

NORTHEAST UTILITIES



NORTHEAST UTILITIES AND POWER COMPANY
OF HARTFORD, CONNECTICUT
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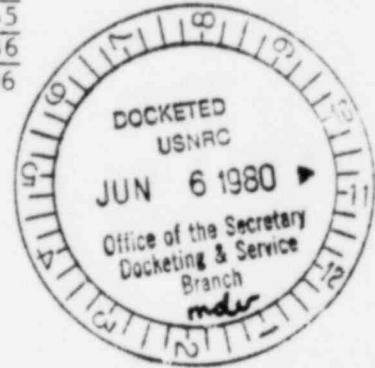
P.O. BOX 270
HARTFORD, CONNECTICUT 06101
(203) 666-6911

May 29, 1980

Docket Nos. 50-213
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PROPOSED RULE **PR-20** ①
(45 FR 26072)

Secretary of the Commission
Attn: Docketing and Service Branch
U. S. Nuclear Regulatory Commission
Washington, DC 20555



Gentlemen:

As requested in the Federal Register, Volume 45 No. 76, April 17, 1980, page 26072, Northeast Nuclear Energy Company (NNECO) and Connecticut Yankee Atomic Power Company (CYAPCO) are pleased to submit comments on the proposed amendment to 10CFR Part 20 concerning the incorporation of the Environmental Protection Agency's, "Environmental Radiation Protection Standards for Nuclear Power Operators" (40CFR190).

In particular, the comments are addressed to the proposed paragraph 20.405(c) which in part states:

"...each licensee shall make a report in writing within 30 days to the appropriate NRC Regional Office...of levels of radiation or releases of radioactive material in excess of limits specified by 40CFR Part 190..."

NNECO and CYAPCO have two concerns with the 30 day reporting requirement. The first concern is that the requirement is ambiguous; it may be interpreted in any one of the following manners:

1. 30 days from the exact date the dose exceeded the limits, or
2. 30 days from the end of the month during which the dose limit was exceeded (since NUREG's 0472 and 0473 require dose calculations to be performed on a monthly basis) or
3. 30 days from the date the calculations were performed which indicated that the limit had been exceeded.

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The second concern is that if the intended interpretation is as in numbers 1 or 2 above, then the allotted response time is not sufficient to provide a complete and more accurate report. The reasons for this are as follows:

1. Calculations of offsite dose are performed on a monthly basis. Development of NUREG's 0472 and 0473 have determined that this frequency is adequate. The calculations would be performed at the end of each month, but not until all samples for the month were analyzed and the curie totals compiled. This would typically be about 7-10 days into the next month. Thus, it is evident that interpretation number 1 above is impractical. For example, if the dose limit had been exceeded on the fourth day of month 1, and was not identified until the ninth day of month 2, the 30 day report requirement would have already been exceeded.
2. The calculations performed at the end of each month are for the most part simplified calculations in order to provide a timely estimate of the dose. Per the guidance of NUREG-0133, they are based on historic, and usually conservative, meteorology. They are often based on conservative assumptions as to dose conversion factors based on historic nuclide mixtures. These simplified calculations provide a good estimate of the upper bounds of the monthly and annual doses, and hence provide an indication as to whether or not the facility is operating within its design objectives. However, they should not form the basis for an official written 30 day report to the Commission. Because they estimate upper bound rather than actual doses, this practice could result in a number of unnecessary reports being submitted and also a number of updated reports negating the results of the original submittal.

The required reports to the Commission should be based on more detailed, and hence more accurate calculations, which use the actual meteorology and nuclide mixtures observed during the period of release. In order to perform these calculations, the following information should be available:

- a. Meteorology - Meteorological data which was not available during the month to the computer acquisition system must be entered into the system by readout of paper tapes or analysis of strip charts. The monthly data must then be edited to correct for periods when instruments were being calibrated or malfunctioning. Joint frequency tables must then be generated and analyzed for accuracy. The joint frequency tables must then be used to calculate X/Q's and D/Q's. This entire process typically takes from 20 to 30 days after the end of the month.

- b. Curies Released For Each Radionuclide - For most nuclides, curie totals are available within 10 days. However, for certain nuclides such as H-3, Sr-89, Sr-90, Fe-55, P-32, Ni-63, and C-14, samples are typically sent to contracted radiochemical laboratories for analysis. The results are usually not available for 10-40 days, depending on the type of analysis (e.g., Sr-90 analysis requires a long time as one must wait for the in-growth of Y-90). To be ensured of an accurate dose assessment, the actual release values for these nuclides should be used, and not estimates based on historical data.

Then, meteorological data which may not be available for 30 days from the end of the month, must be combined with isotopic release data (which may not be available for 40 days from the end of the month) in order to calculate the offsite doses. This dose calculation typically takes a few days. Thus, it would be impractical to interpret the reporting requirement as 30 days from the end of the month in which the dose was exceeded, since a complete and accurate assessment may not be available until well after that time.

3. The dose contribution from other uranium fuel cycle facilities which may add to the maximum individual dose at the facility in question, may not be available within 30 days.

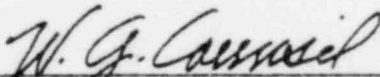
It is therefore recommended that Paragraph 20.405(c) be revised to read:

"...each licensee shall make a report in writing within 60 days following the month during which levels of radiation or releases of radioactive material were in excess of limits specified by 40CFR190... The report should be submitted to the appropriate NRC Regional Office..."

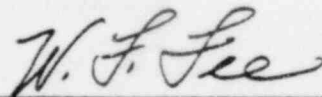
It is NNECO and CYAPCO's feeling that this revised time requirement would provide for more complete and accurate reports, and would not jeopardize the health and safety of the public in that if releases of any significant offsite dose consequences were to occur they would be detected early and reported in a more timely manner as required by other limits and reporting requirements in 10CFR20 or the Technical Specifications.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Vice President

By: 

W. F. Fee
Vice President