

December 3, 1990

Ms. Carolyn Dupuy
Connecticut Department of Health Service-EEOH
150 Washington Street
Hartford, Connecticut 06106

Dear Ms. Dupuy:

During a recent telephone conversation, you expressed a need for population dose estimates for the Millstone plant, as well as for certain NUREG and NUREG/CR reports relevant to dose calculations and effluent releases. The population doses you requested are tabulated in Enclosure 1; the reports are appended as Enclosure 2.

If I can be of any further assistance, please call me on (301) 492-1068.

Sincerely,

/s/
Thomas H. Essig, Chief
Radiation Measurement and Health
Effects Section
Radiation Protection Branch
Division of Radiation Protection
and Emergency Preparedness
Office of Nuclear Reactor Regulation

Enclosures:

1. Table of Population Doses for the Millstone Plant
2. (a) NUREG-0172, "Age-Specific Radiation Dose Commitment Factors for a One-Year Chronic Intake"
- (b) NUREG-0597, "Users Guide to GASPARD Code"
- (c) NUREG/CR-2850, V.8 "Population Dose Commitments due to Radioactive Release from Nuclear Power Plant Sites in 1986"
- (d) NUREG/CR-2907, V.8 "Radioactive Materials Released from Nuclear Power Plants, Annual Report 1987"

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POPULATION DOSES FOR THE MILLSTONE PLANT

Year	<u>Air Pathway (50-mile radius)</u>	
	<u>Annual Release (Ci)</u>	<u>Total Body Dose (Person-rem)</u>
1971	276,000 ⁽¹⁾	85 ⁽²⁾
1972	726,000	220
1973	790,000	24
1974	912,000	280
1975	2,970,000	750 ⁽³⁾
1976	507,000	160
1977	620,000	220
1978	565,000	200
1979	21,000	1.8
1980	13,200	2.9
1981	16,500	4.8

Air pathway total = 1900 person-rem⁽⁴⁾
 Liquid pathway total = 0.2 person-rem⁽⁴⁾

- (1) Data from NUREG/CR-2907, "Radiation Material Release From Nuclear Power Plants." The 1971-74 period represents Millstone 1 alone; 1975-81 represents Millstone 1 and 2 (Unit 3 did not begin operation until 1986).
- (2) Data for 1971-74 resulted from special evaluations performed during September 1990 by the cognizant NRC contractor (Pacific Northwest Laboratory) using the same methods as the 1975-81 evaluation.
- (3) Data for 1975-81 were taken from NUREG/CR-2850, "Population Dose Commitments Due to Radioactive Releases from Nuclear Power Plant Sites."
- (4) Special evaluation by Pacific Northwest Laboratory for the 1971-81 time period.