

# NORTHEAST UTILITIES



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

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June 24, 1985

Docket No. 50-423  
B11580

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

Dear Mr. Youngblood:

Millstone Nuclear Power Station, Unit No. 3  
Safety Evaluation Report Open Items  
Shift Technical Advisor and Hot Participation Experience

There are two remaining NRC Licensee Qualification Branch open items discussed in Section 13 of the Safety Evaluation Report for Millstone Unit No. 3: (1) Shift Technical Advisor and (2) Hot Participation Experience. The purpose of this letter is to provide you with additional information on these two items, including our current position for Millstone Unit No. 3. Each of these items is discussed in detail below.

### SHIFT TECHNICAL ADVISOR (STA)

#### Background

In December, 1980,<sup>(1)</sup> in response to NUREG-0737, Item I.A.1.1, we provided the NRC with a description of our long-term STA program administered by Memphis State University (MSU). This program was structured to meet the INPO guidelines on STA, and its intent was to upgrade the qualifications and training of onshift SROs, providing for the eventual phase out of the dedicated STA function. In November, 1983,<sup>(2)</sup> we informed you of our decision to transfer from the MSU program to a STA program administered by Thames Valley State Technical College (TVSTC), a local state technical college providing a newly designed associate's degree program in nuclear science technology. Northeast Utilities and TVSTC jointly developed the curriculum and received formal licensure for the program from the State of Connecticut.

It is our belief that a licensed SRO who completed either program is qualified to function as both the STA and as one of the SROs on shift (hereafter referred to as the "dual role"). In addition, it has always been and remains our position that

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- (1) W. G. Council letter to D. G. Eisenhut, dated December 31, 1980.  
(2) W. G. Council letter to D. G. Eisenhut, dated November 18, 1983.

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the dual SRO/STA role is an acceptable option and fully meets the intent of the NRC's long-term STA program, as originally stated in NUREG-0737, Item I.A.1.1. However, to this date, the NRC has not given formal approval for the use of this dual role.

In July 1983,<sup>(3)</sup> the NRC published a draft Policy Statement regarding engineering expertise on shift which would allow the dual role to be used, provided that certain qualification requirements (i.e., bachelor's degree) are met. We are aware that the Commission is presently considering a final version of this Policy Statement (SECY-85-150). Until this final Policy Statement is approved, your Staff has indicated that this item will remain open for Millstone Unit No. 3.

#### Current Position

Millstone Unit No. 3 will be operated utilizing the SRO/STA dual role in accordance with the plant Technical Specifications. Six of our eight current shift supervisors (SS) hold bachelor's degrees in engineering or an applied science. The two additional SS have completed degree equivalence through the STA program. In addition, five of our six current supervising control operators (SCO) have completed the STA training, while the remaining SCO holds an associate's degree. Two of the fourteen control operators have also completed the STA training. As you can see, the majority of the current Millstone Unit No. 3 proposed licensed staff is STA qualified which provides for a sufficient pool of STA qualified individuals on shift at the time of startup for Millstone Unit No. 3 and into the future.

#### HOT PARTICIPATION EXPERIENCE

##### Background

On January 26, 1984, a meeting was held between the NRC and representatives from utilities holding active applications for operating licenses and full power authorizations. The purpose of this meeting was to inform the utilities of NRC concerns related to limited operating experience of operating crews and to discuss the development of an acceptable experience profile for new plants. As a result of the meeting, an industry working group was formed whose purpose was to develop a proposal for an acceptable experience profile for new plants. In February, 1984, this industry working group presented proposed operating experience guidelines to the Commissioners which were subsequently endorsed by the NRC Staff in Generic Letter 84-16.

These operating experience guidelines include hot participation experience guidelines to ensure that the SROs on shift have had some previous commercial operating plant experience. These hot participation experience guidelines require that:

- o Both SROs on each shift have at least 6 weeks of hot operating experience at a large, same-type plant<sup>(4)</sup> at greater than 20% power.

