tests. Several commenters believed that only plant-referenced simulators would be permitted.

The definition of a "plant-referenced simulator" is intended to mean a simulator that meets all of the requirements of ANSI/ANS 3.5-1985, as endorsed by Regulatory Guide 1.149, "Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations," (see Section V, Regulatory Guides, of this Supplementary Information).

The definition of a "simulation facility" is intended to provide for flexibility in the conduct of the simulator (non-plant-walkthrough) portion of the operating test. The intent is to permit, under circumstances specified in 10 CFR 55.45(b), the use of the plant itself, and/or a plant-referenced simulator, and/or some other type of simulation device such as a part-task or basic-principles simulator, for the conduct of the simulator portion of the operating test.

A number of commenters expressed concern that a plant, when used as a simulator, could not safely perform the full range of functions that a simulator could perform, and some commenters

requested clarification about the limitation of the conditions under which the plant could be used.

It is not the intent of NRC to permit or encourage the initiation of transients on the plant when and if the plant is used as a simulation facility. The use of the plant is envisioned as a possible approach that a facility licensee might propose to use in conjunction with another simulation device or devices, in lieu of a plant-referenced simulator. This approach might be suitable, for example, for older plants without access to plant-referenced simulators, where manipulations of the plant, to the extent consistent with plant conditions, might be used to demonstrate familiarity with the plant for which the candidate would be licensed.

Several commenters suggested that the definition of "reference plant" should not be specific to a plant and its unit. The word "unit" has been deleted from this definition, although it remains the NRC's intent that a reference plant refer to a specific docket number. For those situations in which a multi-unit plant is composed of units from the same vendor and vintage, it is likely that only one simulation facility would be required. For others, Regulatory Guide 1.149 provides specific guidance for those facility licensees that want to consider the use of one simulation facility for use at more than one nuclear power plant. This guidance is based upon existing NRC policy on the granting of multiunit operator's licenses.

(B) *Medical requirements*—(1) *Criteria for medical requirements*. Most commenters agreed with the revisions to the medical certification process, which would require, for the usual case, a brief certification by the facility licensee on Form NRC-396, as revised. Some commenters questioned the relationship of these requirements to drug and alcohol problems and programs. Other commenters were confused about who would have responsibility for determining the medical condition of an operator or applicant for an operator's license. Some comments were made about the specific language in the medical requirements regarding disqualifying conditions and commenters requested changes or clarification. Many commenters noted the need to adjust the medical requirements to the renewal cycle.

The medical requirements reflect the industry standard articulated in ANSI/ANS 3.4-1983, "Medical Certification and Monitoring of Personnel Requiring Operating Licenses for Nuclear Power

Plants."¹ The intent is to prevent the manipulation of the controls by an operator whose medical condition and general health would cause operational errors endangering public health and safety. The medical requirements rely on examination of the applicant or operator by a licensed physician who evaluates the medical condition of the operator, based on the criteria of ANSI/ANS 3.4-1983 that is endorsed by Regulatory Guide 1.134, "Medical Evaluation of Licensed Personnel for Nuclear Power Plants," and makes recommendations to the facility's management. The facility's management is responsible for certifying the suitability of the applicant for a license. The NRC has the responsibility for making an assessment of the applicant for a license, including the applicant's medical fitness. Neither the facility nor the NRC staff will make medical judgments. When a conditional license is requested, the NRC will use a qualified medical expert to review the medical evidence submitted by the facility to make a determination. For minor conditions, such as the need to wear corrective lenses or a hearing aid, the Form NRC 396 is modified to simplify the process for obtaining a medically conditioned license. Moreover, while the biennial medical examination required under § 55.21 is intended to detect alcoholism or drug dependency or both, no reference is made in the rule to alcohol or drug problems. These issues are covered in a Policy Statement on Fitness for Duty of Nuclear Power Plant Personnel (51 FR 27921), published on August 4, 1986, by the Commission. In addition, the license renewal period is changed to 6 years to be compatible with the biennial medical examination requirements.

In July 1983, KMC, Inc., petitioned the Commission (PRM-55-1) "to simplify the procedure for the review of the medical status of applicants for operator . . . licenses." KMC stated that the current procedures require that a detailed medical history and results of the applicant's medical examination by a licensed physician be sent to the Commission. The petitioner requested that the Commission amend its regulations to permit designated medical examiners, as defined in ANSI N546-1976, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants," to certify that the applicant has

¹ Standards discussed in this rule are available for purchase from American Nuclear Society, 555 North Kensington Avenue, La Grange Park, Illinois 60525.

been examined (using the guidance contained in ANSI N546-1976 as endorsed by Regulatory Guide 1.134) and that the applicant's general health and physical condition is not such as may cause operational errors. Under the petitioner's request the use of the current NRC Form 396 would be discontinued for utility operators and detailed medical records would be retained by the licensee's designated medical examiner. Subpart C to Part 55 responds to the KMC, Inc. petition. NRC grants its request, in part, by eliminating the requirement to submit, in usual cases, medical information for an applicant for an operator's license directly to the NRC. Instead, as described above, a certification to NRC about compliance with the health requirements in § 55.33(a)(1) would be made by the facility licensee.

(2) *Notification of incapacitation because of disability or illness.* Some confusion was noted by several commenters regarding the process to notify the Commission when an operator was incapacitated because of disability or illness. The final rule is changed to reflect more clearly the Commission's intent. That is, if, during the term of the license, an operator's medical condition changes and does not meet the requirements set forth in ANSI/ANS 3.4-1983, notification of the Commission by the facility licensee is required. At the same time, if the examining physician indicates that the condition can be accommodated as noted in § 5.1 of the ANSI/ANS 3.4-1983, a conditional license may be requested by an authorized representative of the facility licensee. Form NRC 396 must be used and supporting medical evidence must be supplied. However, the facility licensee does not have to wait for permission from the Commission before returning an operator to licensed duties, if the operator has been examined by a physician, who, using ANSI/ANS 3.4-1983 as a basis, has recommended to the facility's management that the operator can return.

(3) *Test and research reactors.* Many test and research reactor operators were concerned that the requirements in the rule changed the medical requirements for them. The rule changes only the requirements for test and research reactor facility licensees. It does not change the status quo for reactor operators, for whom ANSI/ANS-15.4-1977(N 380), "Selection and Training of Personnel for Research Reactors," requirements continue.

(C) *Applications.* Applications for an operator license require the facility

licensee to certify that there is a need for the applicant to perform assigned duties. Several commenters were concerned that the "need" was not clearly defined. The requirements are intended to simply have the facility licensee's management internally review the need for the license before the application is made. Another concern of many commenters was the relationship between industry-accredited training programs and the details regarding training and experience needed to apply to the NRC on Form NRC-398. In addition, some commenters were concerned with the definition of the phrase "learned to operate." This phrase has been deleted from § 55.31 and replaced by wording which indicates that if a candidate successfully completes the training and experience requirements to be licensed as an operator, the NRC will conduct the appropriate examination and operating test. Section 55.31(a)(5) has been added to specify the minimum number of control manipulations to be conducted by an applicant. Details regarding other training and qualification will not be required to be supplied on Form NRC-398, if these requirements are contained in an NRC-approved training program that uses a simulation facility acceptable to the NRC under § 55.45(b). Subject to continued Commission endorsement of the industry's accreditation process under the Final Policy Statement on Training and Qualification of Nuclear Power Plant Personnel (50 FR 11147; March 20, 1985), a facility licensee's training program would be approved by being accredited by the National Nuclear Accrediting Board.

(D) *Written examinations and operating tests—(1) Content.* Most commenters recommended that the principal means of determining the knowledge, skills, and abilities to be included in operator licensing written examinations and operating tests should be the learning objectives derived from a systematic analysis of the job performance requirements. These commenters recommended that these learning objectives form the basis and scope of examinations and tests and that other sources of information should only be used until the learning objectives are available for a facility. Conversely, some commenters questioned as premature the endorsement by NRC of a systematic analysis from which to draw the content for licensing examinations and tests. One commenter recommended that NRC

issue a document that specifically delineates what an operator is responsible for on NRC examinations and operating tests.

Systematic analysis of job performance requirements is an accepted methodology for deriving licensing examination content. The job-task analyses are being performed as part of the performance-based programs that are being implemented by facility licensees as part of the industry supported accreditation program. The learning objectives derived from these job-task analyses should form the basis for licensing written examinations and operating tests at a facility. Ultimately, the NRC testing objectives will reflect facility licensee-developed learning objectives. In the interim, while these programs are being developed and reviewed for accreditation, the NRC has activities underway to improve the content validity of NRC examinations and operating tests.

(2) *Specific wording of categories.* Many commenters made specific wording recommendations for the categories listed under content of the written examinations and operating test. These suggestions were reviewed by subject-matter experts and changes were made to clarify or improve the content categories. No major changes resulted except to two categories under the operating test. Under § 55.45, categories (12) and (13) were reworded as follows:

(12) Demonstrate the knowledge and ability as appropriate to the assigned position to assume that responsibilities associated with the safe operation of the facility.

(13) Demonstrate the applicant's ability to function within the control room team as appropriate to the assigned position, in such a way that the facility licensee's procedures are adhered to and that the limitations in its license and amendments are not violated.

