Consumers Power Company

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July 26, 1976

Paul F. Collins, Chief
Operator Licensing Branch
Division of Project Management
Nuclear Regulatory Commission
Washington, DC 20555

Docket 50-255, License DPR-20
Palisades Plant

Gentlemen:

The attached copy of the Palisades Plant Licensed Operator Requalification Program contains two requested changes. The changes are indicated by a vertical line beside the portion changed with a reference number. An explanation or basis for the requested change, by number, is related below. We feel these changes will make the program more manageable and no less effective than the previously approved program.

1. A period of up to ten days after annual examination grade determination before actual conducting of the accelerated training activities permits organization of a specific, tailor-made program to meet the needs of the individual(s). This permits relief scheduling to be administered and also cancellation of or rearranging other training activities to accomodate the accelerated training.

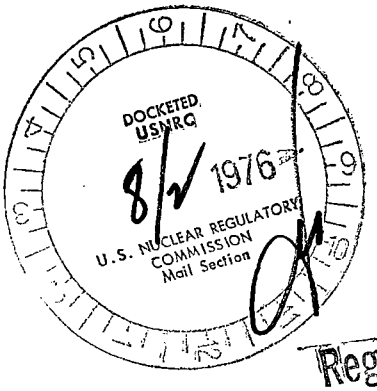
2. Licensed engineers, supervisors and superintendents that regularly review and/or approve material (facility changes, license changes, procedure changes, etc.) as part of their regular duties, or as a member of the Plant Review Committee have been attending lectures on the same material conducted by the Training Coordinator. We do not plan to require these people to attend the lectures or to take the quizzes on this material.

As stated above, we feel these changes will make the programs more manageable and we do not believe we will have lost any quality. We would be pleased to discuss any of these changes at your convenience, if you wish to do so.

Yours truly,

R. R. Biggs
Training Coordinator

BIGG 53-76



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Regulatory Docket File

PALISADES PLANT LICENSED OPERATOR REQUALIFICATION PROGRAM

Objective

To assure a continuing high degree of knowledge and proficiency is maintained by AEC licensed operators and senior licensed operators at the Palisades Plant.

Applicabilty

Applies to plant personnel that are licensed operators (RO) or senior operators (SRO) that are required to routinely supervise plant evolutions or perform control manipulations as well as those RO or SRO that perform such duties on an infrequent basis, which includes all licensed staff members.

Background

All Palisades Plant operators have participated in SRO or RO licensing examinations since 1970. In addition, six of the nine personnel licensed as RO have participated in a thorough training program within the past two years. The three RO that have not been exposed to a thorough training program within the last two years are scheduled for extensive training in nuclear and technical fundamentals in the near future. This will assure a high level of competency of all personnel entering the requalification program at the Palisades Plant.

Program

The retraining program that is being implemented at Palisades includes a three-week classroom session reviewing basic fundamentals and theory followed by a week-long course at a Pressurized Water Reactor (PWR) simulator. Specific areas and topics to be covered will generally follow those subjects listed in Paragraph 2C of Appendix A to 10 CFR 55.

Annual examinations will be administered to measure the effectiveness of the overall program and to pinpoint areas requiring additional effort. An overall grade on this annual exam greater than 70% will be required of all persons performing licensed duties. A person receiving an overall grade below 70% will enter an accelerated training program within 10 days of grade determination to upgrade his knowledge to an

acceptable level. The scope and duration of the accelerated training program will be determined from analysis of the results of the individual's exam. Persons receiving greater than 80% in a particular category in the annual exam will not be required to attend the lectures on that material.

Examinations will be administered throughout the program on the classroom work for evaluation of individual performance and adequacy of presentation. A minimum grade of 80% will be required of all participants in these topical examinations.

Evaluation of performance in routine and abnormal operations will be conducted on shift, along with performance evaluation in simulated emergency conditions. Evaluation will normally be conducted by the person's immediate supervisor. During an individual's two-year renewal period, however, he will be evaluated on a minimum of five exercises by someone other than his immediate supervisor. In addition to evaluation of performance in these operations, a scheduled review of emergency procedures will be conducted to ensure familiarity with "symptoms" and "immediate action" portions of these procedures. Documentation of this scheduled review of emergency procedures must be maintained.

The classroom sessions on fundamentals will consist of a reading assignment, video tape viewing, quiz and discussion period led by a full-time instructor. This method has been used previously at Palisades where it was proven effective. An instructor will be present during video tape viewing and discussion periods.

The PWR simulator course will be coupled with the classroom sessions as closely as practicable. The PWR simulator is expected to augment on-the-job experience and to demonstrate principles discussed during the classroom lectures. As many malfunctions as practical will be conducted to permit operators to observe and experience these abnormal conditions. The course will be similar to that described in Appendix A of this submittal. The simulator is not intended to be used for evaluation of performance during abnormal or emergency conditions as required in Paragraph 4C of Appendix A to 10 CFR 55.

