

NORTHEAST UTILITIES



ENCLOSURE 1

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May 13, 1982

Docket Nos. 50-245
50-336
B10511

Mr. Richard C. DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

- References: (1) W. G. Council letter to H. R. Denton, dated December 31, 1979.
(2) W. G. Council letter to D. G. Eisenhower, dated April 16, 1982.

Gentlemen:

Millstone Nuclear Power Station, Units 1 and 2
Report of Substantial Safety Hazard

In conformance with applicable provisions and requirements of 10CFR21, Northeast Nuclear Energy Company hereby provides notification of a Substantial Safety Hazard (SSH) for Millstone Units 1 and 2.

At approximately 11:35 a.m., May 10, 1982, the Region I Office was notified by telephone of the unacceptability of the two radioactive gas monitors procured and installed as required in Sections II.F.1.1 and II.F.1.2 of NUREG-0737, Clarification of TMI Action Plan Requirements. These monitors are to provide radioactive effluent gas monitoring during post-accident conditions.

It has been determined by NNECO personnel that the count rates indicated by the monitors, as they were received from the supplier, are extremely sensitive to gamma energy. Therefore, they cannot be calibrated over the range of gamma energies expected from the mixture of radioactive gases released during post-accident conditions. This will preclude the determination of specific activities of such radioactive gases. Therefore, the monitors are not in conformance with their intended purpose.

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The monitor count rate in response to a high-energy gamma (Kr 88) is several orders of magnitude greater than that observed from a low-energy gamma (Xe-133), for equal specific activities (see attached response curves). The use of these monitors would provide grossly inflated gaseous effluent measurements. Therefore, they would not provide quantification, nor even reasonable estimates, of effluents. Use of the measured data could result in public evacuations, with the attendant hazards of unnecessary evacuations.

The following information applicable to this Substantial Safety Hazard is provided as required by 10CFR21.21(3), i through viii.

(i) Name and Address of Individual Informing the Commission

William G. Council, Senior Vice President, Nuclear Engineering and Operations, Northeast Utilities Service Company, P. O. Box 270, Hartford, Connecticut 06101.

(ii) Identification of the Basic Component, and

(iii) Identification of the Firm Supplying the Basic Component

Kaman Instrumentation, P. O. Box 7463, Colorado Springs, Colorado, 80933-7463; is the supplier of the KMG-HRH High Range Gas Monitor.

(iv) Nature of the Failure to Comply

(See discussion above).

(v) Date on Which the Information of Such Failure to Comply Was Obtained

Northeast Utilities Service Company (as agent for NNECO) received the Final Calibration Report from the supplier, dated April 16, 1982. A study of the report subsequently revealed the inability of the monitors to conform to the requirements of NUREG-0737, leading to the initiation of a Substantial Safety Hazard Evaluation.

(vi) The Number and Location of All Such Monitors in Use, Supplied, or Being Supplied

Two monitors have been delivered and installed, but not yet put into service; one at Millstone Unit 1 and one at Millstone Unit 2. Two additional monitors have been ordered, but not yet delivered or accepted, for installation into Millstone Unit 3. Northeast Nuclear Energy Company has no information regarding the use of this monitor by other licensees.

(vii) Corrective Action, Organization Responsible, and Time to Complete Action

The supplier intends to design a modification that would bring the monitors into compliance with NUREG-0737. The failure to successfully bring the monitor into compliance may require a redesign of the existing monitors. Northeast Nuclear Energy Company is unable at this time to provide dates for completion of the modifications or for the installation of conforming monitors. Northeast Nuclear Energy Company will inform the Commission by August 1, 1982 of the status of these efforts and of appropriate schedules.

(viii) Advice Related to the Failure to Comply Being Given to the Licensee

Not applicable. Refers to supplier.

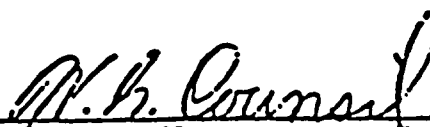
The existing procedures for monitoring and quantifying high-level radioactive gaseous releases, as docketed in References (1) and (2), will remain in effect until these or alternate monitors are declared operational.

With the docketing of this information, NNECO hereby amends the schedule for completion of Items II.F.1.1 and II.F.1.2 of NUREG-0737 as previously provided in Reference (2).