(3) *Waivers.* Several commenters suggested that examinations and tests be automatically waived under specific circumstances. As the agency responsible for public health and safety with regard to nuclear facilities, the Commission cannot waive its independent assessment of operators. Waivers are based on operators previously passing all or part of a licensing examination. Details regarding the processing of waivers are addressed in NUREG-1021, "Operator Licensing Examiner Standards." ²

² NUREG-series documents are available for public inspection and copying for a fee in the Commission's Public Document Room at 1717 H

(4) *Integrity and examinations and tests.* Although many commenters supported the addition of § 55.49, "Integrity of Examinations and Tests," they felt that the penalties in § 55.71 were excessive. Other commenters were afraid that any action might be interpreted as cheating and that the role of facility licensees in enforcement was unclear. The NRC always has prosecutorial discretion not to take enforcement action in unclear cases. The language in § 55.71 on criminal violations only covers persons who "willfully violate" the Atomic Energy Act or the NRC's regulations and does not apply to situations such as discussions after an examination is administered or when a previously administered examination is used as a practice examination.

(E) *Simulation facilities—(1) Application process.* Many commenters were concerned with what they termed the burdensome procedure requiring initial and subsequent application for approval to use a simulation facility. Most of these commenters felt that certification by the facility licensee to the NRC that the simulation facility met industry standards should suffice, when combined with the NRC's ability to audit the simulation facility and review the supporting documentation.

The Commission has amended the final rule to reflect the position taken in these comments. Any facility licensee that proposes to use a simulation facility that meets the definition of a plant-referenced simulator (essentially a simulator that meets the requirements of ANS-3.5, 1985, "Nuclear Power Plant Simulators for Use In Operator Training," as modified by Regulatory Guide 1.149) will be required only to certify this to the Commission, and to maintain records pertaining to performance testing results for Commission review or audit. Any facility licensee that proposes to use a simulation facility that is other than a plan-referenced simulator will be required to submit a plan detailing how the requirements of § 55.45 will be met on the alternative device or devices, followed by an application for NRC approval for use of the simulation facility. However, in response to the numerous comments received, this application process has been greatly simplified, and the requirement for a

periodic "subsequent" application has been eliminated. In support of its certification or its application, as appropriate, each facility licensee will be required to conduct periodic performance tests on its simulation facility, and maintain records pertaining to the conduct of these tests and the results obtained.

It is the Commission's intent that those facility licensees that submit a certification for a simulation facility may immediately begin use of the certified simulation facility for the conduct of operating tests at the reference plant.

(2) *Performance testing.* Many comments addressed the requirement for the conduct of a series of performance tests, in which an extensive range of tests would be conducted over a 4-year cycle, 25 percent per year. The industry standard which was in effect at the time of the proposed rulemaking, ANSI/ANS 3.5-1981, required complete simulator performance testing every four years, and R.G. 1.149 endorsed that requirement. In addition, the R.G. specified that all malfunctions which a simulation facility was capable of performing should be tested to the extent that such malfunctions could be used in the conduct of operating tests. The majority of commenters felt that the burden of conducting these tests would demand an excessive amount of time on the part of the simulation facility as well as the facility licensee's staff. Numerous suggestions were made proposing lists of performance tests thought to be appropriate, suggesting alternative formulas for the cycle of performance testing, or offering suggestions that the rule merely endorse a new version of the industry standard which was in preparation at the time.

A new version of the standard, identified as ANSI/ANS 3.5-1985, was published after the expiration of the public comment period. In response to the comments received and to the newly issued industry standard, R.G. 1.149 has been changed to endorse the new standard, with exceptions, and to include in its endorsement the specific, limited list of malfunction performance tests contained in the standard. However, although the new standard continues to require the conduct of simulator performance tests, it has deleted the requirement that these tests be conducted on a four-year cycle for the life of the simulator. Instead it has substituted an annual operability test, and now required that performance tests be conducted only upon completion of initial simulator construction and in the

event that simulator design changes result in significant simulator configuration or performance variations.

In addition, the standard is silent on the subject of periodic testing of malfunctions. The NRC endorsement of the standard in the R.G. takes exception to the deletion of periodic performance testing. The regulations will require performance testing to be conducted throughout the life of a simulation facility, on a four-year cycle, at the rate of approximately 25 percent per year.

The protection of public health and safety requires that licensed operators not only be proficient in general operations but be able to safely cope with plant transients and malfunctions. Thus a reactor operator license candidate's response to malfunctions during an operating test is an important factor in the examiner's assessment of that candidate's performance. It is also necessary to avoid misleading or negative training, which could result from the use of a simulation facility which does not correctly portray plant response to malfunctions. Therefore the ability of a simulation facility to faithfully portray plant malfunctions as well as general operability is to be verified by periodic performance testing. Such testing provides assurance that the simulation facility remains acceptable over time and continues to meet the Commission's regulations. A definition of performance testing has been added to § 55.4, and the requirements for performance testing have been clarified in the applicable paragraphs of § 55.45(b), as they apply to all simulation facilities, whether certified or approved.

(3) *Schedule.* A number of comments included criticism of the time schedules specified as being unreasonably short for submitting a simulation facility plan and for having a simulation facility in full compliance with the regulation.

The regulation has been changed to allow 1 year (versus 120 days) for a facility licensee to submit a plan detailing its approach to the simulation facility requirement; and to allow 4 years (versus 3) for its simulation facility to be in full compliance with the regulation. Those facility licensees that certify the use of a plant-referenced simulator will not have to submit a plan.

(4) *Penalty for unavailability of simulation facility.* Several comments expressed concern that the penalty was too harsh for the unavailability of a simulation facility acceptable to the Commission.

It is the Commission's intent that every facility licensee have available a simulation facility that meets the

Commission's requirements within a reasonable period of time after the effective date of the rule, and that, once available, the simulation facility be maintained and upgraded, as needed, to continue its acceptability for the conduct of operating tests. The Commission recognizes that unique circumstances may arise on a plant-specific basis that cause some deviation from the time requirements established in the rule and that, from time-to-time, a previously certified or approved simulation facility may become temporarily unacceptable for the conduct of operating tests. It is the Commission's intent to address any such situations on a case-by-case basis.

(5) *Lack of guidance for assessment.* A number of comments expressed concern that the guidance to be used by the Commission in its assessment of simulation facility adequacy was not yet available. It is the Commission's intent that no simulation facility audits will be conducted until this guidance has been fully developed and made publicly available for a minimum of 6 months.

(6) *Applicability to future facility licensees.* Several commenters questioned whether the Commission's regulations regarding simulation facilities were intended to apply to future facility licensees.

It is the Commission's intent that these regulations apply to future facility licensees as well as current facility licensees.

(7) *Test and research reactor operators.* Several test and research reactor operators were concerned that the requirements in the rule changed the licensing process for them. As stated above, the rule does not change the status quo for this category of operator. The definition of "simulation facility" in § 55.4 allows the plant to be used to meet the requirements of § 55.45(b). In addition, specific wording in § 55.45(b) permits test and research reactor facility licensees to be exempted from submitting a plan for the use of a simulation facility that is other than a plant-referenced simulator.

(F) *Licenses—(1) Special senior operator licenses.* Many commenters questioned the issuance of special senior licenses. Several argued that current instructor certification requirements were sufficient, others indicated that industry-accredited programs include instructor evaluation, and others cited the Commission's Policy Statement on Training and Qualifications of Nuclear Power Plant Personnel as conflicting with these licenses.

The Commission has deleted the provision for the issuance of special

senior operator licenses from the final rule. This action is in recognition of the industry accreditation of training programs, which includes instructor training, qualification and evaluation, and is in keeping with the intent of the Commission Policy Statement on Training and Qualifications of Nuclear Power Plant Personnel. Industry efforts in implementing instructor training, qualification and evaluation programs will be monitored as described by the Policy Statement. Moreover, senior operator licenses limited to fuel handling will continue to be issued as they are currently. However, since industry accreditation includes instructor evaluation, current NRC instructor certification will not continue at facilities with industry accreditation.

A great number of commenters had specific suggestions regarding the requirements for special senior operators. These comments are no longer applicable since the Commission has deleted these licenses from the final rule.

(2) *"Actively performing the functions of an operator or senior operator."* Although only one commenter specifically questioned the definition of "actively performing the [functions] of," a great many commenters questioned this phrase in regard to R.G. 1.8, "Personnel Qualifications and Training for Nuclear Power Plants," as it was published for public comment in conjunction with the proposed rule. From the comments made in response to the regulatory guide and other comments made regarding the provision in the rule under "Requalification," which required that an operator or senior operator be "actively and extensively engaged" as an operator or senior operator, it is clear that many commenters were confused about the degree of participation in plant operations that is required as a condition to maintain an operator's or senior operator's license. To prevent further confusion, the rule has been modified in § 55.4, "Definitions," to provide the following definition:

Actively performing the functions of an operator or senior operator" means that an individual has a position on the shift crew that requires the individual to be licensed as defined in the facility's technical specifications, and that the individual carries out and is responsible for the duties covered by that position.

In addition, several commenters were concerned that the requirements were unclear regarding the return to "active" status following a period during which a licensee has not been "actively performing the functions of an operator or senior operator" for a period of 4

months or longer. Therefore, the following requirements have been added:

If an operator has not performed licensed duties on a minimum of seven 8-hour shifts or five 12-hour shifts per quarter, before resumption of activities authorized by a license issued under these regulations, an authorized representative of the facility licensee shall certify that the qualifications and status of the licensee are current and valid, and that the licensee has completed a minimum of 40 hours of shift functions under the direction of the operator or senior operator, as appropriate, and in the position to which the individual licensee will be assigned. For licenses limited to fuel handling, one supervised shift is sufficient. Certification shall be maintained at the facility.

