

U. S. Nuclear Regulatory Commission
Region I
Inspection Report

Docket/Report Nos: 50-387/94-19; 50-388/94-20
License Nos: NPF-14; NPF-22
Licensee: Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101
Facility Name: Susquehanna Steam Electric Station (SSES), Units 1 & 2
Inspection Dates: September 7-16, 1994
Inspection At: Allentown, PA
Hazleton, PA
Berwick, PA
Wilkes-Barre, PA
Inspector: *W. Maier*
W. Maier, Emergency Preparedness Specialist
Approved: *R. Keimig* 9-30-94
R. Keimig, Chief Date
Emergency Preparedness Section

SCOPE

The inspection evaluated the operational readiness of selected off-site emergency response facilities. The General Office Engineering Support Center (GOESC), the Backup Emergency Operations Facility (BEOF), the near-site Media Operations Center (MOC) and the overflow MOC were inspected. The inspector also reviewed the adequacy of corrective actions for events affecting emergency response capability. A discussion of the licensee's plans for relocation of the emergency operations facility outside the plume exposure emergency planning zone (EPZ) was also held.

RESULTS

The inspected facilities were determined to be operationally ready to support emergency response activities as described in the SSES Emergency Plan. An inspector follow item was opened to track PP&L's plans to demonstrate activation of the BEOF. The corrective actions for recent failures of the public notification (siren) system were found to be adequate. However, communication problems between the NEP group and other groups continue to cause problems with the readiness of key emergency response facilities. Considerations by PP&L for the relocation of the Emergency Operations Facility (EOF) are well founded; material, logistical, and time-sensitive factors are all being considered in the development of the proposal that will be submitted for NRC approval.

DETAILS

1.0 Persons Contacted

1.1 PP&L

	C. Angione	Engineer
*	C. Myers	Manager-Nuclear Regulatory Affairs
*#	A. Price	Supervisor-Nuclear Emergency Planning
	C. Rozkowski	Senior Nuclear Emergency Planner
#	G. Stanley	Vice President-Nuclear Operations
	W. Tabor	Nuclear Emergency Planner
#	R. Wehry	Compliance Engineer
*	P. Williams	Staff Assistant-Nuclear Department Support
	H. Woodshick	Special Assistant to the President
	J. Yotko	Nuclear Emergency Planner
	J. Zwastetzky	Project Engineer

1.2 NRC

	M. Banerjee	Senior Resident Inspector
#	D. Mannai	Resident Inspector

* Attended entrance interview at General Office Annex, Allentown, on September 7, 1994

Attended exit interview at Emergency Operations Facility, Berwick, on September 8, 1994

2.0 Off-site Emergency Response Facilities

2.1 General Office Engineering Support Center

After the entrance interview, the inspector inspected the General Office Engineering Support Center (GOESC). The GOESC is not a dedicated emergency response facility. When necessary, it is established in a conference room at the General Office Annex in Allentown.

The inspector assessed this facility for adequacy of communications capability. He observed satisfactory VHF radio communication between the GOESC and the EOF and checked selected phone circuits for operability. He also observed a satisfactory data link for the process computer Emergency Data Supplement (EDS) information flow from the EOF. All of the phone circuits selected were operable except for one line that had excessive static interference on it. The inspector brought this to the attention of the staff assistant who maintains the GOESC, who intended to pursue its repair. The inspector found the communications adequate for accomplishing the GOESC's emergency function; that of exchange of technical data and mitigation strategies.

The inspector also checked the supplies located in the GOESC to see if they were being maintained in accordance with the inventory procedure (EP-AD-013) and Appendix D of the SSES Emergency Plan. He found all the items in these documents specified for the GOESC except for one



telephone. This telephone was removed because the line it was being connected to was needed for data transmission of the EDS and remote data acquisition systems. The inspector brought this discrepancy to the attention of the NEP Supervisor, who agreed to evaluate whether a new voice line should be added to the work station that operates the data terminal.

The administrative assistant who explained the communications and data display setup of the GOESC did so using a diagram that is not found in the SSES Emergency Plan or the position specific procedures for GOESC setup. The diagram, dated 1990, is not an approved document and is posted inside the supply locker at the GOESC. The diagram is, however, the most detailed description of the GOESC layout. The inspector suggested that the approved diagrams of the GOESC contained in the Emergency Plan and procedures should be revised to be as detailed as the unapproved diagram and also be controlled to remain current as changes to the facility occur. The NEP Supervisor agreed to investigate such a course of action.

The inspector considered the above discrepancies observed in the GOESC to be minor and not likely to compromise the ability of the GOESC to provide technical expertise to the plant in the event of an accident. He concluded that the GOESC was adequately equipped to be effectively used in the event of an emergency.

2.2 Backup Emergency Operations Facility (BEOF)

The inspector proceeded to the BEOF in Hazleton, PA to assess the emergency capability of that facility. It is established in the auditorium of PP&L's Hazleton Service Center. The building in which it is located is scheduled for demolition in early 1996.

