

NORTHEAST UTILITIES

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

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March 2, 1992

Docket No. 50-336
814034

Re: RG 1.97

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

Gentlemen:

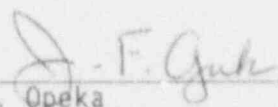
Millstone Nuclear Power Station, Unit No. 2
Compliance With Regulatory Guide 1.97, Revision 2

In a letter dated June 14, 1991,⁽¹⁾ Northeast Nuclear Energy Company committed to provide the U.S. Nuclear Regulatory Commission (NRC) Staff with an updated submittal listing postaccident instrumentation and its status of compliance with Regulatory Guide (RG) 1.97 for Millstone Unit No. 2 by December 15, 1991. Subsequent conversations with the NRC project manager for Millstone Unit No. 2 led to an adjustment in that schedule, as delineated in a December 12, 1991, letter,⁽²⁾ so that the RG 1.97 update could be submitted on or before March 2, 1992. Accordingly, attached is the above-referenced RG 1.97 update.

Please contact us if you have any questions.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



J. F. Opeka
Executive Vice President

cc: T. T. Martin, Region I Administrator
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

(1) E. J. Mroczka letter to U.S. Nuclear Regulatory Commission, "Inspection Report 50-336/91-16, Compliance to Regulatory Guide 1.97," dated June 14, 1991.

(2) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Inspection Report 50-336/91-16, Compliance with Regulatory Guide 1.97, Revision 2," dated December 12, 1991.

1003

Docket No. 50-336
B14034

Attachment

Millstone Nuclear Power Station, Unit No. 2

Compliance of Postaccident Instrumentation With
Regulatory Guide 1.97, Revision 2

March 1992

Regulatory Guide 1.97

Recommended

Status of Compliance

Millstone Unit 2

March 2, 1992

Type No.	Variable	Range	Attributes				Displays		Actual	
			Category	QA	BQ	SQ	REDUNDANT	RWR	CR & Other	Status Reference/Notes
A	PLANT SPECIFIC	PLANT SPECIFIC	1	YES	YES	YES	YES	IE	IND. & REC.	
	1 PRESSURIZER PRESSURE	0-1600 PSIA	1	YES	YES	YES	YES	IE	PI-103, 103-1	C
	LR:P-103*, 103-1*	1500-2500 PSIA							PI-102A, B, C, D	
	HR:P-102A*, B*, C, D								ICC*, ICS	
									OFIS, ERDS	
2	PRESSURIZER PRESSURE (WIDE RANGE)	0 - 3000 PSIG	1	YES	NO	YES	NO	IE	PR-102B-1	C
	P-102B-1								ICS	
3	RCS HOT LEG TEMPERATURE	150 - 750°F	1	YES	YES	YES	YES	IE	TI-111X, TI-121X	C
	T-111X, T-121X								RC101D	
									ICC, ICS	
4	STEAM GENERATOR PRESSURE	0 - 1000 PSIA	1	YES	YES	YES	YES	IE	OFIS, ERDS	
	P-1013A, B, C, D								PI-1013A, B, C, D	C
	P-1023A, B, C, D								PI-1023A, B, C, D	
5	STEAM GENERATOR LEVEL	0-100%	1	YES	YES	YES	YES	IE	LI-1113A, B, C, D	A, P NRC ltr (TAC75776) dated 2/5/91
	TOP OF TUBE BUNDLES TO SEPARATORS								LI-1123A, B, C, D	
	L-1113A, B, C, D								ICS, OFIS, ERDS	
6	CONTAINMENT PRESSURE	0 - 250 PSIA	1	YES	YES	YES	YES	IE	P-823B, 8239	C
	P-823B, 8239								RC-101A, B	
7	HYDROGEN MONITOR	0 - 10%	1	YES	NO	YES	YES	IE	ICS	C
	AE-8152, 8154									
8	REFUELLING WATER STORAGE TANK LEVEL	0 TO 100%	1	YES	NO	YES	YES	IE	LI-3001, 3002, 3003, 3004	A NPC ltr (TAC51107) dated 11/22/89
	L-3001, 3002, 3003, 3004									NRC ltr (TAC75776) dated 2/5/91
B-01	NEUTRON FLUX	10 ⁻⁶ TO 100% FULL	1	YES	YES	YES	YES	IE	IND. & REC.	
	POWER									
	DRWR&RDR	1	YES	YES	YES	YES	YES	IE	WR-LOG-A, B, C, D	C
B-02	NEUTRON FLUX	10 ⁻⁶ TO 150% FP	1	YES	YES	YES	YES	IE	JR-011	
	WR-LOG-A, B, C, D								JT-001, 002, 003, 00	
	M&B								ICS, OFIS, ERDS	
B-02	CONTROL ROD POSITION	10 ⁻⁶ TO 100% FP	3	NO	NO	NO	NO	RELIABLE IND.	ICS, OFIS, ERDS	C
	Reed-Sw (1-69)	FULL IN OR NOT	3	NO	NO	NO	NO	RELIABLE IND.		
	CONTROL ROD POSITION	FULL IN OR NOT	3	NO	NO	NO	NO	RELIABLE IND.		

