

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-354/85-53

Docket No. 50-354

License No. CPPR-120

Priority --

Category C

Licensee: Public Service Electric and Gas Company
P.O. Box 236
Hancocks Bridge, New Jersey 08038

Facility Name: Hope Creek Generating Station

Inspection At: Hancocks Bridge, New Jersey

Inspection Conducted: October 28-30, 1985

Inspectors:

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D. Vito, Team Leader
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12/23/85
date

Approved by:

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12/23/85
date

Inspection Summary:

Inspection on October 28-30, 1985 (Report No. 50-354/85-53)

Areas Inspected: Observation of the licensee's annual full-scale emergency exercise (Delaware only) conducted on October 28-30, 1985. This inspection involved 160 hours by 7 resident and region based inspectors and contractor personnel.

Results: No violations were identified.

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DETAILS

1. Principal Persons Contacted

*R. Burricelli, General Manager Engineering
*D. McCloskey, Emergency Planning Manager
*C. A. McNeill, Vice President Nuclear

*Denotes those present at the exit interview on December 30, 1985.

2. Emergency Exercise

The Hope Creek Generating Station full-scale (Delaware only) exercise was conducted on October 29, 1985.

a. Pre-Exercise Activities

Prior to the emergency exercise, NRC Region I representatives had telephone discussions with licensee representatives and provided written comments on the scope and contents of the objectives and scenario. In addition, the NRC observers attended a licensee briefing on October 28, 1985.

The exercise scenario included the following events:

- (1) Unidentified leakage greater than 5 gpm;
- (2) Drywell purge valve fails open and leak increases to 50 gpm;
- (3) Spontaneous combustion fire causes a loss of a safety system (diesel generator);
- (4) LOCA;
- (5) Hydrogen explosion resulting in containment failure and release of radioactivity to the environment; and,
- (6) Two day jump, recovery actions discussed.

The above events resulted in activation of the licensee's Emergency Plan and emergency response facilities.

b. 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 actions;
- (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) Activation and operation of EOF;
- (11) Assembly and accountability of personnel;
- (12) Planning 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 consistent with their emergency response plan and implementing procedures. The team also noted the following areas where the licensee's activities were efficiently implemented:

- (1) Knowledge and performance of duties were very high for both players and controllers, they were familiar with the procedures and in particular the ECG in the control room.
- (2) Notification and event classification were appropriate and timely;
- (3) Teamwork was evident at all facilities;
- (4) Effort into the investigation of problems was both tenacious and imaginative;
- (5) Command control and direction was very good in all facilities;

- (6) Facility briefings were thorough and for the most part timely (with one exception which will be discussed later);
- (7) Communications between facilities were good and the communications system worked very well;
- (8) Information flow was very good;
- (9) Staffing of facilities was adequate and with one exception, in accordance with the Emergency Plan;
- (10) Dose calculations are effective;
- (11) Evacuation time estimates were reviewed and considered by dose assessment personnel; and,
- (12) Equipment inventories and calibration checks were performed properly and promptly for onsite and offsite teams.

The following areas were identified which could have degraded the response to the simulated emergency, and should be evaluated for possible corrective action.

- (1) Slow to respond to fire and to identify exact location, possibly due to:
 - (a) initial failure to get alarm information from CRIDS;
 - (b) poor human factors of CRIDS printout of fire alarms; and,
 - (c) lack of availability of hard copy alarm information and cross-referencing.

In addition, human factors aids for determining power supply sources for specific equipment were minimal (i.e., recombiners). These human factors concerns have been referred to the NRC Resident Inspector at Hope Creek for follow-up.

- (2) Managers (EDO, TSG and RAC) were not always aware of what each other was doing, and what was considered by the EDO to be the top priority effort of the moment. (Open Item 50-354/85-53-01)
- (3) No discussion by the TSC engineering after all but vital power was lost or what would be out of commission and require emergency power. (Open Item 50-354/85-53-02)
- (4) The radio communicator was used for several other tasks and was consequently away from the radio frequently. At times, incoming information from plant teams was missed. (Open Item 50-354/85-53-03)

- (5) There is confusion about the proper equipment tagging procedure to be followed during an emergency. (Open Item 50-354/85-53-04)
- (6) The main method of tracking radiation protection personnel was unavailable when the Senior Radiation Protection Technician (SRPT) left and took the log book with him. In addition, no person was left in charge. (Open Item 50-534/85-53-05)
- (7) Procedures EP-I-18 Section 3.4 and EP-I-17 relative to location of emergency radio's are incorrect. (Open Item 50-354/85-53-06)
- (8) Radio communications from the TSC were very poor. (Open Item 50-354/85-53-07)
- (9) The Environmental Team did not follow procedures in handling the iodine samples:
 - (a) They did not go to a low background area to remove the sample from the sampler;
 - (b) They did not label the iodine cartridge bag; and
 - (c) They did not follow the procedure in purging the sample cartridge.
 (Open Item 50-354/85-53-08)
- (10) Access control at the EOF was poor. (Open Item 50-354/85-53-09).
- (11) Several positions in the EOF, most notably in Dose Assessment, appeared to have more than one person performing the same designated functions. Review and revise emergency organization as necessary to perform assigned tasks. (Open Item 50-353/85-53-10)
- (12) It did not appear that the Radiation Safety Manager (RSM) formulated all PARs as designated in EP II-3. Dose information was provided to the ERM who developed the PARs. (Open Item 50-354/85-53-11)
- (13) Some of the press releases were poorly written in that they referred to PARs made by PSE&G. PSE&G does not have the authority to direct the public in the enactment of PARs. (Open Item 50-354/85-53-12)

3. Exit Interview

The inspectors met with licensee representatives (see details 1 for attendees) at the conclusion of the inspection to discuss the findings of the exercise observations as detailed in this report. At no time during this inspection was any written information provided to the licensee.