Review of facility changes, procedure change, operating incidents and discussion of systems will be conducted during one-day-per-week

sessions held when the full-time classroom work is not in session. Approximately twelve of these sessions will be scheduled for each shift and each individual will be required to attend eight of them over a two-year period. Credit for attendance will be given if the person takes a quiz on the material and receives a grade of 80% or greater. These items will be circulated as they occur for each licensed operator to review. Sign-offs will be recorded to document that each man has seen the item. The review in the classroom, mentioned above, is to be conducted, where appropriate to clarify and amplify the bases for these changes, etc. In this manner, there will be a consistency in interpretation of written material. Licensed staff members whose regular duties include reviewing and/or approving facility changes, procedure changes, license changes, etc will not be required to attend lectures or to take the quizzes on such material.

The "10 reactivity control manipulations" (required by 10 CFR Part 55) will be accomplished by each person at the CE PWR simulator or other approved simulator. These manipulations on the simulator will be in addition to those accomplished by each person in performing his regular duties. Control manipulations which we feel demonstrate skill and/or familiarity with plant controls are set forth below:

1. Manual control of the reactor during dilution or boration maintaining reactor power. Reactivity change required will be a minimum of 0.01% $\Delta\rho$.
2. Manual control of the reactor maintaining stable reactor power during an xenon transient for one hour or more. Manipulation must be performed in the first 15 hours of a transient following a power change of 25% or greater.
3. Change in core reactivity by the operator of 0.1% $\Delta\rho$ in less than one hour for any reason utilizing either control rods or boric acid control.
4. Change of reactor power greater than 10% of full power in one hour or less.
5. Attendance at plant controls during and immediately following a plant traip from power levels greater than 10%.
6. Operation of the plant controls during any major step in start-up or shutdown, ie:
   a. Critical approach from hot standby (includes operation of the reactor to the point of adding heat).

b. Turbine generator start from hot standby.

c. Plant loading from synchronization.

d. Plant shutdown from power to hot standby.

Steps 6.a.-6.d. correspond to specific procedures and checklists for the procedures.

Each person will participate in as many different manipulation operations as practicable. An effort will be made to give a variety of experience to each licensed operator.

Schedule

The program described will be conducted on a two-year cycle commencing January 1, 1974. Personnel performance evaluations and casualty drill evaluation will be performed periodically throughout the two-year retraining cycle.

General

Records shall be maintained in an individual file for each licensed operator. All exams, evaluation reports and other pertinent documentation will be maintained in this file. A file of exams administered and exam answers will be maintained by the training coordinator.

The program will be implemented by the Plant Superintendent. Execution, coordination, record keeping, etc, will be the responsibility of the training coordinator.

APPENDIX A

Description of PWR Simulator Training

1. Orientation and Demonstrations (2 Hours)

   Instructors will demonstrate operation of simulator instruments and familiarize the trainees with operating procedures. In particular, the following areas will be covered: (Areas shown with an asterisk will be emphasized along with comparisons with the Palisades Plant).

   a. *CEA Drive Mechanism Controls
   b. *Reactor Protective System
   c. Turbine Generator Controls
   d. *Boration/Dilution Controls
   e. *Pressurizer Level and Pressure Controls
   f. *Reactor Regulating System
   g. Engineered Safety Features System Controls
   h. Electrical Distribution Controls
   i. Auxiliary Systems Controls
   j. Reactor Critical Approach

2. Reactor Critical Approach and Low Power Operation (6 Hours)

   Trainees will perform critical approaches and low power operations under various core burnup and xenon conditions. It is particularly important that trainees understand the cause and effect of changes to plant parameters and core conditions.

3. Plant Maneuvering (4 Hours)

   Trainees will perform plant maneuvering operations, involving turbine generator start-up and shutdown, transferring from manual to automatic control and ramp and step transients, including manual and automatic reactor control.

4. Plant Shutdown (4 Hours)

   Trainees will perform orderly shutdowns of the plant from low power operation to the hot shutdown condition.

5. Reactor and Turbine Trips (8 Hours)

Trainees will operate the simulator during reactor and turbine trips from a variety of causes. Emphasis will be placed on putting the plant in a stable, safe condition, on analyzing the cause(s) of the trip and restoring the plant to operation.

6. Emergency Operations (8 Hours)

Trainees will operate the plant during various malfunctions and abnormal or emergency conditions. Types of malfunctions would include:

a. Dropped or Stuck CEAs
b. Pressurizer Level or Pressure Control Malfunction
c. Loss of A-C Power
d. Flux Tilt
e. Loss of Feed-Water Flow
f. Steam Dump Control Failure
g. Loss of Cooling Water
h. Electrical Distribution Failures
i. Steam System Auxiliaries Failures

Emphasis will be placed on analyzing the causes of the malfunction and procedures required to respond to the casualty.

The simulator is flexible enough such that the above schedule may be modified to meet specific trainee requirements. The level of instruction is based on the assumption that each trainee is a licensed operator at the Palisades Plant.

7/3/74