The revision in the wording of the rule was made so that it is no longer necessary to include the wording "actively and extensively engaged" under requalification. A licensee can now maintain licensed status by successfully completing the facility licensee's NRC-approved requalification program and passing the requalification examinations and operating tests. However, to return to active performance after a period of not participating on shift, the conditions of a license in § 55.53(f) must be met. In this manner, a licensee without current knowledge of the facility would not be able to perform shift duties.

For test and research reactors, the requirements for "actively performing the functions of an operator or senior operator" would be met with a minimum of four hours per calendar quarter. Similarly, under § 55.53(f), a minimum of six hours parallel work would be required to return to active status.

(3) *Notification of the Commission.* Some commenters noted that the Commission had no need to know about the criminal conviction of a licensee. However, § 55.53(g) is intended to cover criminal behavior. NRC is interested in felonious criminal convictions of a licensee. The NRC considers that there may be a relationship between conviction for a felony and job performance.

(G) *Expiration.* Currently, licenses expire after two years. To lessen the paperwork burdens of facility licensees and the NRC, a five year expiration was proposed. Many commenters suggested that the proposed five year expiration and renewal of licenses be adjusted to meet the biennial medical examination requirements. The renewal cycle has been changed and licenses will now expire after 6 years.

(H) *Requalification and renewal—(1) Requalification program and*

examination content. A great many commenters were unclear about the relationship of the NRC requalification requirements and performance-based training programs. Moreover, many commenters urged more flexibility in the requalification cycle and more clarity in the program content requirements.

Although the requirement for NRC approval of requalification programs will remain, the list of content areas under §§ 55.41, 55.43 and 55.45 will be referenced in § 55.59 to clarify the issue of examination and operating test content. In addition, § 55.59(c) content requirements (formerly Appendix A to 10 CFR Part 55) can be met with a performance-based program for a facility as approved by the NRC. In its Final Policy Statement on Training and Qualification of Nuclear Power Plant Personnel, the Commission endorsed industry-accredited programs as performance based. The frequency of the comprehensive requalification written examination has been changed to a maximum of every 2 years and of the requalification operating test to once a year. The requalification program must be conducted for a continuous period not to exceed 24 months. The specific cycle will be approved by the NRC as part of each facility's training program.

(2) *"Actively and extensively engaged."* As explained above, many commenters were concerned with the implementation of the provision for "actively and extensively engaged as an operator or senior operator" as it related to renewal. This provision is deleted in the final rule. This action complements the additions § 55.53 (e) and (f) to "Conditions of Licenses."

(3) *Test and research reactors.*

Several commenters were concerned that the requalification requirements for operators at this class of reactor were changed. The requirements in § 55.59(c)(7) continue the requirements of former Appendix A to 10 CFR Part 55 for test and research reactors. No change in requirements is intended.

(4) *NRC administration of requalification examinations.* Some commenters questioned the NRC administration of requalification examinations. The Commission believes that an NRC administered examination for license renewal provides assurance that an operator or senior operator can operate the controls in a safe and competent manner and that a senior operator can direct the activities of other licensed operators in a safe and competent manner. The Commission also believes that NRC administered examinations provide assurance that facility licensee administered requalification programs are

successfully maintaining the proficiency and knowledge of licensed personnel. To this end, the rule requires in § 55.57 that each applicant for renewal of a six-year license pass an NRC administered comprehensive requalification written examination and operating test at least once during each six-year license. The NRC will administer these requalification written examinations and operating tests on a random basis so that no operator or senior operator will go longer than six years without being examined by the NRC once a six-year license is issued.

(I) *Modification and revocation of licenses.* Some comments were received about the Commission's authority to modify and revoke licenses. The Commission has the authority to modify, suspend or revoke a license under the Atomic Energy Act. Moreover, inherent in the Commission's authority to modify, suspend, or revoke a license is its ability to place a licensed operator or senior operator under probation, if warranted.

(J) *Editorial.* Many commenters had non-substantive editorial changes to suggest. These comments were reviewed by an NRC technical editor and incorporated as appropriate.

(K) *Conforming amendments.* A conforming amendment, 10 CFR 50.74, requires the facility licensee to notify the Commission of a change in operator status. This amendment complements § 55.53(g).

(L) *Revision to 10 CFR 50.54 and 10 CFR 50.34(b)(8).* Revisions have been made to 10 CFR 50.34(b)(8) and 50.54 to reflect the changes made to 10 CFR Part 55.

Separate Views of Commissioner Aselstine

This rule is a good idea, but it does not go far enough. The Commission should have required all licensees to obtain plant referenced simulators. There are two reasons for this. First, I believe that section 306 of the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425) requires it. Second, plant referenced simulators are an excellent way for reactor operators to practice control manipulations for the plant and to actually see how the plant would respond. This is especially important in training the operators to deal with emergency or other situations when the plant is not in its normal state. It is a much more effective teaching tool for the operators to actually manipulate controls and watch the "plant" respond than to have them merely memorize emergency procedures. Further, a simulator which is referenced to the plant on which the operator will be

licensed will be a much more effective training tool than one which is not.

The Commission decided, however, that because there might be special circumstances in some cases which would weigh against requiring that a particular utility purchase a simulator the Commission would not make it a requirement. This kind of case-specific special circumstances is precisely what our exemption procedures are intended to handle. If a licensee had appropriate justification, the Commission could always consider whether to grant an exemption to the regulation. Instead, the Commission chose to water down the regulation and require less.

Separate Views of Commissioner Bernthal

I fully support the Commission's broad objective that operators be reexamined on a regular basis. But I believe the final rule is too inflexible for good regulatory and administrative practice. NRC may indeed need to examine operators every six years; in some cases, perhaps more often. But if a licensee satisfactorily demonstrates its ability to conduct high quality, performance-based examinations in accordance with § 55.57(b)(2)(iii), such licensee performance may well justify extension or relaxation of this requirement. This approach would have been consistent with the Commission's policy of rewarding good licensee performance and focusing attention and resources on deficient performers. The Commission thus could have provided incentive to licensees and flexibility to the NRC examiner staff, and should have thereby focused NRC's limited regulatory resources where they are most urgently needed.

I also continue to believe that the time has come (given the decreased cost and increased sophistication of the technology) for all but a few small powerplants to be required to have plant reference simulators for operator training. While there may be some special cases that would qualify for exemption from such a requirement, on the basis of geography and/or plant similarity, licensees could in those circumstances apply for and receive an exemption.

III. Regulatory Analysis

The regulatory analysis describes the values (benefits) and impacts (costs) of implementing the proposed regulations and guidance for operator licensing. The accuracy of these estimates in the regulatory analysis is limited by the lack of extensive data on human performance improvement associated

with an improved licensing process. Where possible, quantitative measures were qualitatively compared to related information from other sources for verification. The full text of the regulatory analysis on these amendments is available for inspection in the NRC Public Document Room, 1717 H Street NW., Washington, DC. Single copies of the analysis may be obtained from Chief, Operator Licensing Branch, telephone: (301) 492-4868.

IV. Backfit Analysis

The Commission has determined that these rules are in response to section 306 of the Nuclear Waste Policy Act of 1982 and, therefore, are exempt from the backfit rule 10 CFR 50.109 (50 FR 38097).

V. Regulatory Guides

Three regulatory guides were published in draft form for public comment in conjunction with the proposed rule. These guides were intended to provide guidance on acceptable methods of implementing the revisions to the regulations. As a result of public comment and additional staff review, these three guides are being issued in final form:

- (1) R.G. 1.134, Revision 2, "Medical Evaluation of Licensed Personnel for Nuclear Power Plants."
- (2) R.G. 1.149, Revision 2, "Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations."
- (3) R.G. 1.8, Revision 2, "Qualification and Training of Personnel for Nuclear Power Plants."

Copies of these guides may be purchased from the Government Printing Office at the current GPO price. Information on current GPO prices may be obtained by contacting the Superintendent of Documents, U.S. Government Printing Office, Post Office Box 37082, Washington, DC 20013-7082, telephone (202) 275-2060 or (202) 275-2171.

VI. Environmental Impact: Categorical Exclusion

The NRC has determined that this regulation is 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 regulation.

VII. Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These paperwork requirements were approved

by the Office of Management and Budget approval number 3150-0018.

VIII. Regulatory Flexibility Certification

As required by the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that this rule will not have a significant economic impact on a substantial number of small entities. The conforming amendment to 10 CFR Part 50 and the revision of 10 CFR Part 55 affect primarily the companies that own and operate light-water nuclear power reactors and the vendors of those reactors. They also affect individuals licensed as operators at these companies. Neither the companies that own and operate reactors nor these individuals fall within the scope of the definition of "small entity" set forth in section 501(b) of the Regulatory Flexibility Act, NRC's Size Standards adopted December 9, 1985 (50 FR 50241), or the Small Business Size Standards set out in regulations issued by the Small Business Administration in 13 CFR Part 121.

List of Subjects

10 CFR Part 50

Antitrust, Classified information, Fire prevention, Incorporation by reference, Intergovernmental relations, Nuclear power plants and reactors, Penalty, Radiation protection, Reactor siting criteria, Reporting and recordkeeping requirements.

10 CFR Part 55

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

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Nuclear Waste Policy Act of 1982, and 5 U.S.C. 553, the NRC is adopting the following amendments to 10 CFR Part 55 and 10 CFR Part 50.

