

LICENSE REQUALIFICATION PROGRAM

1. Classroom Study

A planned lecture series will be presented annually covering those subjects where annual written examinations indicate a need for additional training. The lecture series will be based on the following subjects as outlined in 10 CFR 55.

- a. Theory and principles
- b. General and specific plant operating characteristics
- c. Plant instruments and controls
- d. Plant protection systems
- e. Engineered safety systems
- f. Procedures
- g. Radiation control and safety
- h. Technical specifications
- i. Applicable portions of 10 CFR, chapter 1.
- j. Quality Assurance for operations
- k. Major upcoming events (necessary personnel only).
- l. Heat transfer, fluid flow, and thermodynamics
- m. Mitigation of accidents, involving a degraded core

The lecture series shall be presented primarily by Plant Hatch personnel with use of other training aids including films and video tapes. These additional training aids shall not constitute more than 50% of total lectures. The lectures series shall be scheduled for a minimum of 80 hours each year, with a normal spread of 20 hours lecture per quarter.

2. On-the-job Training

a. Reactivity Controls

Each licensed operator shall, during the term of his license, perform a minimum of ten reactivity control manipulations in a combination of reactor startups, reactor shutdowns, or other control manipulations which demonstrate his skill and/or familiarity with reactivity control systems. Each Senior Reactor Operator shall direct or evaluate the activities of at least ten of these control manipulations during his license term. These control manipulations may be performed at an NRC approved simulator however if they are, use of Plant Hatch Technical Specifications should be maximized during the manipulations.

The following control manipulations and plant evolutions are acceptable for meeting the reactivity control manipulations required by Appendix A, Paragraph 3.a. of 10 CFR Part 55. The starred items shall be performed on an annual basis; all other items shall be performed on a two-year cycle. Each individual shall perform or participate in a combination reactivity control manipulations based on the availability of plant equipment and systems.

- *1. Plant or reactor startups to include a range that reactivity feedback from nuclear heat addition is noticable and heatup rate is established.
2. Plant shutdown
- *3. Manual control of feedwater during startup and shutdown.
- *4. Any significant (10%) power changes in manual rod control or recirculation flow.
- *5. Loss of coolant including:
 1. inside and outside primary containment
 2. large and small, including leak-rate determination
6. Loss of instrument air (if simulated plant specific).
7. Loss of electrical power (and/or degraded power sources).
- *8. Loss of core coolant flow/natural circulation.
9. Loss of condenser vacuum.
10. Loss of service water
11. Loss of shutdown cooling
12. Loss of component cooling system or cooling to an individual component.
13. Loss of normal feedwater or normal feedwater system failure.
- *14. Loss of all feedwater (normal and emergency).
15. Loss of protective system channel.
16. Mispositioned control rod or rods (or rod drops).
17. Inability to drive control rods.
18. Conditions requiring use of standby liquid control systems
19. Fuel cladding failure or high activity in reactor coolant or offgas.

20. Turbine or generator trip.
21. Malfunction of automatic control system (s) which affect reactivity.
22. Malfunction of reactor coolant pressure/volume control system.
23. Reactor trip.
24. Main steam line break (inside or outside containment).
25. Nuclear instrumentation failure (s).

b. Knowledge of Systems

Each licensed operator or senior operator shall demonstrate, in the daily performance of his duties, his satisfactory understanding of the operation of systems and apparatus and his knowledge of operating procedures in each area for which he is licensed.

Any licensed operator or senior operator who has been inactive for four or more months shall, before resuming licensed activities, demonstrate adequate knowledge of current plant operations. This shall be accomplished by a review of all plant and procedure changes made during the period the operator was inactive followed by an evaluation by either the Superintendent of Operations, Assistant Plant Manager, or Plant Manager. An unsatisfactory result on the evaluation shall require the operator to have on-the-job training in areas determined as weak until either the Superintendent of Operations, Assistant Plant Manager, or Plant Manager is satisfied that he has adequate knowledge of current operations.

To remain on active status, an operator or senior operator shall be required to have a minimum of 80 hours per quarter active participation in operation of the plant. Active participation defined as actively engaged in the individual's assigned job at the plant site. This must include a minimum of 50 percent control room operation of those licensed personnel normally assigned to control room duty (i.e. Shift Supervisor, Shift Foreman, Plant Operator, and Assistant Plant Operator).

c. Plant Changes

Each operator and senior operator shall be kept informed of all plant design changes, procedure changes, and license changes. This will be accomplished by written notice of these changes to each holder of an operator or senior operator license. Changes of a magnitude requiring detailed explanation will be reviewed by special lecture with 100% attendance of licensed personnel.

d. Procedures

Each operator and senior operator shall review all abnormal and emergency procedures at a minimum of once each six months. This may be accomplished by on-the-job training or through the lecture series. Once each six months is interpreted to be a review of each procedure within a six month cycle as assigned by the Training Dept. Assignment will be made on a calendar quarter basis for beginning the six month cycle. A delinquency of 30 days on a procedure review will require that the licensee be removed from license duties until such review is completed.

