Sargent & Lundy

Don K. Schopler Vice President 312-269-6078

> November 6, 1997 Project No. 9583-100

Docket No. 50-423

Northeast Nuclear Energy Company Millstone Nuclear Power Station, Unit No. 3 Independer Corrective Action Verification Program

United States Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555

I have enclosed the following fourteen (14) discrepancy reports (DRs) identified during our review activities for the ICAVP. These DRs are being distributed in accordance with the Communications Protocol, PI-MP3-01.

DR No. DR-MP3-0307 DR No. DR-MP3-0377 DR No. DR-MP3-0481 DR No. DR-MP3-0516 DR No. DR-MP3-0546 DR No. DR-MP3-0548 DR No. D'.-MP3-0549 DR No. DR-MP3-0550 DR No. DR-MP3-0551 DR No. DR-MP3-0553 DR No. DR-MP3-0554 DR No. DR-MP3-0557 DR No. DR-MP3-0558 DR No. DR-MP3-0577

I have also enclosed the following five (5) DRs that have been determined invalid. No action is required from Northeast Utilities for these five DRs. The basis for their invalid determination is included on the document.

DR No. DR-MP3-0198 DR No. DR-MP3-0289 DR No. DR-MP3-0290 DR No. DR-MP3-0585 DR No. DR-MP3-0612

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55 East Monroe Street • Chicago, IL 60603-5780 USA • 312-269-2000

United States Nuclear Regulatory Commission Document Control Desk

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I have also enclosed the following four (4) DRs for which the NU resolutions have been reviewed and accepted by S&L.

DR No. DR-MP3-0022 DR No. DR-MP3-0066 DR No. DR-MP3-0079 DR No. DR-MP3-0103

I have also enclosed the one (1) DR for which the NU resolution has been reviewed but not accepted. S&L comments on this resolution has been provided.

DR No. DR-MP3-0128

Please direct any questions to me at (312) 269-6078.

Yours very truly,

D. K. Schopfer

Vice President and ICAVP Manager

DKS:spr Enclosures Copies: E. Imbro (1/1) Deputy Director, ICAVP Oversight T. Concannon (1/1) Nuclear Energy Advisory Council J. Fougere (1/1) NU m:Vicavp/cort/97/nr1106-a.doc

ICAVP Discrepancy Report

DR No. DR-MP3-0307

Review Group: System DR VALID Review Element: System Design Potential Operability Issue **Discipline: Mechanical Design**) Yes **Discrepancy Type: Licensing Document** No System/Process: SWP NRC Significance level: 3 Date FAXed to NU: Date Published: Discrepancy: Discrepancy Between P&ID and GL 89-13 Commitment re SWS Continuous Chlorination Description: In dispositioning requirment SWP-0303 it was noted that on Page 2 of Attachment 4 of their Letter A08201 to the NRC dated 1/25/90, providing Millstone 3 responses to GL 89-13, NU states that "The Millstone Unit No. 3 service water system is continuously chlorinated." As shown on P&IDs EM-133A and C. SWS chlorination is provided when both of the following conditions are met: 1. SWS Train A [which has the only connection to supply dilution water to the chemical feed chlorination system] is operating, and 2. the dilution water line from SWS Train A is not isolated [which occurs when a CDA signal is received, instrument air supply to either of the isolation valves [3WTC*AOV25A or B] is lost, or electrical power to any of the three instrument air solenoid valves to 3WTC*AOV25A or B is lost.] in the case of LOP, the three IA solenoid valves are all backed by the DGs, however, valve A2, in the IA line to 3SWP*AOV25A, is powered by a nonsafety-related charger and battery. Based on the above, there are a number of scenarios, none of which is expected to occur on a frequent basis, when continuous chlorination of the SWS would not be provided. It was also noted when dispositioning requirement SWP-0417 that SER Section 9.2.1 required each SW header to have connections to and from the chemical feed chlorination system for the addition of chlorine to the SWS to inhibit biological fouling. As noted above and as shown on P&ID EM-133A, chlorination dilution water is supplied only from Train A of the SWS, which is supplied by SW Pumps A and C. No connection is provided from Train B of the SWS, supplied by SW Pumps B and D. Also, the chlorine injection has been moved from the SWS headers as originally designed to the suction bell of each of the four SW Pumps which provides more complete and reliable treatment when the chlorination system is operating. Review Valid Invalid Needed Date Initiator: Tenwinkel, J. L. \boxtimes 9/24/97 VT Lead: Neri, Anthony A \boxtimes 10/7/97 VT Mgr: Schopfer, Don K \boxtimes 10/13/97 IRC Chrnn: Singh, Anand K \otimes 11/4/97 Date: INVALID: Date:

RESOLUTION:

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Yes No Non Discrepart Condition

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Northeast Utilities Millstone Unit 3	ICAVP DF Discrepancy Report		R No. DR-MP3-0307		
Previously identified by Not	Tes S NO	Non Disch	epant contaition	100	· NO
VT Mgr:	(none) Neri, Anthony A Schopfer, Don K Singh, Anand K	Acceptable	Not Acceptable	Review Needed	Date

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ICAVP **Discrepancy Report**

DR No. DR-MP3-0377

	CONTRACTOR CONTRACTOR PROVIDE CONTRACTOR AND CONTRACTOR	CELEBRATISMENT NO PERMITERATION AND STRATEGICS OF DRA
Review Group:	System '	DR VALID
Review Element:	System Design	
Discipline:	Electrical Design	Potential
Discrepancy Type:	Component Data	Q
System/Process:	SWP	۲
NRC Significance level:	4	Date FAXed

oerability Issue Yes No

to NU:

Date Published:

Discrepancy: Motor Curve Discrepancies of SWP Motor Operated Valves Description:

1. Full load current can be obtained from the Reliance motor curve sheet (included in the motor operated valve calculations) in three places: the table, the header, and the curve itself. The values from these three places are usually different. The valves listed below show differences between the Reliance motor curve header, table, and curve full load current values, but the full load current value used in the calculations was obtained from the nameplate (i.e., the Reliance motor curve full load current data was not used in the calculations). These documents should be revised to reflect the latest motor data.

Valves 3SWP*MOV24A, 3SWP*MOV24B, 3SWP*MOV24C, 3SWP*MOV24D

Reliance Motor Curve - curve = 0.35 amperes Reliance Motor Curve - header = 0.45 amperes Reliance Motor Curve - table = 0.45 amperes Value used in Calc. 89-094-121E3 (Rev. 0, CCN 2) = 0.45 amperes

Valves 3SWP*MOV50A, 3SWP*MOV[')B, 3SWP*MOV102A. 3SWP*MOV102B, 3SWP*MOV102C, 3SWP*MOV102D Reliance Motor Curve - curve = 2.4 amperes Reliance Motor Curve - header = 2.8 amperes Reliance Motor Curve - table = 2.55 amperes Value used in Calcs. 89-094-121E3 and 89-094-122E3 (Rev. 0. CCN 4) = 2.8 amperes

Valves 3SWP*MOV54A, 3SWP*MOV54B, 3SWP*MOV54C, 3SWP*MOV54D, 3SWP*MOV57A, 3SWP*MOV57B. 3SWP*MOV57C, 3SWP*MOV57D, 3SWP*MOV71A. 3SWP*MOV71B Reliance Motor Curve - curve = 0.7 amperes Reliance Motor Curve - header = 0.75 amperes Reliance Motor Curve - table = 0.7 amperes Value used in Calcs. 89-094-121E3 and 89-094-122E3 = 0.95 amperes

Valve 3SWP*MOV115A

Reliance Motor Curve - curve = 0.6 amperes Reliance Motor Curve - header = 0.6 amperes Reliance Motor Curve - table = 0.55 amperes Value used in Calc. 89-094-122E3 = 0.6 amperes

Valve 3SWP*MOV115B Reliance Motor Curve - curve = 0.4 amperes

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ICAVP Discrepancy Report

Reliance Motor Curve - header = 0.45 amperes Reliance Motor Curve - table = 0.45 amperes Value used in Calc. 89-094-122E3 = 0.45 amperes

Valves 3SWP*MOV130A, 3SWP*MOV130B Reliance Motor Curve - curve = 0.6 amperes Reliance Motor Curve - header = 0.55 amperes Reliance Moto: Curve - table = 0.54 amperes Value used in Calc. 89-094-122E3 = 0.55 amperes

With the exception of motor operated valves 3SWP*MOV130A and 3SWP*MOV130B (which are retired in place), the thermal overload relay sizing calculations used full load currents equal to or larger than the maximum full load currents shown in the Reliance motor curves, therefore, substituting any other values from the Reliance motor curves would not affect the results of the calculation.

2. For motor operated valve 3SWP*MOV115A, the Reliance motor curve shows a locked rotor current value of 3.5 amperes in the header of the curve and a value of 3.15 amperes in the table of the curve. The value of 3.15 amperes is used in the calculations performed in Calculation 89-094-122E3 (Rev. 0, CCN 4), and this value provides more conservative results than the 3.15 ampere value.

Specification 2282.400-568 Add. 3 (Rev. 1), vendor Drawing 2282.400-568-96B, Plant Design Data System (PDDS), and Production Management Maintenance System (PMMS) reflect a value of 3.15 amperes.

These documents should be revised to reflect the actual motor locked rotor current.

3. For each motor operated valve, the header on the Reliance motor curve refers to the insulation as "B" which does not agree with the purchase specifications which require an insulation rating of radiation resistant Class H.

4. In Calculations 89-094-121E3 (Rev. 0, CCN 2) and Calculation 89-094-122E3 (Rev. 0, CCN 4), the locked rotor current of 5.25 amperes for valves 3SWP*MOV54A, 3SWP*MOV54B, 3SWP*MOV54C, 3SWP*MOV54D, 3SWP*MOV57A, 3SWP*MOV57B, 3SWP*MOV57C, 3SWP*MOV57D, 3SWP*MOV71A, and 3SWP*MOV71B does not match the value of 5 amperes shown in Specification 2362.200-164 Add. 1 (Rev. 2), vendor Drawings 2362.200-164-043 (Rev. C) and 2362.200-164-043A (Rev. B), and Plant Design Data System (PDDS). Calculations NL-038 (Rev. 2, CCN 6) and SP-M3-EE-342 (Rev. 1) also show 5 amperes for 3SWP*MOV54A, 3SWP*MOV54C, and 3SWP*MOV71A. Use

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Northeast Utilities Millstone Unit 3	ICAVP Discrepancy Report			DR No. DR-N	AP3-0377
	of the larger locke results (i.e., subst affect the results (ituting 5 amp	peres for the		
	The documents should be revised to reflect the actual moto data.				notor
		Valid	Invalid	Review Needed	Date
Initiator:	Kendail, D. J.				10/17/97
VT Lead:	Neri, Anthony A		ā	ā	10/27/97
VT Mgr:	Schopfer, Don K				10/28/97
IRC Chrnn:	Singh, Anand K				11/5/97
Date:					
INVALID:					
Date:	ine de versuns manner verse die ensuiteren ver	EN MARIARY REPAY ON THE A	NUMBER OF BUILDESS CORE OF STREET	NICESSIC PRESS, NUMBER OF STREET	CONTRACTOR OF THE OWNER OF T
RESOLUTION:					
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initiator:	(0000)	Acceptable	Not Acceptab	Review le Needed	Date
	Neri, Anthony A			\boxtimes	
	Schopfer, Don K				
	Singh, Anand K				
Date:		(.1			
SL Comments:					

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Pag 3 of 3

Northeast Utilities Millstone Unit 3	ICAVP Discrepancy Report	DR No. DR-MP3-6481
Review Grou	ap: Configuration	DR VALID
Review Eleme	nt: System installation	Between the Descent little to see
Discipli	we: Electrical Design	Potential Operability Issue
Discrepancy Typ	pe: Installation Implementation	O Yes
System/Proce	ss: SWP	() No
NRC Significance lev	vel: 3	Date FAXed to NU:
		Date Published:

Discrepancy: Installation not in accordance with drawings

Description: The following differences between installation documents and the field conditions were noted during walkdowns of the SWP System.

1. The FSAR Fire Protection Evaluation Report in response to questions (page A-18) states that all penetrations between fire areas will be sealed with silicone. Contrary to this, the wall penetration for trave STC206P and STC161P through the Auxiliary Building to the cable tray chase/tunnel has no silicone and appears to be sealed only with Kaewool.

