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 BUTLER, W.R. Project Directorate I-2

SUBJECT: Forwards application for Amends 115 & 65 to Licenses NPF-14 & NPF-22, revising Tech Spec on control room emergency OASS.

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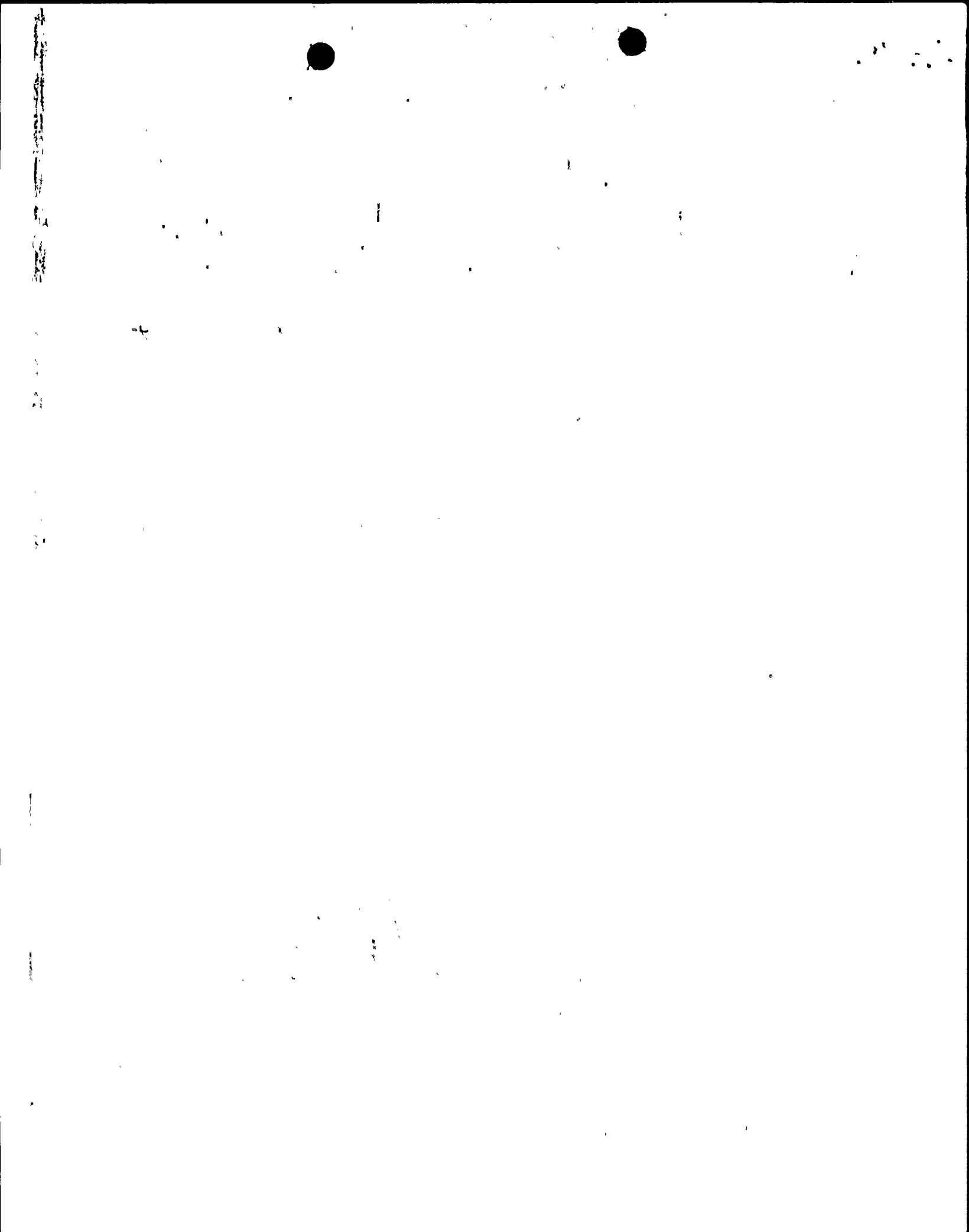
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Director of Nuclear Reactor Regulation
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SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENTS 115 AND 65
TO LICENSE NOS. NPF-14 AND NPF-22:
REVISIONS TO TECHNICAL SPECIFICATION
ON CONTROL ROOM EMERGENCY
OUTSIDE AIR SUPPLY SYSTEM
PLA-3096 FILE A17-2, R41-2

Docket Nos. 50-387
and 50-388

Dear Dr. Butler:

Pursuant to 10CFR50.90, Pennsylvania Power & Light Co. requests amendments, in the form of Technical Specification changes, to Operating Licenses NPF-14 and NPF-22 for Susquehanna Steam Electric Station Units 1 and 2. Marked-up revisions to affected Technical Specification pages are included as an attachment to this proposal.

BACKGROUND

The control room emergency outside air supply system (CREOASS) is designed to accomplish the following objectives.