1. 10 CFR Part 55 is revised to read as follows:

PART 55—OPERATORS' LICENSES

Subpart A—General Provisions

- Sec.
- 55.1 Purpose.
 - 55.2 Scope.
 - 55.3 License requirements.
 - 55.4 Definitions.
 - 55.5 Communications.
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Subpart B—Exemptions

- 55.11 Specific exemptions.
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- 55.21 Medical examination.
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- 55.25 Incapacitation because of disability or illness.
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Subpart D—Applications

- 55.31 How to apply.
- 55.33 Disposition of an initial application.
- 55.35 Re-applications.

Subpart E—Written Examinations and Operating Tests

- 55.41 Written examination: Operators.
- 55.43 Written examination: Senior operators.
- 55.45 Operating tests.
- 55.47 Waiver of examination and test requirements.
- 55.49 Integrity of examinations and tests.

Subpart F—Licenses

- 55.51 Issuance of licenses.
- 55.53 Conditions of licenses.
- 55.55 Expiration.
- 55.57 Renewal of licenses.
- 55.59 Requalification.

Subpart G—Modification and Revocation of Licenses

- 55.61 Modification and revocation of licenses.

Subpart H—Enforcement

- 55.71 Violations.

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

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

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. 1611, 68 Stat. 949, as amended (42 U.S.C. 2201(f)); and §§ 55.23, 55.25 and 55.53(f) are issued under sec. 1610, 88 Stat. 950, as amended (42 U.S.C. 2201(o)).

Subpart A—General Provisions

§ 55.1 Purpose.

The regulations in this part:

- (a) Establish procedures and criteria for the issuance of licenses to operators and senior operators of utilization facilities licensed pursuant to the Atomic Energy Act of 1954, as amended, or section 202 of the Energy Reorganization Act of 1974, as amended, and Part 50 of this chapter,
- (b) Provide for the terms and conditions upon which the Commission will issue or modify these licenses, and
- (c) Provide for the terms and conditions to maintain and renew these licenses.

§ 55.2 Scope.

The regulations in this part apply to—

(a) Any individual who manipulates the controls of any utilization facility licensed pursuant to Part 50 of this chapter, and

(b) Any individual designated by a facility licensee to be responsible for directing any licensed activity of a licensed operator.

§ 55.3 License requirements.

A person must be authorized by a license issued by the Commission to perform the function of an operator or a senior operator as defined in this part.

§ 55.4 Definitions.

As used in this part:

"Act" means the Atomic Energy Act of 1954, including any amendments to the Act.

"Actively performing the functions of an operator or senior operator" means that an individual has a position on the shift crew that requires the individual to be licensed as defined in the facility's technical specifications, and that the individual carries out and is responsible for the duties covered by that position.

"Commission" means the Nuclear Regulatory Commission or its duly authorized representatives.

"Controls" when used with respect to a nuclear reactor means apparatus and mechanisms the manipulation of which directly affects the reactivity or power level of the reactor.

"Facility" means any utilization facility as defined in Part 50 of this chapter. In cases for which a license is issued for operation of two or more facilities, "facility" means all facilities identified in the license.

"Facility licensee" means an applicant for or holder of a license for a facility.

"Licensee" means an individual licensed operator or senior operator.

"Operator" means any individual licensed under this part to manipulate a control of a facility.

"Performance testing" means testing conducted to verify a simulation facility's performance as compared to actual or predicted reference plant performance.

"Physician" means an individual licensed by a State or territory of the United States, the District of Columbia or the Commonwealth of Puerto Rico to dispense drugs in the practice of medicine.

"Plant-referenced simulator" means a simulator modeling the systems of the reference plant with which the operator interfaces in the control room, including operating consoles, and which permits use of the reference plant's procedures. A plant-referenced simulator

demonstrates expected plant response to operator input, and to normal, transient, and accident conditions to which the simulator has been designed to respond.

"Reference plant" means the specific nuclear power plant from which a simulation facility's control room configuration, system control arrangement, and design data are derived.

"Senior operator" means any individual licensed under this part to manipulate the controls of a facility and to direct the licensed activities of licensed operators.

"Simulation facility" means one or more of the following components, alone or in combination, used for the partial conduct of operating tests for operators, senior operators, and candidates:

- (1) The plant,
- (2) A plant-referenced simulator,
- (3) Another simulation device.

"Systems approach to training" means a training program that includes the following five elements:

- (1) Systematic analysis of the jobs to be performed.
- (2) Learning objectives derived from the analysis which describe desired performance after training.
- (3) Training design and implementation based on the learning objectives.
- (4) Evaluation of trainee mastery of the objectives during training.
- (5) Evaluation and revision of the training based on the performance of trained personnel in the job setting.

"United States," when used in a geographical sense, includes Puerto Rico and all territories and possessions of the United States.

§ 55.5 Communications.

(a) Except as provided under a regional licensing program identified in paragraph (b) of this section, an applicant or licensee or facility licensee shall submit any communication or report concerning the regulations in this part and shall submit any application filed under these regulations to the Commission as follows:

(1) By mail addressed to—Director of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555, or

(2) By delivery in person to the Commission offices at—(i) 1717 H Street NW., Washington, DC or (ii) 7920 Norfolk Avenue, Bethesda, Maryland.

(b)(1) The Director of Nuclear Reactor Regulation has delegated to the Regional Administrators of Regions I, II, III, IV, and V authority and responsibility pursuant to the regulations in this part for the issuance and renewal of licenses

for operators and senior operators of nuclear reactors licensed under 10 CFR Part 50 and located in these regions.

(2) Any application for a license or license renewal filed under the regulations in this part involving a nuclear reactor licensed under 10 CFR Part 50 and any related inquiry, communication, information, or report must be submitted by mail or in person to the Regional Administrator. The Regional Administrator or the Administrator's designee will transmit to the Director of Nuclear Reactor Regulation any matter that is not within the scope of the Regional Administrator's delegated authority.

(i) If the nuclear reactor is located in Region I, submission must be made to the Regional Administrator, Region I, U.S. Nuclear Regulatory Commission, 631 Park Avenue, King of Prussia, Pennsylvania 19406.

(ii) If the nuclear reactor is located in Region II, submission must be made to the Regional Administrator, Region II, U.S. Nuclear Regulatory Commission, 101 Marietta Street, Suite 2900, Atlanta, Georgia 30303.

(iii) If the nuclear reactor is located in Region III, submission must be made to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

(iv) If the nuclear reactor is located in Region IV, submission must be made to the Regional Administrator, Region IV, U.S. Nuclear Regulatory Commission, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011.

(v) If the nuclear reactor is located in Region V, submission must be made to the Regional Administrator, Region V, U.S. Nuclear Regulatory Commission, 1450 Maria Lane, Suite 210, Walnut Creek, California 94596.

§ 55.6 Interpretations.

Except as specifically authorized by the Commission in writing, no interpretation of the meaning of the regulations in this part by any officer or employee of the Commission other than a written interpretation by the General Counsel will be recognized to be binding upon the Commission.

§ 55.7 Additional requirements.

The Commission may, by rule, regulation, or order, impose upon any licensee such requirements, in addition to those established in the regulations in this part, as it deems appropriate or necessary to protect health and to minimize danger to life or property.

§ 55.8 Information collection requirements: OMB approval.

(a) The Nuclear Regulatory Commission has submitted the information collection requirements contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). OMB has approved the information collection requirements contained in this part under control number 3150-0018.

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

(c) This part contains information collection requirements in addition to those approved under the control number specified in paragraph (a) of this section. These information collection requirements and the control numbers under which they are approved are as follows:

(1) In §§ 55.23, 55.25, 55.27, 55.31, Form NRC-396 is approved under control number 3150-0024.

(2) In §§ 55.31, 55.35, 55.47, and 55.57, Form NRC-398 is approved under control number 3150-0090.

(3) In § 55.45, Form NRC-474 is approved under control number 3150-0138.

Subpart B—Exemptions**§ 55.11 Specific exemptions.**

The Commission may, upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property and are otherwise in the public interest.

§ 55.13 General exemptions.

The regulations in this part do not require a license for an individual who—

(a) Under the direction and in the presence of a licensed operator or senior operator, manipulates the controls of—

(1) A research or training reactor as part of the individual's training as a student, or

(2) A facility as a part of the individual's training in a facility licensee's training program as approved by the Commission to qualify for an operator license under this part.

(b) Under the direction and in the presence of a licensed senior operator, manipulates the controls of a facility to load or unload the fuel into, out of, or within the reactor vessel.

Subpart C—Medical Requirements**§ 55.21 Medical examination.**

An applicant for a license shall have a medical examination by a physician. A licensee shall have a medical examination by a physician every two years. The physician shall determine that the applicant or licensee meets the requirements of § 55.33(a)(1).

§ 55.23 Certification.

To certify the medical fitness of the applicant, an authorized representative of the facility licensee shall complete and sign Form NRC-396, "Certification of Medical Examination by Facility Licensee," available from Publication Services Section, Document Management Branch, Division of Technical Information and Document Control, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

(a) Form NRC-396 must certify that a physician has conducted the medical examination of the applicant as required in § 55.21.

(b) When the certification requests a conditional license based on medical evidence, the medical evidence must be submitted on NRC Form 396 to the Commission and the Commission then makes a determination in accordance with § 55.33.

§ 55.25 Incapacitation because of disability or illness.

If, during the term of the license, the licensee develops a physical or mental condition that causes the licensee to fail to meet the requirements of § 55.21 of this part, the facility licensee shall notify the Commission within 30 days of learning of the diagnosis. For conditions for which a conditional license (as described in § 55.33(b) of this part) is requested, the facility licensee shall provide medical certification on Form NRC 396 to the Commission (as described in § 55.23 of this part).