2. Section 4-4 of Drawing EE-34GQ Rev. 6, shows support for tray riser 3TX206N. The support detail does not include the field observed Appendix R light attached to the north leg of the support. In addition, this tray riser support is identified in the Cable and Raceway Program as GQ-VIEW4-001; the drawing should provide reference to this support number. Further, It was noted that a large quantity of cable exits tray 3TX205N transitioning into 3TX206N at the same point, over the same rung -- this puts a significant load on the rung in a non-standard configuration. The evaluation of the single rung to support such a load is not apparent. Additionally, cables exiting conduits 3CC203NG, K and 205N transitioning to trays 3TC203N and 205N are routed across sharp edges of the tray and cable support hardware which is part of the tray support.

3. Tray Location drawing EE-34DX, Rev. 8 (M-6) shows a lateral brace on tray support A104. This member was not observed as installed in the field.

4. Cables routed/installed in tray 3TC206P (or co-located tray 3TC161P) between supports A176 and A174C as shown on tray Support Location drawing EE-34DY, Rev. 8 (J-9) short cut the 90-degree horizontal fitting. The cables exit over the side rail and then re-enter the tray over the side rail. This is not consistent with the Electrical Installation Specification E-350, Rev. 9.

5. Tray support A327B-48 (EE-34GC, Rev. 4) was observed to have a strut attached across the bottom member for the connection of lighting fixtures and a lighting conduit attached to one of the vertical members. These attachments are not shown on the support detail.

6. Tray 3TK202P was observed to have flat covers installed top and bottom. The Cable and Raceway Program (TSO2) shows these covers to be vented; the Tray Location drawing EE-34Y,

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Northeast Utilities Millstone Unit 3	ICA Discrepan			No. DR-N	AP3-0481
	Rev. 9, note 2 indi have vented cover	cates that a s.	Il power trays (K service)	shall
	7. The Cable and F conduits 3CC2020 supports. These of	A and 3CC	2020B are hel	d in place v	hat vith 3
	8. Conduits 3CC93 the Cable and Rac These installed rac	eway Progr	am as having o	oniy one su	e listed in pport.
	9. Conduit 3CC100 The Cable and Rai for this conduit.	OB1is sup ceway Prog	ported by two s ram does not s	upports in t how any su	the field.
	10. The Cable and Raceway Program (\"SO2) indicates conduit 3CK101OA1 is support by three supports. The i conduit is supported by two supports.				
		Valid	Invalid	Review Needed	Date
Initiator:	Sarver, T. L.				10/28/97
VT Lead:	Neri, Anthony A		ā	ň	10/27/97
VT Mgr:	Schopfer, Don K			ō	10/30/97
IRC Chmn:	Singh, Anand K				11/4/97
Date:				and which there are a desired of the second s	
INVALID:					
Date:	ek zana man dari mandan kana na pana na mana na na ma	A THE WALLAND AND A THE ACTION	al montanto-mona de montante por portante da	CANAL PROPERTY AND ADDRESS OF THE REAL PROPERTY OF THE REAL PROPERT	A COLUMN E SC LAW ENDS
RESOLUTION:					
Previously identified by NU?	🔿 Yes 💌 No	Non Discr	epant Condition	O Yes	No
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Initiator:					Late
	Neri, Anthony A	П	Н		
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inc chimin:	Singh, Anand K		ā		
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rtheast Utilities Istone Unit 3		AVP ncy Repor	t	DR No. DR-	MP3-0516
Discrepancy Type: System/Process:	System Design Mechanical Design Calculation SWP			R VALID Potential Opera Yes No	bility issue
NRC Significance level:	3		D	ate FAXed to N Date Publishe	
Discrepancy:	Calculation P(T)-	0938 rev. 0 ha	s several i	nconsistenci	es.
Description:	Calculation P(T)- Balancing for Nor throttling position water system in the	mal Operation s and orifice si	" determin ze for bala	es the butter	fly valve
	The piping refere 24" and 30" class thick. This would respectively. Thi does not coincide	158 pipe, the result in pipe s calculation us	wall thickn ID's of 23. ses 23.27*	ess should b 25" and 29.2 and 28.75" v	e 3/8" 5"
	The factor DP/rho valve choking) fo values used for the noted and are not values being calo	r the outlet val ne factor DP/m referenced.	ve on page	es 11, 12 and consistent wit	d 28. The the data
	The factors DP (u interchanged in th factor between un the flow coefficient	ne analysis with hits. Thus the	hout accouvalues use	int for the condition are not con	nversion
	The resistance of the referenced do a value of k=10.0 value should be k used as a basis, of the pressure drop	ocument. A va 0 is noted in th =1.35 based o Crane Technic	lue of k=1 ne reference in the docu al Paper N	0.21 is being the 1. However that re	used and er, the ference 1
	Page 29 reference equivalent length on the typical con an equivalent length that is determined	of 142.02'. The version factor gth of 77.19'.	of 2.32 ft/ This affect	s not consiste psi which wo	ent based uld yield
	There were new a incorporated into included in P(T)-8	calc. P(T)-935	This info		
	Due to the varying throughout this can not be determined	lculation the o	verall imp	act on the res	sults can
		Valid	Invalid	Review Needed	Date
	Dionne, B. J. Neri, Anthony A				10/27/97 10/27/97

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Northeast Utilities Millstone Unit 3	ICAVP Discrepancy Report			DR No. DR-MP3-0516		
VT Mgr: IRC Chmn:	Schopfer, Don K Singh, Anand K				10/30/97 11/4/97	
Date: INVALID:						
Deta: RESOLUTION:			64 8745446 PARIS TALLANDON T		er Siker Alfranc surgera	
Previously Identified by NU?	O Yes () No	Non Discr	epant Condition	O Yes	No No	
VT Mgr:	(none) Neri, Anthony A Schopfer, Don K Singh, Anand K	Acceptable	Not Acceptab	Review Needed	Date	

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Northeast Utilities Millstone Unit 3	Discrepar	NVP NCy Rep		OR No. DR-	MP3-0546
Discipline:	System Installation Electrical Design Installation Implementation RSS	viders and descenario	Po	VALID Mential Operat Yes No No te FAXed to NU Date Published	h
Discrepancy:	Inadequate suppo	rt of conduit	1	an the state of the second second	
	Conduits 3CX014 of approximately 8 degree bends plus accordance with th 52AV, Rev. 4, whi feet and the maxim	NH2 and 30 feet betweet a 90-degree the criteria of ch indicates	X014NH3 are en adjacent s E LB fitting. 1 f standard sup maximum su	upports and This is not in port drawing	2-90 BE-
		Vatu	Invalid	Review	D.d.
Initiator:	Sarver, T. L.			Needed	Date 10/28/97
VT Lead:	Neri, Anthony A		H	Н	10/27/97
	Schopfer, Don K	M	Н	Н	10/30/97
	Singh, Anand K		H	H	11/4/07
Date:	and a second				
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Date:	ayayan kata aratan yasarti mananan ta		ON A PERSON AND A CONTRACT OF A PERSON OF A PE	CANAD SHOULD BE	
RESOLUTION:					
Previously Identified by NU?	🔿 Yes 💌 No	Non Discr	epant Condition	O Yes	No
VT Mgr:	(none) Neri, Anthony A Schopfer, Don K Singh, Anand K	Acceptable	Not Acceptable	Review Needed	Date

	AVP		DR No. DR	MP3-054
WERDING ST. CONTRACTOR OF STREET, ST. CONTRACTOR OF ST. CONTRACT	ancy sp		STLANCE MADE AND	Comparison of Company
		DR	VALID	
		P	stential Opera	bility issue
			O Yes	
			No	
4		De	a EAYad to bi	
Drawings not in	agreemen			u.
	agreentern			
3SCV*PNL5P in versa. The pane shown on EE-33	the installed els' installed I T) is consiste	location of 3S locations (swal	CV*PNL9P pped from ti design docu	and vice
2. There are five Cable and Race	supports ins way Program	talled for Cond (TSO2) indica	duit 3CX100 ates four su	OA3. pports.
3. Cable Tray St Rev. 7 is shown (TSO2).	as A325-34 c	-34 shown on on the Cable a	drawing EE nd Raceway	-34DT Program
attached to Cabl on the drawing E	le Tray Suppo EE-34DT Rev	ort A326-11. T	his support	is shown
	Valid	Invalid	Review	
Sarver, T. L.		Invano (")	Needed	Date
	E C	H	H	10/28/97
	M	H	Н	10/30/97
		H	Н	11/4/97
NATIONAL CONSTRUCTION & AND COMPANY AND INVESTOR		NAMES AND ADDRESS OF THE OWNER OF	PERONAL INCOME AND INCOME.	AND IN THE REAL PROPERTY OF
		+ 4		
Yes N	o Non Discre	epant Condition	O Yes	No No
			Review	
(none)	Acceptable	Not Acceptable	Needed	Date
Neri, Anthony A				
Schopfer, Don K				
Singh, Aliand K		H	X	
	Discreps Configuration System Design Electrical Design Drawing RSS 4 Drawings not in 1. Drawing EE-3 3SCV*PNL5P in versa. The pany shown on EE-33 including: EE-27 15. 2. There are five Cable and Race 3. Cable Tray Si Rev. 7 is shown (TSO2). 4. TSO2 does no attached to Cabl on the drawing E to the intersection Sarver, T. L. Neri, Anthony A Schopfer, Don K Singh, Anand K	Discrepancy Pep Configuration System Design Electrical Design Drawing RSS 4 Drawings not in agreement 1. Drawing EE-33T, Rev. 3 sl 3SCV*PNL5P in the installed versa. The panels' installed versa. The panels' installed versa. The panels' installed shown on EE-33T) is consiste including: EE-27F, Rev. 12, E 15. 2. There are five supports ins Cable and Raceway Program 3. Cable Tray Support A325A Rev. 7 is shown as A325-34 of (TSO2). 4. TSO2 does not indicate Ca attached to Cable Tray Support on the drawing EE-34DT Rev to the intersection of these tw Valid Sarver, T. L. Neri, Anthony A Schopfer, Don K Singh, Anand K	Discrepancy Peport Configuration DR System Design Pr System Design Pr Drawing RSS 4 Data Drawings not in agreement 1. Drawing EE-33T, Rev. 3 shows electrical 3SCV*PNL5P in the installed location of 3S versa. The panels' installed location of 3S versa. The panels' installed locations (sway shown on EE-33T) is consistent with other or including: EE-27F, Rev. 12, EE-48V, Rev. 515. 2. There are five supports installed for Constrained and Raceway Program (TSO2) indicates Cable and Raceway Program (TSO2) indicates (So2). 4. TSO2 does not indicate Cable Tray 3TC attached to Cable Tray Support A325A-34 shown on Rev. 7 is shown as A325-34 on the Cable a (TSO2). 4. TSO2 does not indicate Cable Tray 3TC attached to Cable Tray Support A326-11. To on the drawing EE-34DT Rev.7 and verified to the intersection of these two trays. Valid Invalid Sarver, T. L. Date Neri, Anthony A Date Singh, Anand K Date Ves Non Non Discrepant Condition (none) Acceptable Not Acceptable Neri, Anthony A Date Date Schopfer, Don K Date Date Schopfer, Don K Date Date Nor Acceptable Not Accep	Discrepancy Peport Configuration DR VALID System Design Potential Operation Electrical Design Yes RSS Image: Not in agreement 1. Drawings not in agreement 1. Drawing EE-33T, Rev. 3 shows electrical distribution 3SCV*PNL5P in the installed location of 3SCV*PNL9P versa. The panels' installed locations (swapped from the shown on EE-33T) is consistent with other design docu including: EE-27F, Rev. 12, EE-48V, Rev.5, and EE-4815. 2. There are five supports installed for Conduit 3CX100 Cable and Raceway Program (TSO2) indicates four support A325A-34 shown on drawing EE Rev. 7 is shown as A325-34 on the Cable and Raceway (TSO2). 4. TSO2 does not indicate Cable Tray 3TC1060 or 3TC attached to Cable Tray Support A325A-34 shown on drawing EE Rev. 7 is shown as A325-34 on the Cable and Raceway (TSO2). 4. TSO2 does not indicate Cable Tray 3TC1060 or 3TC attached to Cable Tray Support A325A-11. This support on the drawing EE-34DT Rev.7 and verified in the field to the intersection of these two trays. Valid Invalid Needed Sarver, T. L. Image: Saturation of these two trays. Image: Saturation of these two trays. Valid Invalid Needed Singh, Anand K Image: Saturation of these two trays. Image: Saturation of these two trays. Valid Invalid Needed Singh, Anand K Image: Saturation of these two trays.