1. Plus Key:
Abbreviations:

A-Accepted per Reference; P-Pending per Reference; R-Rejected by Reference; C-Compliance with R.G. 1.97; V-Reviewed by NRC
ICC-Inadequate Core Cooling; ICS-Integrated Computer System; OFIS-Offsite Facilities Information System; ERDS-Emergency Response Data System; LR-Low
Range; HR-High Range; WR-Wide Range; MC-Main Control Board

Regulatory Guide 1.97

Status of Compliance

Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes				Displays		Submittal	
			Category	QA	EQ	SQ	REDUNDANT	PWR	CR & Other	Status Reference/Notes
B-03	RCS SOLUBLE BORON CONCENTRATION	0 - 6000 PPM	3	NO	NO	NO	NO	RELIABLE	IND.	
	RCS SOLUBLE BORON CONCENTRATION	0 - 2050 PPM	3	NO	NO	NO	NO	RELIABLE	AR-203 ICS, OFIS, ERDS	A.R. NUREG 0737, 11.B.3 NRC ltr dated 6/14/94 NRC ltr (TAC 3776) dated 2/5/91
	A-203 PASS									
B-04	RCS COLD LEG TEMPERATURE	50° - 400°F	3	NO	NO	NO	NO	REL	IND	
	RCS COLD LEG TEMPERATURE	0° - 750°F	1	YES	YES	YES	YES	IE	TI-115, 125 TR-115, 125 ICC, ICS OFIS, ERDS	A. NRC ltr (TAC 3776) dated 2/5/91
	T-115 & T-125									
B-05	RCS HOT LEG TEMPERATURE	50° - 750°F	1	YES	YES	YES	YES	IE	IND & REC	
	RCS HOT LEG TEMPERATURE	150° - 750°F	1	YES	YES	YES	YES	IE	TI-115, 125 PC-101D, TR-115 ICC, ICS OFIS, ERDS	A. NRC ltr (TAC 3776) dated 2/5/91
	T-115 & T-125									
B-06	RCS COLD LEG TEMPERATURE	50° - 750°F	1	YES	YES	YES	YES	IE	IND & REC	
	RCS COLD LEG TEMP' RATIO	0° - 750°F	1	YES	YES	YES	YES	IE	TI-115, 125 TR-115, 125 ICC, ICS OFIS, ERDS	A. NRC ltr (TAC 3776) dated 2/5/91
	T-115 & T-125									
B-07	RCS PRESSURE	0-4300 PSIG	1	YES	YES	YES	YES	IE	IND & REC	
	RCS PRESSURE	IR-0-1600 PSIA HR:1500-2500 PSIA	1	YES	YES	YES	YES	IE	PI-103, 103-1 PI-102A, B, C, D ICC, ICS OFIS, ERDS	A. NRC ltr (TAC 3776) dated 2/5/91 NRC ltr (TAC 3776) dated 2/5/91 ATWS
	PRESSURIZER PRESSURE (WIDE RANGE) P-102B-1	0 - 3000 PSIG	1	YES	NO	YES	NO	IE	PR-102B-1 ICS OFIS, ERDS	A. NRC ltr (TAC 3776) dated 2/5/91 NRC ltr (TAC 3776) dated 2/5/91 ATWS
B-08	CORE EXIT TEMPERATURE	200 - 1650°F	3	NO	NO	NO	NO	RELIABLE	IND.	
	CORE EXIT TEMPERATURE	200 - 2300°F	1	YES	YES	YES	YES	IE	ICS ICC OFIS, ERDS	A.R. NUREG 0737, 11.B.3
	T-10 THRU T-450 (IC1)									

Status Key:

A=Accepted per Reference;

P=Referred by Reference; C=Compliance with A.R. 1.8b; S=Reviewed by NRC

Abbreviations:

ICC=Inadequate Core Cooling; ICS=Integrated Computer System; OFIS=Offsite Facilities Information System; ERDS=Emergency Response Data System; IR=Core

Range: RS=High Range; WS=Wide Range; MS=Main Control Board

Regulatory Guide 1.97

Status of Compliance

Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes				Displays		Status	Reference/Notes
			Category	QA	EQ	9Q	REDUNDANT	PWR	CR & Other	
B-09	COOLANT LEVEL IN REACTOR BOTTOM OF CORE TO 1 TOP OF VESSEL		YES	YES	YES	YES	YES	IE	IND. & REC.	
	COOLANT LEVEL IN REACTOR HJTC-A,B	TOP OF CORE TO TOP OF VESSEL	1	YES	YES	YES	YES	IE	ICS ICC OFIS, ERDS	A,R MPC ltr (TAC75776) dated 2/5/91 MUREG 0730 II.B.3
B-10	DEGREE OF SUBCOOLING TO 35°F	200°F SUBCOOLING TO 35°F	2	As Req'd	YES	NO	NO	REL	IND	
	DEGREE OF SUBCOOLING ICCM 31 & 22	200°F SUBCOOLING TO 35°F SUPERHEATING	1	Yc	YES	YES	YES	IE	ICS ICC OFIS, ERDS	C
B-11	RCS PRESSURE A RCS PRESSURE LR:P-103*, 103-1* HR:P-102A*, P*, C.D	0-4000 PSIG LR:0-1600 PSIA HR:1500-2500 PSIA	1	YES	YES	YES	YES	IE	IND & REC PI-103, 103-1 PI-102A,B,C,D ICC*, ICS OFIS, ERDS	R MPC ltr (TAC75776) dated 2/5/91 MUREG 0737, II.B.3 ATWS
	B PRESSURIZER PRESSURE (WIDE RANGE) P-102B-1	0 - 3000 PSIG	1	YES	NO	YES	NO	IE	PR-102B-1 ICS OFIS, ERDS	R BAC ltr (TAC75776) dated 2/5/91 MUREG 0737, II.B.3 ATWS
B-12A	CONTAINMENT SUMP WATER LEVEL (WIDE RANGE)	BOTTOM OF CMT TO 1 600,000 GALLONS EQUIVALENT 0' TO 7'	1	YES	YES	YES	YES	IE	IND. & REC.	
	CONTAINMENT SUMP WATER LEVEL (WIDE RANGE) L-8242, 8243		1	YES	YES	YES	YES	IE	LIC-8242, 8243 RC-101A, B	A MPC ltr (TAC75776) dated 2/5/91
B-12B	CONTAINMENT SUMP WATER LEVEL (NARROW RANGE)	SUMP DEPTH	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	CONTAINMENT SUMP WATER LEVEL (NARROW RANGE) L-9155 (9155A Back-up)	0 - 100%	2	NO	NO	NO	NO	RELIABLE	LI-9155 ICS OFIS, ERDS	A MPC ltr (TAC75776) dated 2/5/91

