

OPERATOR REQUALIFICATION PROGRAM  
MONTICELLO NUCLEAR GENERATING PLANT  
NORTHERN STATES POWER COMPANY

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1. General

The Northern States Power Company "Operator Requalification Program" at the Monticello Nuclear Generating Plant is formulated to meet the requirements of 10CFR55, Appendix A.

The requalification program will be established, maintained and controlled by knowledgeable personnel assigned to the plant organization. It will include preplanned lectures and seminars in those areas where annual operator and senior operator written examinations indicate that emphasis in scope and depth of coverage is needed. The lectures and seminars may be supplemented by the selective use of films, videotapes and individual study materials; however use of these materials will be limited to less than one-half of requalification program. The preplanned lectures and seminars will normally be presented or directed by a member of the plant staff or a designated qualified member of the group that is receiving the training. Simulator Training will be used to supplement the training of the plant operators, and it is intended that the requirements of the requalification program relating to reactivity control manipulations will be satisfied at the facility or at a simulator meeting the requirements of paragraph 3e, Appendix A, of 10CFR Part 55.

If changes in the following paragraphs of the program are proposed which would decrease the scope, time allotted for the program or frequency in conducting different parts of the program, they will be made in a manner consistent with the approval of requirements of 10CFR50.54 (i) (1).

2. Scope of the Requalification Program

A. General

A two-part written examination will be completed annually by each licensed operator and senior operator to determine the areas in which retraining is required to maintain the requisite levels of knowledge. Based on the results of the examination, a preplanned series of lectures and seminars will be developed and conducted to meet the minimum durations established in Section 2.C.

On-the-job evaluations for all licensed personnel in the form of drill sessions or performance evaluations will be conducted. Each licensed person will receive a minimum of 2-hours of on-the-job evaluation each year.

A minimum period of three (3) days per two year licensing period will be spent at a simulator which has the characteristics of the plant for which the senior operator or reactor operator is licensed. This refresher training will expose the individual to simulated abnormal and emergency operation conditions.

Reactivity control manipulations will be scheduled at the facility or a suitable simulator to provide each licensed operator and senior operator with a minimum of 10 control manipulations during each term of his license. Senior operators may either manipulate the controls directly or direct the activities of individuals performing the control manipulations.

#### B. Examinations

An annual two-part examination will be administered to each licensed operator and senior operator to provide a basis for determining the content of the preplanned lecture series for the subsequent re-training year. The examination will include the following subjects:

- (1) Provisions of the Plant Operating License
- (2) Technical Specifications
- (3) Theory and Principles of Reactor Operations
- (4) General and Specific Plant Operating Characteristics
- (5) Plant Instrumentation and Control Systems
- (6) Plant Protection Systems
- (7) Integrated, Abnormal and Emergency Operating Procedures
- (8) Engineered Safety Systems
- (9) Radiation Control and Safety
- (10) Applicable portions of Title 10, Chapter I, Code of Federal Regulations

In addition to the annual examination, periodic quizzes will be conducted during the preplanned lecture series to evaluate the effectiveness of the retraining lectures. These quizzes will be completed by the licensed operators and senior operators who are required to attend the preplanned lectures. A passing grade for these quizzes is 80%. An operator or senior operator scoring below 80% will be required to repeat the specific lecture covered by the quiz.

The licensed individual who prepares and grades the annual examination need not take the examination. This exclusion shall extend to only one individual.

#### C. Preplanned Lecture Series

A minimum of 80 hours of preplanned lectures will be scheduled over each two year training period. The lecture series will emphasize those areas which were determined to require greater depth of coverage as indicated by results of the annual examination. Licensed personnel will be required to attend all lectures relating to any annual examination subject in which they received a grade of less than 80%.

#### D. Seminars

Seminars or discussion periods will be scheduled to supplement the preplanned lecture series and will include the following subjects:

- (1) Review of significant facility design, procedural and licensing changes.

- (2) Detailed review of integrated operating procedures.
- (3) Review of abnormal and emergency operating procedures.
- (4) Review of reportable occurrences and unusual events.
- (5) Review of administrative matters of significance to operating personnel.
- (6) Preview of refueling outage activities.

All licensed personnel will attend a minimum of 10 hours of scheduled seminars each year.

E. On-the-Job Evaluations

Each licensed operator and senior operator will participate in designated operating drills or performance evaluations for a minimum of two hours each year. The drill sessions may be conducted on an individual or shift crew bases and will be evaluated by a qualified licensed senior operator. The operating drills may be conducted at the facility or a suitable simulator.

An oral review of an operator's performance conducted after a reactor startup, shutdown or emergency operation may be used as a performance evaluation in lieu of designated operating drills. The oral review will be conducted by a qualified licensed senior operator.