Northeast Utilities	IC	AVP	(DR No. DR-	MP3-0549
Millstone Unit 3	Discrepa	ncy Repo	ort		
Review Group:		HARIN-HONE AL IONIS ACTION OF A	DR	VALID	ndesses under beidenen
	System Installation		P	otential Opera	bility Issue
	Electrical Design	41-m		O Yes	
System/Process:	Installation Implementa RSS	leich		No No	
NRC Significance level:			0.	te FAXed to N	
				Date Publishe	
Discrepancy	Installed support	e not in name			u.
	Installed support			-	
	1. A 1" conduit a horizontal memb attachment is no	er of Cable T t shown on dr	ray Support / rawings or do	A308A-31. cumented in	This CCDs.
	2. Detail. 8-8 of is to be installed STRAY-43. Wal	on the vertica	al legs of Cab	le Tray Sup	port
	3. Local panel 34 the same vertica drawing EE-34D drawing, and ope could not be four	I leg of Cable V Rev. 5). Then change do	Tray Suppor	t STRAY-43 at is not show aring this ins	3 (Ref. wn on the
		Valid	Invalid	Review Needed	Date
Initiator:	Sarver, T. L.				10/28/97
	Neri, Anthony A	×	F	-	10120101
VT Lead:					10/28/97
	Schopfer, Don K	×	H	H	
VT Mgr:	Schopfer, Don K Singh, Anand K				10/28/97
VT Mgr:	Singh, Anand K				10/28/97 10/30/97
VT Mgr: IRC Chmn:	Shigh, Anand K				10/28/97 10/30/97
VT Mgr: IRC Chmn: Date:	Singh, Anand K				10/28/97 10/30/97
VT Mgr: IRC Chmn: Date: INVALID:	Singh, Anand K				10/28/97 10/30/97
VT Mgr: IRC Chmn: Date: INVALID: Date:	Singh, Anand K		epant Condition	C Yes	10/28/97 10/30/97
VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION:	Singh, Anand K	o Non Discre		Revie	10/28/97 10/30/97 11/4/97
VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION:	Singh, Anand K		epant Condition	Revie.v e Needed	10/28/97 10/30/97 11/4/97
VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously identified by NU? Initiator:	Singh, Anand K	o Non Discre		Revie.v e Needed	10/28/97 10/30/97 11/4/97
VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously identified by NU? Initiator: VT Lead:	Singh, Anand K	o Non Discre		Revie.v e Needed	10/28/97 10/30/97 11/4/97
VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously identified by NU? Initiator: VT Lead: VT Mgr:	Singh, Anand K Ves N (none) Neri, Anthony A	o Non Discre		Revie.v e Needed	10/28/97 10/30/97 11/4/97
VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously identified by NU? Initiator: VT Lead: VT Mgr: IRC Chmn:	Singh, Anand K Yes (Normal Normal Neri, Anthony A Schopfer, Don K	o Non Discre		Revie	10/28/97 10/30/97 11/4/97
VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously identified by NU? Initiator: VT Lead: VT Mgr:	Singh, Anand K Yes (Normal Normal Neri, Anthony A Schopfer, Don K	o Non Discre		Revie.v e Needed	10/28/97 10/30/97 11/4/97

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ICAVP Discrepancy Report

DR No. DR-MP3-0550

Review Group:	Configuration		(WR VALID	
Review Element:				Potential Opera	bility last
	Electrical Design			O Yes	
Discrepancy Type: Systen /Process:	Discrepancy Type: Drawing			No No	
NRC Significance level:					
			,	Date FAXed to N	
Discrepancy	Denuisae pet in a	aroomoni		Date Publishe	u:
	Drawings not in a				
Description:	1. Several vented trays in contradict which indices that covers shall be fla 3TC304O, 3TC30	tion to note 2 that unless at. Potential	2 of drawing noted other ly affected t	EE-34Q, Rev wise, all cont	v. 13 rol tray
**	2. The Cable and Raceway Program (TSO2) indicates that tray 3TC3080, 3TH3030, and 3TH3040 are 18 inch wide trays with vented covers. Tray location drawing EE-34Q Rev. 13, depicts these as 18 inches wide. The field observed trays are 18 inches wide. Contrary to this, note 2 of the tray location drawing indicates all trays are to be 30 inches unless noted otherwise. This note also indicates that control trays will have flat covers unless noted otherwise. No notation on the tray location drawing (EE-34Q) was identified to document this deviation.				
	3. The Cable and Raceway Program (TSO2) indicates that tray 3TC305O has covers on top and bottom in the "Work in Progress" display. The tray cover location drawing (EE-34TE, Rev.2) does not indicate the added bottom cover nor are there any outstanding change documents to add the bottom cover.				
	4. Cable tray cover location drawing EE-34TE, Rev. 2 indicates that trays 3TX310P, 311P, 312P, and 313P have covers top and bottom. This is interpreted from Change Control Document (CCD) P-E-7366, which "split trays" 3TX300W, 301W, and 302V adding the "P" numbers corresponding to the "W" trays which ar shown with covers top and bottom. The field observed tray has these covers. Contrary to this, the Cable and Raceway Program (TSO2) indicates that this tray has no covers. Further, the CCD should be shown as affecting the tray cover location drawing (drawing has no CCDs).				
	5. Cable tray cover that tray 3TX308M not have covers. Program (TSO2)	l is not cove Contrary to	red. The fig this, the Ca	ble and Race as one flat co	tray does way
		Valid	Invalid	Review	Date
Initiator:	Sarver, T. L.				10/28/97
	Neri, Anthony A			Ц	10/28/97
	Schopfer, Don K			Ц	10/30/97
	Singh, Anand K			H	11/4/97
Date:					
INVALID:					

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ICAVP **Discrepancy Report**

DR No. DR-MP3-0550

Date: RESOLUTION:					
Previously identified by NU?	🔿 Yes 🔘 No	Non Discr	epant Condition	O Yes	No No
VT Mgr:	(none) Neri, Anthony A Schopfer, Don K Singh, Anand K	Acceptable	Not Acceptable	Review Needed	Date

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Northeast Utilities Aillstone Unit 3	ICA Discrepan			R No. DR-	MP3-0551
Review Group: Review Element: Discipline: Discrepancy Type: Systen/Process: NRC Significance level:	System Design Electrical Design Drawing RSS		Po	VALID tential Operab Yes No e FAXed to NU	
Discrepanous	Drawings not in ag			Sate Published	1:
	1. Conduit Support indicates that cond rigid aluminum. The indicates that these 2. The Cable and F 3CX402YA1 and 3 were verified in the Support Logs indice	Log (CSL) Juits 3CL373 he Cable an e conduits a Raceway Pr CX402YC1 e field to be	3NA and ND a nd Raceway P are 4 inch dian ogram (TSO2 are aluminum aluminum. T	are 5 inch di rogram (TS neter rigid a 2) indicates (1. These co he listed Co	ameter O2) Iluminum conduits induits
	difference could in the actual weights affected CSLs are 174, -176, -177, -1 Sarver, T. L.	on the supp 2179-FSK- 79, -180, an Valid	sB-175, -182,	on the CSI	Ls. The -173, - Date 10/28/97
	Neri, Anthony A Schopfer, Don K				10/28/97
	Singh, Anand K			H	10/30/97
Date: INVALID:				-	
Date:			CALININA (SAN PROVINCIA)	NUMBER OF THE REAL POPULATION	A SECONDARY OF CLASSE
RES OLUTION:					
Previously Identified by NU?	🔿 Yes 💌 No	Non Discre	epant Condition	O Yes	No
Previously Mentilies by Nor				Raview	
Initiator: VT Lead: VT Mgr:	Neri, Anthony A Schopfsr, Don K Singh, Anand K	Acceptable	Not Acceptable	Roview Needed	Date

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ICAVP Discrepancy Report

DR No. DR-MP3-0553

DR VALID Potential Operability Issue Yes No Date FAXed to NU:

Date Published:

Discrepancy: Design Documents not in agreement

Description:

Discrepancy Type: Drawing

System/Process: RSS

NRC Significance level: 4

Review Group: Configuration

Review Element: System Design

Discipline: Electrical Design

1. A 1-inch diameter conduit for lighting is attached to south vertical leg of tray support G109-013. This attachment is not shown on the detail drawing EE-34JF, Rev.3. No referenced open change control documents for this drawing address this item.

2. Configuration of cable trays routed N-S as seen in Sections 2-2, 20-20, 21-21 and 22-22 on drawings EE-34R Rev. 10, EE-34S Rev. 11 and F-E-14937 cannot be resolved in field. The F-E shows eight trays; EE-34R shows seven trays. There are seven trays installed, but configuration does not match any reviewed document.

3. Drawing EE-34AU Rev. 6, incorrectly identifies trays. Cable Tray 3TC774P is not clearly located on this drawing. It should be located at coordinates B-7 and shown in Section 4-4 - but a "P-L" tray is shown instead.

4. Drawing EE-34AM Rev. 5 does not correctly depict cable tray locations. The "X" cable tray is incorrectly shown routing north and east past Col. Line 49.4 while the "K" cable tray is incorrectly shown stopping at Col. Line 49.4. The co.rect cable tray plan is as shown on drawing EE-34EN.

5. Cable tray 3TC757O was extended east along Col. Line 49.4 by F-E-14714. The tray identification drawing EE-34BB Rev. 11, for "O-C2" trays was not corrected to show this change when Rev. 9 was performed incorporating the F-E.

6. Conduit Plan drawing EE-55B; Rev. 8 shows flow transmitter 3RSS*FT38A as non-safety related (drawings has FT erroneously identified as 3RSS-FT38A).

7. Conduits 3CC764PA3, 3CC763PA2 and PB7 are 1½" flexible conduits of approximately 4 feet long running between junction box 3JB*7515 and valve 3RSS*MV8838B. The Cable and Raceway Program indicates that these conduits are rigid.

8. The Cable and Raceway Program (TSO2) indicates that conduit 3CC763PC7 is supported by three supports. This 5-feet long conduit was observed to have only one support.

9. Conduit Support Log 12179-FSK-ES-0442, Rev. 2A shows conduit 3CK760NA in Section 1 of view looking west but does not appear in plan view. This causes the number of conduits

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Northeast Utilities Millstone Unit 3	ICA Discrepan			R No. DR-N	AP3-0553
	shown in the two v	iews of the	same support	to be differe	ent.
	 Conduit Support Log 12179-FSK-ES-5129, Rev. 2, lists conduit 3CC764PB1 and this conduit was observed in the field installed on this support. The Cable and Raceway Program (TSO2) does not list this conduit as supported by this support. Conduit Support Log 12179-FSK-ES-1082, Rev. 1, lists conduit 3CX970PB1 and this conduit was observed in the field installed on this support. The Cable and Raceway Program (TSO2) does not list this conduit as supported by this support. 				
	12. Conduit Support conduit 3CK765PF and Raceway Prog supported by this s	5 as suppo ram (TSO)	rted on this su	ipport. The	Cable
	13. Conduit Support Log 12179-FSK-ES-439 Rev. 3A lists conduit 3CK758PF as supported on this support. The Cable a Raceway Program (TSO2) does not list this conduit as support by this support. TSO2 lists conduit 3CK758NA as supported this support, however, the CSL does not include this conduit.				
				Review	
initiator	Sarver, T. L.	Valid	Invalid	Needed	Date
	Neri, Anthony A		Н		10/28/97
	Schopfer, Don K		Ц	Ц	10/28/97
					10/30/97
IRC Christ:	Singh, Anand K	\boxtimes		П	11/4/97
	Singh, Anand K				11/4/97
IRC Christian	Singh, Anand K				11/4/97
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IRC Chron: Date: INVALID:	Singh, Anand K				11/4/97
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IRC Chron: Date: INVALID: Date: RESOLUTION:		Non Discr		Review	
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Northeast	t Utilities
Millstone	Unit 3

ICAVP Discrepancy Report

DR No. DR-MP3-0554

DR VALID

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Review Element:	System Installation
Discipline:	Electrical Design
Discrepancy Type:	Installation Implementation
System/Process:	RSS
NRC Significance level:	3

Review Group: Configuratio

Potential Operability Issue

Date FAXed to NU:

Date Published:

Discrepancy: Installation not in agreement with design documents

Description:

1. The third support from tray 3TX763N on conduit 3CX763NB is missing its clamp and therefore the conduit is not supported within the requirements for a maximum span of 8' on non-safety related conduits.