Status Key:
Abbreviations:As-As per Reference; S-Reading per Reference; W-Referenced by Reference; C-Compliance with R.G. 1.97; U-Unreviewed by NRC
ICC-Integrated Core Cooling; ICS-Integrated Control System; OFIS-Offsite Facility Inspection; ERDS-Emergency Response Data System; IE-IE
Range: 0-100% Range: 0-100% Range: 0-100% Range: 0-100% Range: 0-100% Range: 0-100% Range: 0-100% Range: 0-100% Range: 0-100% Range: 0-100%

Millstone Unit 2

Type No.	Recommended Variable	Range	Attributes					Displays CR & Other	Status	Actual Reference/Notes
			Category	QA	EQ	SQ	REDUNDANT			
C-06	CONTAINMENT SUMP WATER LEVEL	NR: SUMP WR: BOTTOM OF CMT 1 TO 600,000 GAL LEVEL	2	NR:	NR:	NR:	NR:	NR:	IND & REC	
	CONTAINMENT SUMP WATER LEVEL	See Variables B-12A, B-12B								A NRC ltr (IAC75776) dated 2/5/91
C-07	CONTAINMENT AREA RADIATION	1 R/HR TO 10 ⁴ R/HR	3	NO	NO	NO	NO	NO	IND & REC	
	CONTAINMENT AREA RADIATION	1 to 10 ⁸ R/HR	1	YES	YES	YES	YES	YES	RIT-8240, 8241 PC-101C ICS CFIS, ERDS	C
C-08	EFFLUENT RADIOACTIVITY- NOBLE GAS EFFLUENT FROM CONDENSER AIR REMOVAL SYSTEM EXHAUST	10 ⁻⁶ µCi/cc TO 10 ⁻² µCi/cc	3	NO	NO	NO	NO	NO	RELIABLE IND.	
	EFFLUENT RADIOACTIVITY- NOBLE GAS EFFLUENT FROM CONDENSER AIR REMOVAL SYSTEM EXHAUST	10 ⁻⁶ µCi/cc TO 10 ⁻² µCi/cc	3	NO	NO	NO	NO	NO	RELIABLE RIT-5099 RR-9373 ICS CFIS	C
C-09	RCS PRESSURE	0-4000 PSIG	1	YES	YES	YES	YES	YES	IND & REC	
	RCS PRESSURE	LR: 0-1600 PSIA HR: 1500-2500 PSIA	1	YES	YES	YES	YES	YES	PI-103/103-1 PI-102A, B, C, D ICC, ICS CFIS, ERDS	P NRC ltr (IAC75776) dated 2/5/91 NUREG 0737, II.B.3 ATWS
	PRESSURIZER PRESSURE (WIDE RANGE) P-102B-1	0 - 3000 PSIG	1	YES	NO	YES	NO	YES	PI-102B-1 ICS CFIS, ERDS	P NRC ltr (IAC75776) dated 2/5/91 NUREG 0737, II.B.3 ATWS

