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

§ 55.40 Implementation.

(a) The Commission shall use the criteria in NUREG–1021, ''Operator Licensing Examination Standards for Power Reactors,''[1] in effect six months before the examination date to prepare the written examinations required by §§ 55.41 and 55.43 and the operating tests required by § 55.45. The Commission shall also use the criteria in NUREG–1021 to evaluate the written examinations and operating tests prepared by power reactor facility licensees pursuant to paragraph (b) of this section.

(b) Power reactor facility licensees may prepare, proctor, and grade the written examinations required by §§ 55.41 and 55.43 and may prepare the operating tests required by § 55.45, subject to the following conditions:

(1) Power reactor facility licensees shall prepare the required examinations and tests in accordance with the criteria in NUREG–1021 as described in paragraph (a) of this section;

(2) Pursuant to § 55.49, power reactor facility licensees shall establish, implement, and maintain procedures to control examination security and integrity;

(3) An authorized representative of the power reactor facility licensee shall approve the required examinations and tests before they are submitted to the Commission for review and approval; and

(4) Power reactor facility licensees must receive Commission approval of their proposed written examinations and operating tests.

(c) In lieu of paragraph (b) of this section and upon written request from a power reactor facility licensee pursuant to § 55.31(a)(3), the Commission shall, for that facility licensee, prepare, proctor, and grade, the written examinations required by §§ 55.41 and 55.43 and the operating tests required by § 55.45. In addition, the Commission may exercise its discretion and reject a power reactor facility licensee's determination to elect paragraph (b) of this section, in which case the Commission shall prepare, proctor, and grade the required written examinations and operating tests for that facility licensee.

(d) The Commission shall prepare, proctor, and grade the written examinations required by §§ 55.41 and 55.43 and the operating tests required by § 55.45 for non-power reactor facility licensees.

[64 FR 19878, Apr. 23, 1999]

§ 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

[1] Copies of NUREGs may be purchased from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 38082, Washington, DC 20402–9328. Copies are also available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. A copy is available for inspection and/or copying in the NRC Public Document Room, 2120 L Street, NW (Lower Level), Washington, DC.

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.