Northeast
Nuclear Energy

Rope Ferry Rd. (Route 156), Waterford, CT 06385

Millstone Nuclear Power Station
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385-0128
(860) 447-1791
Fax (860) 444-4277

The Northeast Utilities System

SEP - 5 1997

Docket No. 50-423
B16678

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Millstone Nuclear Power Station Unit No. 3
Revised Response to NRC Question Q420.5

Attachment 1 provides Northeast Nuclear Energy Company's (NNECO's) response (in part) of May 1984 and its revised response (in part) to NRC Question Q420.5, regarding control system failure concerns discussed in the Millstone Unit 3 Final Safety Analysis Report (MNPS-3 FSAR). Attachment 2 lists NNECO's commitments associated with this submittal.

If the NRC Staff should have any additional questions or comments regarding this submittal, please contact Mr. D. A. Smith at (860) 437-5840.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

M. H. Brothers
Vice President - Millstone Unit No. 3

Subscribed and sworn to before me

this 5th day of September, 1997

Notary Public

Date Commission expires 12/31/01

A001

cc: H. J. Miller, Region I Administrator
W.D. Travers, PhD., Director, Special Projects Office
J. W. Andersen, NRC Project Manager, Millstone Unit No. 3
A. C. Cerne, Senior Resident Inspector Millstone Unit No. 3

Docket No. 50-423
B16678

Attachment 1

Millstone Nuclear Power Station, Unit No. 3

NNECO's Response (in part) of May 1984 and
Revised Response (in part) to NRC Question Q420.5

September 1997

NNECO's Response in May 1984 and
Its Revised Response to NRC Question Q420.5

(Reference MNPS-3 FSAR Section 7.7)

**NNECO Response dated May 1984**

In our May 1984 response to Question Q420.5, regarding Control System Failure concerns as related to the reactor coolant system and the pressurizer, we stated (in part): ... "In addition, prior to startup, and during any shutdown as well, it is routine maintenance and servicing practice for instrument lines to be blown down to a canister. Since the buildup of sludge is a slow process, any buildup would be detected during response time testing done during shutdown. Therefore, the hypothesis of the presence of a complete blockage of the sensor tap is not sufficiently credible to warrant its consideration as a design basis."

**Discussion**

Blowdown of instrument lines is an unacceptable practice as it may draw contaminates into the instrument sensing lines and valve manifold, which could result in increased radiation fields and personnel exposures. Instead, we backfill these lines with clean demineralized water.

We determine buildup of sludge in instrument lines by using the channel checks of the pressurizer level channels as a method to detect significant error, which would be indicative of line blockage. Since the Pressurizer pressure transmitters are connected to the same instrument taps as the level transmitters, it is expected that sludge buildup resulting in blockage of the sensing line would introduce significant error into one or more of the pressurizer level channels. This error would be evident as a difference between redundant channels of pressurizer level during required channel checks.

**NNECO Revised Response**

Our revised response (in part) to this question, which replaces our May 1984 response (in part), is as follows: ... "Millstone Unit 3 uses a practice of backfilling instrument sensing lines with clean demineralized water. Blockage of these lines would be evident and detected as error during channel checks of the pressurizer level channels. Therefore, the hypothesis of the presence of a complete blockage of the sensor tap is not sufficiently credible to warrant its consideration as a design basis."

Docket No. 50-423
B16678

Attachment 2

Millstone Nuclear Power Station, Unit No. 3

NNECO's Commitments Regarding
Revised Response (in part) to NRC Question Q420.5

September 1997

List of Regulatory Commitments

The following table identifies those actions committed to by NNECO in this document. Please notify the Manager - Nuclear Licensing at the Millstone Nuclear Power Station Unit No. 3 of any questions regarding this document or any associated regulatory commitments.

| Number | Commitment | Due |
|---|---|---|
| | None identified | |