The BEOF, like the GOESC, is not a dedicated facility. The only emergency response equipment located at the BEOF are some plant information system terminals, phone and radio jacks for communications, and white boards for posting emergency information. All other equipment, phones, radios, and forms must be hand carried from the EOF at the station in Berwick.

The BEOF is activated if the emergency operations facility (EOF), which is in the plume exposure emergency planning zone (EPZ), is declared uninhabitable or is inaccessible. Control of the licensee's emergency response effort is transferred back to the TSC while the EOF staff pack, transport, and unpack supplies needed for re-establishing control at the BEOF. Control of the emergency response effort is then established at the BEOF.

After arriving at and inspecting the BEOF, the inspector expressed doubts that the BEOF could be staffed, equipped, and activated without confusion and excessive delay. He based this opinion on the fact that the BEOF is not pre-staged in its emergency response configuration and that equipment needed for its operation is not already located there.

He also questioned if it could be activated at all for some postulated scenarios where the EOF was inaccessible to the initial responding staff.

The Nuclear Emergency Planning staff members expressed confidence in their ability to staff, equip and operate from the BEOF under all possible conditions. The NEP Supervisor, however, expressed a desire to either relocate the BEOF to a more suitable location or eliminate the need for the BEOF by relocating the EOF to a location outside the plume exposure EPZ.

Activation of the BEOF had been demonstrated in two exercises in 1987. Those exercises were to prove its initial operability. The NRC expressed an opinion, in inspection report 90-18, that the licensee should demonstrate operability of the BEOF in an upcoming exercise. As a result, the NEP Supervisor committed internally to resolve this issue by the end of 1994. The inspector agreed that it was important to either prove operability of the BEOF or eliminate it. He felt that PP&L needed to demonstrate its ability to staff, equip, and activate the BEOF in light of the number of changes to the Emergency Plan, implementing procedures, and equipment for emergency response that have occurred since the last demonstration of BEOF operability. This item will be evaluated in a future inspection and is being classified as an inspector follow item (IFI 50-387/94-19-01).

2.3 Media Operations Centers

2.3.1 Near-site Media Operations Center

The inspector met with the Special Assistant to the President, who fills the position of Public Information Manager in the Nuclear Emergency Response Organization. The Special Assistant explained the layout and operations of the SSES Energy Information Center (EIC), which serves as the primary (near-site) Media Operations Center (MOC) for most events that result in an emergency declaration or media interest. In the event that radiological conditions force an evacuation of the MOC to outside the plume exposure EPZ or if media presence at the EIC is beyond the level that can be comfortably accommodated, then the MOC is moved to the PP&L Northeast Division Headquarters in Wilkes-Barre.

The EIC/MOC is also not a facility dedicated for emergency response, but it is equipped with the communications and briefing facilities that are needed in the event of an emergency at the plant. Additionally, the group that staffs the EIC during day-to-day operation also staffs the MOC during emergencies. The emergency response requirements of the facility are known to the people who normally work there and would not be degraded by changes made to the facility.

The inspector concluded that the EIC/MOC was adequately equipped to serve the function assigned to it in the SSES Emergency Plan. Sufficient phone lines exist to enable the emergency response staff to respond to media inquiries, control incoming rumors, communicate with



the other emergency facilities, and accommodate media transmission of stories. Adequate work space exists for public information representatives of local and state emergency agencies to co-locate with PP&L representatives for the issuance of press releases and the conduct of press briefings. Adequate work space and communication capability exists for the housing of forty news media representatives.

2.3.2 Overflow Media Operations Center

The inspector traveled to the overflow MOC to inspect its suitability for coordinating large scale media operations. This facility is established in the PP&L Northeast Division Headquarters in Wilkes-Barre and is divided between the MOC and the offices of the Northeast Division personnel.

The Special Assistant to the President showed the inspector the equipment used for emergency response and explained the operation of the facility. The MOC spaces include an auditorium to support electronic media, a dedicated room for off-site agency communications, an administrative support room with facsimile and copying capability, a dedicated darkroom and storage area, a media contact room and a press release workroom.

The overflow MOC has been in existence for less than a year. It was previously located at the Berwick YMCA, which is inside the plume exposure EPZ. The current location is outside the EPZ, and is unaffected by adverse radiological conditions resulting from a plant accident.

The overflow MOC was activated during a health physics drill this year. The licensee plans to demonstrate its operation during an upcoming annual exercise (October, 1994) and for most major exercises thereafter.

The inspector concluded that the overflow MOC is an excellent facility that is well-designed for accomplishing its function. It is easily accessible from several major highways and is located near an airport. The building in which it is located has redundant power supplies that provide high reliability of electrical power.

3.0 Emergency Operations Facility Relocation

The inspector discussed the status of the licensee's plans to relocate the EOF from its current location adjacent to the site to a location that is outside the plume exposure EPZ and more easily accessible by personnel from the General Office in Allentown. He interviewed the senior planner involved in this project. He also interviewed the NEP Supervisor and other managers to determine their involvement in and expectations for accomplishing the move.

