U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos.:	50-387; 388/93-02
License Nos.:	NPF-14, NPF-22
Licensee:	Pennsylvania Power and Light Company 2 North Ninth Street Allentown, Pennsylvania 81801
Facility:	Susquehanna Steam Electric Station
Inspection Dates:	January 11-12, 1993
Inspector:	J. H. Williams, Senior Operations Engineer

Reviewed by: J. H. Williams — 1/22/93
J. H. Williams, Sr. Operations Engineer — Date
BWR Section, Operations Branch
Division of Reactor Safety

Approved by: Richard J. Conte — 1/22/93
Richard J. Conte, Chief — Date
BWR Section, Operations Branch
Division of Reactor Safety

Inspection Summary: An announced inspection was performed of the licensee's training program for revision 4 of the emergency operating procedures. Observations were made of two operating crews implementing the emergency operations procedures on the simulator.

The training was developed and implemented in a systematic manner. Some features expected to be found in a Systematic Approach Training-based (SAT) program were missing; however, it could not be determined that these missing elements reduced training effectiveness. Both operating crews demonstrated satisfactory performance using the emergency operating procedures on the simulators. Two simulator scenarios were used for each crew. JPM training on the emergency support procedures had not be developed.

DETAILS

1.0 INTRODUCTION AND SCOPE

The licensee revised their emergency operating procedures to comply with the "BWR Owners Group Emergency Procedure Guidelines," Revision 4, and made other changes to their emergency procedures. This report documents an inspection of the training licensed operators received on the revised emergency operating procedures and the evaluation of two crews implementing the emergency procedures on the simulator. The two-day inspection sought to provide assurance that licensed operators were adequately training on the new emergency procedures and the training was done in a systematic manner. Persons contacted are listed in Attachment 1.

2.0 FINDINGS

The inspector concluded that licensed operators have been adequately trained and can implement the new emergency operating procedures. The licensee's scenarios used to evaluate performance on the simulator covered all but two of the emergency operating procedures. The scenarios were challenging, went well into the legs of the flow chart-type procedures and required the crew to use the emergency operating procedures during a major part of the scenario.

Training on the emergency operating procedures was developed and conducted in a systematic manner. The training was split into 36.5 hours of classroom instruction (plus 4.5 hours on emergency support procedures) and 21 hours of simulator training (plus 13 hours for validation of the procedures).

Some features expected to be found in a Systematic Approach to Training-based program were missing. For example, the Job Task Analysis (JTA) appeared not to be used or maintained. Also, the classroom lesson plan consisted of a two-page statement of general learning objectives and the bases document for each emergency operating procedure flowchart. Each instructor presented the material in his own way. This approach does not ensure consistent training or that learning objectives are covered. The inspector could find no indication that these missing features reduced the effectiveness of the training.

The licensee provided 4.5 hours of classroom training on the emergency support procedures. Plans are under way to develop Job Performance Measures (JPMs) for the procedures later this year. The inspector noted the desirability of JPM training on the support procedures prior to implementing the new emergency operating procedures. There were ten new and six revised emergency support procedures issued in late December of 1992. Since EO-104, "Secondary Containment," ties the maximum safe radiation and temperature levels to personnel limits while performing emergency actions, efforts to ensure these activities are performed in a minimum time appear prudent. The licensee expressed confidence that the emergency support procedures could be implemented.

3.0 EXIT MEETING

An exit meeting was conducted on January 12, 1993. The inspector's finding were discussed at this meeting.

Attachment: Persons contacted.

ATTACHMENT 1

Persons Contacted

Pennsylvania Power and Light

Howard Palmer, Manager Nuclear Operations
Tom Markowski, Day Shift Supervisor
Bill Lowthert, Manger, Nuclear Training
Art Fitch, Nuclear Operations Training Supervisor
Bruce Stitt, Simulatory Instructor
Terry Logsdon, Simulator Instructor
Tom Clymer, NQA Coordinator

Nuclear Regulatory Commission

David Mannai, Resident Inspector

Other individuals were contacted during the inspection.