

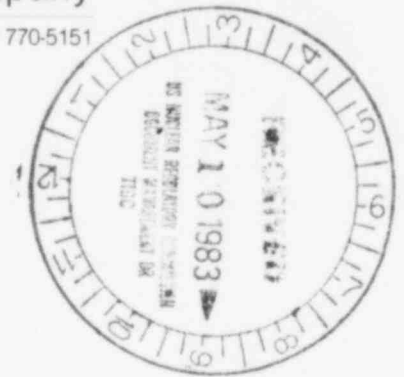


# Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

MAY 05 1983

Director of Nuclear Reactor Regulation  
Attention: Mr. A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555



SUSQUEHANNA STEAM ELECTRIC STATION  
AMENDMENT 54 TO OPERATING LICENSE APPLICATION  
ER 100450 FILE 841-1  
PLA-1648

Docket Nos. 50-387  
50-388

Dear Mr. Schwencer:

Attached are sixty (60) copies of Amendment No. 54 to the operating license application. This amendment contains Revision 33 to the Susquehanna SES Final Safety Analysis Report.

A summary of the changes is presented below.

Section 3.7b This section was revised as a result of modifications made to the structural dynamic models of the Reactor and Control Buildings. These changes were incorporated into Revision 8 to the Susquehanna Steam Electric Station Design Assessment Report which was transmitted under separate cover (letter dated 3/7/83, Curtis to Schwencer, PLA-1562). These changes were previously discussed with the NRC staff.

Section 5.2 Revised the leakage detection method discussion for detection of leakage through the reactor coolant pressure boundary. Small leaks ( $\leq 5$  gpm) are detected by drain sump levels rather than drain pump activities (in addition to temperature and pressure changes) in accordance with the system as described in subsection 5.2.5.1.2.4. This change does not represent a reduction of safety as drain sump level indication is a positive indication of leakage through the reactor coolant pressure boundary.

Revised the Drywell Floor Drain Monitoring System description to correct the reference to the sump pumps. These pumps are not of the submerged type design. The operation of these pumps after a LOCA which results in drywell flooding is not required. Also, the bottom of the pump motors is 24" above the diaphragm slab. The maximum LOCA flood level is below this point.

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Corrected the reference to the drywell drain sump capacity. Blocks were added to assure the instrumentation sensitivity requirements of R.G. 1.45 are met relative to RCPB unidentified leakage. The proper capacity is 150 gal.

Revised the Drywell Equipment Drain Tank description to refer to the useful capacity of the tank as 842 gal. While the tank capacity is 1,000 gal., only the top 36" of tank level is monitored by instrumentation. The drywell equipment drain tank is not a safety related component.

Removed the drywell equipment drain tank cooling coil from the list of equipment which will be qualified to operate following an OBE. The cooling coil has been disconnected since cooling of the drainage and seismic qualification of the coil was required to prevent damage to drywell equipment drain tank pumps which were previously removed.

Corrected typographical errors.

- Section 6.2 Revised Subsection 6.2.4.3.3 discussion of Containment Purge System to reflect the addition of screens on the inlet and outlet drywell purge lines to prevent debris which may be generated following an accident (e.g. pipe break) from entering the purge lines and preventing the containment isolation valves from closing. This is in response to a License Condition on Unit 1.
- Section 6.7 Provides revised Figure 6.7-3 sheets 1 through 4 entitled "MSIV Leakage Control System FCD".
- Section 7.2 Provides revised Figure 7.2-1 sheets 1 through 4 entitled "Reactor Protection System IED".
- Section 7.3 Provides revised Figure 7.3-7 sheets 1 through 5 entitled "HPCI System FCD".
- Provides revised Figure 7.3-8 sheets 1 through 6 entitled "Nuclear Boiler System FCD".

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- Provides revised Figure 7.3-9 sheets 1 through 3 entitled "Core Spray System FCD".
- Provides revised Figure 7.3-10 sheets 1 through 5 entitled "RHR System FCD".
- Provides revised Figure 7.3-11 sheets 1 through 5 entitled "Process Radiation Monitoring System IED".
- Section 7.4 Provides revised Figure 7.4-2 sheets 1 through 4 entitled "Reactor Core Isolation Cooling System IED".
- Provides revised Figure 7.4-4 entitled "Standby Liquid Control System FCD".
- Section 7.6 Revised the HPCI temperature monitoring circuit description to reflect the addition of a one-second time delay relay. This relay will delay the closure of the HPCI isolation valves following initiation from high ambient or differential temperature from the HPCI area or from the tunnel. The time delays eliminate the false isolation signal produced each time the temperature switches are energized.
- Provides revised Figure 7.6-4 sheets 1 and 2 entitled "Neutron Monitoring System IED".
- Provides revised Figure 7.6-7 sheets 1 through 7 entitled "Neutron Monitoring System FCD".
- Section 7.7 Provides revised Figure 7.2-2 sheets 1 through 7 entitled "Control Rod Drive FCD".
- Provides revised Figure 7.7-7 sheets 1 through 5 entitled "Reactor Recirculation System FCD".
- Provides revised Figure 7.7-9 entitled "Feedwater Control System IED".
- Provides revised Figure 7.7-11 entitled "Reactor Water Cleanup System FCD".
- Section 11.3 Revised section to reflect the removal of the inlet HEPA filters from the Offgas System. High differential pressure across these

