



Pennsylvania Power & Light Company

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Harold W. Keiser
Vice President-Nuclear Operations
215/770-7502

SEP 26 1986

Mr. Thomas T. Martin, Director
Division of Radiation Safety and Safeguards
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
NRC INSPECTION REPORTS 50-387/86-10
AND 50-388/86-10
PLA-2722 FILE R41-1C,R41-2

Docket Nos. 50-387
and 50-388

Dear Mr. Martin:

This letter provides PP&L's response to your letter of August 14, 1986 which forwarded NRC Region I Combined Inspection Reports 50-387/86-10 and 50-388/86-10 with Appendix B, Appraisal Unresolved Items and Appendix C, Appraisal Open Items.

Your letter advised that PP&L was to submit a written reply to Appendices B and C within forty-five (45) days of the date of the letter. We trust that the Commission will find the attached response acceptable.

If you have any questions, please contact R. D. Kichline (215) 770-7860.

Very truly yours,

H. W. Keiser
Vice President-Nuclear Operations

Attachment

cc: Mr. L. R. Plisco - NRC Senior Resident Inspector
Ms. M. J. Campagnone - NRC (NRR Project Manager)

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RESPONSES TO APPRAISAL UNRESOLVED ITEMS

Unresolved Item: (387/86-10-10, 388/86-10-10)

Provide a specific proceduralized plan for performing frequent radiological surveys of assembly areas to ensure habitability. The Radiation Protection Coordinator should be assigned the responsibility for providing monitoring of the assembly areas.

- At least a minimum amount of radiological monitoring equipment should be stored at each of the assembly areas to ensure that personnel would not have to travel from the OSC to the TSC without survey equipment.
- Formally address the potential need for having backup locations for the assembly areas in the event that one or all of these areas become uninhabitable due to high radiation.

Response:

EP-IP-007, Personnel Assembly and Accountability, will be revised to incorporate clear direction and procedures for the Radiation Protection Coordinator to ensure assembly area habitability. In the two assembly areas where personnel will be retained to support OSC emergency functions, a continuous air monitor will be installed by 11/15/86. Provisions for a backup assembly area for these personnel will be incorporated into EP-IP-007 by 12/1/86. See unresolved item 387(388)/86-10-12 for additional information.

Unresolved Item: (387/86-10-11, 388/86-10-11)

Provide dosimeters to all personnel in the assembly areas and routinely have the individuals read their dosimeters. Record and track dose of all assembly area personnel.

Response:

Habitability of the assembly areas is addressed in unresolved item 387(388)/86-10-10. In addition, those personnel retained or called in to support emergency operations and located in the assembly areas would have self reading dosimeters (SRD's) with them at all times. Personnel utilized for OSC functions have their doses tracked using established procedures during emergency operations.

Unresolved Item: (387/86-10-12, 388/86-10-12)

Protective supplies (protective clothing and respiratory protection) should be stored in the assembly areas to assure OSC staff are adequately protected from radiological hazards while traveling from the OSC to the TSC and into the plant. Planning for alternate assembly location should also include stores of protective equipment.

Response:

Personnel retained or called in to support in-plant emergency functions will be assembled in the maintenance and I&C shops. In order to enter the plant proper, they must pass the Health Physics control points for Unit 1 or 2. Sufficient quantities of protective supplies (to include survey equipment) are located at these points to ensure adequate protection of these personnel.



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RESPONSES TO APPRAISAL OPEN ITEMS

Open Item: (387/86-10-01, 388/86-10-01)

A full description of the meteorological monitoring program is needed including details on additional information that may be requested from the National Weather Service

Response:

The 1986 revision to the SSES Emergency plan will include an updated description of the meteorological monitoring program, to include associated equipment descriptions and locations and provisions for acquiring offsite observation and forecast data from the local National Weather Service office and/or other sources. This will be completed by 12/31/86.

Open Item: (387/86-10-02, 388/86-10-02)

TSC does not appear to have any source of emergency lighting during a station blackout.

Response:

TSC lighting is supplied by station power with a sufficient number of lights backed up with power from the diesel generators. PP&L will assess the adequacy of this lighting power supply and determine the feasibility of providing some form of emergency lighting during a station blackout. The assessment will be completed by 12/1/86.

Open Item: (387/86-10-03, 388/86-10-03)

Cabling, phone, and power cords in the TSC are subject to mechanical damage during movement of personnel or equipment.