§ 55.27 Documentation.

The facility licensee shall document and maintain the results of medical qualifications data, test results, and each operator's or senior operator's medical history for the current license period and provide the documentation to the Commission upon request. The facility licensee shall retain this documentation while an individual performs the functions of an operator or senior operator.

Subpart D—Applications**§ 55.31 How to apply.**

(a) The applicant shall:
(1) Complete Form NRC-398, "Personal Qualification Statement—

Licensee," available from Publication Services Section, Document Management Branch, Division of Technical Information and Document Control, U.S. Nuclear Regulatory Commission, Washington, DC 20555;

(2) File an original and two copies of Form NRC-398, together with the information required in paragraphs (a)(3), (4), (5) and (6) of this section, with the appropriate Regional Administrator;

(3) Submit a written request from an authorized representative of the facility licensee by which the applicant will be employed that the written examination and operating test be administered to the applicant;

(4) Provide evidence that the applicant has successfully completed the facility licensee's requirements to be licensed as an operator or senior operator and of the facility licensee's need for an operator or a senior operator to perform assigned duties. An authorized representative of the facility licensee shall certify this evidence on Form NRC-398. This certification must include details of the applicant's qualifications, and details on courses of instruction administered by the facility licensee, and describe the nature of the training received at the facility, and the startup and shutdown experience received. In lieu of these details, the Commission may accept certification that the applicant has successfully completed a Commission-approved training program that is based on a systems approach to training and that uses a simulation facility acceptable to the Commission under § 55.45(b) of this part;

(5) Provide evidence that the applicant, as a trainee, has successfully manipulated the controls of the facility for which a license is sought. At a minimum, five significant control manipulations must be performed which affect reactivity or power level. For a facility that has not completed preoperational testing and initial startup test program as described in its Final Safety Analysis Report, as amended and approved by the Commission, the Commission may accept evidence of satisfactory performance of simulated control manipulations as part of a Commission-approved training program by a trainee on a simulation facility acceptable to the Commission under § 55.45(b) of this part. For a facility which has (i) completed preoperational testing as described in its Final Safety Analysis Report, as amended and approved by the Commission, and (ii) is in an extended shutdown which precludes manipulation of the control of the facility in the control room, the Commission may process the

application and may administer the written examination and operating test required by §§ 55.41 or 55.43 and 55.45 of this part, but may not issue the license until the required evidence of control manipulations is supplied. For licensed operators applying for a senior operator license, certification that the operator has successfully operated the controls of the facility as a licensed operator shall be accepted; and

(6) Provide certification by the facility licensee of medical condition and general health on Form NRC-396, to comply with §§ 55.21, 55.23 and 55.33(a)(1).

(b) The Commission may at any time after the application has been filed, and before the license has expired, require further information under oath or affirmation in order to enable it to determine whether to grant or deny the application or whether to revoke, modify, or suspend the license.

(c) An applicant whose application has been denied because of a medical condition or general health may submit a further medical report at any time as a supplement to the application.

(d) Each application and statement must contain complete and accurate disclosure as to all matters required to be disclosed. The applicant shall sign statements required by paragraphs (a)(1) and (2) of this section.

§ 55.33 Disposition of an initial application.

(a) *Requirements for the approval of an initial application.* The Commission will approve an initial application for a license pursuant to the regulations in this part, if it finds that—

(1) *Health.* The applicants medical condition and general health will not adversely affect the performance of assigned operator job duties or cause operational errors endangering public health and safety. The Commission will base its finding upon the certification by the facility licensee as detailed in § 55.23.

(2) *Written examination and operating test.* The applicant has passed the requisite written examination and operating test in accordance with §§ 55.41 and 55.45 or 55.43 and 55.45. These examinations and tests determine whether the applicant for an operator's license has learned to operate a facility competently and safely, and additionally, in the case of a senior operator, whether the applicant has learned to direct the licensed activities of licensed operators competently and safely.

(b) *Conditional license.* If an applicant's general medical condition does not meet the minimum standards

under § 55.33(a)(1) of this part, the Commission may approve the application and include conditions in the license to accommodate the medical defect. The Commission will consider the recommendations and supporting evidence of the facility licensee and of the examining physician (provided on Form NRC-396) in arriving at its decision.

§ 55.35 Re-applications.

(a) An applicant whose application for a license has been denied because of failure to pass the written examination or operating test, or both, may file a new application two months after the date of denial. The application must be submitted on Form NRC-398 and include a statement signed by an authorized representative of the facility licensee by whom the applicant will be employed that states in detail the extent of the applicant's additional training since the denial and certifies that the applicant is ready for re-examination. An applicant may file a third application six months after the date of denial of the second application, and may file further successive applications two years after the date of denial of each prior application. The applicant shall submit each successive application on Form NRC-398 and include a statement of additional training.

(b) An applicant who has passed either the written examination or operating test and failed the other may request in a new application on Form NRC-398 to be excused from re-examination on the portions of the examination or test which the applicant has passed. The Commission may in its discretion grant the request, if it determines that sufficient justification is presented.

Subpart E—Written Examinations and Operating Tests

§ 55.41 Written examination: Operators.

(a) *Content.* The written examination for an operator will contain a representative selection of questions on the knowledge, skills, and abilities needed to perform licensed operator duties. The knowledge, skills, and abilities will be identified, in part, from learning objectives derived from a systematic analysis of licensed operator duties performed by each facility licensee and contained in its training program and from information in the Final Safety Analysis Report, system description manuals and operating procedures, facility license and license amendments, Licensee Event Reports, and other materials requested from the facility licensee by the Commission.

(b) The written examination for an operator for a facility will include a representative sample from among the following 14 items, to the extent applicable to the facility.

(1) Fundamentals of reactor theory, including fission process, neutron multiplication, source effects, control rod effects, criticality indications, reactivity coefficients, and poison effects.

(2) General design features of the core, including core structure, fuel elements, control rods, core instrumentation, and coolant flow.

(3) Mechanical components and design features of the reactor primary system.

(4) Secondary coolant and auxiliary systems that affect the facility.

(5) Facility operating characteristics during steady state and transient conditions, including coolant chemistry, causes and effects of temperature, pressure and reactivity changes, effects of load changes, and operating limitations and reasons for these operating characteristics.

(6) Design, components, and functions of reactivity control mechanisms and instrumentation.

(7) Design, components, and functions of control and safety systems, including instrumentation, signals, interlocks, failure modes, and automatic and manual features.

(8) Components, capacity, and functions of emergency systems.

(9) Shielding, isolation, and containment design features, including access limitations.

(10) Administrative, normal, abnormal, and emergency operating procedures for the facility.

(11) Purpose and operation of radiation monitoring systems, including alarms and survey equipment.

(12) Radiological safety principles and procedures.

(13) Procedures and equipment available for handling and disposal of radioactive materials and effluents.

(14) Principles of heat transfer thermodynamics and fluid mechanics.

§ 55.43 Written examination: Senior operators.

(a) *Content.* The written examination for a senior operator will contain a representative selection of questions on the knowledge, skills, and abilities needed to perform licensed senior operator duties. The knowledge, skills, and abilities will be identified, in part, from learning objectives derived from a systematic analysis of licensed senior operator duties performed by each facility licensee and contained in its

training program and from information in the Final Safety Analysis Report, system description manuals and operating procedures, facility license and license amendments, Licensee Event Reports, and other materials requested from the facility licensee by the Commission.

(b) The written examination for a senior operator for a facility will include a representative sample from among the following seven items and the 14 items specified in § 55.41 of this part, to the extent applicable to the facility:

(1) Conditions and limitations in the facility license.

(2) Facility operating limitations in the technical specifications and their bases.

(3) Facility licensee procedures required to obtain authority for design and operating changes in the facility.

(4) Radiation hazards that may arise during normal and abnormal situations, including maintenance activities and various contamination conditions.

(5) Assessment of facility conditions and selection of appropriate procedures during normal, abnormal, and emergency situations.

(6) Procedures and limitations involved in initial core loading, alterations in core configuration, control rod programming, and determination of various internal and external effects on core reactivity.

(7) Fuel handling facilities and procedures.

§ 55.45 Operating tests.

(a) *Content.* The operating tests administered to applicants for operator and senior operator licenses in accordance with paragraph (b)(1) of this section are generally similar in scope. The content will be identified, in part, from learning objectives derived from a systematic analysis of licensed operator or senior operator duties performed by each facility licensee and contained in its training program and from information in the Final Safety Analysis Report, system description manuals and operating procedures, facility license and license amendments, Licensee Event Reports, and other materials requested from the facility licensee by the Commission. The operating test, to the extent applicable, requires the applicant to demonstrate an understanding of and the ability to perform the actions necessary to accomplish a representative sample from among the following 13 items.

(1) Perform pre-startup procedures for the facility, including operating of those controls associated with plant equipment that could affect reactivity.

(2) Manipulate the console controls as required to operate the facility between shutdown and designated power levels.

(3) Identify annunciators and condition-indicating signals and perform appropriate remedial actions where appropriate.

(4) Identify the instrumentation systems and the significance of facility instrument readings.

(5) Observe and safely control the operating behavior characteristics of the facility.

(6) Perform control manipulations required to obtain desired operating results during normal, abnormal, and emergency situations.

(7) Safely operate the facility's head removal systems, including primary coolant, emergency coolant, and decay heat removal systems, and identify the relations of the proper operation of these systems to the operation of the facility.