2. Conduits 3CC769NB2 and 3CX755NG are attached to Support G218-016 which is shown on Dwg. EE-34JG Rev. 4. Neither this drawing nor any open change documents address these additions.

3. Conduit 3CK970PB is routed on the southwest leg of tray Support G400B-026. The support detail drawing for this support, EE-34JK Rev. 3, nor any of the open change documents listed for this drawing address this addition.

 Conduit 3CX970OG-1" spans 3'-6" to a support that should be an item FE as shown on drawing BE-52CD Rev. 5. Support is missing critical components and is non-functional as found. Resultant span to next support exceeds criteria in BE-52CA Rev.
 In that 4'-6" maximum allowed support spacing is not maintained.

5. Conduit 3CC763PC8 (1½") is attached support ES-2676. The support spacing found in field exceeds the maximum listed on drawing BE-52CA Rev. 4, Table CA. Field span is 6'-6" (estimated) while maximum allowed spacing is 5'-6".

8. Conduit 3CK970OB3 (1½") is attached support ES-2528. The support spacing found in field exceeds the maximum listed on drawing BE-52CA Rev. 4, Table CA. Field span is 6'-9" versus allowable of 5'-6".

7. Conduit 3CK750OC, attached to Support ES-344, has support spacing in excess of the maximum allowed by Table CA on drawing BE-52CA Rev 4 for 1-1/2" aluminum. Field measured 6'-3" while maximum allowed is 5'-6".

8. An electric outlet and an emergency lighting unit are installed on the vertical leg of tray Support S106-052 (Ref. drawing EE-34MA Rev. 5). Two members are installed near the ceiling between Supports S109E-056 and S109D-065 with nothing attached to them. Neither the detail drawing nor any open change documents discuss these items.

9. A section of PS-201 was added to the north vertical leg of

Northeast Utilities	ICA	AVP	DR	No. DR-N	F'3-0554
Millstone Unit 3	Discrepar	ncy Repo	ort		
6	upport G306-039 to attach a light fixture and a lighting box i his attachment is not shown on the detail drawing EE-34J Rev. 3. No open change documents listed for this drawing address these additions.				
	10. Drawing EE-3 member not show tray as a conduit address this addit	on the dra support. No	wing has been	added abor	ve the
	11. Three sections of E-24 strut were added above the cable trays on cable tray support G203B-022 and are used for routing lighting conduit and a door alarm conduit for Door 386. A lighting fixture was installed below the center two trays. This is not shown on drawing EE-34JG Rev.4 and no open change control documents referenced for this drawing address these additions.				
		Valid	Invalid	Review	Date
Initiator:	Sarver, T. L.				10/28/97
	Neri, Anthony A				10/28/97
	Schopfer, Dori K				10/30/97
IRC Chrmn:	Singh, Anand K				11/4/97
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RESOLUTION:					
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	Neri, Anthony A Schopfer, Don K				
	Singh, Anand K				
Date:					
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Review Element:			Pot	ential Operab	ility issue
	Electrical Design Installation Implementation			O Yes	
System/Process:		x n		No No	
NRC Significance level:			Dette		
				FAXed to NU	
Discrepancy	Mall Depatrotion	a alla a sat 1		ate Published	
	Wall Penetration s 1. Condun 30X970				
	has a 4 inch condu observed to be set questions on the F be sealed with silic shown on any of th	aled only wi ire Protecti cone. Furth	within it. The ith Kaewool. R on Evaluation, per, this embed	encased sle esponse to all penetrat ded sleeve	eve wa
		Valid	Invalid	Review	Dete
Initiator:	Sarver, T. L.			rveeded	Date 10/19/97
VT Lead:	Neri, Anthony A		H	Н	10/27/97
VT Mgr:	Schopfer, Don K	Ø	H	Н	10/28/97
IRC Chrnn:	Singh, Anand K		ä	ä	11/5/97
Date:		The second s			
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Date:	NEXT OF THE OWNER OF THE OWNER AND THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER		SPRANCE CONTRACTOR COLORIDA		R. I.S. M. A. M. Galer, S. Marcall
RESOLUTION:					
Previously Identified by NU?	🔿 Yes 💌 No	Non Discre	epant Condition	O Yes	No
in Minteres		Acceptable	Not Acceptable	Review Needed	Date
Initiator:					Late
	Neri, Anthony A Schopfer, Don K				
	Singh, Anand K				
Date:	oingn, Anano K				
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	ICA	VP	DF	No. DR-	MP3-0558
Aillstone Unit 3	Discrepan	cy Repo	ort		۰,
Review Group:	Configuration	CORNER STREET, STOREN STREET, STOREN	DR V	ALID	INCONSIGNING INCOMPANY
Review Element:	System Installation				
Discipline:	Electrical Design		Pote	ential Operat	Hilly issue
Discrepancy Type:	Installation Implementatio	n		Yes No	
System/Process:				A NO	
NRC Significance level:	4		Date	FAXed to NL):
			De	ate Published	i :
Discrepancy:	Inadequate racewa	y protection	1		
Description [.]	1. Power cables tra 3CL750NA2 via fre do not have a bond Electrical Installation	ee air and a ding (ground on Specifica	wall penetration d) conductor as ation E-350, Re	on. These required t ev. 9.	raceways by
	2. Conduits 3CH97 for QSS pump pow between duct bank approximately 81/2 ductbank. The duc been extend 4 feet arrangement (i.e., PB stop shori of th feet. The cables fr conduits are free a between the racew Specification E-35 cable to 3 feet and Further, these exp the servicing a val and a potential situ exposed cables.	ver cables. 908 and flo feet short to bank cond to the ES without sup e extended rom the duc tired. There vays as required. Th	These conduits for sleeves. To of the wall ope duits (3DH908f SF building in a port). Conduit ductbank conduits abank conduits is no bonding uired by Electric 350 also limits ion of ductbank are in an area /8813 creating could result in co	s are the ro he conduit ening for the PO4 and PO cantilevents 3CH970 duits by ab- to the rigid (ground) of cal Installa the free-ai k conduits that is util a personn damage to	Dute ts stop ne D5) have PA and out 41/2 d steel conductor tion r length o to 1 foot. lized for el hazard the
	 Conduit 3CK758 using an LB fitting. installed. 	This fitting	a was observed	to have n	
					o cover
				Review	o cover
	Sanar T i	Valid	Invalid		o cover Dete
	Sarver, T. L.		Invalid	Review	0 cover Date 10/28/97
VT Load:	Neri, Anthony A		Invalid	Review	Dete 10/28/97 10/28/97
VT Load: VT Mgr:	Neri, Anthony A Schopfer, Don K		Invalid	Review	Date 10/28/97 10/28/97 10/30/97
VT Lead: VT Mgr: IRC Chmn:	Neri, Anthony A Schopfer, Don K Singh, Anand K		Invalid	Review	o cover
VT Load: VT Mgr: IRC Chrmn: Date:	Neri, Anthony A Schopfer, Don K Singh, Anand K		Invalid	Review	Date 10/28/97 10/28/97 10/30/97
VT Lead: VT Mgr: IRC Chmn:	Neri, Anthony A Schopfer, Don K Singh, Anand K		Invalid	Review	Date 10/28/97 10/28/97 10/30/97
VT Load: VT Mgr: IRC Chrmn: Date:	Neri, Anthony A Schopfer, Don K Singh, Anand K			Review	Date 10/28/97 10/28/97 10/30/97
VT Load: VT Mgr: IRC Chmn: Date: INVALID:	Neri, Anthony A Schopfer, Don K Singh, Anand K			Review	Date 10/28/97 10/28/97 10/30/97
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VT Load: VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION:	Neri, Anthony A Schopfer, Don K Singh, Anand K	Non Discre	epant Condition	Review Needed	Date 10/28/97 10/28/97 10/30/97 11/5/97
VT Load: VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION:	Neri, Anthony A Schopfer, Don K Singh, Anand K			Review Needed	Date 10/28/97 10/28/97 10/30/97 11/5/97
VT Lead: VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously Identified by NU? Initiator:	Neri, Anthony A Schopfer, Don K Singh, Anand K	Non Discre	epant Condition	Review Needed	© COVER Date 10/28/97 10/28/97 10/30/97 11/5/97
VT Lead: VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously Iden(ifiad by NU? Initiator: VT Lead:	Neri, Anthony A Schopfer, Don K Singh, Anand K Yes () No (none)	Non Discre	epant Condition	Review Needed	Dete 10/28/97 10/28/97 10/30/97 11/5/97

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Page 1 of 2

Northeast Utilities Millstone Unit 3	ICAVP Discrepancy Report			DR No. DR-MP3-05	
IRC CIIITIN: S	ingn, Anano K				
Date:		-	-	6	
SL. Comments:					

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Northeast Utilities Millstone Unit 3	ICA Discrepan	VP icy Rep		R No. DR-	MP3-057
Discipline:	System Installation Electrical Design Inctallation Requirements DGX		Po	VALID territal Opurat Yes No e FAXed to NU Date Publisher	J:
Discrepancy: Description:	Installed conduit ty Conduits 3CH406F which carry the em- listed in the Cable type CAC-10. This conduit; the install	PA, B, and hergency di and Racew s cornodity	C, and 3CH40 esel generator vay Program (1 type 's for 4-in	OTOA, B, an output cab SO2) as co ch rigid alu	d C, les, are prinodity minum
VT Lead: VT Mgr:	Sarver, T. L. Neri, Anthony A Schopfer, Don K Singh, Anand K	Valid S S S S S S	Invalid	Review Needed	Date 10/28/97 10/27/97 10/30/97 11/5/97
Date: RESOLUTION: Previously identified by NU?	Yes No	Non Discre	epant Condition	O Yes	No
VT Mgr:	(none) Norl. Anthony A Schopfer, Don K Singh, Anand K	Acceptable	Not Acceptable	Review Needed	Date

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lillstone Unit 3	IC	AVF	D	R No. DR-N	AP3-0198
	Discrepa	ncy Repo	rt		
Review Group:		GERMONTHIA AR ADHIDE A SUBCIDIANA AND AN	DR IN	VALID	S SECTION OF COMPANY
Review Element:			Bot	ential Open al	liter to over
	Piping Design		PO	ential Operadi	inty issue
Discrepancy Type:				Nu Nu	
System/Process: NRC Significance level:					
the organicance level.	•		Date	FAXed to NU	1
			D	ate Published	1
Discrepancy:	Nozzle load qual traceable.	ification for p	umps 3SWP*	P3A&3B is r	not
Description:	In the process of Rev 3, and 1217 the following:	reviewing cal 9 - NP(B) - X	culations 1211 1917 REV. 3 ,	79 - NP(B) - CCN-2, we	X 1919 noted
4	Nozzle loads for generated and su provided for the	immarized in	attachment D	but no refe of these lo	rence is
		Valid	Invalid	Review	Date
initiator:	Jain, R. C.				11/3/97
VT Lead:	Neri, Anthony A	ā	Ø	H	11/4/97
VT Mgr:	Schopfer, Don K	ā		H	
IRC Chron:	Singh, Anand K	Ē	Ē	H	
Date:	11/3/97	and the second sec			
INVAL D		70 ND/D) 000	0 and 0004		
tive results.	Calculations 12179-NP(B)-2033 and 2034 received on 9/22/97 have qualified the suction and discharge nozzles for pumps 3SWP-3A & 3B.				
	35WP-3A & 38.			area for pun	nps
Date:	3SWP-3A & 3B.	NAMES OF TAXABLE PARTY OF			nps
1000 (100) (100) (100) (100) (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (100) (3SWP-3A & 3B.				nps
Dete	3SWP-3A & 3B.		pant Condition	O Yes	No
Date: RES/DLUTION:	3SWP-3A & 3B.	o Non Discre	pant Condition) Yes Review	No
Dete: RESOLUTION: Previously Identifie 1 by NU? Initiator:	3SWP-3A & 3B.			Yes Review Needed	
Dete: RESOLUTION: Previously identifie 1 by NU? Initiator: VT Lead:	Jain, R. C. Neri, Anthony A	o Non Discre	pant Condition	Yes Review Needed	No
Dete: RES:DLUTION: Previously identifie:1 by NU? initiator: VT Lead: VT Mgr:	Jain, R. C. Neri, Anthony A Schopfer, Don K	o Non Discre	pant Condition	Yes Review Needed	No
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Dete: RES:DLUTION: Previously identifie:1 by NU? initiator: VT Lead: VT Mgr:	Jain, R. C. Neri, Anthony A Schopfer, Don K Singh, Anand K	o Non Discre	pant Condition) Yes Review	No

