

SNUPPS

Standardized Nuclear Unit  
Power Plant System

5 Choke Cherry Road  
Rockville, Maryland 20850  
(301) 869-8010

Nicholas A. Petrick  
Executive Director

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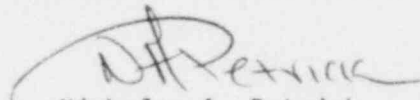
Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Docket Nos.: STN 50-482, STN 50-483, and STN 50-486

Dear Mr. Denton:

The attached FSAR changes will be incorporated in Revision 7 to  
the SNUPPS FSAR.

Very truly yours,

  
Nicholas A. Petrick

RLS/dck/3a15

Enclosure: FSAR pp. 18.2-54, 12.3-4, and inserts

cc: J. K. Bryan UE  
G. L. Koester KGE  
D. T. McPhee KCPL  
W. A. Hansen NRC/Cal  
T. E. Vandel NRC/WC



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18.2.12.2 SNUPPS Response

Radiological Noble Gas Effluent Monitors

The SNUPPS design provides a high range noble gas radiation monitor for each of the release paths listed below. Each monitor will include detectors covering a range shown below:

<u>MONITOR</u>	<u>RANGE</u>
Plant unit vent (GT-RE-21B)	$10^{-7}$ to $10^{+5}$ $\mu\text{Ci/cc}$
Radwaste building effluent (GH-RE-10B)	$10^{-7}$ to $10^{+5}$ $\mu\text{Ci/cc}$

The locations of these monitors are given as the P&IDs for their respective system. Separate monitoring capability for the condenser air removal system is not provided because this system exhausts through the plant vent. ~~Radiation monitoring of the main steam lines or steam system safety valves is being studied, but a specific design is not available.~~ < INSERT A

Continuous indication will be provided in the control room for each monitor. Each monitor will be recorded in the control room.

The system/methods for monitoring and analysis will be incorporated into Section 11.5 of the FSAR upon completion of the design. The readouts from the high range monitors will be input to the plant computers. This information will then be accessible from the technical support center and the emergency operations facility.

The procedures used to calibrate the instruments and calculate release rates will be incorporated into the procedures for the respective facilities. < INSERT B

Provisions for Continuous Sampling of Plant Effluents for Post-Accident Releases of Radioiodines and Particulates

The SNUPPS design will provide continuous sampling for effluent radioiodines. The high range noble gas effluent monitors described above include the capability to obtain grab samples. The sampling will be accomplished with absorption charcoal filters or other media. The sampling system criteria for all airborne monitoring systems are provided in Section 11.5.2.3.1.3 of the FSAR. After collection, laboratory analyzers will be used to quantify iodine releases. A backup power source will be provided for sample collection and analysis equipment to ensure operation for a minimum of 7 consecutive days. The procedures for each facility will discuss the methods and counting equipment used to determine releases. The expected doses from obtaining and counting a sample will be presented in a revision to the FSAR. < INSERT C

#### INSERT A

The SNUPPS design includes gamma detectors to monitor the plume from the main steam power-operated relief valves and to monitor the steam discharge from the turbine-driven auxiliary feedwater pump. Additional information on this monitoring system will be provided at least four months prior to fuel load of the first SNUPPS unit.

#### INSERT B

The following additional information will be provided at least four months prior to fuel load of the first SNUPPS unit:

- A. System description information including energy dependence or response, range and sensitivity with respect to Xe-133, vendor model number, and methods used to assure representative measurements and background correction.
- B. The calculational methods or procedures to be used for converting instrument readings to release rate per unit time based on exhaust air flow and considering radio-nuclide spectrum distribution as a function of time after shutdown.

#### INSERT C

Additional information regarding how the SNUPPS design meets the recommendations of Table II.F.1-2 and the provisions for approximate isokinetic sampling will be provided at least four months prior to fuel load of the first SNUPPS unit.

In view of the fact that these systems are designed to preclude operation during an accident, upgrading the testing and surveillance of these systems is not justified.

← INSERT D

#### 18.3.4.3 Conclusion

The SNUPPS design includes provisions to insure the integrity of fluids systems which are postulated to contain highly contaminated fluids following a design basis accident. The provision will be based on the preservice and inservice tests required by the ASME Code. These provisions provide assurance that these systems will perform their intended functions, including leaktightness, following a design basis accident. This commitment satisfies Item III.D.1.1 of NUREG-0737.

#### 18.3.5 IMPROVED IN-PLANT IODINE INSTRUMENTATION UNDER ACCIDENT CONDITIONS (II.D.3.3)

Refer to each Site Addendum.

#### 18.3.6 CONTROL ROOM HABITABILITY (III.D.3.4)

##### 18.3.6.1 NRC Guidance per NUREG-0737

##### Position

In accordance with Task Action Plan Item III.D.3.4 and control room habitability, licensees shall ensure that control room operators will be adequately protected against the effects of accidental release of toxic and radioactive gases and that the nuclear power plant can be safely operated or shut down under design basis accident conditions (Criterion 19, "Control Room," of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50).

##### Clarification

- (1) All licensees must make a submittal to the NRC regardless of whether or not they met the criteria of the referenced Standard Review Plans (SRP) sections. The new clarification specifies that licensees that meet the criteria of the SRPs should provide the basis for their conclusion that SRP 6.4 requirements are met. Licensees may establish this basis by referencing past submittals to the NRC and/or providing new or additional information to supplement past submittals.
- (2) All licensees with control rooms that meet the criteria of the following sections of the Standard Review Plan:
 

2.2.1-2.2.2	Identification of Potential Hazards in Site Vicinity,
2.2.3	Evaluation of Potential Accidents, and
6.4	Habitability Systems

INSERT D

The SNUPPS Utilities will have a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids in a post-accident situation. The programs will meet Item III.D.1.1 of NUREG-0737, modified as required for the SNUPPS design. Detailed information on the program and necessary changes from NUREG-0737 such as excluded systems and their justification for exclusion will be provided at least four months prior to fuel load of each SNUPPS unit.