(8) Safely operate the facility's auxiliary and emergency systems, including operation of those controls associated with plant equipment that could affect reactivity or the release of radioactive materials to the environment.

(9) Demonstrate or describe the use and function of the facility's radiation monitoring systems, including fixed radiation monitors and alarms, portable survey instruments, and personnel monitoring equipment.

(10) Demonstrate knowledge of significant radiation hazards, including permissible levels in excess of those authorized, and ability to perform other procedures to reduce excessive levels of radiation and to guard against personnel exposure.

(11) Demonstrate knowledge of the emergency plan for the facility, including, as appropriate, the operator's or senior operator's responsibility to decide whether the plan should be executed and the duties under the plan assigned.

(12) Demonstrate the knowledge and ability as appropriate to the assigned position to assume the responsibilities associated with the safe operation of the facility.

(13) Demonstrate the applicant's ability to function within the control room team as appropriate to the assigned position, in such a way that the facility licensee's procedures are adhered to and that the limitations in its license and amendments are not violated.

(b) *Implementation—(1) Administration.* The operating test will be administered in a plant walkthrough and in either—

(i) A simulation facility which the Commission has approved for use after application has been made by the facility licensee, or

(ii) A simulation facility consisting solely of a plant-referenced simulator which has been certified to the Commission by the facility licensee.

(2) *Schedule for facility licensees.* (i) Within one year after the effective date of this part, each facility licensee which proposes to use a simulation facility pursuant to paragraph (b)(1)(i) of this section, except test and research reactors, shall submit a plan by which its simulation facility will be developed and by which an application will be submitted for its use.

(ii) Those facility licensees which propose to conform with paragraph (b)(1)(i) of this section, not later than 42 months after the effective date of this rule, shall submit an application for use of this simulation facility to the Commission, in accordance with paragraph (b)(4)(i) of this section.

(iii) Those facility licensees which propose to conform with paragraph (b)(1)(ii) of this section, not later than 46 months after the effective date of this rule, shall submit a certification for use of this simulation facility to the Commission on Form NRC-474, "Simulation Facility Certification," available from Publication Services Section, Document Management Branch, Division of Technical Information and Document Control, U.S. Nuclear Regulatory Commission, Washington, DC 20555, in accordance with paragraph (b)(5)(i) of this section.

(iv) The simulation facility portion of the operating test will not be administered on other than a certified or an approved simulation facility after May 26, 1991.

(3) *Schedule for facility applicants.* (i) For facility licensee applications after the effective date of this rule, except test and research reactors, the applicant shall submit a plan which identifies whether its simulation facility will conform with paragraph (b)(1)(i) or (b)(1)(ii) of this section at the time of application.

(ii) Those applicants which propose to conform with paragraph (b)(1)(i) of this section, not later than 180 days before the date when the applicant proposes that the Commission conduct operating tests, shall submit an application for use of its simulation facility to the NRC, in accordance with paragraph (b)(4)(i) of this section.

(iii) Those applicants which propose to conform with paragraph (b)(1)(ii) of this section, not later than 60 days before the date when the applicant

proposes that NRC conduct operating tests, shall submit a certification for use of its simulation facility to the Commission on Form NRC-474, in accordance with paragraph (b)(5)(i) of this section.

(4) *Application for and approval of simulation facilities.* Those facility licensees which propose, in accordance with paragraph (b)(1)(i) of this section, to use a simulation facility that is other than solely a plant-referenced simulator as defined in § 55.4 shall—

(i) In accordance with the plan submitted pursuant to paragraph (b)(2)(i) or (b)(3)(i) of this section, as applicable submit an application for approval of the simulation facility to the Commission, in accordance with the schedule in paragraph (b)(2)(ii) or (b)(3)(ii) of this section, as appropriate. This application must include:

(A) A statement that the simulation facility meets the plan submitted to the Commission pursuant to paragraph (b)(2)(i) or (b)(3)(i) of this section, as applicable;

(B) A description of the components of the simulation facility which are intended to be used for each part of the operating test; and

(C) A description of the performance tests as part of the application, and the results of such tests.

(ii) The Commission will approve a simulation facility if it finds that the simulation facility and its proposed use are suitable for the conduct of operating tests for the facility licensee's reference plant, in accordance with paragraph (a) of this section.

(iii) Submit, every four years on the anniversary of the application, a report to the Commission which identifies any uncorrected performance test failures, and submit a schedule for correction of these performance test failures, if any.

(iv) Retain the results of the performance test conducted until four years after the submittal of the application under paragraph (b)(4)(i), each report pursuant to paragraph (b)(4)(iii), or any reapplication under paragraph (b)(4)(iv) of this section, as appropriate.

(v) If the Commission determines, based upon the results of performance testing, that an approved simulation facility does not meet the requirements of this part, the simulation facility may not be used to conduct operating tests.

(vi) If the Commission determines, pursuant to paragraph (b)(4)(v) of this section, that an approved simulation facility does not meet the requirements of this part, the facility licensee may again submit an application for approval. This application must include a description of corrective actions taken,

including results of completed performance testing as required for approval.

(vii) Any application or report submitted pursuant to paragraphs (b)(4)(i), (b)(4)(iii) and (b)(4)(vi) of this section must include a description of the performance testing completed for the simulation facility, and must include a description of performance tests, if different, to be conducted on the simulation facility during the subsequent four-year period, and a schedule for the conduct of approximately 25 percent of the performance tests per year for the subsequent four years.

(5) *Certification of simulation facilities.*—Those facility licensees which propose, in accordance with paragraph (b)(1)(ii) of this section, to use a simulation facility consisting solely of a plant-referenced simulator as defined in § 55.4, shall—

(i) Submit a certification to the Commission that the simulation facility meets the Commission's regulations. The facility licensee shall provide this certification on Form NRC-474 in accordance with the schedule in paragraph (b)(2)(iii) or (b)(3)(iii) of this section, as applicable.

(ii) Submit, every four years on the anniversary of the certification, a report to the Commission which identifies any uncorrected performance test failures, and submit a schedule for correction of such performance test failures, if any.

(iii) Retain the results of the performance test conducted until four years after the submittal of certification under paragraph (b)(5)(i), each report pursuant to paragraph (b)(5)(ii), or recertification under paragraph (b)(5)(v) of this section, as applicable.

(iv) If the Commission determines, based upon the results of performance testing, that a certified simulation facility does not meet the requirements of this part, the simulation facility may not be used to conduct operating tests.

(v) If the Commission determines, pursuant to paragraph (b)(5)(iv) of this section, that a certified simulation facility does not meet the requirements of this part, the facility licensee may submit a recertification to the Commission on Form NRC-474. This recertification must include a description of corrective actions taken, including results of completed performance testing as required for recertification.

(vi) Any certification report, or recertification submitted pursuant to paragraph (b)(5)(i), (b)(5)(ii) or (b)(5)(v) of this section must include a description of performance testing completed for the simulation facility, and must include a description of the

performance tests, if different, to be conducted on the simulation facility during the subsequent four-year period, and a schedule for the conduct of approximately 25 percent of the performance tests per year for the subsequent four years.

§ 55.47 Waiver of examination and test requirements.

(a) On application, the Commission may waive any or all of the requirements for a written examination and operating test, if it finds that the applicant—

(1) Has had extensive actual operating experience at a comparable facility, as determined by the Commission, within two years before the date of application;

(2) Has discharged his or her responsibilities competently and safely and is capable of continuing to do so; and

(3) Has learned the operating procedures for and is qualified to operate competently and safely the facility designated in the application.

(b) The Commission may accept as proof of the applicant's past performance a certification of an authorized representative of the facility licensee or of a holder of an authorization by which the applicant was previously employed. The certification must contain a description of the applicant's operating experience, including an approximate number of hours the applicant operated the controls of the facility, the duties performed, and the extent of the applicant's responsibility.

(c) The Commission may accept as proof of the applicant's current qualifications a certification of an authorized representative of the facility licensee or of a holder of an authorization where the applicant's services will be utilized.

§ 55.49 Integrity of examinations and tests.

Applicants, licensees, and facility licensees shall not engage in any activity that compromises the integrity of any application, test, or examination required by this part.

Subpart F—Licenses

§ 55.51 Issuance of licenses.

Operator and senior operator licenses. If the Commission determines that an applicant for an operator license or a senior operator license meets the requirements of the Act and its regulations, it will issue a license in the form and containing any conditions and limitations it considers appropriate and necessary.

§ 55.53 Conditions of licenses.

Each license contains and is subject to the following conditions whether stated in the license or not:

(a) Neither the license nor any right under the license may be assigned or otherwise transferred.

(b) The license is limited to the facility for which it is issued.

(c) The license is limited to those controls of the facility specified in the license.

(d) The license is subject to, and the licensee shall observe, all applicable rules, regulations, and orders of the Commission.

(e) If a licensee has not been actively performing the functions of an operator or senior operator, the licensee may not resume activities authorized by a license issued under this part except as permitted by paragraph (f) of this section. To maintain active status, the licensee shall actively perform the functions of an operator or senior operator on a minimum of seven 8-hour or five 12-hour shifts per calendar quarter. For test and research reactors, the licensee shall actively perform the functions of an operator or senior operator for a minimum of four hours per calendar quarter.