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Page 1 of 1

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Northeast Utilities Millstone Unit 3	ICA Discrepar	AVP		DR No. DR-	MP3-0198
Review Group:		no) nope		INVALID	
Review Element: Discipline:	Review Element: System Design Discipline: Piping Design Discrepancy Type: Calculation			oility Issue	
System/Process: NRC Sign#icance level:				• No	
			Di	Date Published	
Discrepancy	Nozzle load qualif traceable.	ication for p	oumps 3SWP		
Description	In the process of r Rev 3, and 12179 the following:	eviewing ca - NP(B) - X	Iculations 12 1917 REV. 3	179 - NP(B) 3 , CCN-2, w	- X 1919 e noted
	Nozzle loads for b generated and sur provided for the q	nmarized in	attachment	D, but no ref ice of these I	erence is
		Valid	Invalid	Review	Date
Initiator:	Jain, R. C.				11/3/97
VT Lead:	Neri, Anthony A		Ø	Ē	11/4/97
	Schopfer, Don K				
IRC Chron:	Singh, Anand K				
Date:	11/3/97				
INVALID:	Calculations 1217 have qualifed the 3SWP-3A & 3B.				
Date:	Ministrandia, Ministrativa mandra mandra ana ana ana ana ana ana ana ana ana a	ANN A PERLINNAMENT COLUMN STO	IT TO AND DISC MADDING WHICH AND A CONTROL		
PESOLUTION:					
Previously Identified by NU?	🔿 Yes 💌 No	Non Discre	pant Condition	O Yes	No No
latiator	Jain, R. C.	Acceptable	Not Acceptabl	Review le Needed	Date
	Neri, Anthony A				
	Schopfer, Don K				
	Singh, Anand K				
IRC Chron:	series in the series of the				
			bend	bund	
IRC Chmn: Date: SL Comnwents:				-	

ICAVP DR No. DR-MP3-0289 Northeast Utilities **Millstone Unit 3 Discrepancy Report Review Group: System** DR INVALID **Review Element: System Design** Potential Operability Issue Discipline: I & C Design) Yes **Discrepancy Type: Calculation** No System/Process: SWP NRC Significance level: 4 Date FAXed to NU: Date Published: 11/9/97 Discrepancy: Calculation SP-3SWP-24 Description: The purpose of calculation SP-3SWP-24, Rev. 3, is to determine the high and low flow alarms of the required service water flow rates for the emergency diesel generator air intercooler and jacket water cooler heat exchangers. Flow indicating switches 3SWP-FIS41A and B provide control room annunciation on MB1C for high and low service water flow through 3EGS*E1A. 2A and 3EGS*E1B, 2B, respectively; computer alarms for high and low flow; and low flow annunciation on EDG control panels 3EGS*PNLA and B, respectively. 1. Page 6, item7 states that the switches have no safety function. However, per FSAR sections 7.1.1.5, page 7.1-4 -Alarms and 8.3.1.1.3, page 8.3-12 - Emergency AC Power Source the DG alarms are safety related. Review Vent L.valid Date Needed initiator: Hindia, R. 11/6/97 \boxtimes VT Lead: Neri, Anthony A \boxtimes 11/6/97 VT Mgr: Schopfer, Don K IRC Chron: Singh, Anand K Date: 11/6/97 INVALID: Per loop diagrams 3SWP-041A-1, Rev. 2 and 3SWP-041B-1, Rev. 2, isolation cabinets have been provided between nonsafety related (NSR) signals from the flow switches 3SWP-FIS41A/B and safety related DG control panels 3EGS*PNLA and 3EGS*PNLB. The NSR status of the flow switches is in agreement with P&ID EM-133A-26. Date: **RESOLUTION: Previously Identified by NU?** O Yes No No Non Discrepant Condition O Yes No Review Not Acceptable Acceptable Needed Date initiator: (none) \boxtimes VT Lead: Neri, Anthony A D \boxtimes VT Mgr: Schopfer, Don K -IRC Chron: Singh, Anand K Date: SL Comments:

DR No. DR-MP3-0290 ICAVP Northeast Utilities **Millstone Unit 3 Discrepancy Report Review Group: System** DR INVALID Review Element: System Design Potential Operability Issue Discipline: 1 & C Design) Yes **Discrepancy Type:** Calculation No System/Process: SWP NRC Significance level: 4 Date FAXed to NU: Date Published: 11/9/97 Discrepancy: Calculation SP-3SWP-25 vs. SP-ST-EE-286 requirement discrepancy. Description: The purpose of calculation SP-3SWP-25, Rev. 1 is to determine a setpoint for the Service Water inlet temperature for the Control Room Air Conditioning Water Chiller Condensers (3HVK*CHL1A, B) to minimize low temperature chiller trips during winter service conditions. Page 5, item 4.4 of Attachment 2 titled - Sensor Drift (SD), states that SD is accounted for in sensor calibration accuracy (SCA). Basis for this statement is not provided. Also this is not agreement with section 4.4 of SP-ST-EE-286 (Reference 2.1) -Guidelines for Calculating Instrument Uncertainties; which states that SD and SCA are sometimes considered interactive. Review Valid Invalid Date Needed Initiator: Hindia, R. 11/6/97 \boxtimes VT Lead: Neri, Anthony A 11/6/97 VT Mgr: Schopfer, Don K IRC Chmn: Singh, Anand K Date: 11/5/97 INVALID: Sensor in this calculation is an RTD. Hence, it is a non adjustable type of instrument. During calibration check of an RTD only verification that can be performed is repeatability (accuracy) of the instrument. When RTD is found out of manufaturer specified accuracy it will be replaced. Hence, sensor drift could be considered a part of sensor calibration accuracy. Date: RESOLUTION: Previously Identified by NU? O Yes No Non Discrepant Condition O Yes No Review Acceptable Not Acceptable Needed Date initiator: (none) \boxtimes VT Lead: Neri, Anthony A VT Mgr: Schopfer, Don K

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IRC Chmn: Singh, Anand K

Date:

SL Comments:

Page 1 of 1

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and the second s	Discrepa	ncy Rep	ort			
Review Group:		and the second second second	DR IN	VALID	NG TO AN ADD TO BE DON'T A DOUGH	
Review Element:			Det	Between the Descent line of		
	Piping Design		Pol	ential Operat	sility issue	
Discrepancy Type:				Yes No		
System/Process:				. NO		
NRC Significance level:	4		Date	FAXed to NL	1:	
			D	ate Published	4:	
Discrepancy:	Pipe stress analy	sis does not				
	calculation	0000100	Monthly HOZZIC	ioad quain	ication	
Description:						
	During the review	v of service	water piping ca	Iculations		
	(i) 12179-NP(B)->					
	(ii) 12179-NP(B)-)					
	(iii) 12179-NP(B)- (iv) 12179-NP(B)-	X1917-Rev.	3, CCN-2.			
	(iv) 121/0-NP(B)-	×1920-Rev.	3, CCN-2			
	we noted the follo	wing discret	pancies:			
	Pipe stress calcul	ations (i) the	u (iv) concrete	a possile le	ada fas	
	control room AC	unit HVR*AC	UIA&1B.	110221010	aus for	
	Although, upon fu	irther investi	gation, calculat	ions 12179	-NP(B)-	
	2045 & 2046 for o	ualification	of the 3HVR*A	CU1A&1B	were	
	located but no do	cumentation	was provided t	for the qua	lification	
	and acceptance of	if these load	s in the pipe str		ations.	
		Valid	Invalid	Review	Data	
Initiator:	Jain, R. C.			1	Date 11/4/97	
VT Leed:	Neri, Anthony A	H		H	11/3/97	
	Schopfer, Don K	H		Н	1113131	
	Singh, Anand K	H	H	H		
Date:	11/3/97				and the second state and	
		hat this asia	define de late			
interactor:	While it is noted t	hat this calc	ulation deviates	s from the	standard	
	practice utilized in	tother pipe	stress calculation	ons, this co	ndition is	
	considered to be	во вология т		C TRAPATARA		
	of the icaun second	Pacancilia	ype error and is	sinereiore	outside	
	of the icavp scc.pe	B. Reconcilia	ation of the equ	pment noz	zle loads	
	is in fact containe	 Reconcilia d in seperate 	ation of the equ e calculations.	ipment noz	zle loads	
	of the icavp scc.pe	 Reconcilia d in seperation pipe stress 	ation of the equ e calculations. report does not	ipment noz	zle loads	
Date:	is in fact containe identifies that the	 Reconcilia d in seperation pipe stress 	ation of the equ e calculations. report does not	ipment noz	zle loads	
Date: RESOLUTION:	is in fact containe identifies that the	 Reconcilia d in seperation pipe stress 	ation of the equ e calculations. report does not	ipment noz	zle loads	
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RESOLUTION:	of the icavp scope is in fact containe identifies that the calculations which	e. Reconcilia d in seperat pipe stress n quality the	ation of the equ e calculations. report does not	ipment noz This DR m reference	zle loads	
RESOLUTION: Previously Identified by NU?	Yes No	e. Reconcilia d in seperat pipe stress n quality the	ation of the equ e calculations. report does not nozzle loads.	ipment noz This DR m reference	zle loads erely the	
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RESOLUTION: Previously identified by NU? initiator: VT Lead:	Ves No (none) Neri, Anthony A	e. Reconcilia d in seperati pipe stress n quality the Non Discret	ation of the equ e calculations." report does not nozzle loads.	ipment noz This DR m reference Yes Review	erely the	
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RESOLUTION: Previously Identified by NU? initiator: VT Lead: VT Mgr:	Ves No (none) Neri, Anthony A	e. Reconcilia d in seperati pipe stress n quality the Non Discret	ation of the equ e calculations." report does not nozzle loads.	ipment noz This DR m reference Yes Review Needed	erely the	

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Northeas	t Utili	ities
Millstone	Unit	3

ICAVP Discrepancy Report

DR No. DR-MP3-0585

SL Comments:

ICAVP DR No. DR-MP3-0612 Northeast Utilities Millstone Unit 3 **Discrepancy Report** Review Group: Programmatic **DR INVALID** Review Element: Operating Procedure Potential Operability Issue **Discipline:** Operations Yes Discrepancy Type: O & M & T Procedure No System/Process: N/A NRC Significance level: 4 Date FAXed to NU: **Date Published:** Discrepancy: Reference to Technical Specifications in Abnormal Operating Procedure AOP 3571 R4, Att. F, Step 5 Description: AOP 3571 Rev. 4 Attachment F step 5 removed reference to Technical Specifications table 3.3-1, Actions 5 and 8, for response to Source Range Nuclear Instruments Channel Failure. The Integrated Safety Evaluation Determination prepared for the change lists the basis for deleting reference to Actions 5 and 8 as "actions 5 and 8 do not apply to plant operation within the Source Range Nuclear Instrument power range". Contrary to the above, Action 5 of Technical Specifications Table 3.3-1 (related to the Shutdown Margin Monitor) does apply to plant operation related to the Source Range Nuclear Instruments since the Shutdown Margin Monitor uses the output of the Source Range Nuclear Instrumentation for its input. Therefore, the deletion of reference to Action 5 of Technical Specification Table 3.3-1 in AOP 3571 Rev. 4, Attachment F, step 5 was inappropriate. Review Valid Invalid Date Needed Initiator: Navarro, Mark \boxtimes 11/4/97 \square VT Lead: Ryan, Thomas J 11/5/97 VT Mgr: Schopfer, Don K IRC Chrnn: Singh, Anand K Date: 11/4/97 INVALID: Additional information such as the RPS DBDP and the applicable surveillance procedures (SP3141E01/2) for the Shutdown Margin Monitor were reviewed and it was determined the the shutdown margin monitor is now fed from a separate system (Gamma Metrics) which is independent of the Source Range NIS Therefore, deletion of the reference to action 5 in Technical Specification Table 3.3-1 discussed in the concern was appropriate and no further action is required. Date: **RESOLUTION:** Previously Identified by NU? Yes No Non Discrepant Condition Yes No Review Acceptable Not Acceptable Date Needed Initiator: (none) \boxtimes VT Lead: Ryan, Thomas J NNN VT Mgr: Schopfer, Don K IRC Chrmn: Singh, Anand K Date: SL Comments:

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Page 1 of 2

Northeast Utilities	ICAVP	DR No. DR-MP3-0612
Millstone Unit 3	Discrepancy Report	

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Revi

ICAVP Discrepancy Report

DR No. DR-MP3-0022

view Group:	Accident M ligation
ew Element:	System Design
Discipline	Other

Discrepancy Type: Licensing Document

System/Process: N/A

NRC Significance level: 4

DR RESOLUTION ACCEPTED

Pote

ntial	0	perability	Issue
C)	Yes	
۲	D	No	

Date FAXed to NU:

Date Published: 8/22/97

Discrepancy: Westinghouse Comments on FSAR Section 15.1

Description: We have reviewed Westinghouse Electric Corporation letter NEU-97-537, "Northeast Utilities Service Company Millstone Unit 3 Review of Steam Line Break M&E Information in FSAR Chapter 15," dated April 8, 1997, which provided NU suggested page markups for FSAR Section 15.1, Increase in Heat Removal by the Secondary System. The purpose of these comments and markups was to provide assurance that the Millstone 3 FSAR is consistent with the Plant Safety Evaluation of record for the current fuel cycle.

