

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 59-219/85-17

Docket No. 50-219

License No. DPR-16

Priority --

Category C

Licensee: GPU Nuclear Corporation

Oyster Creek Nuclear Generating Station

P.O. Box 388

Forked River, New Jersey

Facility Name: Oyster Creek Nuclear Generating Station

Inspection At: Forked River, New Jersey

Inspection Conducted: June 4 - 7, 1985

Inspectors: Ira Cohen
Ira Cohen, Exercise Team Leader

July 15, 1985
date

NRC Team Members

J. Hawxhurst, Reg. I
E. Conner, Reg. I
R. Urban, Reg. I
W. Thomas, PNL
J. Davis, PNL
J. Meyers, PNL

Approved by: T. Harpster
T. Harpster, Chief Emergency
Preparedness Section

7/15/85
date

Inspection Summary: Inspection on June 4 - 7, 1985 (Report No. 50-219/85-17)

Areas Inspected: Routine announced emergency preparedness inspection and observation of the full scale annual emergency exercise conducted on June 5, 1985. The inspection involved 195 inspector hours by a team of seven NRC Region I and NRC Contractor personnel.

Results: The licensee's emergency response actions for this exercise were adequate to provide protective measures for the health and safety of the public. No violations were identified.

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DETAILS

1. Persons Contacted

The following licensee representatives attended the exit meeting on June 7, 1985.

J. J. Barton, Deputy Director, OCNGS
D. W. Turner, Dir. Rad. Con.
D. M. Barss, Emergency Planner
P. B. Fiedler, Director, OCNGS
R. L. Long, Director, Nuclear Assurance
R. L. Sullivan, Manager, EP
J. L. Sullivan, Plant Operators Director
W. J. Smith, Plant Engineering Director
G. C. Morrell, NSCC Staff
E. J. Grouney, Safety Review Manager
G. J. Giang, CPUN Mgr., EP
D. G. Holland, OCNSG Lic. Mgr.

In addition the inspectors interviewed or observed the actions of numerous licensee personnel.

2. Emergency Exercise

The Oyster Creek Nuclear Generating Station full participation exercise was conducted on June 5, 1985, from 2:30 P.M. until 11:45 P.M..

2.1 Pre-Exercise Activities

Prior to the emergency exercise, NRC Region I representatives had telephone discussions with licensee representatives to review the scope and content of the objectives and scenario. As a result, minor revisions were made by the licensee of certain scenario data. In addition, NRC observers attended a licensee briefing for licensee controllers and observers on June 4, 1985 and participated in the discussions of emergency response actions expected during the various phases of the scenario.

The exercise scenario included the following events:

- The reactor is initially operating at 90% power.
- A power surge occurred caused by low main feedwater temperature.
- High air ejector off-gas monitor activity.
- Failure of a drywell vent valve.
- Loss of the Main Condenser as a heat sink.

- A fire affecting safety related equipment.
- A LOCA occurring within the drywell.
- Hydrogen buildup in the drywell followed by a detonation which causes a release of radioactive material to the environment.

The above events resulted in the activation of the licensee's emergency facilities and permitted the state to exercise their emergency plan.

2.2 Exercise Observation

During the conduct of the licensee's exercise, NRC team members made detailed observations of the activation and augmentation of the emergency organization; activation of emergency response facilities; and actions of emergency response personnel during the operation of the emergency response facilities. The following activities were observed:

- (1) Detection, classification, and assessment of the scenario events;
- (2) Direction and coordination of the emergency response;
- (3) Notification of licensee personnel and offsite agencies of pertinent information;
- (4) Communications/information flow, and record keeping;
- (5) Assessment and projection of radiological (dose) data and consideration of protective action;
- (6) Provision for in-plant radiation protection;
- (7) Performance of offsite and in-plant radiological surveys;
- (8) Performance of technical support;
- (9) Performance of repair and corrective actions;
- (10) Fire fighting;
- (11) Assembly and accountability of personnel;
- (12) Management of Accident recovery operations; and
- (13) Dissemination of public information.

The NRC team noted that the licensee's activation and augmentation of the emergency organization; activation of the emergency response facilities;

and actions and use of the facilities were generally consistent with their emergency response plan and implementing procedures. The team also noted the following areas where the licensee's activities were efficiently implemented:

