

VERMONT YANKEE NUCLEAR POWER CORPORATION

SEVENTY SEVEN GROVE STREET

RUTLAND, VERMONT 05701

October 31, 1979
B.3.2.1

REPLY TO: WVY 79-129
ENGINEERING OFFICE

TURNPIKE ROAD
WESTBORO, MASSACHUSETTS 01581
TELEPHONE 617-366-9011

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Office of Nuclear Reactor Regulation
Mr. Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors

- References:
- (a) License No. DPR-28 (Docket No. 50-271)
 - (b) USNRC letter to All Power Reactor Licensees, dated September 17, 1979.
 - (c) VYNPC letter to USNRC dated April 11, 1979 (WVY 79-40)
Vermont Yankee Offsite Dose Calculation Manual
 - (d) Federal Register, Vol. 42, No. 9, January 23, 1977; Pg. 2858

Dear Sir:

Subject: Implementation of 40 CFR Part 190

As requested in your letter of September 17 (reference b), we are hereby enclosing interim criteria which will be used to demonstrate conformance with those provisions of the EPA Uranium Fuel Cycle Standard (40 CFR Part 190), which become effective December 1, 1979. These interim criteria (Attachment A) shall be followed until such time as formal radiological effluent technical specifications (RETS) become part of our operating license. These interim provisions shall not constitute limiting conditions of operation for the plant.

Our commitment for demonstrating compliance with 40 CFR Part 190, as detailed in Attachment A, follows the guidance given in NUREG-0133, chapter 3.8, and the provisions of Specification 3.11.4 of NUREG-0473, revision 2. However, we take exception to the wording of the NRC proposed Specification 3.11.4 which implies that each individual licensee is directly responsible and accountable for releases from portions of the uranium fuel cycle beyond his own facility. We do not believe it necessary for each individual power plant licensee to be burdened, either directly or by implication, with the possibility of assessment of dose contributions from uranium fuel cycle facilities far removed from his own, and which he has neither any direct knowledge of, or any operational control over. This conclusion is based on EPA's stated intent concerning the implementation of the 40 CFR Part 190 standards. The EPA has determined that in the vast majority of situations, the sum of all reasonably postulable contributions from sources beyond 10 miles of a particular site will be small compared to these standards and should be ignored in assessing compliance. The EPA has stated that,

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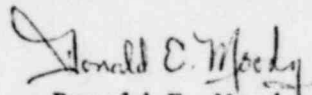
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"it would not be reasonable to attempt to incorporate into compliance assessment doses which are small fractions of the uncertainties associated with the determination of doses from the primary source of exposure" (Reference d). The EPA has also determined as part of the promulgation of 40 CFR Part 190 standards that, except under highly improbable circumstances, conformance to the criteria of Appendix I to 10 CFR Part 50 should provide reasonable assurance of compliance with the standards for up to five reactor units at one site.

Since Vermont Yankee is a single reactor site, and since there are no other uranium fuel cycle facilities in the vicinity of the plant, it is concluded, based on EPA determinations, that the only dose commitments which need to be considered in Vermont Yankee's case are those resulting from on site (station) sources.

Should you have any questions regarding this subject, please feel free to contact Mr. Mark Strum of our Radiological Engineering Group.

Very truly yours,



Donald E. Moody
Manager of Operations

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Attachment A

Total Dose (40 CFR Part 190)

- A. The dose or dose commitment to any real individual from all station sources shall be limited to less than or equal to 25 mrem to the total body or any organ (except the thyroid, which shall be limited to less than or equal to 75 mrem) over 12 consecutive months (beginning December 1, 1979).
- B. With the calculated dose from the release of radioactive materials in liquid or gaseous effluents from the site exceeding any of the following criteria:
1. 3.0 mrem to the total body or 10.0 mrem to any organ during any calendar quarter due to liquid effluents released from the site;
 2. 6.0 mrem to the total body and 20 mrem to any organ during any calendar year due to liquid effluents released from the site;
 3. 10.0 mrad air dose for gamma radiation or 20 mrad for beta radiation during any calendar quarter due to noble gases released in gaseous effluents to unrestricted areas;
 4. 20 mrad air dose for gamma radiation and 10 mrad for beta radiation during any calendar year due to noble gases released in gaseous effluents to unrestricted area;
 5. 15 mrem to any organ during a calendar quarter due to radioiodines and radioactive materials in particulate form, and radionuclides (other than noble gases) with half-lives greater than 8 days in gaseous effluents released to unrestricted areas;
 6. 30 mrem to any organ during a calendar year due to radioiodine and radioactive materials in particulate form, and radionuclides (other than noble gases) with half-lives greater than 8 days in gaseous effluents released to unrestricted areas;

prepare and submit a special report to the Commission and limit the subsequent releases such that the dose or dose commitment to any real individual from all station sources is limited to less than or equal to 25 mrem to the total body or any organ (except thyroid, which is limited to less than or equal to 75 mrem) over 12 consecutive months. This special report shall include an analysis which demonstrates that radiation exposures to any real individual from all station sources, including all effluent pathways and direct radiation, are less than the 40 CFR Part 190 Standard. Otherwise, obtain a variance from the Commission to permit releases which exceed 40 CFR Part 190 Standard.

- C. Cumulative dose contributions from liquid and gaseous effluents shall be determined at least once per month in accordance with the Offsite Dose Calculation Manual (reference C).

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