> The comments on this section identify changes to the input assumptions for the accidents analyzed in this section. The changes have not been incorporated into the FSAR, making the FSAR inconsistent with the Plant Safety Evaluation.

A review of applicable corrective action databases for Millstone 3 has not identified any pending FSAR change notice items that will incorporate the Westinghouse comments into the FSAR.

		Valid	invalid	Needed	Date
Initiator:	Johnson, W. J.				8/11/97
VT Lead:	Raheja, Raj D				8/11/97
VT Mgr:	Schopfer, Don K				8/11/97
IRC Chrnn:	Singh, Anand K				8/12/97

Date:

INVALID:

Date: 10/31/97

RESOLUTION: Disposition:

NU has concluded that the issue reported in Discrepancy Report, DR-MP3-0022, does not represent a discrepant condition. The FSAR values are acceptable and should remain as is to be consistent with the values used in the Calculation of record for the radiological consequences of a main steam line break. Whenthe Westinghouse letter was received, the discrepancies noted by Westinghouse were evaluated. Most of them were rounding differences (radiological calculation only used three significant figures). The only difference that was not rounding was a change in the initial inventory of steam and water in the secondary side of the Steam Generators. The radiological calculation of record used a larger volume and hence it was conservative and remains bounding compared to the revised Westinghouse consequences and the FSAR is still valid.

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Significance Level criteria do not apply here as this is not a

ICAVP **Discrepancy Report**

DR No. DR-MP3-0022

discrepant condition.

Conclusion:

NU has concluded that the issue reported in Discrepancy Report, DR-MP3-0022, does not represent a discrepant condition. The recommended comments Westinghouse made to the FSAR were primarily changing a rounded value to a specific number. The one comment not related to rounding was a change in Steam Generator volume. The value maintained in the FSAR was larger and more conservative.

Significance Level criteria do not apply here as this is not a discrepant condition.

Previously identified by NU?	() Yes 🖲 No	Non Discr	epant Condition	• Yes	O No
VT Lead: VT Mgr:	Johnson, W. J. Raheja, Raj D Schopfer, Don K Singh, Anand K	Acceptable	Not Acceptable	Review Needed	Date 10/31/97 10/31/97 11/3/97 11/4/97

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Northeast Utilities	ICA	/P		DR No. DR	MP3-0066
Millstone Unit 3	Discrepand	y Repo	ort		
Review Group:	Configuration		DR RESOLU	TION ACCEPT	ED
Review Element:				otential Opera	bility Issue
	Electrical Design			O Yes	
	Installation Implementation			No No	
System/Process: NRC Significance level:					
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some were such as a second				Date Publishe	kt: 8/29/97
	Bonding Conductor				
Description:	Trays 3TL752O and between them. The trays consistent with good engineering pr	re is no gi the Elect	round provide	ed between ion Specific in the area.	these two
		Valid	Invalid	Review Needed	Date
Initiator	Sarver, T. L.			[]]	8/19/97
	Neri, Anthony A	R	H	H	8/20/97
	Schopfer, Don K	M	H	H	8/22/97
	Singh, Anand K		H	H	8/26/97
Date:					antinen e Branzer Branzanan er e
INVALID:					
		AND A CANADAR STREET	NEAL PROPERTY ADDRESS AND	MAANDONIC AMAZING BORGE	
Date: RESOLUTION:	10/7/97				
	NU has concluded t				
	identified a condition requires correction.	n not prev	iously discov	ered by NU	which
	During field verifical to have a grounding 3TL752 and 3TL7 but, was not connect	cable in i 530 were	t, and trays 3 each found t	TC768N, 3	TX768N.
	CR No. M3-97-2925			initiated to	address
	this condition.			initiated to	
	A DCN shall be initia	ated, AWG	O's gene.ated	d and compl	eted to
	resolve this conditio the Electrical Install				
	Conclusion:				
	NU has concluded to identified a condition requires correction.				
	CR M3-97-2925 Iter			vide the net	

Northeast Ut(lities Millstone Unit 3		AVP ancy Repo		No. DR-	MP3-0060
VT Lev VT M IC Chri	en: Singh, Anand K	Acceptable	Not Acceptable	Review Needed	Date 10/21/97 10/28/97 11/3/97 11/5/97

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ICAVP Discrenancy Report

DR No. DR-MP3-0079

Review Group: Programmatic DR REBOLUTION ACCEPTED Review Element: Corrective Action Process Discrepancy Type: : declusion System/Trocess: DOX Vie NRC Significance invest: 4 Date FAAcd to NU: Discrepancy: Type: : Calculation Change Notices (CCNs) Date FAAcd to NU: Discrepancy: Procedural Controls for Revising Station Procedures Affected by Calculation Change Notices (CCNs) Date FAAcd to NU: Descrepancy: Procedural Controls for Revising Station Procedures Affected by Calculation Change Notices (CCNs) Descrepancy: Procedural Controls for Revising Station Procedures Affected by Calculation Change Notices (CCNs) Descrepancy: Procedural Control Manual; Rev. 3, the independent review process for Calculation controls in the independent review process for Calculation controls in the independent review process for Calculation controls in the independent review process for Calculations or actust revisions to calculations include a specific check for procedural impact (see NUC DCM FORM 5-5A) includes no such specific check in the independent review, however the form used for CCNs (see NUC DCM FORM 5-5A) includes no such specific check in the independent review process. In addition, with exception of the requirement to consider 'Are adequate proporately specified?', specific guidance for independent review process in addition, with exception of the requirement to consider 'Are adequate proporately specified?', specific guidance for independent review process in a discipance design package review considered appropriate supmentis reviews by other engineering disciplines (seismic, electrical, etc.) and affected departments (Operations, maintenance, etc.)? T	Millstone Unit 3	Discrepancy	y Repo	rt		
Discipline: Mechanical Design Yes Discipline: Yes: Yes System/Proces: DOX Discrepancy Type: Discrepancy NRC Significance inveit 4 Discrepancy: Procedural Controls for Revising Station Procedures Affected by Calculation Change Notices (CCN) Discrepancy: Procedural Controls for Revising Station Procedures Affected by Calculation Change Notices (CCN) Description: In response to "State how the corrective action will effectively prevent or reduce the possibility of the same or similar event or adverse condition from happening again", block 7 of form RPA-4, page 4 0f 4, of Adverse Condition Report ACR M3-96-0485 states The CCN that affected the aforementioned surveillance procedure forms aid not catch the impact to these forms. Per DCM (Design Control Manual) Rev. 3, the independent review process is sufficient to reduce the possibility of the same or similar event from happening again." Our review of the DCM Rev. 3, chapters 4 and 5 did not identify sufficient controls in the independent review, however the form used for CCM (Design Control Manual) Rev. Mowever, the form used for CCM (See NUC DCM FORM 5-5A) includes no such specific check in the independent review process. In addition, with exception of the requirement to consider "Are adequate properational and subsequem periodic testing requirements appropriate sup. Jesting States of the consideration of impact to station procedures. There is a check in Chapter 4 of Rev. 3 of the DCM by the independent review rouse ado not insert design paperopriate specifications. Mainter adverse and the assumption would then have to made that the affected durages to station procedures has not been			ACC REMAINS REPORT FOR LAWY 780	DR RESOL	UTION ACCEPT	ED
Bytem Process: DX Date FAXed DIX: MRC Significance invest: 4 Discrepance: Proceduration Change Notices (CCNs) Discrepance: Discrepance: Proceduration Change Notices (CCNs) Discrepance: In response to "State how the corrective action will effectively provem or reduce the possibility of the same or similar even or adverse condition Report ACR M3-96-0485 states The CCN that affected the aforementioned surveillance procedure forms did not catch the impact to these forms. Per DCM (Design Control Manual) Rev. 3, the independent review process is sufficient to reduce the possibility of the same or similar event from happening again." Our review of the DCM Rev. 3, chapters 4 and 5 did not identify strice in controls in the independent review process for Calculation Change Notices (CCNs) to prevent or provide addee assurance that this event would not be repeated. New calculations or acture revisions to calculations include a specific check for procedural impact (see NUC DCM FORM 5-1A item 5) which receives independent review, however the form used for CNS (see NUC DCM FORM 5-1A) item set of SCNS (see NUC DCM FORM 5-1A) item set of SCNS (see NUC DCM FORM 5-1A) item set of SCNS (see NUC DCM FORM 5-1A) item set of SCNS (see NUC DCM FORM 5-1A) item set of subsection of the requirement to consider 'Are adequate provers of CCNS reported -1 CAPL 4-0 (See SCN) in the DCM does provide -1 CAPL 4-0 (See SCN) do go to the provement of subsection procedures. The is a check in Chapter 4 of Rev. 3 of the DCM by the independent review induces, etc.) and item for the inveiew relieves on the set of independent evences, etc.) and item for the inveiew relieves the site integrated design provide in the independent interview induces as protend for the inveiew for the CCN words of the CCN process	Discipline	I: Mechanical Design			proc.	bility Issue
Discrepancy: Procedural Controls for Revising Station Procedures Affected by Calculation Change Notices (CCNs) Descriptive: In response to "State how the corrective action will effectively prevent or reduce the possibility of the same or similar even, or adverse condition from happening again", block 7 of form RP-4.7 page 4 0f 4, of Adverse Condition Report ACR M3-96-0485 states "The CCN that affected the aforementioned surveillance procedure forms did not catch the impact to these forms. Per DCM (Design Control Manual) Rev. 3, the independent review process is sufficient to reduce the possibility of the same or similar event from happening again." Our review of the DCM Rev. 3, chapters 4 and 5 did not identify sufficient controls in the independent review process for Calculation Change Notices (CCNs) to prevent or provide added assurance that this event volid not be repeated. New calculations or actual: revisions to calculations include a specific check for procedural impact (see NUC DCM FORM 5-1A item 5) which receives independent review, however the form used for CCNs (see NUC DCM FORM 5-5A) includes no such specific check in the independent review, however the form used for CCNs (see NUC DCM FORM 5-5A) includes no such specific check in the independent review, process. In addition, with exception of the requirement to consider 'Are adequate propriately specified?', specific guicence for independent reviewers of CCNs provided ' Chapter 4 of the DCM by the independent reviewer that asks 'has the integrated design package review considered appropriate supp. mental reviews by other engineering disciplines (seismic, electrical, etc.) and affected departments (Operations, maintenance, etc.)?' This could be one link to help ensure the CCN would go to the could be one link to help ensure the CCN would go to the could be one link to help ensure the CCN would go to the could be one link to help ensure the CCN would go to the could be one link to help ensure the CCN proces as add not affected departments (Operations,	System/Process	I: DGX			No	
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Calculation Change Notices (CCNs) Description: In response to "State how the corrective action will effectively prevent or reduce the possibility of the same or similar even, or adverse condition from happening again", block 7 of form RP-4-7 page 4 01 4, of Adverse Condition Report ACR M3-96-0485 states "The CCN that affected the aforementioned surveillance procedure forms did not catch the impact to these forms. Per DCM (Design Control Manual) Rev. 3, the independent review process is sufficient to reduce the possibility of the same or similar event from happening again." Our review of the DCM Rev. 3, chapters 4 and 5 did not identify sufficient controls in the independent review process for Calculation Change Notices (CCNs) to prevent or provide added assurance that this event would not be repeated. New calculations or actual revisions to calculations include a specific check for procedural impact (see NUC DCM FORM 5-1A item 5) which receives independent review, however the form used for CCNs (see NUC DCM FORM 5-5A) includes no such specific check in the independent review process. In addition, with exception of the requirement to consider "Are adequate properational and subsequent periodic testing requirements appropriately specified?", specific guidance for independent reviewers of CCNs provided - Chapter 4 of the DCM does not include consideration of impact to station procedures. There is a check in Chapter 4 of Rev. 3 of the DCM by the include consideration of impact to station procedures are affected departments (Operations, maintenance, etc.)?" This could be one link to heip ensure the CCN would go to the Operations Department for their review and the assumption would then have to made that the affected surveillances would be identified for revision, however this link in and of itself does not oright to the issue oi whether or not station procedures are affected. In any case, the statement in the ACR (block 7 of form RP4-7) of sufficient controls which would prevent recu					Date Publishe	d: 9/11/97
prevent or reduce the possibility of the same or similar event or adverse condition from happening again*, block 7 of form RP4-t7 page 4 0f 4, of Adverse Condition Report ACR M3-96-0485 states "The CCN that affected the aforementioned surveillance procedure forms did not catch the impact to these forms. Per DCM (Design Control Manual) Rev. 3, the independent review process is sufficient to reduce the possibility of the same or similar event from happening again." Our review of the DCM Rev. 3, chapters 4 and 5 did not identify sufficient controls in the independent review process for Calculation Change Notices (CCNs) to prevent or provide added assurance that this event would not be repeated. New calculations or actual revisions to calculates no include a specific check for procedural impact (see NUC DCM FORM 5-1A item 5) which receives independent review process. In addition, with exception of the requirement to consider "Are adequate preoperational and subsequent periodic testing requirements appropriately specified", specific quicance for independent reviews of CCNs (see NUC DCM FORM 5-1A item 5) which receives of CCNs provided - Chapter 4 of the DCM does not include consideration of impact to station procedures. There is a check in Chapter 4 of Rev. 3 of the DCM by the independent reviewer that asks "has the integrated design package review considered appropriate supp. smental reviews by other engineering disciplines (seismic, electrical, etc.) and affected departments (Operations, maintenance, etc.)?" This could be one link to help ensure the CCN would go to the Operations Department for their review and the assumption would then have to made that the affected surveillances would be identified for revision, however the link in and of liself does not procedures has not been found. In addition, our review of the current Revision 5 of the DCM process also did not find sufficient controls which would prevent recurrence of the event documented in the aforementioned ACR.	Discrepanc				Procedures A	ffected by
sufficient controls in the independent review process for Calculation Change Notices (CCNs) to prevent or provide added assurance that this event would not be repeated. New calculations or actual revisions to calculations include a specific check for procedural impact (see NUC DCM FORM 5-1A item 5) which receives independent review, however the form used for CCNs (see NUC DCM FORM 5-5A) includes no such specific check in the independent review process. In addition, with exception of the requirement to consider "Are adequate properational and subsequent periodic testing requirements appropriately specified?", specific guidance for independent reviewers of CCNs provided - Chapter 4 of the DCM does not include consideration of impact to station procedures. There is a check in Chapter 4 of Rev. 3 of the DCM by the independent reviewer that asks "has the integrated design package review considered appropriate supp.amental reviews by other engineering disciplines (seismic, electrical, etc.) and affected departments (Operations, maintenance, etc.)?" This could be one link to help ensure the CCN would go to the Operations Department for their review and the assumption would then have to made that the affected surveillances would be identified for revision, however this link in and of itself does not go right to the issue of whether or not station procedures are affected. In any case, the statement in the ACR (block 7 of form RP4-7) of sufficient controls in the DCM for Rev. 3 for the CCN process with respect to flagging needed changes to station procedures has not been found. In addition, our review of the current Revision 5 of the DC M for the CCN process also did not find sufficient controls which would prevent recurrence of the event documented in the aforementione ACR.	Description	prevent or reduce the adverse condition fro page 4 Of 4, of Adver states "The CCN that procedure forms did DCM (Design Control process is sufficient t	e possibilit m happer se Condit affected not catch I Manual) o reduce	y of the sa hing again", ion Report the aforem the impact Rev. 3, the the possibil	me or similar block 7 of fo ACR M3-96- entioned sun to these form independent	even: or orm RP-4-7 0485 veillance ns. Per t review
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Valid Invalid Needed Date		independent reviewer package review consi- other engineering dis- affected departments could be one link to h Operations Departme would then have to m be identified for revisi- not go right to the issu- affected. In any case RP4-7) of sufficient of process with respect to procedures has not be current Revision 5 of find sufficient controls	that asks idered app ciplines (s (Operation elp ensume that for their ade that the inder the state ontrols in the flagging een found the DC M is which wo	"has the in propriate su- eismic, ele- ons, mainte e the CCN in review an he affected ver this link ther or not ement in the the DCM for pheeded cl in addition for the CCI puld preven	tegrated des app. amental r ctrical, etc.) a nance, etc.)? would go to t d the assumpt surveillance in and of its station process e ACR (block or Rev. 3 for hanges to sta n, our review N process als it recurrence ACR.	ign eviews by and " This he ption s would elf does dures are 7 of form the CCN tion of the o did not
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	Initiator	Navarro, Mark				

