

**NORTHEAST UTILITIES**

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

General Offices • Selden Street, Berlin, Connecticut

P.O. BOX 270  
HARTFORD, CONNECTICUT 06141-0270  
(203) 665-5000

March 2, 1988

Docket No. 50-423  
B12836

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Reference: (1) E. J. Mroczka letter to U.S. Nuclear Regulatory Commission, Physics Methodology for PWR Reload Design, dated November 13, 1987.

Gentlemen:

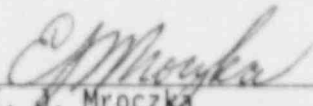
Millstone Nuclear Power Station, Unit No. 3  
Physics Methodology for PWR Reload Design (TAC #66693)

In Reference (1), Northeast Utilities Service Company (NUSCO), on behalf of Northeast Nuclear Energy Company (NNECO), submitted an addendum to a topical report (NUSCO-152) demonstrating NUSCO's ability to perform pressurized water reactor reload physics design using the Westinghouse physics methodology. This addendum summarizes the comparison of zero power physics test data and at power measurements to predictions for Cycle 1 of Millstone Unit No. 3. The attached additional information concerning measured critical boron concentration for Millstone Unit No. 3 (Table 3.5 A) is being sent in response to an NRC request made during a telephone conference between the NRC and the NNECO representative on February 18, 1987.

We believe the information in Attachment 1, coupled with the information provided in Reference (1), provides a complete basis for approval of the addendum to NUSCO-152. Of course, should the Staff have any additional questions, we are available to discuss the Staff concerns.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
E. J. Mroczka  
Senior Vice President

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cc: W. T. Russell, Region I Administrator  
R. L. Ferguson, NRC Project Manager, Millstone Unit No. 3  
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

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Attachment 1  
Additional Information - NUSCO-152

March, 1988

TABLE 3.5A

## MILLSTONE 3, CYCLE 1, MEASURED CRITICAL BORON AT HFP

Burnup (MWD/MTU)	Boron (PPM)	Burnup (MWD/MTU)	Boron (PPM)	Burnup (MWD/MTU)	Boron (PPM)
780	1081	7224	855	12566	464
974	1081	7377	854	12897	443
1279	1090	7759	833	13012	436
1973	1077	7988	811	13240	407
2393	1072	8179	793	13393	402
2774	1065	8370	789	13840	367
3003	1064	8599	769	13993	350
3193	1059	8791	753	14180	338
3385	1052	8982	746	14410	316
3576	1042	9211	738	14601	299
3805	1037	9402	729	14793	282
3958	1029	9779	702	15022	262
4289	1008	10007	690	15214	254
4594	983	10198	675	15480	232
4964	961	10390	659	15671	215
5198	952	10619	643	15901	197
5389	952	10811	629	16092	182
5732	929	11002	614	16245	165
5961	919	11193	595	16513	148
6191	907	11476	570	16704	130
6420	897	11648	555	16895	113
6689	881	11996	521	17087	94
6957	866	12187	488	17240	86
				17557	55