

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

May 31, 1984

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

In the Matter of)	Docket Nos. 50-327
Tennessee Valley Authority)	50-328

We request an exemption to the reporting requirements of 10 CFR 50.73(a)(2)(viii)A, which became effective January 1, 1984, regarding airborne radioactive releases for Sequoyah Nuclear Plant (SQN). This plant has implemented the Nuclear Regulatory Commission (NRC) dose methodology guidelines (Regulatory Guide 1.109 - October 1977-R1, NUREG-0472) in the Offsite Dose Calculation Manual (ODCM) to demonstrate compliance with 10 CFR 50, Appendix I criterion, "As Low As Is Reasonably Achievable (ALARA) for Radioactive Material in Light Water Cooled Nuclear Power Reactor Effluents."

The enclosed table I outlines the maximum permissible boundary concentration limits of Appendix B of 10 CFR 20, 10 CFR 50.73 reporting values, and SQN site boundary concentration limits derived from ODCM methodology to meet 10 CFR 50, Appendix I and Technical Specification (TS) 3.11.2.1 dose criteria for SQN. Site boundary noble gas concentrations, approximately one-third of the derived TS allowable normal operating limits, would have to be reported as Licensee Event Reports unless an exemption to the 10 CFR 50.73 reporting requirements is granted.

Therefore, TVA requests an exemption to the reporting requirements of 10 CFR 50.73(a)(2)(viii)A to resolve the inconsistency between the reporting requirements of 10 CFR 50.73 and the TS for SQN. TVA proposes to report those conditions for which releases of radioactive materials in gaseous effluents exceed the limits of the TS, provided as Appendix A to the operating license for each unit.

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Director of Nuclear Reactor Regulation

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If you have any questions concerning this matter, please get in touch with Jerry Wills at FTS 858-2683.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills
L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 31st day of May 1984

Paulette H. White
Notary Public
My Commission Expires 9-5-84

Enclosure

cc: U.S. Nuclear Regulatory Commission (Enclosure)
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

TABLE I

SEQUOYAH - NOBLE GAS PARAMETERS/LIMITS - SITE BOUNDARY

(1) Isotope	10 CFR 20 Appendix Conc. Limits, $\mu\text{Ci/cc}$	10 CFR 50.73 (a)(2)(viii)A $\mu\text{Ci/cc}$	(2) Concentration limits based on technical specification dose limits of 500 mrem/yr total body or 3000 mrem/yr to the skin (most controlling of either)
Ar41	4E-8	8E-8	5.66E-8
Kr85m	1E-7	2E-7	4.27E-7
Kr85	3E-7	6E-7	2.21E-6
Kr87	2E-8	4E-8	8.44E-8
Kr88	2E-8	4E-8	3.4E-8
Kr89	3E-8	6E-8	3.01E-8
Xe131m	4E-7	8E-7	4.66E-6
Xe133m	3E-7	6E-7	1.99E-6
Xe133	3E-7	6E-7	1.70E-6
Xe135m	3E-8	6E-8	1.60E-7
Xe135	1E-7	2E-7	2.76E-7
Xe137	3E-8	6E-8	2.17E-7
Xe138	3E-8	6E-8	5.66E-8

(1) Design source term isotopes

(2) Derived from Regulatory Guide 1.109, R1-1977 table B-1 and technical specification 3.11.2.1 dose rate limits of 500 mrem/yr total body or 3000 mrem/yr skin. NOTE: These concentration limits are independent of any nuclear plant meteorological variation; therefore, they would be applicable for all TVA plants implementing the standardized technical specification format.