Regulatory Guide 1.97

Status of Compliance

Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes				Displays		Actual	
			Category	QA	EQ	SD	REDUNDANT	PWR	Status	Reference/Notes
C-10	CONTAINMENT HYDROGEN CONCENTRATION	0 - 10% (CAPABLE 1 OF OPERATING FRO 10 PSIA TO MAXIMUM DESIGN PRESSURE)	1	YES	YES	YES	YES	1E	IND. & REC.	
	CONTAINMENT HYDROGEN CONCENTRATION AE-8152.9154	0 - 10% (CAPABLE 1 OF OPERATING UP TO 10 PSIG MAXIMUM)	1	YES	NO	YES	YES	1E	RC-101A, B ICS OFIS, ERDS	A NPC ltr (TAC75776) dated 2/5/91 NUREG-0737, ITEM IIF.1, ATT 6
C-11	CONTAINMENT PRESSURE	10 PSIA PRESSURE 1 TO 3 TIMES DESIGN PRESSURE FOR CONCRETE	1	YES	YES	YES	YES	1E	IND. & REC.	
	CONTAINMENT PRESSURE P-8238, 8239	0 - 250 PSIA	1	YES	YES	YES	YES	1E	RC-101A, B ICS	C
C-12	CONTAINMENT EFFLUENT RADIOACTIVITY- NOBLE GASES FROM IDENTIFIED RELEASE POINTS	10 ⁻⁵ μ Cl/cc TO 10 ⁻² μ Cl/cc	2	As Req'd	Yes	No	No	Reliable Ind & Rec		
	CONTAINMENT EFFLUENT RADIOACTIVITY - NOBLE GASES FROM IDENTIFIED RELEASE POINTS SEE VARIABLE C-14	SEE VARIABLE C-14								
C-13	RADIATION EXPOSURE RATE (INSIDE BLDGS OR AREAS, WHICH ARE IN DIRECT CONTACT WITH PRIMARY CTMI WHERE PENETRATIONS AND HATCHES ARE LOCATED)	10 ⁻¹ TO 10 ⁴ R/HR	2	As Req'd	YES	NO	No	RELIABLE IND.		
	RADIATION EXPOSURE RATE None	Deleted in R.G. 1.97, Rev. 3							None	A NPC ltr (TAC75776) dated 2/5/91

Status Key:

A=Accepted per Reference; P=Pending per Reference; R=Referred by Reference; C=Compliance with R.G. 1.97; U=Unreviewed by NRC

Abbreviations:

IC=Inadequate Core Cooling; ICS=Integrated Computer System; OFIS=Onsite Facilities Information System; ERDS=Emergency Response Data System; LR=Low

Ref: 88-High Range; 88-Low Range; NCR-Main Control Board

Regulatory Guide 1.97

Status of Compliance

Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes				Displays		Actual	
			Category	QA	EQ	SQ	REDUNDANT	PWR	CR & Other	Status Reference/Notes
C-14	EFFLUENT RADIOACTIVITY- NOBLE GASES (FROM BUILDINGS AS INDICATED ABOVE)	1 X 10 ⁻⁶ TO 10 ³ µCi/cc	2	As	YES	NO	NO	RELIABLE	IND. & REC.	
				Req'd						
D-01	EFFLUENT RADIOACTIVITY- NOBLE GASES PM-8168 RM-8132B	1 X 10 ⁻⁶ TO 10 ³ µCi/cc	2	YES	NO	NO	NO	RELIABLE	RIC-8168* RIT-8132B PR-8132 ICS OFIS*, ERDS* RIC-1705-79	C
				Req'd						
D-02	RHR SYSTEM FLOW DESIGN FLOW	0 - 110% OF	2	As	YES	NO	NO	RELIABLE	IND.	
				Req'd						
D-03A	RHR SYSTEM FLOW F-306	0 - 7000 GPM	2	YES	NO	NO	NO	1E	FIC-306 FI-306 ICS	A NRC ltr (TAC75776) dated 2/5/91
				Req'd						
D-03B	RHR HEAT EXCHANGER OUTLET T-303X.Y T-351Y	0 - 400°F	2	NO	NO	NO	NO	RELIABLE	TI-303X.Y TR-351 ICS	A NRC ltr (TAC75776) dated 2/5/91
				Req'd						
D-03A	ACCUMULATOR TANK LEVEL 10% TO 90% VOLUME	10% TO 90% VOLUME	2	As	YES	NO	NO	RELIABLE	IND.	
				Req'd						
D-03B	ACCUMULATOR TANK LEVEL L-311, 321, 331, 341	0-100%	2	NO	NO	NO	NO	1E	LI-311, 321, 331, 341 ICS OFIS	P NRC ltr (TAC75776) dated 2/5/91
				Req'd						
D-03B	ACCUMULATOR TANK PRESSURE 0 - 750 PSIG	0 - 750 PSIG	2	YES	YES	NO	NO	RELIABLE	IND.	
				Req'd						
D-03B	ACCUMULATOR TANK PRESSURE P-311, 321, 331, 341	0 - 250 PSIG	2	YES	NO	NO	NO	RELIABLE	PI-311, 321, 331, 341 ICS OFIS	A, P NRC ltr (TAC75776) dated 2/5/91
				Req'd						
D-04	ACCUMULATOR ISOLATION VALVE POSITION	CLOSED OR OPEN	2	As	YES	NO	NO	RELIABLE	IND.	
				Req'd						
D-04	ACCUMULATOR ISOLATION VALVE POSITION Z-614, 624, 634, 644	CLOSED OR OPEN	2	YES	YES	NO	NO	RELIABLE	MCS Indicating Lights C ICS	
				Req'd						

Status Key:

A-Approved per Reference; R-Referring per Reference; B-Referred by Reference; C-Compliance with R.G. 1.97; D-Discontinued by NRC
 ICS-Inadequate Core Cooling; ICS-Integrated Computer System; OFIS-Offsite Facilities Information System; ERDS-Emergency Response Data System; IS-Ins
 Range: RA-Risk Range; MB-Mid Range; MCS-Main Control Board