The inspector learned that the major consideration in relocating the EOF is to eliminate the interim staffing situation that exists at the current EOF in Berwick. Currently, SSES personnel staff and activate

the EOF until the emergency response team from the Allentown office arrives to assume control. This arrangement reduces the resources available for the on-site response. The licensee wants to eliminate the use of on-site personnel for an interim EOF staff.

The licensee also wants to eliminate the need for maintaining a backup EOF by locating the EOF outside the plume exposure EPZ. The building in which the BEOF is located is scheduled for demolition in 1996.

The other consideration for the move is the licensee's desire to locate the EOF closer to the off-site agencies with which it will be interfacing in the event of an accident. These include county, state and federal authorities. This need was identified during the planning efforts for the Full Field Exercise (FFE-3) that was to have occurred in February 1993.

Sites that are being evaluated for the location of the new EOF are PP&L facilities in Wilkes-Barre, Hazleton, and Allentown. The Wilkes-Barre and Allentown sites are greater than 20 miles from the Technical Support Center (TSC) at the station. NUREG-0737, Supplement 1 (Clarification of TMI Action Requirements) requires prior Commission approval for locating an EOF greater than 20 miles from the TSC. The NEP staff is aware of this requirement.

It may not be possible to staff the Wilkes-Barre or Hazleton sites with General Office personnel within an hour, as required by NUREG-0737, Supplement 1 and the SSES Emergency Plan. The licensee intends to seek a waiver of this requirement from the NRC. If the waiver is not approved, the licensee plans to set up an interim EOF until the actual EOF can be staffed. The use of helicopters is also being evaluated as a means of transporting General Office personnel to a remotely located EOF in a timely fashion.

The current EOF has main frame computers located in it that provide much of the data that is used by emergency response personnel. The licensee is investigating ways to transmit that data to a remote location. A computer upgrade project for both Unit 1 and Unit 2 is planned for completion by September, 1996. This upgrade will establish a local area network (LAN) system that will enable SSES data retrieval from any PP&L location, including a remote EOF. PP&L is investigating ways of transmitting emergency response data to a remote location until such time as the computer upgrade is completed.

The inspector considered the plans for the relocation of the EOF to outside the plume exposure EPZ to be well thought out and sensitive to the regulatory requirements for emergency response facilities.

4.0 Significant Operating Occurrence Report (SOOR) Review

The inspector reviewed three SOORs (94-372, 94-377 and 94-465) that described events affecting emergency preparedness equipment. The affected equipment was the off-site public notification system (sirens)

and the meteorological data terminals (Ram-Tek terminals) in the TSC and EOF. The inspector reviewed these SOORs at the NRC Region I office from September 12-16, 1994 after the on-site inspection and interviewed the NEP Supervisor and a member of his staff at the EOF on September 8, 1994 to determine the causes for the events and the adequacy of corrective actions for them.

Two of the SOORs (94-377 and 94-465) dealt with losses of the off-site siren notification system. Both of these losses were due to a telephone line outage to the mountain-top transmitter used to activate the sirens. One of the outages was due to equipment problems with the telephone line. The other was due to telephone company maintenance on the line that was requested by the PP&L department with responsibility for the line. This maintenance was requested, scheduled and commenced without prior notification to the NEP department or the adoption of compensatory actions to ensure continuity of operation of the siren system. Communication problems were among the root causes cited for the occurrence.

Another SOOR (94-372) described an occurrence wherein the meteorological data (Ram-Tek) terminals were removed from the EOF and the TSC without prior communication with the NEP group. The terminals were removed in accordance with an approved plant modification. The terminals were, however, removed without first ensuring that the procedures that described their use were updated or the personnel who would operate them were trained in the use of the new system that replaced the terminals.

Other communication problems were identified by the licensee last year and noted by the NRC in an earlier inspection this year (50-387/94-08 and 50-388/94-10 combined inspection). That inspection described how a lack of communication between the NEP group and other groups resulted in degradation of the communications capability of the BEOF and unauthorized relocation of the overflow MOC before procedures could be revised or personnel trained on the change of location.

The inspector reviewed the corrective actions planned to prevent recurrence of the events. He determined that the corrective actions planned for each of the occurrences were adequate to deal specifically with that occurrence. He felt, however, that the three occurrences of this year and the two of last year demonstrated an ongoing problem in keeping the NEP group notified of changes that could reduce the level of readiness response in emergency planning. The inspector concluded that the siren outage due to maintenance and the removal of the Ram-Tek terminals were additional examples of a communication problem that continues to undermine the state of readiness to respond to emergencies.

5.0 Exit Interview

The inspector held an exit interview with the Vice President - Nuclear Operations on Thursday, September 8. The interview was held at the EOF. The inspector described the results of the facilities inspection and the SOOR review.

After completing a more detailed review of the S00Rs at the regional office during the week of September 12-16, the inspector telephoned the compliance engineer who was present at the exit interview to inform him of the communication problem finding. The inspector explained his conclusion, and the compliance engineer did not have any questions concerning it.