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(3) Nuclear Regulatory Commission, Federal Register (48FR33781), dated July 25, 1983.

(4) For Millstone Unit No. 3, defined as any commercial PWR.

- o The SS must have participated in a least 1 startup and shutdown at a same-type plant.
- o One SRO on each shift must have at least 6 months of on-shift hot operating experience at a large, same-type plant.

Since we do not meet the specific hot participation experience guidelines defined in Generic Letter 84-16 for Millstone Unit No. 3, this remains an open item with your Staff.

Current Position

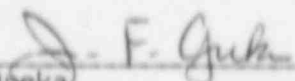
It is our position that although we do not meet the specific hot participation experience guidelines for all shifts, we do meet their intent. For those shifts which do not meet the specific guidelines, we have equivalent hot operating experience (i.e., BWR operating experience and nuclear Navy experience). A detailed breakdown by shift of the commercial reactor and nuclear Navy experience levels of our operators is provided in the attachment to this letter. The attachment reflects one possible configuration for each of our six proposed shifts, however, there are numerous other possible configurations which would assure adequate hot participation experience levels within each shift.

In addition to the extensive nuclear Navy experience and commercial reactor experience, all of our operators have been on shift participating in the Millstone Unit No. 3 startup program since September, 1983. By September, 1985, the majority of our operators will have at least 3 years experience on Millstone Unit No. 3. Taking them off shift during these critical phases of startup for observation training in order to meet these guidelines is incongruous with the overall intent of the guidelines in that the plant-specific training received during startup far exceeds any training benefit they would receive on another plant. All of our operators have also received or are in the process of receiving 5 weeks of Millstone Unit No. 3 specific simulator training which includes 125 hours of actual simulator experience. All of these factors contribute to the overall ample experience levels of our operators.

It is requested that the NRC look at the specific aggregate experience levels of our operators (commercial experience, nuclear Navy experience, simulator training, and startup experience). Our program for staffing Millstone Unit No. 3 was established long before the development of these guidelines and we believe that our program is more than acceptable and exceeds the intent of Generic Letter 84-16. Our decision to provide an appropriate alternative to the industry working group guidelines and to not use Shift Advisors reflects our maturity as a nuclear utility who has successfully started up and operated three other nuclear units and who has integrated this experience in staffing Millstone Unit No. 3.

We are interested in resolving these two open items for Millstone Unit No. 3 as soon as possible. We are available to further discuss any concerns you may have on our positions presented above.

Very truly yours,

  
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J. F. Opeka  
Senior Vice President

cc: Dr. Thomas E. Murley  
Regional Administrator  
Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