3. Evaluation

a. Observation

Each normal startup and shutdown will be observed by a member of supervision to evaluate operator and senior operator performance and knowledge of operating procedures in the area in which he is licensed. The performance of operators and senior operators shall be evaluated annually by operating supervision, or by a member of the training staff or simulator vendor. This shall include evaluation of actions taken or to be taken during actual or simulated abnormal or emergency conditions. Observation reports are required for all personnel (Supervisory and Non-supervisory), who hold a NRC license, with the exception of the Assistant Plant Manager and Plant Manager. Observation reports will be recorded on Data Sheet 3 or by a Simulator observation report.

b. Lecture Examinations

Written examinations shall be given covering material presented in the program lecture series. The examinations will be prepared and evaluated by Plant Hatch training personnel except in those cases where approved simulator or other contract personnel administer the lectures. A grade of less than 80% on any lecture series exam shall require an operator or senior operator to be rescheduled for additional instruction and testing on that subject within the next three months. The three months will be extended by the length of time of any refueling outage falling within that period. Lectures presented for information of major upcoming events and/or plant modifications may be documented by attendance record only.

c. Annual Examinations

Annual written examinations shall be given to all licensed personnel to determine areas in which requalification training is needed. These examinations may be prepared and evaluated by either Plant Hatch personnel or an outside agency. A minimum grade of 80% correct on any section shall exempt an operator or senior operator from required attendance at requalification lectures pertinent to that section. Any section grade less than 80% but greater than 70% will require attendance at requalification lectures pertinent to that section within 12 months from the exam date.

An overall grade of less than 80% correct on a annual written examination, a section grade of less than 70%, or an unsatisfactory performance evaluation shall require an operator or senior operator to be relieved of all licensed duties so that he may participate in an accelerated requalification program. An operator or senior operator who has been relieved may return to his licensed duties following completion of accelerated requalification training, in areas where he was weak, including a grade of not less than 80% correct on examinations given over such areas.

4. Records

Adequate records shall be maintained to document participation of all licensed personnel in the requalification program. The Plant Hatch Supervisor of Nuclear Training will be responsible for the maintenance of all records pertaining to the requalification program.

Records to be maintained are as follows:

- a. Lecture examinations and answers.
- b. Annual examinations and answers.
- c. Observation results.
- d. Distribution cover sheets of design, procedure, and license changes.
- e. Abnormal and emergency procedure reviews.
- f. Reactivity control operations.
- g. Additional training for deficiencies.
- h. Any activity which substantiates training for requalification.

To assist with the compliance for requalification requirements, use of the computer will be made to store records pertaining to the training of all licensed personnel. Printouts will be requested at intervals to ensure the proper status of individual training.

DATA SHEET 1

NAME-----

TRAINING SUMMARY

A. BASIC NUCLEAR	DATE COMPLETE----- FINAL GRADE-----
B. NUCLEAR STEAM SUPPLY SYSTEMS	DATE COMPLETE----- FINAL GRADE-----
C. BALANCE OF PLANT SYSTEMS	DATE COMPLETE----- FINAL GRADE-----
D. ON-THE-JOB TRAINING	DATE COMPLETE----- FINAL GRADE-----
E. ADDITIONAL TRAINING	

DATA SHEET 2
TRAINING DATA REPORT

NAME:

DATE:

Nature of operation or training: (Be specific ~ If test involved -
attached copy with answers)

Supervisor in charge of operation or training. (Signature)-----

Trainee Signature-----

Forward this report to the Training Office for filing.

DATA SHEET 3
LICENSEE OBSERVATION REPORT

LICENSEE OBSERVED:

DATE

OBSERVER:

JOB OBSERVED:

Performed () (check one)
Simulated ()

ITEMS EVALUATED: (check when completed)

(1)	System knowledge	()	(4)	Response to Alarms	()
(2)	Knowledge of p edures	()	(5)	Interpretation of infor- mation (recorder rdgs etc.).	()
(3)	Proper Use of Procedures	()	(6)	Information properly recorded or reported.	()

COMMENTS:

OBSERVATION SATISFACTORY () YES
() NO

Forward data sheet to Training Office.