

50-027

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Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
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Dear Mr. Traiforos,

Attached to this letter is a revised copy of the WSU Reactor Staff Requalification Program updated to reflect minor changes in policy. The revisions include updated language to include the requirements from the American Nuclear Insurers policy for training records document retention; a change in the departmental name from Nuclear Radiation Center to Nuclear Science Center; and minor grammatical corrections.

These changes have been approved by the WSU Reactor Safeguards Committee on 8/23/2018, and are submitted for your approval under the revision dated 8/2/2018.

If you have any questions about these revisions, please contact me at 509-335-8641 or by electronic mail at [cchines@wsu.edu](mailto:cchines@wsu.edu).

Sincerely,



C. Corey Hines, M.S.  
Associate Director

cc: U.S. NRC Document Control Desk

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## REACTOR STAFF REQUALIFICATION PROGRAM

WSU Nuclear Science Center

Each licensed reactor operator (RO) and senior reactor operator (SRO) at the Washington State University Nuclear Science Center (NSC) reactor facility shall participate in the reactor staff requalification program as outlined below. If there is only one SRO at the NSC, that SRO will prepare, administer, and grade the written examinations and be exempted from taking the written examinations. If there is more than one SRO, the responsibility for writing, administering, and grading the written examinations shall be rotated between or among the SRO(s) so that no SRO is exempted from taking the written examination for two consecutive biennial cycles. The requirements in this plan follow the requirements set in ANSI/ANS 15.4 and 10 CFR 55.59. The requalification activities required are detailed in the following sections.

### 1. Biennial Written Requalification Examination

Licensed operators and senior operators will biennially, at intervals not to exceed 30 months, take a written examination. This examination will be broken down into sections in accordance with the subjects set forth in 10 CFR 55.41 for the RO examination and 55.43 for the SRO examination as applicable to a non-power reactor. Sections of this examination may be administered over a period of time not to exceed one month. Any individual who does not receive a grade of 70% or higher on any section will be given additional training and/or tutorial lectures and then be reexamined. Individuals who receive a grade of less than 70% on any one section will not be allowed to perform licensed duties until after receiving additional training and successfully passing a second examination in that subject area. An overall grade of 70% for the entire examination will be considered as a passing mark.

### 2. Annual Operations Test

- a. An annual operations test shall be administered to each RO and SRO at intervals not to exceed 15 months in order to meet the requirements of 10 CFR 55.59 (a.2.ii). The operations test shall consist of the following elements:
  1. Checkout and startup of the reactor.
  2. Bringing the reactor up to full power.
  3. Reducing the reactor power and leveling off at 50% power.
  4. Responding to an alarm situation.
  5. Shutting down the reactor.

- b. Each of the five sections on the operations test shall be graded as pass or fail. A licensee shall pass all five sections to receive a passing grade for the test. The following conditions shall apply to a licensee who does not receive a passing grade on the annual operations test:
  - 1. the licensee shall undergo additional training before retaking the test
  - 2. the licensee shall not perform licensed duties until retaking and passing the test.
- c. Records of the annual operations test must be maintained and any individual who fails shall be given additional training and then retested.
- d. Operators who do not meet the 15 month requirement shall take the annual operations test as soon as practically possible. In addition, the operator in question shall receive documented training on the Washington State University Nuclear Science Center Requalification Plan and 10 CFR 55.59.

### 3. Biennial Operations Requirement

In accordance with ANSI/ANS 15.4 and 10 CFR 55.59, over a two-year period, each licensee in the requalification program shall perform at least ten reactivity manipulations in any combination of reactor startups, shutdowns, or significant reactivity changes. To remain qualified to perform reactor pulses, an operator must complete at least one pulse semiannually at intervals not to exceed 7.5 months. An operator who does not meet this requirement must perform their next pulse under the supervision of an SRO. Direct supervision of these operations shall be considered equivalent to actual performance for the senior reactor operator. The quarterly operations certification is designed to insure that the biennial operations requirements are met.

### 4. Quarterly Operations Certification

Each licensed reactor operator and senior operator must actively participate in the operations of the facility in order to remain qualified. The minimum quarterly operations required are listed below.

- a. Reactor Operators (personally perform)
  - i) One complete reactor checkout and startup, including bringing the reactor up to full power.
  - ii) One shutdown from full power.

- iii) Four hours of reactor operation time.
- b. Senior Reactor Operators (directly supervise or personally perform)
  - i) One complete reactor checkout and startup, including bringing the reactor up to full power.
  - ii) One shutdown from full power.
  - iii) Four hours of reactor operation time.
- c. Each individual who fails to perform the above minimum operations in any one calendar quarter shall be considered to be unqualified to perform license duties. In order to be requalified, an individual must be administered the equivalent of an operating test and six hours of supervised reactor operation time.

#### 5. Facility and Safety Reviews

- a. All the following listed items will be promptly routed to each licensed operator and senior operator in the facility. Each licensee will be required to read this information and sign a routing slip.
  - 1. Facility design changes.
  - 2. Technical specification changes.
  - 3. Facility license changes.
  - 4. Standard operating procedure changes.
- b. Each licensed operator and senior operator shall annually review all the current standard and emergency procedures of the facility. A form indicating that this has been done shall be maintained in the individual's training file.

#### 6. Training Records

A training record file shall be maintained which shall indicate the performance of each licensed individual in the requalification program during the facility standardized two year training cycle. The records for each licensed individual shall be maintained as required by the American Nuclear Insurers policy, which is currently life of the policy plus ten years. This record shall contain the following information:

- a. Performance on each section of the requalification program examination, including the actual examinations and answers given by each licensee.
- b. Special lectures, attended as a result of failure to pass a written requalification examination and results of reexamination.
- c. Quarterly certification forms.
- d. Results of annual operations test.
- e. Facility and safety review signed routing slips.
- f. Biennial performance review.
- g. Biennial medical evaluation NRC Form 396.

7. RO and SRO Biennial Performance Reviews

The training program supervisor for the Nuclear Science Center shall biennially review the performance of each licensed reactor operator and senior operator to ensure competence to perform licensed activities. This review shall include but not be limited to the following considerations:

- a. Performance on the written requalification examination.
- b. Results of quarterly operations certifications.
- c. Results of annual operations test.
- d. Attitude toward following standard procedures and performing operations in a safe manner.
- e. General overall performance of the individual in carrying out license responsibilities in a safe and competent manner.