March 2, 1992

Regulatory Guide 1.97

Status of Compliance

Millstone Unit 2

Recommended

Type No.	Variable	Range	Attributes				Displays		Actual	
			Category	QA	EQ	SQ	REDUNDANT	PWR	CR & Other	Status Reference/Notes
D-05	BORIC ACID CHARGING FLOW	0 - 110% OF DESIGN FLOW	2	NO	YES	NO	NO	RELIABLE	IND.	
	BORIC ACID CHARGING FLOW F-212	0 - 140 GPM	2	NO	NO	NO	NO	RELIABLE FI-212 ICS		A NRC ltr (TAC75776) dated 2/5/91
D-06	FLOW IN HPI SYSTEM	0 - 110% OF DESIGN FLOW	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	FLOW IN HPI SYSTEM F-311, 321, 331, 341	0 - 300 GPM	2	NO	NO	NO	NO	RELIABLE FI-311, 321, 331, 341 ICS		A NRC ltr (TAC75776) dated 2/5/91
D-07	FLOW IN LPI SYSTEM	0 - 110% OF DESIGN FLOW	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	FLOW IN LPI SYSTEM F-312, 322, 332 & 342	0 - 2000 GPM	2	NO	NO	NO	NO	RELIABLE FI-312, 322, 332 & 342 ICS		A NRC ltr (TAC75776) dated 2/5/91
D-08	REFUELING WATER STORAGE TANK LEVEL	TOP TO BOTTOM	2	NO	YES	NO	NO	RELIABLE	IND.	
	REFUELING WATER STORAGE TANK LEVEL L-3001, 3002, 3003, 3004	0 - 100%	1	YES	NO	YES	YES	IE L1-3001, 3002, 3003, 3004		A NRC ltr (TAC51107) dated 11/22/89
D-09	REACTOR COOLANT PUMP STATUS	MOTOR CURRENT	3	NO	NO	NO	NO		IND.	NRC ltr (TAC75776) dated 2/5/91
	REACTOR COOLANT PUMP STATUS P40A, B, C, D	0 - 500 AMPS	3	NO	NO	NO	NO	MA030, MB019, MA031, MB020 ICS		C
								OFIS (START/STOP)		

Status Key:

Abbreviations:

A-Accepted per Reference; B-Bidding per Reference; C-Compliance with 9.0.1.1.1; D-Not reviewed by NRC
 ICS-Inadequate Core Cooling; ICS-Integrated Computer System; OFIS-Offsite Facilities Information System; TACS-Emergency Response Data System; IR-Low
 Range; NR-High Range; MCB-Main Control Board

Regulatory Guide 1.97

Status of Compliance

Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes				Displays		Submittal	
			Category	QA	EQ	SQ	REDUNDANT	PWR	CE & Other	Status Reference/Notes
D-15	QUENCH TANK PRESSURE	0 - DESIGN PRESSURE	3	NO	NO	NO	NO	NO	IND.	
	QUENCH TANK PRESSURE P-116	0 - 100PSIG	3	NO	NO	NO	NO	NO	RELIABLE PI-116 ICS OFIS	C
D-16	STEAM GENERATOR LEVEL	FROM TUBE SHEET TO SEPARATORS	1	YES	YES	YES	YES	YES	IE	IND. & REC.
	STEAM GENERATOR LEVEL L-1113A,B,C,D L-1123A,B,C,D	0-100% TOP OF TUBE BUNDLES TO SEPARATORS	1	YES	YES	YES	YES	YES	IE	LI-1113A,B,C,D AI-1123A,B,C,D A,P NRC ltr (TAC75776) dated 2/5/91 ICS OFIS, ERDS
D-17	STEAM GENERATOR PRESSURE	FROM ATMOSPHERIC PRESSURE TO 20% ABOVE THE LOWEST SAFETY VALVE SETTING	2	As Req'd	YES	NO	NO	NO	RELIABLE IND.	
	STEAM GENERATOR PRESSURE P-4223 & 4224	0 - 1200 PSIA	1	YES	YES	YES	YES	YES	IE	IP-4223, 4224 ICS C
D-18	SRV POSITION	CLOSED - NOT CLOSED	2	As Req'd	YES	NO	NO	NO	RELIABLE IND.	
	SRV POSITION FS-4225, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40	Open - Closed	2	YES	YES	NO	NO	NO	RELIABLE ICS Annunciator per each S/G	C
D-19	MAIN FEEDWATER FLOW	0 - 1104 OF DESIGN FLOW	3	NO	NO	NO	NO	NO	RELIABLE IND.	
	MAIN FEEDWATER FLOW F-5268A,B F-5269A,B	0 - 63 X 10 ⁵ lbs/hr	3	NO	NO	NO	NO	NO	RELIABLE FR-5301, 5302 ICS OFIS, ERDS	C

Status Key:
Abbreviations:

A-Accepted per Reference; B-Pending per Reference; C-Compliance with R.C. 1.97; D-Discontinued by NRC
 ICS-Inadequate Core Cooling; ICS-Integrated Computer System; OF 3-Offsite Facilities Information System; ERDS-Emergency Response Data System; LE-Low
 Range; HH-High Range; W-Wide Range; MCB-Main Control Board