(f) If paragraph (e) of this section is not met, before resumption of functions authorized by a license issued under this part, an authorized representative of the facility licensee shall certify the following:

(1) That the qualifications and status of the licensee are current and valid; and

(2) That the licensee has completed a minimum of 40 hours of shift functions under the direction of an operator or senior operator as appropriate and in the position to which the individual will be assigned. The 40 hours must have included a complete tour of the plant and all required shift turnover procedures. For senior operators limited to fuel handling under paragraph (c) of this section, one shift must have been completed. For test and research reactors, a minimum of six hours must have been completed.

(g) The licensee shall notify the Commission within 30 days about a conviction for a felony.

(h) The licensee shall complete a requalification program as described by § 55.59.

(i) The licensee shall have a biennial medical examination.

(j) The licensee shall comply with any other conditions that the Commission may impose to protect health or to minimize danger to life or property.

§ 55.55 Expiration.

(a) Each operator license and senior operator license expires six years after the date of issuance, upon termination of employment with the facility licensee, or upon determination by the facility licensee that the licensed individual no longer needs to maintain a license.

(b) If a licensee files an application for renewal or an upgrade of an existing license on Form NRC-398 at least 30 days before the expiration of the existing license, it does not expire until disposition of the application for renewal or for an upgraded license has been finally determined by the Commission. Filing by mail or telegram will be deemed to be complete at the time the application is deposited in the mail or with a telegraph company.

§ 55.57 Renewal of licenses.

(a) The applicant for renewal of a license shall—

(1) Complete and sign Form NRC-398 and include the number of the license for which renewal is sought.

(2) File an original and two copies of Form NRC-398 with the appropriate Regional Administrator specified in § 55.5(b).

(3) Provide written evidence of the applicant's experience under the existing license and the approximate number of hours that the licensee has operated the facility.

(4) Provide a statement by an authorized representative of the facility licensee that during the effective term of the current license the applicant has satisfactorily completed the requalification program for the facility for which operator or senior operator license renewal is sought.

(5) Provide evidence that the applicant has discharged the license responsibilities competently and safely. The Commission may accept as evidence of the applicant's having met this requirement a certificate of an authorized representative of the facility licensee or holder of an authorization by which the licensee has been employed.

(6) Provide certification by the facility licensee of medical condition and general health on Form NRC-396, to comply with §§ 55.21, 55.23 and 55.27.

(b) The license will be renewed if the Commission finds that—

(1) The medical condition and the general health of the licensee continue to be such as not to cause operational errors that endanger public health and safety. The Commission will base this finding upon the certification by the facility licensee as described in § 55.23.

(2) The licensee—

(i) Is capable of continuing to competently and safely assume licensed duties;

(ii) Has successfully completed a requalification program that has been approved by the Commission as required by § 55.59; and

(iii) Has passed the requalification examinations and annual operating tests as required by § 55.59.

(iv) Has passed a comprehensive requalification written examination and operating test administered by the Commission during the term of a six-year license.

(3) There is a continued need for a licensee to operate or for a senior operator to direct operators at the facility designated in the application.

(4) The past performance of the licensee has been satisfactory to the Commission. In making its finding, the Commission will include in its evaluation information such as notices of violations or letters of reprimand in the licensee's docket.

§ 55.59 Requalification.

(a) *Requalification requirements.* Each licensee shall—

(1) Successfully complete a requalification program developed by the facility licensee that has been approved by the Commission. This program shall be conducted for a continuous period not to exceed 24 months in duration.

(2) Pass a comprehensive requalification written examination and an annual operating test.

(i) The written examination will sample the items specified in §§ 55.41 and 55.43 of this part, to the extent applicable to the facility, the licensee, and any limitation of the license under § 55.53(c) of this part.

(ii) The operating test will require the operator or senior operator to demonstrate an understanding of and the ability to perform the actions necessary to accomplish a comprehensive sample of items specified in § 55.45(a) (2) through (13) inclusive to the extent applicable to the facility.

(iii) In lieu of the Commission accepting a certification by the facility licensee that the licensee has passed written examinations and operating tests administered by the facility licensee within its Commission-approved program developed by using a systems approach to training under paragraph (c) of this section, the Commission may administer a comprehensive requalification written examination and an annual operating test.

(b) *Additional training.* If the requirements of paragraphs (a) (1) and (2) of this section are not met, the Commission may require the licensee to complete additional training and to submit evidence to the Commission of successful completion of this training before returning to licensed duties.

(c) *Requalification program requirements.* A facility licensee shall have a requalification program reviewed and approved by the Commission. 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.

(1) *Schedule.* The requalification program must be conducted for a continuous period not to exceed two years, and upon conclusion must be promptly followed, pursuant to a continuous schedule, by successive requalification programs.

(2) *Lectures.* The requalification program must include preplanned lectures on a regular and continuing basis throughout the license period in those areas where operator and senior operator written examinations and facility operating experience indicate that emphasis in scope and depth of coverage is needed in the following subjects:

- (i) Theory and principles of operation.
- (ii) General and specific plant operating characteristics.
- (iii) Plant instrumentation and control systems.
- (iv) Plant protection systems.
- (v) Engineered safety systems.
- (vi) Normal, abnormal, and emergency operating procedures.
- (vii) Radiation control and safety.
- (viii) Technical specifications.
- (ix) Applicable portions of Title 10, Chapter I, *Code of Federal Regulations*.

(3) *On-the-job training.* The requalification program must include on-the-job training so that—

(i) Each licensed operator of a utilization facility manipulates the plant controls and each licensed senior operator either manipulates the controls or directs the activities of individuals during plant control manipulations during the term of the licensed operator's or senior operator's license. For reactor operators and senior operators, these manipulations must consist of the following control manipulations and plant evolutions if they are applicable to the plant design. Items described in paragraphs (c)(3)(i) (A) through (L) of this section must be

performed annually; all other items must be performed on a two-year cycle.

However, the requalification programs must contain a commitment that each individual shall perform or participate in a combination of reactivity control manipulations based on the availability of plant equipment and systems. Those control manipulations which are not performed at the plant may be performed on a simulator. The use of the Technical Specifications should be maximized during the simulator control manipulations. Senior operator licensees are credited with these activities if they direct control manipulations as they are performed.

(A) Plant or reactor startups to include a range that reactivity feedback from nuclear heat addition is noticeable and heatup rate is established.

(B) Plant shutdown.

(C) Manual control of steam generators or feedwater or both during startup and shutdown.

(D) Boration or dilution during power operation.

(E) Significant (>10 percent) power changes in manual rod control or recirculation flow.

(F) Reactor power change of 10 percent or greater where load change is performed with load limit control or where flux, temperature, or speed control is on manual (for HTGR).

(G) Loss of coolant, including—

- (1) Significant PWR steam generator leaks
- (2) Inside and outside primary containment
- (3) Large and small, including lead-rate determination
- (4) Saturated reactor coolant response (PWR).

(H) Loss of instrument air (if simulated plant specific).

(I) Loss of electrical power (or degraded power sources).

(J) Loss of core coolant flow/natural circulation.

(K) Loss of feedwater (normal and emergency).

(L) Loss of service water, if required for safety.

(M) Loss of shutdown cooling.

(N) Loss of component cooling system or cooling to an individual component.

(O) Loss of normal feedwater or normal feedwater system failure.

(P) Loss of condenser vacuum.

(Q) Loss of protective system channel.

(R) Mispositioned control rod or rods (or rod drops).

(S) Rod drive control rods.

(T) Conditions requiring use of emergency boration or standby liquid control system.

(U) Fuel cladding failure or high activity in reactor coolant or offgas.

(V) Turbine or generator trip.

(W) Malfunction of an automatic control system that affects reactivity.

(X) Malfunction of reactor coolant pressure/volume control system.

(Y) Reactor trip.

(Z) Main steam line break (inside or outside containment).

(AA) A nuclear instrumentation failure.

(ii) Each licensed operator and senior operator has demonstrated satisfactory understanding of the operation of the apparatus and mechanisms associated with the control manipulations in paragraph (c)(3)(i) of this section, and knows the operating procedures in each area for which the operator or senior operator is licensed.

(iii) Each licensed operator and senior operator is cognizant of facility design changes, procedure changes, and facility license changes.

(iv) Each licensed operator and senior operator reviews the contents of all abnormal and emergency procedures on a regularly scheduled basis.

(v) A simulator may be used in meeting the requirements of paragraphs (c) (3)(i) and (3)(ii) of this section, if it reproduces the general operating characteristics of the facility involved and the arrangement of the instrumentation and controls of the simulator is similar to that of the facility involved. If the simulator or simulation device is used to administer operating tests for a facility, as provided in § 55.45 (b)(1), the device approved to meet the requirements of § 55.45(b)(1) must be used for credit to be given for meeting the requirements of paragraphs (c)(3)(i) (G through AA) of this section.

(4) *Evaluation.* The requalification program must include—

(i) Comprehensive requalification written examinations and annual operating tests which determine areas in which retraining is needed to upgrade licensed operator and senior operator knowledge.

(ii) Written examinations which determine licensed operators' and senior operators' knowledge of subjects covered in the requalification program and provide a basis for evaluating their knowledge of abnormal and emergency procedures.

(iii) Systematic observation and evaluation of the performance and competency of licensed operators and senior operators by supervisors and/or training staff members, including evaluation of actions taken or to be taken during actual or simulated abnormal and emergency procedures.

(iv) Simulation of emergency or abnormal conditions that may be

accomplished by using the control panel of the facility involved or by using a simulator. Where the control panel of the facility is used for simulation, the actions taken or to be taken for the emergency or abnormal condition shall be discussed; actual manipulation of the plant controls is not required. If a simulator is used in meeting the requirements of paragraph (c)(4)(iii) of this section, it shall accurately reproduce the operating characteristics of the facility involved and the arrangement of the instrumentation and controls of the simulator shall closely parallel that of the facility involved. After the provisions of § 55.45(b) have been implemented at a facility, the certified or approved simulation facility must be used to comply with this paragraph.

