

October 4, 1996

D10309

Ms. Michelle DiNoia
Bureau of Water Management
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Reference: Letter (D10112), D. B. Miller, Jr. to M. DiNoia, dated August 21, 1996.

Dear Ms. DiNoia:

Millstone Station
Request for Hydrazine, Ethanolamine and Boron Analysis Procedure Approval

Enclosed are the hydrazine and ethanolamine (ETA) procedures for Millstone Station, as discussed in the Referenced letter. Also attached are two procedures used for analysis of boron at Millstone Station. No pre-approved Environmental Protection Agency (EPA) methods exist for hydrazine or ETA. We are submitting these procedures for approval by the Commissioner of the Department of Environmental Protection (DEP). Pursuant to RCSA Section 22a-430-3(7) and 40 CFR Section 136.4 this should be submitted by DEP to John DeVillars, Regional Administrator, Region 1, for EPA's review and approval. Attachment A provides the number and description of the procedures used at each of the units.

Please note that we have submitted three procedures for the analysis of hydrazine. The titration method is applicable for samples expected to contain higher hydrazine levels (>1000 ppb) while the spectrophotometric method is appropriate for samples expected to contain low levels (< 1000 ppb). The spectrophotometric method can be used on samples expected to contain > 1000 ppb hydrazine provided that sample dilution is performed prior to analysis; however, this step can reduce accuracy and sample processing efficiency. The ion chromatographic method measures low level concentrations of hydrazine, while simultaneously providing the ETA concentrations required under our existing permit.

We are requesting approval of all three hydrazine methods. This will enable us to use the most appropriate method for expected hydrazine concentrations, permit limitations and potential for interferences in the sample.

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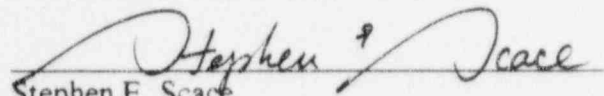
In most cases, the low range spectrophotometric or ion chromatographic methods will be used to determine hydrazine levels in process equipment and for environmental samples where concentrations below 1000 ppb might be anticipated. The high range titration method will be used to process samples where high levels of hydrazine might be expected (i.e., steam generator layup discharges).

Similarly, we are submitting two procedures for boron for your approval; one utilizes a titration method while the second is an inductively coupled plasma emission spectrophotometric method. The two procedures provide flexibility to analyze the various process streams at Millstone.

Should you have any questions or comments regarding this information, please call Paul Jacobson at (860) 665-3617.

Very truly yours,

Northeast Nuclear Energy Company



Stephen E. Scace

Acting Director, Nuclear Engineering Programs

cc: Mr. Michael J. Harder, Director
Water Management Bureau, PERD
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

NRC Document Control Desk

Attachment

ATTACHMENT A

The following procedures and methods are attached.

<u>Procedure Number</u>	<u>Description</u>
CP 807/2807/3807AR	Hydrazine analysis using titration
CP 807/2807/3807AP	Hydrazine analysis using spectrophotometer
CP 801/2801/3801Y	Analysis procedure for ion chromatography
"Cation 1"	Ethanolamine analysis using ion chromatography
ETAMET	Ethanolamine analysis using ion chromatography
"Cation 5"	Hydrazine analysis using ion chromatography
CP 807/2807/3807AA	Boron analysis using autotitrator procedure
CP 801/2801/3801AJ	Boron analysis using inductively coupled plasma emission spectrophotometer