Nuclear Radiation Center



May 5, 2011

Document Control Desk U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Reference: Washington State University, Docket No. 50-27, License No. R-76

Subject: Washington State University - Request for Additional Information Regarding the Washington State University Requalification Program

This letter is in response the U.S. Nuclear Regulatory Commission Request for Additional Information dated April 11, 2011.

There are two requests for Additional Information in the April 11, 2011 letter.

### RAI 1

RAI 1 provides the following request, "Please provide a pass/fail criteria for facility administered annual operating tests as part of the WSUNRC Reactor Staff Qualification Program." The requalification program, which is a WSUNRC administrative procedure, has been changed to incorporate language describing pass/fail criteria. There are five parts to the annual operations test. Each part is graded as pass or fail. The person taking the test must pass all five parts, i.e. score 100%, to pass the examination. A failure to pass any one section of the examination will trigger a requirement for additional training and retesting. During the retraining period, and before retesting, the individual shall be prohibited from performing licensed duties. The individual may resume licensed duties after retraining and passing the retest.

A copy of the updated Requalification Program procedure is included with this letter.

# RAI 2

The RAI 2 statement in the last sentence of the last paragraph states, "Please modify the scope to ensure that one individual is permanently exempted from meeting the requirements of 10 CFR Part 55." Washington State University has modified the language in the Reactor Staff Requalification Procedure that allows for a single Senior Reactor Operator to be exempted from biennial written examinations only if there is only one SRO on staff at the WSU NRC. At times when there is more than one SRO employed by the WSU NRC, the responsibility for writing, administering, and grading the biennial written examination shall be rotated so that no SRO is exempted from taking the written examination for two consecutive biennial cycles.

I declare under penalty of perjury that the foregoing is true to the best of my knowledge.

Executed May 5,2011

Respectfully Submitted,

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Rev. 1/16/08; 5/5/11

# Requalification Program

## WSU Nuclear Radiation Center

## **REACTOR STAFF REQUALIFICATION PROGRAM**

Each licensed reactor operator (RO) and senior reactor operator (SRO) at the Washington State University Nuclear Radiation Center reactor facility shall participate in the reactor staff requalification program as outlined below. If there is only one SRO at the WSU NRC, 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 guidelines set in ANSI/ANS Standard 15.4. The requalification activities required are:

#### 1. <u>Biennial Written Regualification Examination</u>

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 and any individual who does not received 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. <u>Annual Operations Test</u>

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.

- Each of the 5 sections on the operations test shall be graded as pass or fail. A licensee shall pass all 5 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
  - the licensee shall not perform licensed duties until retaking and passing the test.
- 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 Radiation Center Requalification Plan and 10 CFR 55.59.

#### 3. Biennial Operations Requirement

In accordance with the recommendations of ANSI/ANS-15.4, 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 do pulsing an operator must do at least one pulse semiannually at intervals not to exceed 7.5 months. An operator who does not meet this requirement must do the 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. <u>Reactor Operators</u> (personally perform)
  - i) One complete reactor checkout and startup, including bringing the reactor up to full power.

b.

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- ii) One shutdown from full power.
- iii) Four hours of reactor operation time.
- Senior 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. <u>Facility and Safety Reviews</u>

- 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 indicating that he has done so.
  - i) Facility design changes.
  - ii) Technical specification changes.
  - iii) Facility license changes.
  - iv) Standard operating procedure changes.

 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. <u>Training Records</u>

A training record file shall be maintained which shall indicate the performance of each licensed individual in the requalification program. The training records for each individual shall be maintained for a period of not less than two years and may be disposed of after an individual's license has been renewed. This record shall contain at least 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 Radiation 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.