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Subject: Dow Chemical Company- Response to the Request for Additional Information regarding Operation Requalification Plan for the renewed license of the TRIGA research reactor. License No. R-108; Docket No. 50-264.

The response to the RAI is organized by individual question. Each question will be reiterated and our response will follow.

1. Regulation 10 CFR 55.59(a)(2) states that each licensee shall "pass a comprehensive requalification written examination and an annual operating test."

In your requalification program, sections B, C, and D state:

- B. A 1 to 2 hour walk through the facility" with discussion led by the reactor supervisor.
- C. A simulated emergency situation with evacuation exercise.
- D. The above parts of the program will be followed by a written examination containing at least 12 questions which can be answered in approximately two hours and will demonstrate the familiarity of the operator with the subjects covered.

Although the sections of the program may be deemed to fulfill the requirements of 10 CFR 55.50(a)(2), there is no pass/fail criterion associated with these tests. How does the facility ensure consistent evaluation for passing or failing the operators during these tests? ANSI/ANS-15.4-2007 provides guidance for examination, administration and evaluation. Please consider implementing this guidance or justify an alternate approach to establishing a pass/fail criterion.

DTRR response

The requalification program does have a pass/fail criterion as stated in paragraph following section G.

"Operators who were unable to obtain a passing grade in the written exam [item (D) above] shall be offered an accelerated review and training set up to meet the individual's need by the reactor supervisor".

For clarity, this section will be modified to the following.

"Operators who were unable to obtain a passing grade of 70% on the written exam shall be offered an accelerated review and training set up to meet the individual's need by the reactor supervisor".

2. Regulation 10 CFR 55.59(a) (2) states that "... for test and research reactors, the licensee shall actively perform the functions of an operator of senior operator for a minimum of four hours calendar quarter."

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In your requalification Program, Section G states: Each licensee shall operate the reactor at least once every 120 days and shall perform a minimum of ten reactivity changes during the calendar year."

Please explain how Section G meets the requirements of 10 CFR 55.53(e) for maintaining an active license and how your Requalification Program meets the 10 CFR 55.53(f) requirements for returning inactive operators to active status.

DTRR response

In addition to the requirements in section G, operators are required to fulfill obligations as delineated in sections E and F.

"E. All operators shall participate in the yearly check of the facility: the annual fuel inspection, the inspection and recalibration of the control elements.

F. Each operator shall attend at least one of the quarterly meetings of the Reactor Operations Committee within each calendar year."

These specific tasks require at a minimum 4 hours to complete. However, the requalification plan will be modified to explicitly state the 10 CFR 55.53(e) requirements as follows. Sections F and G will be removed and Section E changed to the following.

E. Each licensee shall actively perform the functions of an operator of senior operator for a minimum of four hours calendar quarter.

The requirements for returning an inactive operator to active status is described in final two paragraphs of the requalification plan. This section includes the modification described in the response to question 1 of this document. The new section will also include the change in the section from G to E as described above.

"Operators who were unable to obtain a passing grade of 70% on the written examination [Item (D) above] shall be offered an accelerated review/training program set up to meet the individual's need by the reactor supervisor. This remedial program will be concluded by a two hour oral examination in the form of a walk through the facility administered by the reactor supervisor and a second licensed senior reactor operator of the facility. Reports on the type of remedial program given and the evaluations made during the oral examination shall be kept in the individual's file at the facility.

Licensed operators who have not been able to meet Item (E) above will be given a brief updating course by the reactor supervisor which shall include a two hour walk through the facility, a review of the state of the facility including recent changes in design, instrumentation, operating procedures, technical specifications, and other items pertaining to the facility and its operation. Satisfactory completion of the update including a certification of the readiness of the operator to resume his duties shall be documented by the reactor supervisor and the certification document shall be placed in the operator's file in the facility prior to resumption of reactor operation by the individual."

3. Regulation 10 CFR 55.59(c) (5) specifies the requirements for maintaining requalification program records and describes the type of records that must be maintained. Your requalification program states "appropriate records... for each operator will be kept in the facility." Please explain how your requalification Program meets the requirements of 10 CFR 55.59(c)(5).

DTRR response:

10 CFR 55.59(c) (5) states

"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."

To meet this requirement the DTRR requalification program includes retention of the written exams and licensee responses and operating test. This requirement is found in paragraph following section G of the original submittal. Reference to section G has been changed to reflect the response to question 2 of this request

"The results of the requalification program shall be evaluated by the reactor supervisor and his designated alternate. Appropriate records including the scored written examination, documentation of requirement (E) above, etc., for each operator shall be kept by the facility."

The record retention for additional training is described in penultimate paragraph, last sentence.

"Reports on the type of remedial program given and the evaluations made during the oral examination shall be kept in the individual's file at the facility."

Further documentation of the remedial training required for retention is found in the last paragraph of the DTRR requalification plan.

"Satisfactory completion of the update including a certification of the readiness of the operator to resume his duties shall be documented by the reactor supervisor and the certification document shall be placed in the operator's file in the facility prior to resumption of reactor operation by the individual."

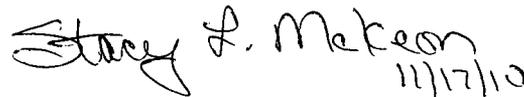
Should you have questions or need additional information, please contact the undersigned at 989-638-6932.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on Nov. 17, 2010



Melinda Krahenbuhl, Ph.D.
Director
Dow TRIGA Research Reactor



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