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Northeast Utilities Millstone Unit 3	ICA Discrepan		ort	DR No. DR-MP3-0079		
	Ryan, Thomas J	AN ALLMOST PROPERTY.	NAME AND ADDRESS OF TAXABLE PARTY.	NACING INCOMENDATION OF COMPANY		
	Schopfer, Don K				9/3/97	
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INC Chimn:	Singh, Anand K				9/8/97	
Date:	9/3/97					
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Date:	11/2/07	North Constraints Actual and the		TARE IN OTHER LIST AND PROCESSING	ALC IN CONTRACTOR OF THE OWNER OF THE	
	11/3/97 NU has concluded					
	DR-MP3-0079, do issue has been pre implemented to str Change 1 to Revis effective 5/27/97 a strengthened the 0	es not repre eviously iden rengthen pro- sion 5 of the and Revision	sent a disc ntified and c ocedural cor Design Co n 6 of the DC	epant condi hanges have trols. Specif ntrol Manual	tion. This been fically, (DCM)	
	These changes red the calculation on program impacts of	other proce	dures and di	sciplines as	well as	
	DCM Rev. 5, Char Calculations), Tas C calculation impact FORM 3-2C or the Technical C Re calculation impact If the result of the the C Unit LB/D done outside of the an impact on desig PERFORM a NGP 3.12. In addition Task 9 DETERMINE the r Programs as well	nge 1, Chap k 7 states: ONSIDER of s either the Dunit LB/DE quirements s a program calculation DB, initiate a e Chapter 3 gn or licensi 10CFR50.1	e section requestions of the section requestion of the section of the section requestion of the section	on 4.0 (New results of the sted in DDD chnical Spe- becedures, etc DDD program tential defic 4. If the calc change pro tts is identified in accordar	e IDCM cifications, c.) If the n manager. dency in culation is cess and ed, nce with	
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	CONSIDER wheth impacts either the Unit LB/DB (FSAR Requirements Mar impacts a program the calculation ind initiate a CR per R	programs li R, Technical nual, Procee n, notify the icate a pote	sted in DCN Specificatio dures, etc.) I program ma	FORM 3-20 ns, Technic f the calcula inager, If the	C or the al ition e result of	
	When preparing a the preparer to pe	CCN Chan	ge to Calcul	ations, Task	18 directs	

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ICAVP Discrepancy Report

described above, completion of task 9 requires the Supervisor to "DETERMINE the need for Interdiscipline review(s). Consider Programs as well as the Technical Disciplines listed in DCM FORM 3-2C. This includes Section R-W, Procedure Screening Review.

DR No. DR-MP3-0079

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These steps improved the process for calculation changes and revsions and strenghthened the review of their impact on affected programs and procedures.

Note: Similar changes were made to Chapter 5, Section 6, Superseding or Voiding Calculations.

DCM Revision 6, currently SORC approved and scheduled for implementation on 10/30/97, carried forward the improvements of Change 1 to Revision 5 and further improved calculation change processes and controls.

Chapter 5, Step 4.1.7 for new calculations, Step 5.2.9 for revisions to calculations, and Step 5.3.6 for CCN changes to calculations all require that the preparer consider the impact on programs listed in DCM FORM 3-2C or the Unit LB/DB (e.g., FSAR, Technical Specifications, Technical Requirements Manual, Procedures, DBSs, etc).

Again, in addition to the direct reference to "procedures", Form 3-2C includes Section R-W, Procedure Screening Review.

In addition, Step 6.1.6 for superceding or voiding calculations requires the preparer to review the unit design and licensing basis (e.g., FSAR, Technical Specifications, Procedures, DBSs, etc.) and determine any impact.

Further guidance is provided in all cases to ensure the Preparer and/or Supervisor determine the need for interdiscipline review with consideration of the programs and technical disciplines identified on Form 3-2C (See Steps 4.1.10, 5.2.13, 5.3.8, 6.1.9).

The changes described above establish clear links to programs, FSAR, Technical Specifications, Technical Requirements Manual, Procedures, and DBSs.

Significance level criteria do not apply here as this is not a discrepant condition.

Conclusion:

NU has concluded that the issue reported in Discrepancy Report, DR-MP3-0079, does not represent a discrepant condition. This issue has been previously identified and changes have been implemented to strengthen procedural controls. Specifically, Change 1 to Revision 5 of the Design Control Manual (DCM) and Revision 6 of the DCM significantly strengthened the CCN process.

Significance level criteria do not apply here as this is not a discrepant condition.

Previously Identified by NU?	۲	Yes	0	No	Non Discrepant Condition	0	Yes	۲	No
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ICAVP Discrepancy Report

Review Not Acceptable Acceptable Needed Date Initiator: Navarro, Mark \otimes 11/3/97 VT Lead: Ryan, Thomas J 11/3/97 VT Mgr: Schopfer, Don K 11/4/97 IRC Chmn: Singh, Arand K 11/5/97 Date: 10/27/97

SL Comments: This issue concerns the adequacy of review processes in place to assure that CCN's receive appropriate review for their potential impact on station procedures. This concern was prompted by ACR M3-96-0485.

DR No. DR-MP3-0079

The bulk of the response contains much information relative to the adequacy of controls for

- 1. New Calculations
- 2. Re visions to calculations
- 3. Superceding or Voiding calculations

however the adequacy of controls for the above was never questioned. The DR dealt specifically with the adequacy of the review process (as claimed in the documentation of ACR M3-96-0485) for Calculation Change Notices (CCNs). NU's response relative to the CCN review process and their subsequent submittal of Change 1 to Revision 5 of the DCM (via IRF 724) provides evidence that a link now exists (via the revised step 9 of section 4 of DCM Chapt. 5) that the Supervisor will "consider programs as well as the technical disciplines listed in DCM Form 3-2C." Entry into the revised step 9 is directed by step 18 of the CCN process in section 5 which directs the preparer to go to section 4 and implement steps 9 through 25, as applicable." This is the only link found relative to the review process for CCN's which would prevent recurrence of the event described in ACR M3-96-0485. Note that the documentation required for calculation revisions contains a specific check on DCM Form 5-1A for procedural impact which must be filled out and signed while the cover sheet for CCNs does not contain this specific check.

