

## Summary

Response to Request for Additional Information dated 11/02/16

### **ORP-1**

#### **Facility Response:**

The facility has amended the ORP SECTION 3 – DEFINITIONS – **Schedule**, substituting the word “shall” for “should” and adding the word “continuous” to match the exact language used in 10CFR 55.59(a)(1). In addition the timing language has been changed from “two years” to “24 months.” The definition now reads as follows:

**Schedule:** The requalification program shall be conducted for a continuous period not to exceed 24 months, and upon conclusion must be promptly followed, pursuant to a schedule by successive requalification programs.

### **ORP-2**

#### **Facility Response:**

The facility has amended the ORP SECTION 5.4 to read as follows:

The Reactor Supervisor (RS) and the Chief Reactor Operator (CRO) are responsible for the preparation, grading and evaluation of the results of the requalification examination, the operator performance evaluation, and the subsequent retraining efforts. In order to comply with 10 CFR 55.59 (a)(2), the requalification exam preparation and administration shall be alternated between the RS and the CRO. The RS or CRO preparing the exam shall be considered as having satisfied the requirements for completing the examination and performance evaluations.

### **ORP-3**

#### **Facility Response:**

The facility has amended and updated the ORP SECTIONS 4.4 and 4.5 to include the specifications of 10CFR 55.59 (c)(2) as follows:

#### **4.4 Re-Training and Accelerated Re-Training Programs**

As part of their licensed duties, all Reactor Operators and Senior Reactor Operators shall participate in refresher training on a regular and continuing basis throughout the license period in those areas where 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 1, Code of Federal Regulations.

**4.4.1.** The Reactor Operator Re-Training Program includes, but is not limited to the following:

- A. Self-Study
- B. Pre-planned lectures or tutoring sessions
- C. On-The-Job-Training of new operators
- D. Written or oral examination in the areas of identified deficiency from the requalification examination.
- E. Re-training in the areas such as radiation safety and protection are provided by the UML Radiation Safety Program. All Licensed RO and SRO's are Radiation Workers and as such are required to undergo initial training and qualification (under 10CFR 20), as well as biennial refresher training and testing to maintain their Radiation Worker status.
- F. Annual emergency drills are performed to simulate potential accident or abnormal operating conditions in the facility, meeting key elements from the guidance of ANSI/ANS 15.4-2016 Section 6.2.1.

#### **4.5 On-The-Job Training (OTJT)**

Significant elements of the required Reactor Operator Refresher Training (Section 4.4) are met while training new Auxiliary Operators (AO) studying to earn a Reactor Operator License, as well as training Licensed Reactor Operators studying to earn a Senior Reactor Operators license. In addition to the goal of training new Reactor Operators, the following OTJT training requirements shall be met:

**4.5.1.** Each licensed RO will manipulate the plant controls and each licensed SRO will manipulate the plant controls or direct the activities of individuals during plant manipulations throughout the terms of their licenses. Manipulation shall consist of a least 10 reactivity control manipulations in any combination of reactor start-ups, changes in reactor power level, reactor shutdowns, critical experiments and reactor

fuel loading. The reactivity manipulations dealing with power level changes should be substantial, that is, changes in power level of >10%, that should be carried out in manual operation. Efforts should be made to have a combination of various reactivity manipulations.

**4.5.2.** Periodic lectures will be held when requalification examination identifies general weakness, to explain major facility design changes, procedure changes, and facility license changes, or to cover topical material. These lectures will be scheduled by the RS or CRO.

**4.5.3.** Each licensed RO and SRO shall be cognizant of all facility design changes, procedure changes and facility license changes.

**4.5.4.** Each licensed RO and SRO will review the contents of all Emergency Operating procedures and Emergency Plan on a regular basis. Over the course of the calendar year all emergency procedures will be covered. Periodic drills for implementing elements of the Emergency Plan and procedures will be held.

**4.5.5.** Performance of maintenance and calibration procedures by licensed RO and SROs is an integral element in the training of new personnel. This form of training allows for both the trainer to refresh and the trainee to gain knowledge of the facility and its operational characteristics. Documentation for the participation in these activities is maintained with the calibration documentation. Due to the limited staff size, this form of training typically is a significant contributor to the on-the-job training received by operators and trainees.

## **ORP-4**

### **Facility Response:**

The facility has amended the ORP SECTION 4 as follows:

### **4. REQUALIFICATION PROGRAM**

In accordance with ANSI/ANS-1 5.4-2016, Section 6.2, the requalification program shall be conducted over a period not to exceed 24 months, to be followed by successive 24-month programs. During the 24-month period, the following shall be provided or accomplished:

- (1) Refresher training
- (2) Written examination
- (3) Medical evaluation
- (4) Reactivity manipulations

#### **4.1. Biennial Written Requalification Examination**

A comprehensive biennial written requalification examination is administered to all licensed Reactor Operators and Senior Reactor Operators. This examination includes questions on subjects specified in 10CFR55.41 for Reactor Operators and 10CFR55.43 for Senior Reactor Operators. The written examination shall be completed no later than the last day of the 12 month of the second year. At the discretion of the Reactor Supervisor, this examination may be administered in whole or in parts.

#### **4.2. Operator Performance Evaluation**

At 12-month intervals, the performance and competence of licensed RO and SROs will be observed and evaluated during a reactor reactivity manipulation. The evaluation shall include: oral examination on normal and emergency operating procedures and understanding of apparatus and mechanisms pertaining to the operations of the reactor. The evaluation shall be completed no later than the last day of the 12 month.

### **ORP-5**

#### **Facility Response:**

The facility has amended the ORP SECTION 4.6 as follows:

#### **4.6 Medical Examination**

Each licensed RO or SRO shall undergo medical examination and evaluation as part of the requalification program. Each licensee shall have a medical examination by a physician. The physician shall determine that the applicant or licensee meets the requirements of 10CFR 55.33(a)(1). Medical examinations shall be conducted prior to licensing and no less than every two years thereafter, with the periodic examination completed no later than the last day of the 12 month of the second year. More frequent examination may be required if the conditions warrant as determined by the Reactor Supervisor or upon the recommendation of a medical examiner.

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