(v) Provisions for each licensed operator and senior operator to participate in an accelerated requalification program where performance evaluations conducted pursuant to paragraphs (c)(4) (i) through (iv) of this section clearly indicated the need.

(5) *Records.* The requalification program documentation must include the following:

(i) The facility licensee shall maintain records documenting the participation of each licensed operator and senior operator in the requalification program. The records must contain copies of written examinations administered, the answers given by the licensee, and the results of evaluations and documentation of operating tests and of any additional training administered in areas in which an operator or senior operator has exhibited deficiencies. The facility licensee shall retain these records until the operator's or senior operator's license is renewed.

(ii) Each record required by this part must be legible throughout the retention period specified by each Commission regulation. The record may be the original or a reproduced copy or a microform provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of producing a clear copy throughout the required retention period.

(iii) If there is a conflict between the Commission's regulations in this part, and any license condition, or other written Commission approval or authorization pertaining to the retention period for the same type of record, the retention period specified for these records by the regulations in this part apply unless the Commission, pursuant to § 55.11, grants a specific exemption

from this record retention requirement.

(6) *Alternative training programs.* The requirements of this section may be met by requalification programs conducted by persons other than the facility licensee if the requalification programs are similar to the program described in paragraphs (c) (1) through (5) of this section and the alternative program has been approved by the Commission.

(7) *Applicability to research and test reactor facilities.* To accommodate specialized modes of operation and differences in control, equipment, and operator skills and knowledge, the requalification program for each licensed operator and senior operator of a research reactor or test reactor facility must conform generally but need not be identical to the requalification program outlined in paragraphs (c) (1) through (6) of this section. Significant deviations from the requirements of paragraphs (c) (1) through (6) of this section will be permitted only if supported by written justification and approved by the Commission.

Subpart G—Modification and Revocation of Licenses

§ 55.61 Modification and revocation of licenses.

(a) The terms and conditions of all licenses are subject to amendment, revision, or modification by reason of rules, regulations, or orders issued in accordance with the Act or any amendments thereto.

(b) Any license may be revoked, suspended, or modified, in whole or in part:

(1) For any material false statement in the application or in any statement of fact required under section 182 of the Act,

(2) Because of conditions revealed by the application or statement of fact or any report, record, inspection or other means that would warrant the Commission to refuse to grant a license on an original application,

(3) For willful violation of, or failure to observe any of the terms and conditions of the Act, or the license, or of any rule, regulation, or order of the Commission, or

(4) For any conduct determined by the Commission to be a hazard to safe operation of the facility.

Subpart H—Enforcement

§ 55.71 Violations.

(a) An injunction or other court order may be obtained prohibiting any

violation of any provision of:

(1) The Atomic Energy Act of 1954, as amended;

(2) Title II of the Energy Reorganization Act of 1974, as amended; or

(3) Any regulation or order issued under these Acts.

(b) A court order may be obtained for the payment of a civil penalty imposed under section 234 of the Atomic Energy Act for violation of:

(1) Sections 53, 57, 62, 63, 81, 82, 101, 103, 104, 107, or 109 of the Atomic Energy Act;

(2) Section 206 of the Energy Reorganization Act of 1974;

(3) Any rule, regulation, or order issued under these Acts;

(4) Any term, condition, or limitation of any license issued under these Acts; or

(5) For any violation for which a license may be revoked under section 186 of the Atomic Energy Act.

(c) Any person who willfully violates any provision of the Atomic Energy Act or any regulation issued under the Act, including the regulations in this part, may be guilty of a crime and, upon conviction, may be punished by fine or imprisonment, or both, as provided by law.

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

2. The authority citation for Part 50 continues to read as follows:

Authority: Secs. 103, 104, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2133, 2134, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, 202, 206, 88 Stat. 1242, 1244, 1246, as amended (42 U.S.C. 5841, 5842, 5846), unless otherwise noted.

Section 50.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Sections 50.58, 50.91, and 50.92 also issued under Pub. L. 97-415, 96 Stat. 2071, 2073 (42 U.S.C. 2133, 2239). Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Sections 50.100-50.102 also issued under sec. 186, 68 Stat. 955 (42 U.S.C. 2236).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273), §§ 50.10 (a), (b), and (c), 50.44, 50.46, 50.48, 50.54, and 50.80(a) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); §§ 50.10(b) and (c) and 50.54 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§ 50.55(e), 50.59(b), 50.70, 50.71, 50.72, 50.73, and 50.78 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

3. In § 50.34, paragraph (b)(8) is revised as follows:

§ 50.34 Contents of applications; technical information.

(b) * * *

(8) A description and plans for implementation of an operator requalification program. The operator requalification program must as a minimum, meet the requirements for those programs contained in § 55.59 of Part 55 of this chapter.

4. In § 50.54, paragraphs (i) and (i-1) are revised to read as follows:

§ 50.54 Conditions of licenses.

(i) Except as provided in § 55.13 of this chapter, the licensee may not permit the manipulation of the controls of any facility by anyone who is not a licensed operator or senior operator as provided in Part 55 of this chapter.

(i-1) Within three months after issuance of an operating license, the licensee shall have in effect an operator requalification program which must as a minimum, meet the requirements of § 55.59(c) of this chapter.

Notwithstanding the provisions of § 50.59, the licensee may not, except as specifically authorized by the Commission decrease the scope of an approved operator requalification program.

5. Immediately following § 50.73, "Licensee Event Report System," a new § 50.74 is added as a conforming amendment to read as follows:

§ 50.74 Notification of change in operator or senior operator status.

Each licensee shall notify the Commission in accordance with § 50.4 within 30 days of the following in regard to a licensed operator or senior operator:

(a) Permanent reassignment from the position for which the licensee has certified the need for a licensed operator or senior operator under § 55.31(a)(3) of this chapter;

(b) Termination of any operator or senior operator;

(c) Disability or illness as described in § 55.25 of this chapter.

Dated at Washington, DC, this 20th day of March 1987.

For the Nuclear Regulatory Commission.

John C. Hoyle,

Acting Secretary for the Commission.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 86-NM-215-AD; Amdt. 39-5588]

Airworthiness Directives; Boeing Model 747 and 757 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to Boeing Models 747 and 757 series airplanes, which requires inspection of the passenger door emergency power reservoir for integrity of the pressure relief rupture disk, repair, if necessary, and replacement of defective disk retainers. This amendment is prompted by numerous reports of emergency power reservoirs found to be prematurely discharged. This condition, if not corrected, would render the emergency power reservoir incapable of providing power to assist in opening the door quickly when required for emergency evacuation.

DATES: Effective May 1, 1987.

ADDRESSES: The applicable Boeing service information may be obtained from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124; the applicable H.R. Textron service information may be obtained from H.R. Textron, 25200 West Rye Canyon Road, Valencia, California 91355. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington 98168.

FOR FURTHER INFORMATION CONTACT: Mr. Pliny Brestel, Airframe Branch, ANM-120S; telephone (206) 431-1931. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION: A proposal to amend Part 39 of the Federal Aviation Regulations to include an airworthiness directive which requires inspection of the passenger door emergency power reservoir on Boeing Models 747 and 757 series airplanes for integrity of the pressure relief rupture disk, repair, if necessary, and replacement of defective disk retainers, was published in the Federal Register on December 24, 1986 (51 FR 46687). The comment period for the NPRM, which ended February 16, 1987, afforded

interested persons an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

The Air Transport Association (ATA) of America, representing operators of Boeing Model 747 and 757 airplanes stated that the proposed rule requiring inspection of all 747 and 757 airplanes is not justified for those operators whose records list the serial numbers and applicable aircraft of the subject reservoirs installed. The ATA, therefore, requested that paragraph A. of the proposed rule be deleted and that the effectivity be revised to read "Boeing: Applies to all Model 747 and 757 series airplanes equipped with emergency power reservoirs listed in H.R. Textron Service Bulletin No. 803300-52-05." The FAA agrees that it is unnecessary to inspect the airplanes if records are available to determine the serial numbers of the reservoirs installed, and the AD has been revised accordingly; however, in absence of such records, operators must inspect for serial numbers in accordance with the applicable service bulletin.

The ATA also commented that the "NOTE" in the proposed rule which advises readers that the affected reservoirs may be installed on other airplanes should be deleted because, if adopted, will create confusion in the field since the effectivity of the proposed rule is clearly only against Boeing aircraft. The FAA concurs that the effectivity is only Boeing aircraft and specifically Models 747 and 757; however, the "NOTE" should not be deleted because, while some Boeing 747 and 757 aircraft may have been delivered without defective reservoirs, a defective reservoir could have been installed in the field since delivery. The note has been revised to reflect "Boeing Model 747 and 757 series airplanes."

The ATA also requested that the initial compliance period in paragraph A. of the proposed rule be changed from 60 to 90 days to afford those operators, who may not have records listing serial numbers of reservoirs, additional time to complete the fleet inspection to determine if they are affected by the rule. The ATA stated that, in some instances (likely 50%), the installed reservoirs would require removal to read the serial number. Further, some operators check the reservoirs every four days and, therefore, need time to change their maintenance program to comply with the daily check requirement of paragraph B. The FAA does not concur with an extension of the initial compliance period from 60 to 90 days in that air safety and public interest