Regulatory Guide 1.97

Status of Compliance

Millstone Unit 2

March 2, 1992

Recommended

Actual

Type No.	Variable	Range	Attributes				Displays CR & Other	Status	Reference/Notes
			Category	QA	EQ	SQ			
D-20	AUXILIARY FEEDWATER FLOW	0 - 110% OF DESIGN FLOW	2	As	YES	NO	NO	RELIABLE	IND.
	AUXILIARY FEEDWATER FLOW	0 - 600 GPM	1	YES	YES	YES	YES	1E	FI-5277A-1,2 FI-5277B-1 FI-5278A-1,2 FI-5278B-1 ICS OFIS, ERDS
D-21	CONDENSATE STORAGE TANK LEVEL	PLANT SPECIFIC	1	YES	YES	YES	YES	1E	IND & REC.
	CONDENSATE STORAGE TANK LEVEL	0 - 100% Level Low Alarm	1	YES	NO	YES	YES	1E	LI-5282, LR-5282 U Sensors located in a RELIABLE Annunciator (LIS-5489 non-harsh environment ICS OFIS, ERDS
D-22	CONTAINMENT SPRAY FLOW	0 - 110% OF DESIGN FLOW	2	As	YES	NO	NO	RELIABLE	IND.
	CONTAINMENT SPRAY FLOW	0 - 5000 GPM	2	NO	NO	NO	NO	RELIABLE	FI-3023, 3024 ICS A NRC ltr (TAC75776) dated 2/5/91
D-23	HEAT REMOVAL BY CONTAINMENT FAN HEAT REMOVAL SYSTEM	PLANT SPECIFIC	2	As	YES	NO	NO	RELIABLE	IND.
	HEAT REMOVAL BY CONTAINMENT FAN HEAT REMOVAL SYSTEM	0 - 200° F	2	NO	NO	NO	NO	RELIABLE	TI- 6082, 6086, 6090, 6093 A NRC ltr (TAC75776) dated 2/5/91
D-24	CONTAINMENT ATMOSPHERE TEMPERATURE	40 - 400° F	2	As	YES	NO	NO	RELIABLE	IND.
	CONTAINMENT ATMOSPHERE TEMPERATURE	0 - 350° F	3	NO	NO	NO	NO	RELIABLE	TI-8096 ICS OFIS A NRC ltr (TAC75776) dated 2/5/91

Status Key:
Abbreviations:

A=Accepted per Reference; P=Pending per Reference; R=Referred by Reference; C=Compliance with R.C. 1.91; I=Insufficient Data System; IS=Insufficient Data System; ICS=Integrated Computer System; OFIS=Offsite Facilities Information System; ERDS=Emergency Response Data System; IS=Insufficient Data System; Range: NR=High Range; WR=Wide Range; MCB=Main Control Board

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Status of Compliance

Millstone Unit 2

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Type No.	Variable	Range	Attributes				Displays		Actual	
			Category	QA	EQ	SQ	REDUNDANT	PWR	Status	Reference/Notes
D-25	CONTAINMENT SUMP WATER TEMPERATURE	50 - 250°F	2	As Req'd	YES	NO	NO	RELIABLE	IND.	P NU ltr A09330 dated 5/15/91 NRC ltr (TAC75776) dated 2/5/91
	CONTAINMENT SUMP WATER TEMPERATURE				None					None
	None				None					None
D-26	MAKE UP FLOW-IN	0 - 110% OF DESIGN FLOW	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	MAKE UP FLOW-IN (Charging)	0 - 140 GPM	2	NO	NO	NO	NO	RELIABLE	FI-212 ICS OFIS	A NRC ltr (TAC75776) dated 2/5/91
D-27	LETDOWN FLOW-OUT	0 - 110% OF DESIGN FLOW	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	LETDOWN FLOW-OUT	0 - 140 GPM	2	NO	NO	NO	NO	RELIABLE	FI-202 ICS	A NRC ltr (TAC75776) dated 2/5/91
D-28	VOLUME CONTROL TANK LEVEL	TOP TO BOTTOM	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	VOLUME CONTROL TANK LEVEL	0 - 100%	2	NO	NO	NO	NO	RELIABLE	LI-226 ICS OFIS	A NRC ltr (TAC75776) dated 2/5/91
D-29	COMPONENT COOLING WATER TEMPERATURE TO ESF SYSTEM	32 - 200°F	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	COMPONENT COOLING WATER TEMPERATURE TO ESF SYSTEM	0 - 200°F	2	NO	NO	NO	NO	RELIABLE	TI-6031, 6032, 6033 ICS	P NU ltr A09330 dated 5/15/91 NRC ltr (TAC75776) dated 2/5/91
E-30	COMPONENT COOLING WATER FLOW TO ESF SYSTEM	0 - 110% OF DESIGN FLOW	2	As Req'd	YES	NO	NO	RELIABLE	IND.	
	COMPONENT COOLING WATER FLOW TO ESF SYSTEM	0 - 10,000 GPM	2	NO	NO	NO	NO	RELIABLE	FI-6034, 6035 ICS	A NRC ltr (TAC75776) dated 2/5/91
	F-6034, 6035									

Status Key:
 ICC-Inadequate Core Cooling
 Range: HS-High Range; WS-Water Control; AS-As

Accepted per Reference 4-Feeding per Reference 3-Entered by Reference 2-Comp. Issues with R.O. T. 8/91 Data entered by NRC
 ICC-Inadequate Core Cooling; ICS-Integrated Computer System; OFIS-Offsite Facilities Information System; ESF-Emergency Response Data System; ES-ES
 Range: HS-High Range; WS-Water Control; AS-As