- o Filter particulate matter which may be radioactive and remove gaseous iodine.
- o Recirculate and clean up room air when chlorine is present in the outside air.
- o Maintain ventilation air supply for the control structure envelope when radiation is detected in the outside air.
- o Maintain a positive pressure of 0.125 in wg. above atmospheric to inhibit outside air infiltration into the control structure during radiation isolation.

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- o Operate during and after design basis accident and reactor building isolation mode conditions without loss of function.

These objectives support the guidance provided in General Design Criterion 19 of 10CFR50, Appendix A, and Regulatory Guide 1.95.

Surveillance 4.7.2.d.2, Control Room Emergency Outside Air Supply System (CREOASS), requires verification that the CREOASS automatically switches to the isolation mode of operation and the isolation dampers close within 8 seconds following receipt of each of the following isolation mode actuation test signals:

- o Outside air intake chlorine - high
- o Outside air intake radiation - high
- o Reactor Building isolation

Surveillance 4.7.2.d.3 requires verification that CREOASS automatically switches to the pressurization mode of operation and the control structure is maintained at a positive pressure of 1/8 in. WG. relative to the outside atmosphere during subsystem operation at a flow of less than or equal to 5810 cfm following receipt of the following pressurization mode actuation test signals:

- o Outside air intake radiation - high
- o Reactor Building isolation

CREOASS normally operates in the isolation mode only for protection against chlorine and our surveillance procedure for CREOASS test this mode of operation. Our procedure does not verify that CREOASS automatically switches to the isolation mode of operation on an outside air intake radiation-high signal or a reactor building isolation signal. We do not know why these two signals were inappropriately incorporated as part of Surveillance 4.7.2.d.2 when they were correctly incorporated under Surveillance 4.7.2.d.3. Our best guess is that the author of this particular Technical Specification erred in interpreting the Standard Technical Specifications. We therefore propose the elimination of these two test signals from Surveillance 4.7.2.d.2.

DESCRIPTION OF CHANGE

PP&L proposed that Specification 4.7.2.d.2 be revised to read as follows (see attached marked-up pages also):

'Verify that on the below isolation mode actuation test signal, the subsystem automatically switches to the isolation mode of operation and the isolation dampers close within 8 seconds:

- a) Outside air intake chlorine - high'



SAFETY ASSESSMENT

General Design Criterion 19 requires adequate radiation protection "to permit access and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 5 rem whole body, or its equivalent to any part of the body, for the duration of the accident." On an outside air high radiation signal or Reactor Building isolation signal, outside air is directed through CREOASS for filtering prior to flowing through the normal control structure HVAC system. Operation of CREOASS in the 'pressurization' mode ensures the control room will remain habitable for operations personnel during and following all design basis accident conditions. Surveillance 4.7.2.d.3 verifies operation of CREOASS in the pressurization mode.

Regulatory Guide 1.95 entitled "Protection of Nuclear Power Plant Control Room Operators Against An Accidental Chlorine Release" is part of the design base for Susquehanna. This Reg Guide specifically recommends a Control Room isolation system as an adequate measure to protect Control Room Operators against accidental chlorine releases. On a high chlorine signal, outside air is isolated from the normal Control Structure HVAC and CREOASS. CREOASS, if not already running, can be manually started to recirculate and clean-up space air in the control room. Surveillance 4.7.2.d.2 is intended to verify operation of CREOASS in the isolation mode.

We also reviewed the control room dose calculations to determine if credit was taken for control room isolation in the dose analysis for accident conditions. The control room dose analysis does not take credit for control room isolation.

NO SIGNIFICANT HAZARDS EVALUATION

The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. Revising Specification 4.7.2.d.2 will not alter the surveillance testing performed on CREOASS. It will alter the acceptance criteria however to make it consistent with the intended design function of CREOASS as described in FSAR Subsections 6.5.1.2.1 and 9.4.1.2.4, and Regulatory Guide 1.95.

The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. CREOASS provides two separate functions for two specific scenarios i.e. high radiation and high chlorine. The proposed revision to Technical Specification 4.7.2.d.2 does not jeopardize either function since CREOASS will be tested consistent with its design function as described in the FSAR Subsections 6.5.1.2.1 and 9.4.1.2.4, General Design Criterion 19, and Regulatory Guide 1.95.

The proposed change does not involve a reduction in the margin of safety. CREOASS ensures that the control room will remain habitable during and following all design basis accident conditions, by limiting radiation exposure to personnel occupying the control room to 5 rem or less whole body and isolating the control room in the event of an accidental chlorine release.



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The proposed change does not prevent CREOASS from providing this level of protection.

IMPLEMENTATION

The proposed Technical Specification changes are not associated with a plant modification and the appropriate surveillances which are performed every eighteen months, are current. Therefore we request NRC approval by July, 1989.

If you have any questions, please contact D.J. Walters at (215) 770-6536. Pursuant to 10CFR170, the appropriate fee is enclosed.

Very truly yours,



H. W. Keiser

Enclosure

cc: ~~NRC Document Control Desk (original)~~
NRC Region I
Mr. F. I. Young, NRC Resident Inspector
Mr. M. C. Thadani, NRC Project Manager

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