In summary, since a link is established from section 5 step 18 (Chapter 5 of the DCM) to section 4 step 9 (revised via change 1) of Chapter 5 of the DCM, to form 3-2C of Chapter 3 of the DCM, and since sections R through W of Form 3-2C address impacts to station procedures, the discrepant condition described in the DR is resolved. No credit was given for potential further improvements in the CCN review process discussed in NUs response regarding pending Revision 6 of the DCM as this revision is not yet formally issued. However, since a link has been established (as described above) within procedures for review of CCNs for impacts to stations procedures, no further action is required.

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ICAVP **Discrepancy Report**

	System		DR RESOLUT	ION ACCEPTE	D
Review Element:			Pot	ential Operab	ility lesue
	Mechanical Design			O Yes	
Discrepancy Type: System/Process:				No No	
NRC Significance level:					
inito orginicance rever.	•		Date	FAXed to NU	h
				ate Published	: 9/19/97
Discrepancy:	Motor heat loss fr (3SWP*P2A/B)	om service	water booster p	oumps	
Description:	Calculation P(B)-f correct heat loss pumps (3SWP*P) requirements for t identified:	for the contr 2A/B) was u	ol building serv	rice water b	ooster
	Per Plant Design 10 hp nameplate bhp. Using the mo- motor efficiency to requirement of 7 to calculation determ hp motor.	rating, 84.3 btor namepi he load is 4 bhp and 84.	% motor efficient ate rating of 10 ,740 Btu/hr. Usi 3% the load is 3	hp and red hp and 84. ing the pum 3,318 Btu/h	auires 7 3% p bhp r. The
	This was classifier requirement would calculation.	d as a level d result in a	4 since using the load lower than	he 7 bhp m hat used	otor in the
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	Start M D		mvano	Needed	Date
Initiator					9/10/97
Initiator: VT Lead:	and the set of the set		H	E	0/10/07
VT Lead:	Neri, Anthony A		ğ		
VT Lead: VT Mgr:	Neri, Anthony A Schopfer, Don K				9/12/97
VT Lead: VT Mgr: IRC Chmn:	Neri, Anthony A	8888			
VT Lead: VT Mgr: IRC Chmn: Date:	Neri, Anthony A Schopfer, Don K				9/12/97
VT Lead: VT Mgr: IRC Chmn:	Neri, Anthony A Schopfer, Don K				9/12/97
VT Lead: VT Mgr: IRC Chmn: Date: INVALID:	Neri, Anthony A Schopfer, Don K				9/10/97 9/12/97 9/16/07
VT Lead: VT Mgr: IRC Chmn: Date: INVALID: Date:	Neri, Anthony A Schopfer, Don K Singh, Anand K	I that the iss es not repre ate rating in a more con	esent a discrepa stead of 7 bhp i servative and c	ant condition in the calcu- loes not	9/12/97 9/16/07 Report, n. Using
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VT Lead: VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously Identified by NU? Initiator: VT Lead:	Neri, Anthony A Schopfer, Don K Singh, Anand K 10/16/97 NU has concluded DR-MP3-0103, do the 10 hp namepla P(B)-958 rev. 1 is compromise the v Yes No Stout, M. D. Neri, Anthony A	I that the iss es not repre ate rating in a more con entilation in Non Discre Acceptable	esent a discrepa stead of 7 bhp i servative and c the Chiller Roc epant Condition	ant conditio in the calcu loes not om. Yes Review	9/12/97 9/16/07 Report, n. Using lation No Date 10/16/97
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VT Lead: VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously Identified by NU? Initiator: VT Lead: VT Mgr:	Neri, Anthony A Schopfer, Don K Singh, Anand K 10/16/97 NU has concluded DR-MP3-0103, do the 10 hp namepla P(B)-958 rev. 1 is compromise the v Yes No Stout, M. D. Neri, Anthony A	I that the iss es not repre ate rating in a more con entilation in Non Discre	esent a discrepa stead of 7 bhp i servative and c the Chiller Roc epant Condition	ant conditio in the calcu loes not om. Yes Review	9/12/97 9/16/07 Report, n. Using lation No Date 10/16/97 10/26/97 11/3/97
VT Lead: VT Mgr: IRC Chmn: Date: INVALID: Date: RESOLUTION: Previously Identified by NU? Initiator: VT Lead: VT Mgr:	Neri, Anthony A Schopfer, Don K Singh, Anand K 10/16/97 NU has concluded DR-MP3-0103, do the 10 hp namepla P(B)-958 rev. 1 is compromise the v Yes No Stout, M. D. Nen, Anthony A Schopfer, Don K	I that the iss es not repre ate rating in a more con entilation in Non Discre Acceptable	esent a discrepa stead of 7 bhp i servative and c the Chiller Roc epant Condition	ant conditio in the calcu loes not om. Yes Review	9/12/97 9/16/67 Report, n. Using lation No Date 10/16/97 10/26/97

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ICAVP Discrepancy Report

DR No. DR-MP3-0128

Review Group:	Programmatic
Review Element:	Corrective Action Process
Discipline:	Mechanical Design
Discrepancy Type:	Corrective Action
System/Process:	DGX
C Significance level:	4

DR RESOLUTION REJECTED

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Date FAXed to NU:

Date Published: 9/14/97

Discrepancy: Incomplete Corrective Action Package

Description: 1. ACR M3-96-0361 evaluated pitting found in the vicinity of a Monel/Copper-Nickel joint. The evaluation of the condition was performed by the Materials Testing Laboratory. The laboratory issued appropriate recommendations, but it is not clear from the ACR package whether these recommendations are being implemented, whether each of the similar types of joints has been electrolytically isolated, or whether coating on other joints has been or is being monitored.

> 2. There is no evidence in the package that a safety evaluation screening or safety evaluation was performed to add the epoxy coating as required by paragraph 6.1.2 of NGP 3.12, revision 9, and NGP 8.06, revision 1.

3. There are a number of handwritten questions (some unanswered) and comments in the ACR package (see pages titled "Corrective Action Review of Completed Assignments Prior to RP4 rev. 4 efcd. date"). Condition Report packages are required to be Quality Assurance (QA) Records by pparagraph 1.17.1 of RP 4, revision 4, and by Technical Specifications 6.10.2.b and 6.10.3.i. Paragraph 3.2.1 of ANSI N45.2.9-1974 states that QA records are to be legible and completely filled out. ANSI N45.2.9-1974 is endorsed by Regulatory Guide 1.88 dated November, 1976 which is a commitment of the Northeast Utilities' Quality Assurance Program Topical Report.

		Valid	Invalid	Needed	Date
Initiator	Sheppard, R. P.				8/29/97
VT Lead	: Ryan, Thomas J		ā	m	9/2/97
VT Mgr	Schopfer, Don K	Ø	Ē	H	9/8/97
IRC Chmn	: Singh, Anand K			ă	9/9/97
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Date:

INVALID:

Date: 10/22/97

RESOLUTION: Disposition:

NU has concluded that the issue reported in item 1 of Discrepancy Report, DR-MP3-0125, does not represent a discrepant condition.

(c) (c) (b)

1. The concern that initiated this ACR is described as: "Pitting was found on the ID of the Monel pipe". The pipe in question is a 10" service water pipe. The corrective action plan (CAP) for the subject ACR does not include nor does it need to include for

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ICAVP Discrepancy Report

the condition described the implementation of any of the recommendations provided in Materials Testing Laboratory Report Number 13-96-028. The approved corrective action plan as documented on page 3 of 4 which pertains to the Lab Report states: "Perform an investigation into the effects of Monel and Cu-Ni piping interfaces to evaluate these type of bimetal repairs in the future" and "Provide a report to the System Engineer". The corrective action plan only requires the report. It does not require the implementation of the recommendations from the report. The report recommendations which are, to take wall thickness measurements upstream of Monel to copper-nickel welds and redesign the piping in that area are not warranted or appropriate for the minor pitting of the Monel stub ends described in this ACR. It is noted however that these recommendations are considered as part of a review of all Cu-Ni/Monel interfaces on unit 3. This review is being performed per Action Request 97013654-03 titled, determine the need for trending or replacement of service water piping.

DR No. DR-MP3-0128

Significance Level criteria does not apply to item 1 as this is not a discrepant condition.

NU has concluded that the issue reported in item 2 of Discrepancy Report, DR-MP3-0128, has identified a condition not previously discovered by NU which requires correction.

2. Contrary to your finding, there is evidence in the ACR package that a safety evaluation was performed to add the epoxy coating. The corrective action plan for the subject ACR provides reference to Action Request 96009509. This action request provides reference to NCR 396-309 which provides reference to Design Change Notice DM3-S-741-96. The technical justification delineated on the DCN cover sheet in block 8 refers to PDCR MP3-95-058. The safety evaluation for this PDCR adequately addresses the application of ARCOR coating to service water piping. It does not however specifically address coating to the pipe spool identified in the subject ACR and therefore, the safety evaluation will be revised or a new safety evaluation will be written to specifically address the ARCOR coating of the spool in question. Condition Report (CR) M3-97-342% has been written to provide the necessary corrective actions to resolve this issue. No changes in the field are required.

NU has concluded that the issue reported in item 3 of Discrepancy Report, DR-MP3-0128, does not represent a discrepant condition.

3. The forms referred to are work sheets that the closure review group use to provide a higher level of confidence that corrective actions completed prior to RP4, revision 4 resulted in the corrective action being completed as assigned or the corrective action plan being modified accordingly. It provided useful information and as such is a valuable tool.

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This activity was not required by procedure but provides useful Page 2 of 4

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DR No. DR-MP3-0128

information and n° is left in the CR package as part of the

which provides user information but is not in and of itself a QA record.

Significance Level criteria does not apply to iten 3 as this is not a discrepant condition.

Conclusion:

NU has concluded that the issue reported in item 1 of Discrepancy Report, DR-MP3-0128, does not represent a discrepant condition.

1. The investigation into the subject ACR concluded that the ACR concern was not valid and did not warrant the implementation of the recommendations documented in the report. These recommendations however, are considered as part of a review of all Cu-Ni/Monel interfaces for the Service Water System piping on unit 3.

Significance Level criteria does not apply to item 1 as this is not a discrepant condition.

NU has concluded that the issue reported in item 2 of Discrepancy Report, DR-MP3-0128, has identified a condition not previously discovered by NU which requires correction.

2. The Technical Justification for adding the epoxy coating to the subject service water piping is provided in PDCR MP3-95-058. The safety evaluation for this PDCR addresses the application of ARCCR coating to service water piping. It does not specifically address the coating to the pipe spool identified in the subject ACR and therefore the safety evaluation will be revised or a new safety evaluation will be written to specifically address the ARCOR coating of the spool in question. Condition Report (CR) M3-97-3428 has been written to provide the necessary corrective actions to resolve this issue. No changes in the field are anticipated as a result of the corrective action for this CR.

NU has concluded that the issue reported in item 3 of Discrepancy Report, DR-MP3-0128, does not represent a discrepant condition.

3. The forms referred to are work sheets that the closure review group use to provide a higher level of confidence that corrective actions completed prior to RP4, revision 4 resulted in the corrective action being completed as assigned or the corrective action plan being modified accordingly. This activity was not required by procedure but provides useful information and as such is left in the CR package as part of the record. This is similar to other information left in the package which provides useful information but is not in and of itself a QA record.

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ICAVP Discrepancy Report

Significance Level criteria does not apply to item 3 as this is not a discrepant condition. Previously Identified by NU? O Yes No No Non Discrepant Condition O Yes No Review Acceptable Not Acceptable Date Needed Initiator: Sheppard, R. P. 10/22/97 \boxtimes VT Lead: Ryan, Thomas J \boxtimes 10/22/97 VT Mgr: Schopfer, Don K NN 11/3/97 IRC Chrmn: Singh, Anand K 11/4/97 Date: 10/22/97 SL Commente: 1. The resolution of part 2 of the discrepancy is acceptable.

> 2. The response states that a review of all Cu-Ni/Monel interfaces on unit 3 is being performed per Action Request 97013654-03. Please elaborate on the monitoring being proposed for galvanic and pitting corrosion in the Service Water system and how this will relate to the monitoring being performed by the Generic Letter 89-13 program.

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3. It is recognized that the corrective action review sheets serve a valuable purpose. If portions of the final corrective action package are not considered to be QA records, those portions should be identified as such or those portions should not be forwarded to Nuclear Document Services for storage as QA records.

A.P.

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