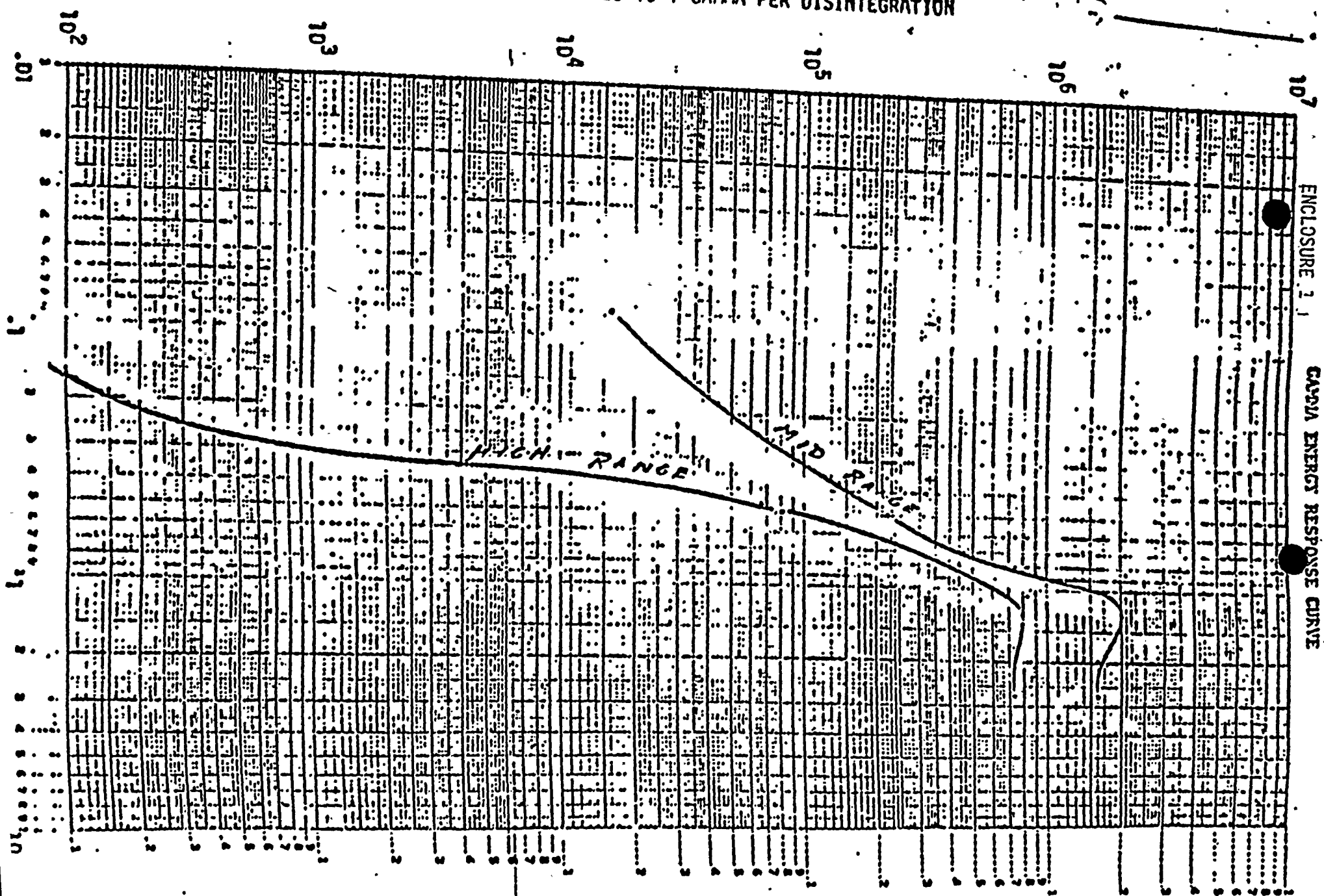
We trust this information is complete as required under 10CFR21. Please contact Mr. Richard T. Laudenat, Manager, Generation Facilities Licensing, of my staff, if you need additional information.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY


W. G. Council
Senior Vice President

CPM/ μ Ci/cm³ NORMALIZED TO 1 GAMMA PER DISINTEGRATION



ENCLOSURE 2.1
GAMMA ENERGY RESPONSE CURVE

