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 MANGAN, C. V. Niagara Mohawk Power Corp.  
 RECIP. NAME RECIPIENT AFFILIATION  
 ADENSAM, E. G. BWR Project Directorate 3

SUBJECT: Forwards corrected Tables 3.9B-2m & 3.9B-2w to Unit 2 FSAR, adding equation term subscripts inadvertently omitted from Amend 26. Revised pages will be included in subsequent FSAR.

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July 24, 1986

(NMP2L 0798)

Ms. Elinor G. Adensam, