PSE&G

Public Service Electric and Gas Company
Salem Generating Station P.O. Box #168 Hancocks Bridge, New Jersey 08038

Regulatory Docket File

6/8/77

June 6, 1977

50-272

Mr. Paul F. Collins
U.S. Nuclear Regulatory Commission
Operator Licensing Branch
Washington, D.C. 20555

Dear Mr. Collins:

We are scheduling simulator training for our licensed Senior Operators and Reactor Operators at the Consolidated Edison Company facility located at Indian Point. We plan to include this as an official part of our Operator Requalification Program in order to fulfill requirements related to reactivity manipulations and performance of actions in certain emergency situations.

The program is the standard package offered by Con Ed (attached) for Requalification Programs, with special instructions from our Nuclear Training Specialist. The instructions are that the operators will be involved in casualties requiring the use of the following Emergency Instructions:

4.3 - Reactor Trip
4.4 - Loss of Reactor Coolant
4.5 - Loss of Reactor Coolant Pump/Flow
4.6 - Steamline Rupture
4.7 - Steam Generator Tube Leak
4.8 - Rcd Control System Malfunction
4.9 - Blackout
4.11 - High Reactor Coolant Activity
4.12 - Loss of Feedwater/Improper Steam Generator Level
4.13 - Loss of Circulating Water
4.14 - Service Water System Malfunction
4.15 - Loss of Component Cooling
4.17 - Partial Loss of Reactor Coolant
4.18 - Loss of Instrument Air
4.19 - Malfunction of Nuclear Instrumentation
4.20 - Failure of Reactor Coolant Pump
4.21 - Condenser Tube Leak
4.24 - Malfunction - Pressurizer Relief or Safety Valve

Our Nuclear Training Specialist has had 60 hours of hands-on experience at the Indian Point facility and feels that it very accurately reproduces the operating characteristics of the Salem Generating Station. The Salem Control Board is unique in that it is miniaturized by using pushbuttons rather than switches. No existing simulator reproduces this. The control systems are the same and locations are reasonably close as to right or left of the reactivity control section. The ECCS systems are different in design but still work on the same principles, including a Boron Injection Tank and passive accumulators. All major differences will be pointed out by the simulator instructors and/or as part of the Requalification Program at Salem station.

We will be glad to discuss any questions you may have regarding this matter.

Yours very truly,

H. J. Heller
Manager - Salem Generating Station

JKL:dmh
Attach.

Day of Training	Synopsis of Training
1	This day starts at cold shutdown condition, Beginning of Life. It requires pressurizing the Reactor Coolant System, starting Reactor Coolant Pumps, commencing plant heatup, and dilution of boron concentration. When these operations have commenced and are under control, the trainer is reinitialized to the point where pressurizer bubble formation is near. The reactor plant is then operated until the bubble is formed and plant heatup and boron dilution re-established. The residual heat removal system is secured. At that point the trainer is reinitialized at hot shutdown conditions, and a reactor startup to the point of adding heat is commenced. Malfunctions used during this day are minor in nature to allow operators to adapt to the simulator.
2	This day starts at hot shutdown, Beginning of Life and progresses to 100% power. During the secondary plant startup some malfunctions will be used, but the major emphasis is on bringing the plant to 100% power. When 100% power is attained the trainer will be reinitialized to 100% power at middle of core life, and a reactor plant shutdown is commenced. Cooldown of plant will be conducted and the shift to the Residual Heat Removal system will be the ending point for the day. Malfunctions used will be of more serious nature but should not cause reactor trip or safeguards to be initiated.
3	This day consists of several sequences of starting at a power condition, undergoing rapid load changes eventually causing the reactor to trip, and then a reactor startup with instrumentation malfunctions. Different times of core life are used to demonstrate the magnitude of decay heat variations, and resulting operational differences.

Day of Training	Synopsis of Training
4	This day is used to demonstrate the major and serious accidents and is oriented toward the reactor or steam supply systems. Operations of the safeguard systems and containment systems will result from some malfunctions. The stress is placed on the operators ability to identify and evaluate different levels of accidents. Minor malfunctions, and instrument failures are used to give balance, and adjust the pace to maintain interest.
5	This day is used to demonstrate the failure of secon-day plant and auxiliary equipment. The magnitude and complexity of the accidents will vary, and often involve safeguard systems. Special areas of interest determined during the week will be included.
NOTES:	A. Requests from participants will be considered on all days and encouraged to make the training more meaningful when included. B. At any time a "self-inflicted casuality" may be introducted by the operator, all problems are not introduced by the instructor.