

NORTHEAST UTILITIES

THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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June 29, 1984

Docket No. 50-423
B11254

Director of Nuclear Reactor Regulation
Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

- Reference:
- (1) W. G. Council letter to B. J. Youngblood, Submittal of Responses to Draft SER Open Items, dated April 12, 1984.
 - (2) W. G. Council to B. J. Youngblood, Submittal of Revised Responses to Effluent Treatment System Open Items, dated June 19, 1984.
 - (3) B. J. Youngblood letter to W. G. Council, Draft SER for Millstone Nuclear Power Station, Unit No. 3, dated December 20, 1983.

Dear Mr. Youngblood:

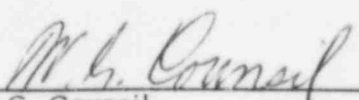
Millstone Nuclear Power Station, Unit No. 3
Submittal of
Revised Response to Effluent Treatment System Open Item

References (1) and (2) responded to Effluent Treatment System open items identified in Reference (3). As a result of further discussions with the NRC, we are providing a revision to ETSB 1.9(2) on the Mechanical Vacuum Pump in Attachment 1.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY
et. al.

BY NORTHEAST NUCLEAR ENERGY COMPANY
Their Agent



W. G. Council
Senior Vice President

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STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

June 29, 1984

Then personally appeared before me W. G. Counsil, who being duly sworn, did state that he is Senior Vice President of Northeast Nuclear Energy Company, an Applicant herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Applicants herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.

S. M. Bates
Notary Public

My Commission Expires March 31, 1986

Attachment 1

ETSB 1.9(2)

Mechanical Vacuum Pump Discharges (Originally made a Licensing Condition)

The air and noncondensable gases removed by air removal mechanical vacuum pumps are directly discharged to the atmosphere through a vent stack on the condensate polishing enclosure roof of Warehouse No. 5 without being monitored for radioactivity. This discharge is a potential pathway for release of radioactivity and does not meet the requirements of GDC 64 for monitoring releases of radioactive materials in effluents.

It is the staff's position that the release of the gaseous effluent during hogging operations must be monitored as noted in Table 1 of SRP Section 11.5. Therefore, the staff will make it a license condition that no discharges may occur from the mechanical vacuum pumps unless the effluent is monitored.

Response

Due to the inconsequential nature of the releases from the mechanical vacuum pump, and the discussion provided below, this item should not be made a licensing condition.

As stated above, SRP Section 11.5 requires monitoring of releases from PWR Mechanical Vacuum Pumps. Millstone Unit 3 intends to comply with this requirement by providing indirect monitoring and direct sampling of this pathway as follows:

1. For noble gas activity, the condenser air ejector monitor provides direct monitoring of radioactivity concentration in the main condenser while the air ejector is in service. Since the air ejector would be in service prior to any shutdown the air ejector monitor reading can be used to calculate the activity concentration in the main condenser during start-up operations with the Mechanical Vacuum Pump. Total activity released could then be determined by multiplying by the appropriate flows. The methodology for accounting for the noble gas activity released via the Mechanical Vacuum Pump will be specified in the Off-Site Dose Calculation Manual (ODCM).
2. For iodine and particulate activity, it is difficult to ratio the activity to other sampled pathways due to the uncertainty of models to predict the amount of iodine which would come out of solution from the hotwell water while drawing a vacuum. Hence, Millstone Unit 3 will commit to sampling this pathway. Requirements will be specified in the Radiological Effluent Technical Specifications to continuously sample the Mechanical Vacuum Pump Exhaust for iodines and particulates during system operation whenever the secondary side activity exceeds minimum detectable levels.

The above position can be further justified by the fact that condenser air ejector releases and Mechanical Vacuum Pump releases are from the same source, the main condenser.

Hence, by comparing expected concentrations and integrated flows, one can conclude that Mechanical Vacuum Pump releases will be a small percent (less

than 1%) of air ejector releases. Additionally, these are secondary side releases which are expected to be a small fraction of primary side releases. Therefore, Mechanical Vacuum Pump releases will never be a significant contributor to station releases or off-site doses. The significant cost required to independently monitor this pathway can not be justified. Indirect monitoring is considered adequate.