- The objectives and scenario package were submitted to the NRC in a timely manner for their review. Appropriate changes were made to reflect NRC concerns.
- There was no evidence of a failure to demonstrate any of the exercise objectives nor was there evidence of prompting on the part of the controllers - evaluators who performed in a professional manner throughout the exercise.
- Emergency levels were promptly identified based upon initiating conditions.
- Control Room staff quickly recognized plant problems and took appropriate corrective actions.
- An excellent log was maintained by the operations coordinator.
- The OSC coordinator maintained effective control of OSC activities. Briefings in the OSC were timely and effective. Good plans were developed for the possible relocation of the OSC in the event of excessive radiation levels. Updates from the Control Room to the OSC were timely. Excellent briefings were given to inplant teams.
- Accountability for personnel was completed in a timely manner.
- Notifications to NRC Headquarters Duty Officer were performed in effective manner.
- Offsite monitoring teams measured dose rates and took air samples quickly and efficiently. Contamination control was maintained, teams kept track of the exposure and record keeping was well done.
- The Emergency Support Director provided good direction and control and excellent briefings. Timely and appropriate protective action recommendations were made to the State of New Jersey.
- Presentations at the News Center were conducted in an effective manner; responses to questions were appropriate.

The following are the NRC Team Findings in areas requiring additional licensee attention. Most of these findings were also identified by the licensee as part of their critique.

Certain practices related to control room activities that could have contributed to a degraded response were:

- Briefings should have been given to control room staff concerning overall plant conditions.
- Logs maintained by reactor operators appeared to be sketchy.
- There were problems with control room phones in that the ENS phone was falling off the wall and a ringing phone could not be readily identified.
- The second shift technical advisor appeared to play a much less effective role as compared to the initial shift technical advisor.

These concerns are collectively designated as an Open Item (50-219/85-17-01) and will be reviewed during a subsequent NRC:RI inspection.

A certain practice conducted within the Technical Support Center that could have contributed to a degraded response was:

- The Technical Support Center did not have current status of some equipment valve positions and events.

This concern is designated as an Open Item (50-219/85-17-02) and will be reviewed during a subsequent NRC:RI inspection.

Certain practices related to operational support or inplant activities that could have contributed to a degraded response were:

- The technician taking the reactor water sample did not frisk himself on the monitor provided for that purpose in the PASS Room.
- During the analysis of the iodine cartridge, the special sample holder was not in the pig when the background count was determined.
- The team members did not read their dosimeters when dispatched into radiation areas to collect iodine sample cartridges.
- The Operational Support Center sign-in board wasn't maintained during the first half hour. Personnel picked up their position tag but did not move their name over to indicate who was filling the position.
- On a few occasions personnel were noted to come into the Operational Support Center and yell out information. On one occasion the oral report dealt with radiation levels in the plant which were not recorded.

These concerns are collectively designated as an open item (50-219/85-17-03) and will be reviewed during a subsequent NRC:RI inspection.

Certain practices related to off-site dose assessment that could have contributed to a degraded response were:

- The initial dose assessment computer runs using as the source term the release from the steam jet air ejector to the secondary containment was an improper use of the dose assessment computer model.
- The Midas Computer model was inoperable throughout the exercise due to a failure of the telephone access to the system.
- Posting of offsite radiological data in the Emergency Operations Facility was not kept current and field monitoring data was not presented in a manner that was conducive to verification with radiological dose projections and trend analysis.
- Data presented by the environmental assessment coordinator may have been misleading. As many as seven significant figures were presented on the status board and used in developing protective action recommendations when only two should be presented and used.
- Overly conservative dose projections were determined. An isotopic analysis of an effluent grab sample should have been used to obtain more refined dose estimates after the start of the release.

These concerns are collectively designated as an open item (50-219/85-17-04) and will be reviewed during a subsequent NRC:RI inspection.

Certain practices related to the Emergency Operation Facility activities that could have contributed to a degraded response were:

- There was no continuous posting of the emergency level that was clearly visible to all personnel.
- Security personnel could have arrived earlier to control access into the facility.

These concerns are collectively designated as an open item (50-219/85-17-05) and will be reviewed during a subsequent NRC:RI inspection.

2.3 Review of Improvement Items Identified During The Previous Exercise

The inspectors did not detect a repetition of any improvement items that were identified during the previous exercise (Report No. 50-219/85-17).

2.4 Exercise Critique

The NRC team attended the licensee's post-exercise critique during which strengths and improvement items were presented by the evaluators. In addition, the NRC team leader was given a written copy of the licensee's findings.

3. Exit Meeting and NRC Critique

Following the licensee's self-critique, the NRC team met with licensee representatives listed in Section 1 of this report. The team leader summarized the observations made during the exercise and discussed the areas described in Section 2 of this report.

The licensee was informed that no violations were observed. In addition, the licensee was informed that although there were areas identified which required additional licensee attention, the NRC team determined that within the scope and limitations of the scenario, the licensee's performance demonstrated that they could implement the Emergency Plan and Emergency Plan Implementing Procedures in a manner which would adequately provide protective measures for the health and safety of the public.

Licensee management acknowledged the findings and indicated that appropriate action would be taken regarding the areas identified improvement areas for additional licensee attention.

At no time during this inspection did the inspectors provide any written information to the licensee.