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Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes					Displays		Actual	
			Category	QA	EQ	SQ	REDUNDANT	PWR	CR & Other	Status	Reference/Notes
D-31	HIGH LEVEL RADIOACTIVE LIQUID TANK LEVEL	TOP TO BOTTOM	3	NO	NO	NO	NO	NO	RELIABLE IND.		
	HIGH LEVEL RADIOACTIVE LIQUID TANK LEVEL (PDT) L-9051	0 - 100%	3	NO	NO	NO	NO	NO	RELIABLE LI-9051 ICS	C	
D-32	RADIOACTIVE GAS HOLDUP TANK PRESSURE	0 - 150# OF DESIGN PRESSURE	3	NO	NO	NO	NO	NO	RELIABLE IND.		
	RADIOACTIVE GAS HOLDUP TANK PRESSURE P-9128	0 - 25 PSIG	3	NO	NO	NO	NO	NO	RELIABLE ICS	A	NRC ltr (TAC75776) dated 2/5/91
D-33	EMERGENCY VENTILATION DAMPER POSITION	OPEN - CLOSED	2	As Req'd	YES	NO	NO	NO	RELIABLE IND.		
	EMERGENCY VENTILATION DAMPER POSITION ZS-8000, 8001, 8002, 8003A, 8003B, 8003C, 8004, 8005, 8006, 8007, 8009, 8009, 8010, 8361	OPEN - CLOSED	2	YES	YES	NO	YES	NO	RELIABLE ICS	C	
D-34	STATUS OF STANDBY POWER AND OTHER ENERGY SOURCES IMPORTANT TO SAFETY. (HYDRAULIC, PNEUMATIC)	VOLTS, AMPS, PRESSURES	2	As Req'd	YES	NO	NO	NO	RELIABLE IND.		
	STATUS OF STANDBY POWER AND OTHER ENERGY SOURCES IMPORTANT TO SAFETY. (HYDRAULIC, PNEUMATIC) Various	VOLTS, AMPS, PRESSURES	2	NO	NO	NO	NO	NO	RELIABLE MCB Voltage, Current, 4 Power Meters, Annunciators Breaker Status Light on MCB Bus Mimics ICS	A	NRC ltr (TAC75776) dated 2/5/91
E-01	CONTAINMENT AREA RADIATION (HIGH RANGE)	R/HK - 10^7 R/HR	1	YES	YES	YES	YES	YES	IND. & REC.		
	CONTAINMENT AREA RADIATION (HIGH RANGE) RM-8240, 8241	1 to 10^6 R/HR	1	YES	YES	YES	YES	YES	RM-8240, 8241 RC-101C ICS OF IS, ERDS	C	

Status Key:
Abbreviations:

A-Accepted per Reference; P-Pending per Reference; R-Deferred by Reference; C-Compliance with R.G. 1.97; U-Overruled by NRC
 ICC-Transquave Core Cooling; ICS-Integrated Computer System; OFIS-Offsite Facilities Information System; ERDS-Emergency Response Data System; LB-Low
 Range; HB-High Range; MB-Mid Range; MCB-Main Control Board

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Status of Compliance

Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes				Displays		Submittal	
			Category	QA	EQ	SQ	REDUNDANT	PWR	CR & Other	Status Reference/Notes
E-02	RADIATION EXP. RATE (INSIDE) 0-1 R/HR TO 10 ⁴ 2 As BLDGs OR AREAS WHERE ACCESS IS REQ. TO SERVICE SAFETY EQUIPMENT.	1 x 10 ⁻¹ to 10 ⁴ 3 NO R/HR mR/hr	NO	NO	NO	NO	NO	NO	YES NO	NO RELIABLE IND.
	RADIATION EXP. RATE	1 x 10 ⁻¹ to 10 ⁴ 3 NO	NO	NO	NO	NO	NO	NO	YES NO	NO RELIABLE IND.
	RM-7890, 7891, 7892, 7894, 7895, 7896, 7897, 7899, 8139, 8142, 8156, 8157	1 x 10 ⁻¹ to 10 ⁴ 3 NO	NO	NO	NO	NO	NO	NO	YES NO	NO RELIABLE IND.
										7894, 7895, 7896, 7897, 7899, 8139, 8142, 8156, 8157 ICS
E-03A	COMMON PLANT VENT - NOBLE GAS	10 ⁻⁶ μ Cl/cc to 10 ³ μ Cl/cc	2 As Req'd	Yes	No	No	No	No	Yes No	NO
	COMMON VENT - NOBLE GAS	SEE VARIABLE C-14								NO
	SEE VARIABLE C-14									NO
E-03B	PLANT VENT FLOW	0 - 110% OF DESIGN FLOW	2 NO	YES	NO	NO	NO	NO	YES NO	NO
	PLANT VENT FLOW	MP2:0 - 10 ⁵ SCFM 2 NO	NO	NO	NO	NO	NO	NO	YES NO	NO
	MP2:F-8412	MP1:0 - 223,000								NO
	MP:F-20-34	SCFM								NO
E-03C	VENT FROM STEAM GENERATOR OR STEAM DUMP	10 ⁻¹ μ Cl/cc to 10 ³ μ Cl/cc	2 As Req'd	Yes	No	No	No	No	Yes No	NO
	VENT FROM STEAM GENERATOR OR STEAM DUMP	1 x 10 ⁻¹ - 1 x 10 ⁴ μ Cl/cc	2 YES	NO	NO	YES	NO	NO	YES NO	NO
	RM-4299A,B & C									NO
										RR-4499 ICS OFIS