## ATTACHMENT

## MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

## PROPOSED OPERATING SHIFTS - QUALIFICATIONS AND EXPERIENCE LEVELS (In Months)

	DEGREE - FIELD	COMMERCIAL OPERATING EXPERIENCE (LICENSED)	TOTAL COMM. OPERATING EXPERIENCE (LICENSED AND NONLICENSED)	NUCLEAR NAVY EXPERIENCE (HIGHEST QUAL.)	TOTAL NUCLEAR EXPERIENCE (NOTE 2)	LICENSE APPLIED FOR
<b>SHIFT A</b>						
Shift Supervisor	(NOTE 1)	141(PWR)	183	77(E0)	260	SRO
Supervising Control Operator	(NOTE 1)	15(BWR)	29	78(EMS)	107	SRO
Control Operator	--	0	8	72(EMS)	80	SRO
Control Operator	--	0	23	69(E0)	92	RO
Plant Equipment Operator	--	0	4	72(EMS)	76	RO
<b>SHIFT B</b>						
Shift Supervisor	B.S.--MATH (NOTE 1)	0	1	60(ENGINEER)	61	SRO
Supervising Control Operator	(NOTE 1)	79(PWR)	128	53(RO)	181	SRO
Control Operator	A.A.	0	6	123(EMS)	129	SRO
Control Operator	--	0	14	104(ERS)	118	RO
Plant Equipment Operator	--	0	14	72(ERS)	96	RO
<b>SHIFT C</b>						
Shift Supervisor	(NOTE 1)	124(BWR)	134	79(EMS)	213	SRO
Supervising Control Operator	A.A.	9(PWR)	46	184(EMS)	230	SRO
Control Operator	--	0	0	72(EMS)	72	SRO
Control Operator	--	0	3	72(E0/SRO)	75	RO
Control Operator	(NOTE 1)	0	15	176(EMS)	191	SRO
<b>SHIFT D</b>						
Shift Supervisor	B.S.--OCEANOGRAPHY (NOTE 1)	0	1	60(ENGINEER)	61	SRO
Supervising Control Operator	(NOTE 1)	80(PWR)	124	57(ERS)	181	SRO
Control Operator	(NOTE 1)	0	13	227(E00W)	240	SRO
Control Operator	--	C	6	71(RO)	77	SRO
Plant Equipment Operator	--	0	0	144(EMS)	144	RO
<b>SHIFT E</b>						
Shift Supervisor	B.A.--MATH/PHYSICS (NOTE 1)	0	1	92(ENGINEER)	93	SRO
Supervising Control Operator	(NOTE 1)	35(BWR)	94	60(E0/SRO)	154	SRO
Control Operator	--	(NOTE 3)	47	--	47	RO
Control Operator	--	0	4	69(RO)	73	SRO
Plant Equipment Operator	--	0	0	18(NOTE 5)	72	RO

	DEGREE - FIELD	COMMERCIAL OPERATING EXPERIENCE (LICENSED)	TOTAL COMM. OPERATING EXPERIENCE (LICENSED AND NONLICENSED)	NUCLEAR NAVY EXPERIENCE (HIGHEST QUAL.)	TOTAL NUCLEAR EXPERIENCE (NOTE 2)	LICENSE APPLIED FOR
<b>SHIFT F</b>						
Shift Supervisor	M.S.--NUCL ENG (NOTE 1)	0	1	98 (ENGINEER)	99	SRO
Supervising Control Operator	--	15 (BWR)	54	74 (ERS)	128	SRO
Control Operator	--	0	4	61 (EMS)	65	SRO
Control Operator	--	(NOTE 4)	72	72 (ERS)	144	RO
Control Operator	--	0	5	74 (RO)	79	RO
<b>ALTERNATES</b>						
Shift Supervisor	B.S.--MECH ENG	0	1	72 (SS) (NOTE 6)	73	SRO
Shift Supervisor	B.S.--MATHS ENG	0	1	51 (EOWW)	52	SRO
Operations Assistant	B.S.--OCEANOGRAPHY	0	0	66 (ENGINEER)	66	SRO
Operations Assistant	B.S.--CHEMISTRY	0	0	55 (ENGINEER)	55	SRO

**NOTES**

- (1) ENGINEERING DEGREE EQUIVALENCE THROUGH STA PROGRAMS DESCRIBED IN THE W. G. COUNCIL LETTER TO D. G. EISENHUT, DATED NOVEMBER 18, 1983.
- (2) MILLSTONE UNIT NO. 3 EXPERIENCE NOT CREDITED. BY SEPTEMBER 1985, THE MINIMUM UNIT 3 TIME FOR ALL LICENSE CANDIDATES LISTED WILL BE 2 YEARS. THE MAJORITY OF CANDIDATES WILL HAVE GREATER THAN 3 YEARS EXPERIENCE ON MILLSTONE UNIT NO. 3.
- (3) NO LICENSE ON TRANSFER.
- (4) LICENSED PLANT EQUIPMENT OPERATOR.
- (5) LICENSED ON FAST FLUX TEST FACILITY. COMPLETED PLANT EQUIPMENT OPERATOR QUALIFICATIONS ON MILLSTONE UNIT NO. 2.
- (6) COMBUSTION ENGINEERING (S1C)