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filters caused by moisture was the source of filter degradation. Radioactive daughter product particulates that would normally be trapped in the inlet HEPA filters will drop out further downstream in the system.

Revised the outlet HEPA filter discussion to state that the offgas stream exiting the HEPA filter can be continuously monitored for radioactivity. As the offgas stream is routed through the turbine building exhaust duct, (where continuous monitoring occurs) and released through the turbine building exhaust vent, the continuous monitoring sampling provisions of R.G. 1.21 for gaseous effluents are satisfied.

Revised to reflect the relocation of the offgas pretreatment sampling system suction point from downstream of the Steam Jet Air Ejector intercondenser to downstream of the Motive Steam Jet condenser for the offgas recombiner system. The suction point was changed to assure adequate differential pressure exists between the L.P. condenser and the SJAE condenser to provide rated flow through the sampling system. This change does not affect the safe operation of this system.

Revised Tables 11.3-5 and 11.3-6 to reflect the removal of the inlet HEPA filters from the Offgas System.

Section 17.2

Revised section to reflect the reorganization of the Nuclear Fuels Department under Nuclear Plant Engineering. Accordingly, the Manager-Nuclear Plant Engineering now has responsibility for engineering activities related to nuclear fuel.

Question 032.53

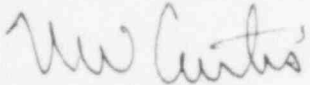
Revised response to clarify that although the methods used to perform periodic response time tests of the RPS are consistent with IEEE 338-1977 and RG 1.118-1978, these guidelines are not design bases for this plant.

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Question 281.13      Revised response to eliminate periodic testing to determine that frequencies used for portable radio communications will not affect actuation of protective relays. Testing performed to date demonstrate that protective relays are immune to electromagnetic interference from portable radios and therefore additional periodic testing is unnecessary.

Very truly yours,



N. W. Curtis  
Vice President, Engineering and Construction - Nuclear

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Mr. Thomas M. Gerusky  
Director, Bureau of Radiation  
Protection  
Fulton Building  
P. O. Box 2063  
Harrisburg, PA 17120

Mr. Bruch Thomas  
President, Board of Supervisors  
R. D.#1  
Berwick, PA

Attorney General  
Department of Justice  
Capitol Annex  
Harrisburg, PA 17120

Mr. George Pence  
U.S. Environmental Protection Agency  
Region III Office  
Curtis Building (Sixth Floor)  
6th & Walnut Streets  
Philadelphia, PA 19106

Governor's Office of State  
Planning & Development  
Attn: Coordinator, Pennsylvania  
State Clearinghouse  
P. O. Box 1323  
Harrisburg, PA 17120

BEFORE THE  
UNITED STATES NUCLEAR REGULATORY COMMISSION

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In the Matter of :  
PENNSYLVANIA POWER & LIGHT COMPANY : Docket Nos. 50-387 and 50-388

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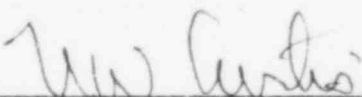
AMENDMENT NO. 54  
APPLICATION FOR CLASS 103  
OPERATING LICENSES FOR THE SUSQUEHANNA  
STEAM ELECTRIC STATION  
UNITS NO. 1 AND NO. 2

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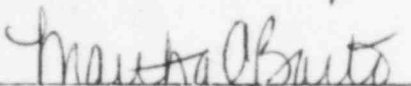
Applicant, Pennsylvania Power & Light Company, hereby files  
Amendment No. 54 to its Operating License Application dated July  
31, 1978.

This amendment contains Revision 33 to the Susquehanna SES Final  
Safety Analysis Report.

PENNSYLVANIA POWER & LIGHT COMPANY  
BY:

  
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N. W. Curtis  
V.P.-Engineering and Construction-Nuclear

Sworn to and subscribed before me  
this 5th of May, 1983

  
\_\_\_\_\_  
Notary Public  
MARTHA C. BARTO, Notary Public  
Allentown, Lehigh County, Pa.  
My Commission Expires Jan. 13, 1986