

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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January 25, 1990

Docket Nos. 50-213

50-336

50-423

A08383

Re: NRC Bulletin No. 89-03

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

Reference: (1) C. E. Rossi Letter to Licensees, NRC Bulletin 89-03,
"Potential Loss of Required Shutdown Margin During
Refueling Operations".

Gentlemen:

Haddam Neck Plant
Millstone Nuclear Power Station, Unit Nos. 2 and 3
NRC Bulletin No. 89-03

Potential Loss of Required Shutdown Margin During Refueling Operations

Reference (1) describes incidents where, during refueling operations, fuel assemblies were temporarily placed in positions, other than the final position, without prior determination of the effect of such positioning on shutdown margin. Reference (1) also describes actions to be taken to prevent such incidents. Therefore, pursuant to 10CFR50.54(f), those actions and our responses follow.

Requested Actions:

1. Assure that any intermediate fuel assembly configuration (including control rods) intended to be used during refueling is identified and evaluated to maintain sufficient refueling boron concentration to result in a minimum shutdown margin of approximately 5%.

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2. Assure that fuel loading procedures only allow those intermediate fuel assembly configurations that do not violate the allowable shutdown margin and that these procedures are strictly adhered to.
3. Assure that the staff responsible for refueling operations is trained in the procedures recommended in Item 2 above and understand the potential consequences of violating these procedures. This training should include the fundamental aspects of criticality control with higher enriched fuel assemblies.

Haddam Neck Plant:

A Westinghouse transmittal entitled "Core Loading Guidelines" was provided to the Haddam Neck Plant (HNP). The guideline contains specific precautions to prevent placement of fresh, higher enriched fuel assemblies together in an interim loading configuration and was incorporated into the HNP procedure, "Refueling Operations". This procedure is utilized as the overall control procedure for fuel movement and the revised procedure is in place for the current reload. All appropriate personnel are trained in this procedure.

Millstone Unit No. 2:

NNECO will submit a request to Advanced Nuclear Fuels, Inc. to provide a "Fuel Assembly Storage Table". This table (or similar document) will provide alternate storage locations where fuel assemblies can be temporarily placed during core alterations. Implementation into core shuffle/offload planning will commence with the end of cycle 10 refuel outage (August 1990).

To ensure against the potential loss of shutdown margin during core alterations, Millstone Unit No. 2 will revise applicable procedures to include necessary information and guidance. The applicable procedure(s) will require use of the appropriate reload "Fuel Assembly Storage Table" (or similar document) during fuel offload/shuffle planning and execution. Procedures will be revised prior to the next refuel outage, and all appropriate personnel will be trained in these procedures.

Millstone Unit No. 3:

A Westinghouse transmittal entitled "Core Loading Guidelines" was provided to Millstone Unit No. 3. The guideline contains specific precautions to prevent placement of fresh, higher enriched fuel assemblies together in an interim loading configuration and was incorporated into a Millstone procedure. This procedure is utilized as the overall control procedure for fuel movement and the revised procedure was in place for the Cycle 3 reload. All appropriate personnel are trained in this procedure.

If there are any questions, please do not hesitate to contact my staff directly.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

FOR: E. J. Mroczka
Senior Vice President

BY: *C. F. Sears*
Vice President

cc: W. T. Russell, Region I Administrator
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2
D. H. Jaffe, NRC Project Manager, Millstone Unit No. 3
A. B. Wang, NRC Project Manager, Haddam Neck Plant
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
J. T. Shedlosky, Senior Resident Inspector, Haddam Neck Plant

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

Then personally appeared before me, C. F. Sears, who being duly sworn, did state that he is Vice President of Connecticut Yankee Atomic Power Company and Northeast Nuclear Energy Company, Licensees herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Licensees herein, and that the statements contained in said information are true and correct to the best of his knowledge and belief.

Lynn M. Sheridan
Notary Public

NRC CORRESPONDENCE SIGN-OFF AND DISTRIBUTION

SUBJECT

NRC Bulletin 89-03

POTENTIAL LOSS OF REQUIRED SHUTDOWN
MANUINS DURING REFUELING OPERATIONS

COTRAP
LETTER #

A08383

DATE OF
LETTER:

1/17/90

PROJECT: CY MP1 MP2 MP3 ISAP GEN

PLEASE HAND CARRY TO NEXT PERSON FOR SIGNATURE
OR CALL ONE OF THE FOLLOWING EXT. NUMBERS FOR PICKUP: 5296, 5274, or 3056

FUNCTION/TITLE	PERSON	ROOM/ LOCATION	SIGNATURE	EXT.	DATE	COMMENTS
LICENSING / COORDINATOR	M.F. Martin	W221	[Signature]	3744	1/5/90	
NUCLEAR OPERATIONS	W. O. Robinson	W203	[Signature]		1/16/90	5/1/90 add when the done
UNIT SUPT/SUPR	G. H. Bevilacqua	CY	[Signature]		1/11/90	
UNIT SUPT/SUPR	J. S. Keenan	MP2	[Signature]		1/6/90	
UNIT SUPT/SUPR	G. H. Clement	MP3	[Signature]		1/1/90	
GEN MECH SYS ENG	SE. SCACE	MPS	[Signature]		1-24-90	
GEN PIP SYS ENG						
GEN ELEC ENG						
GEN CIVIL ENG						
REACTOR ENGINEERING	J. Guone / M. Hill	W218	[Signature]		1/24/90	
RAD ASSESSMENT / ALARA						
ENVIRO PROGRAMS						
NEO SERVICE						
PROJECT MANAGEMENT						
LEGAL						
ISAP LEAD GFL	S. Datas	W218	S. Datas	5674	1-23-90	
PROOF-READER	L. M. Brumowski	W218	[Signature]	3741	1/25/90	
GENERATION FACILITIES LICENSING (LAST)	G. V. N. / PAB	W218	[Signature]	3288	1/29/90	

1 ORIGINAL AND 0 COPIES

NOTARY REQUIRED: YES / NO

AIRBORNE:

YES / NO

LICENSE FEE REQUIRED: YES / NO

ATTACHMENTS: YES / NO

TO:

TELECOPY TO NRC: YES / NO

TO:

A RESPONSE TO AN NRC 10CFR2 - SUBPART B ACTION. POSTING IS REQUIRED WITHIN 2 DAYS OF
ISSUANCE. YES/NO