Response:

All cabling, phone and power cords in the TSC will be made permanent and appropriately covered or sealed to ensure they are not subject to mechanical damage nor a safety hazard to personnel and equipment. This will be accomplished by 6/30/87.

Open Item: (387/86-10-04, 388/86-10-04)

Emergency procedures should address any serious degradation of Emergency Response Facilities.

Response:

In addition to the TSC lighting assessment for open item 86-10-02, a review and assessment of power supplies necessary to support emergency response activities in the TSC and EOF will be conducted by 12/1/86. The results of this assessment will determine the need for any further action, including addressing any serious degradation of facilities in appropriate emergency procedures.

Open Item: (387/86-10-05, 388/86-10-05)

Dose assessment of discrete puff-type releases needs review and clarification.

Response:

An assessment of the dose calculation summary and plume plots will be made to determine the projected effects of current releases. Also, the actual modeled position of continuous or "puff" release plumes and their associated doses will be reviewed. This assessment, to be completed by 1/30/87, will determine any additional action required.

Open Item: (387/86-10-06, 388/86-10-06)

Clarification is needed of how PP&L engineering personnel specify compression limit ranges for plant computer values.

Response:

Sensor Compression Limit

The criteria used for determining compression limits involves the review of several variables related to the computer point in question. There are no rigid formulas that can be applied universally to all the inputs in determining these limits. The objective is to filter out minor random changes thereby reducing computational loading. The review includes:

1. The calibration tolerance, range, and accuracy of the instrument.
2. The function of the equipment.
3. The normal and off-normal range of the measured system parameter.
4. The expected rate of change for the parameter - volume, capacity, etc. - under normal operational conditions, and
5. The linearity of the parameter.

Using all of these factors a sensor compression limit is calculated that will filter out changes related to system and sensor noise, but captures changes related to parameter excursions.

Historical Compression Limits

The criteria used for determining the historical compression limit involves the review of system variables for the computer point in question. This review considers the following factors:

1. The historical compression limit needs to be equal to or greater than the sensor compression limit's engineering unit equivalent.
2. The value needs to be set low enough to capture normal and off-normal transients, and
3. The value needs to filter normal system parameter perturbations so that the trending function is not saturated with inconsequential changes.

These factors are used to establish a historical compression limit that captures data at the lowest rate possible consistent with the eventual use of that data.

Open Item: (387/86-10-08, 388/86-10-08)

Delta-temperature meteorological instrument sensors are not properly calibrated.

Response:

The response to the delta temperature calibration concern was addressed in PP&L's response to the Notice of Deviation for NRC Inspection Report 387(388)/86-10 dated 9/12/86 (PLA-2715).

In response to the delta temperature aspirator indication concern identified in the report, an evaluation to install a "motor operable" indicator for the aspirator motor will be performed by 12/31/86.

Open Item: (387/86-10-09, 388/86-10-09)

Diverse OSC assembly areas need to be addressed in the Emergency Plan and Procedures.

Response:

Assembly areas utilized to retain or call-in support personnel for OSC functions at Susquehanna SES are the maintenance and I&C shops. Utilization of these areas will be addressed in the 1986 revision to the Susquehanna SES Emergency Plan and incorporated into accountability procedures by 12/31/86.

Open Item: (387/86-10-13, 388/86-10-13)

Emergency Plan should be changed to correctly reflect the location of equipment and supplies available for use during an emergency.

Response:

The 1986 revision of the Emergency Plan will reflect the location of equipment and supplies for OSC in-plant functions in conjunction with the identification of assembly areas where these personnel will be retained. This will be complete by 12/31/86.

Open Item: (387/86-10-14, 388/86-10-14)

The licensee needs to formalize minimum staffing standards for the Operational Support Center

Response:

Section 5.1, Figure 5.2, and Table 5.2 of the SSES Emergency Plan clearly define the minimum staffing standards for OSC operations. Additional personnel such as electricians, mechanics, and I&C technicians may be called in or retained during normal working hours based upon the emergency condition. These additional personnel, however, are not a part of the necessary minimum staffing of the OSC.

Open Item: (387/86-10-15, 388/86-10-15)

Correct temporary electrical and phone wiring and cabling in the EOF.

Response:

All cabling, phone and power cords in the EOF will be made permanent and appropriately covered or sealed to ensure they are not subject to mechanical damage nor a safety hazard to personnel and equipment. This will be accomplished by 6/30/87.

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