F. Reactivity Control Manipulations

Each licensed operator and senior operator will perform or supervise, when applicable, at least ten reactivity control manipulations during each two-year term of his license. The reactivity control manipulations shall involve a variety of the evolutions listed below:

1. Plant or reactor startup to include a range such that reactivity feedback from heat addition is noticeable.
2. Orderly plant shutdown.
3. Control rod sequence changes.
4. Shutdown margin checks.
5. Control rod scram insertion time tests.
6. Any reactor power change of 10% or greater, including testing of equipment where load changes are performed with control rods, manual control of turbine load or where the recirculation system is in manual speed control.
7. Plant and reactor operation that involves emergency or transient procedures when reactivity is changed by 10% or more.
8. Refueling operations where fuel is moved within the core.

### 3. Accelerated Retraining Program

The performance of each licensed operator and senior operator will be reviewed on a routine basis to verify that the attendance and performance requirements of the requalification program are met. Any individual who does not meet the requirements of the requalification program must complete an individually assigned accelerated study program as specified below. The accelerated study programs will be developed on an individual basis by the Training Supervisor and will be reviewed and approved by the Superintendent of Operations & Maintenance before implementation. Participation in an accelerated study program will not excuse the participant from other requalification program activities.

- A. Any licensed operator or senior operator who fails the annual written examination with an average grade of less than 70% will be required to complete an accelerated study program. During participation in the accelerated study program, the licensed operator or senior operator will be removed from his normally assigned duties. The licensed operator or senior operator will be returned to his normally assigned duties after passing a written examination at the completion of his accelerated retraining program. A grade of 75% or greater will be required for passing. If the operator scores less than 80% on any part of this examination, he will be required to attend a lecture on those parts.
- B. Any licensed operator or senior operator who does not attend the annually required attendance at the preplanned lecture series or seminars will be required to complete an accelerated training program if less than 80% of the required lectures or seminars were attended. If more than 80% but less than 100% of the required lectures or seminars were attended, the performance and examination results for the individual will be reviewed by the Training Supervisor and the Superintendent of Operations and Maintenance to determine if an accelerated study program is required.
- C. On-the-job evaluation of all licensed operators and senior operators will be reviewed by the Training Supervisor and the Superintendent of Operations and Maintenance to determine if the assignment of individual accelerated study programs are required.
- D. Any licensed operator or senior operator who has been inactive for four or more months for any reason will not be allowed to perform unsupervised licensed activities until he has completed an individually assigned accelerated study program and successfully passed a written and oral examination. The written examination will be similar to the annual examination and a grade of 75% or greater will be required passing. The oral examination of two or more hours duration will verify that the individual is thoroughly knowledgeable of the existing status of the plant systems and controls.
- E. Any licensed operator or senior operator who does not attend the required simulator refresher training during his two year licensing period will be administered an oral examination of two or more hours duration to determine the operator's knowledge of normal and emergency procedures and equipment. The oral examination will be administered by a qualified licensed senior operator.

#### 4. Records

Records of the requalification program will be maintained by the Training Supervisor to document the participation of each licensed operator and senior operator in the previously described requalification program. The records will include the following:

- a. Copies of all administered written examinations and answers to the examination questions.
- b. General description of the preplanned lectures series including the number of hours of lectures anticipated for each general subject and the general content of the lectures.
- c. Records of individual participation during the preplanned lecture series showing the dates of attendance and the time allotted for each lecture.
- d. General description of the seminar program including the hours allotted for each discussion.
- e. Records of individual participation in the on-the-job evaluation program.
- f. Records of individual participation in the seminar program showing the topics of discussion and the date and time of each discussion.
- g. Records of individual participation in accelerated study programs including the basis for the participation and the results of required testing, where applicable.
- h. Documentation of reactivity control manipulations performed by each individual and records of individual participation in simulator training when applicable.

#### 5. Auditing of the Requalification Program

The Training Supervisor will prepare a brief summary of the status of the requalification program every three months. This summary will include a general progress report on the requalification program and will list existing or potential difficulties with respect to meeting its requirements. The summary report will be subject to review and discussion by the Plant Manager, the Superintendent, Operations & Maintenance and the Training Supervisor. Corrective actions will be initiated as required.

The Plant Manager may have the requalification program audited periodically by a designated qualified member of the plant organization. Such audits will include a written audit report which will be subject to review and discussion by the Plant Manager, Superintendent of Operations & Maintenance and the Training Supervisor. Corrective actions will be initiated as required.

If periodic audits of the Requalification Program are performed by an independent review and audit group, the audits initiated by the Plant Manager may not be required.