

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

OYSTER CREEK NUCLEAR GENERATING STATION

REPORT NO. 92-13
FACILITY DOCKET NO. 50-219
FACILITY LICENSE NO. DPR-16
LICENSEE: GPU Nuclear Corporation
P. O. Box 388
Forked River, New Jersey 08731
FACILITY: Oyster Creek Nuclear Generating Station
INSPECTION AT: Forked River, New Jersey
INSPECTION DATES: June 10 - 11, 1992
INSPECTORS: F. Paul Bonnett, Senior Operations Engineer

Lead Inspector:

Richard J. Conte Sr.
F. Paul Bonnett, Sr. Operations Engineer

6/30/92
Date

APPROVED BY:

Richard J. Conte
Richard J. Conte, Chief
BWR Section, Operations Branch, DRS

6/30/92
Date

Inspection Summary:

Areas Inspected: An announced inspection was performed at the Westinghouse facility in Monroeville, Pennsylvania, of operator evaluations which used the noncertified plant reference simulator during factory acceptance testing.

Results: The licensed operator evaluations observed were found to be adequate. The use of control room operators during the factory acceptance testing was viewed by the inspector to be positive in enhancing operations department input on the certification process and in producing a simulator of high usefulness.

DETAILS

1.0 BACKGROUND

A management meeting at NRC headquarters on December 17, 1991, was conducted to discuss the licensee's request for a second exemption on the schedule for certification of the plant-referenced simulator. The licensee indicated four areas of training emphasis as compensatory measures to support the exemption. The four areas were Job Performance Measures (JPMs); factory acceptance testing (of plant reference simulator); enhanced use of Basic Principles Trainer; and plant operating procedures training modules.

An inspection of the compensatory training being performed was conducted in January 1992 (NRC Inspection Report No. 50-219/92-02). This review included all of the above mentioned areas with the exception of the factory acceptance testing of the plant specific simulator. The NRC staff determined that the training conducted for licensed and nonlicensed operators was adequate.

The licensee made a commitment that operating crews and Shift Technical Advisors (STAs) would participate in factory acceptance testing for the plant-referenced simulator. From June 10 to 11, 1992, the inspector observed control room operators while they were administered training JPMs and scenarios on the non-certified simulator being tested at the Westinghouse facility in Monroeville, Pennsylvania. Further observations were conducted during their participation in the factory acceptance testing of the plant specific simulator.

2.0 PERSONS CONTACTED

GPU Nuclear Corporation

- R. Davidson, Manager, Simulator Development
- * J. Kowalski, Manager, Plant Training
- * P. Scallon, Manager, Plant Operations
- * H. Tritt, GPUN Lead Training Instructor

The inspector also held discussions with several licensed operators during the inspection.

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- * F. Paul Bonnett, Senior Operations Engineer

* Denotes those present at exit meeting on June 11, 1992.

3.0 SIMULATOR STATUS

Factory acceptance testing of the simulator is more than 50% complete. The main turbine model was installed on June 5, 1992, and was being tested during this inspection. The Nuclear Steam Supply (NSS) model was still unstable. It is able to support power operations and transient testing, but the model becomes unstable during a cooldown at approximately 300°F and two to three minutes into a Loss of Coolant Accident (LOCA).

A different, but proven NSSS model, is being developed by a subcontractor and is scheduled to be installed on August 7, 1992. The licensee estimates that it will take two additional months of testing with an additional two weeks for Trouble Report resolution. They expect to take delivery of the simulator in early November of this year. Presently, simulator certification is proceeding in parallel with the factory acceptance testing. The licensee expects to certify the simulator on or before December 31, 1992. The simulator should be ready for NRC staff examinations six months after certification.

4.0 NONCERTIFIED SIMULATOR TRAINING INSPECTION

4.1 Scope of Inspection

The inspector observed control room operator training evaluations on the noncertified simulator. Observations were also conducted of the operators' participation as technical test engineers during factory acceptance testing. Discussions with the simulator development team, training evaluators, and facility management were also conducted.

4.2 Findings

Operations shift crews have been supporting simulator factory acceptance testing and undergoing training evaluation since the beginning of May 1992. Each operating crew and STA is scheduled to spend one week at the simulator. Four days are spent in factory acceptance testing and one day is devoted to training evaluations. The operators act as test engineers to perform Malfunction Test, System Test, or Acceptance Test procedures. During these tests the operators used their plant experience, knowledge and expertise to ensure the simulator models actual plant response. The operators identify discrepancies, fill out and submit Trouble Reports that are tracked and updated weekly by the Simulator Development Manager.

Training and plant management have both indicated that the primary goal of the crew's activities during the week is to improve the performance of the simulator. However, the licensee also believes that there is a training benefit for the crews as a result of their participation in factory acceptance testing. The operators are required

to fill out feedback forms of their week's participation at the simulator. A review of these forms revealed positive feedback from the operators. Many operators commented that this time spent at their simulator was more productive than the time spent at the Nine Mile Point simulator. Discussions with the operators disclosed that they are pleased with the simulator. They believe that their comments are listened to and that they are having a direct input into the effort of making the simulator the best product possible.

The licensee evaluated the operators' performance using JPMs, dynamic simulator scenarios, and Oyster Creek specific events for performance during the simulator testing. Attachment 1 lists the JPMs and Scenarios used during the week observed. Critiques of operator performance emphasizing strong and weak areas were conducted after each scenario. Considering the Nuclear Steam Supply System modeling problems, the simulator performed well with no malfunctions during the observations of this inspection.

4.3 Conclusions

The licensed operator evaluations observed were found to be adequate. The inspector found the JPMs and scenarios appropriate, challenging and to the proper depth. The use of control room operators during the factory acceptance testing was viewed by the inspector to be positive in enhancing operations department input on the certification process and in producing a simulator of high usefulness.

5.0 EXIT MEETING

The inspector met with licensee representatives (denoted in section 2.0) at the conclusion of the inspection on June 11, 1992. The inspector summarized the scope and findings of the inspection.

ATTACHMENT 1

OYSTER CREEK TRAINING PLAN

MONROEVILLE OPERATOR
TRAINING PLAN FOR
THURSDAY JUNE 11, 1992

0800 - 1130

1. Core Evolution - Return the RWCU System to service with the Reactor at full power.
2. JPM 262.06 - Cross-tie USS 1A2 from USS 1B2
3. Core Evolution - Restore 4160V Bus 1C to normal service following loss of power auto start of EDG-1.
4. JPM 226.02 - Place Containment Spray in Dynamic Test.
5. JPM 202.04 - Respond to a tripped Recirc. Pump with 5 pumps operating.
6. JPM 202.05 - Start up a Recirc. Pump
7. JPM 264.01 - Normal S/U of EDG 1 from the Control Room.
8. JPM 261.02 - Shutdown the SGTS after an Automatic Initiation.
9. JPM 249.01 - Return the EPR to service.

1230 - 1600

1. Dynamic Scenario 1 - Unisolable leak in the Torus.
2. Dynamic Scenario 2 - Pressure control failure during a required Plant Shutdown with a failure to scram.