Status Key:

Abbreviations:

A=Accepted per Reference; P=Pending per Reference; R=Revised by Reference; C=Compliance with R.G. 1.97; U=Unreviewed by NRC
 ICC=Inadequate Core Cooling; ICD=Integrated Computer System; OFIS=Offsite Facilities Information System; EDCS=Emergency Response Data System; LDC=Low
 Range; HR=High Range; WR=Wide Range; MR=Main Control Room

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Status of Compliance

Millstone Unit 2

Recommended

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Type No.	Variable	Range	Attributes										Displays		Status	Reference/Notes
			Category	QA	EQ	SQ	REDUNDANT	PWR	CR	& Other						
E-04	(PARTICULATES AND HALOGENS) ALL IDENTIFIED PLANT RELEASE POINTS (E/CPT S/G RELIEF VAVLES ATMOSPHERIC STEAM DUMPS AND CONDENSER AIR REMOVAL SYSTEM EXHAUST)	10 ⁻³ µCi/cc TO 10 ² µCi/cc	3	NO	NO	NO	NO	NO	NO	NO	NO	Ind & Rec				
	(PARTICULATES AND HALOGENS) ALL IDENTIFIED PLANT RELEASE POINTS RM-8132A/B RM-8168 RM-1705-79	Sampler Particulate & Iodine filters are used for laboratory analysis 1x10 ⁻³ to 1x10 ² µCi/cc	3	NO	NO	NO	NO	NO	NO	NO	NO	RELIABLE	None	None		C
E-05A	RADIATION EXPOSURE METERS (CONTINUOUS INDICATION AT FIXED LOCATIONS)	Per NUREG 0654														
	RADIATION EXPOSURE METERS NONE (CONTINUOUS INDICATION AT FIXED LOCATIONS) NONE Deleted on R.G. 1.97 Rev 3 Also, not cost effective per NUREG /CR 2644.														A NRC ltr (TAC75776) dated 2/5/91	
E-05B	AIRBORNE RADIO-HALOGENS AND PARTICULATES (PORTABLE SAMPLING WITH ONSITE ANALYSIS CAPABILITY)	10 ⁻⁹ to 10 ⁻³ µCi/cc	3	NO	NO	NO	NO	NO	NO	NO	NO	IND				
	AIRBORNE RADIO-HALOGENS AND PARTICULATES None	portable instruments are used to monitor this variable per R.G. 1.1, Rev. 2.													A NRC ltr (TAC75776) dated 2/5/91	

Status Key:

A-Accepted per Reference; P-Pending per Reference; R-Referenced by Reference; C-Compliance with R.G. 1.97; D-Discontinued by NRC
 ICC-Inadequate Core Cooling; ICC-Integrated Computer System; CFIIS-Offsite Facilities Information System; ERDS-Emergency Response Data System; LR-Low
 Range; HR-High Range; WR-Wide Range; MCS-Main Control Board

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Millstone Unit 2

Recommended

Actual

Type No.	Variable	Range	Attributes					Displays		Actual	
			Category	QA	EQ	SQ	REDUNDANT	PWR	CR & Other	Status	Reference/Notes
E-05C	PLANT AND ENVIRONS RADIATION	ISOTOPIC ANALYSIS 3	NO	NO	NO	NO	NO	NO	IND		
	PLANT AND ENVIRONS RADIATION	1 x 10 ³ to 10 ⁴ Rad/hr, gamma & beta									
	NONE Portable instruments are used to monitor this variable per R.G. 1.97, Rev. 2.										A NRC ltr (TAC75776) dated 2/5/91
E-05D	PLANT AND ENVIRONS RADIOACTIVITY	Multichannel Gamma-ray spectrometer	3								
	PLANT AND ENVIRONS RADIOACTIVITY	Isotopic analysis via various on-site and off-site gamma (GeLi) spectrometers.									C
E-06	WIND DIRECTION SPEED TEMPERATURE	0-360° 0-67mph (-9) - (+18) °F	3	NO	NO	NO	NO	NO	IND.		
	WIND DIRECTION SPEED TEMPERATURE Various	0-360° 0-100mph (-10) - (+18) °F	3	NO	NO	NO	NO	NO	RELIABLE ICS OFIS, ENDS		C
E-07	ACCIDENT SAMPLING CAPABILITY (ANALYSIS CAPABILITY ON SITE) PASS	AS SPECIFIED IN RG 1.97 REV.2	3	NO	NO	NO	NO	NO	RELIABLE		
	ACCIDENT SAMPLING CAPABILITY (ANALYSIS CAPABILITY ON SITE) PASS	AS SPECIFIED IN RG 1.97 REV.2	3	NO	NO	NO	NO	NO	RELIABLE		R, A NUREG 0737, II.B.3 NRC ltr dated June 14, 1984.

Status Key:
Accelerations:Accepted per Reference: R-Deferred per Reference: R-Deferred by Reference: R-Deferred by R.G. 1.97: U-Deferred by RRC
ICC-Inadequate Core Cooling; ICC-Integrated Computer System; OFIS-Offsite Facilities Information System; EPCS-Emergency Response Data System; CR-Data
Range: N-High Range; W-Wide Range; M-Main Control Board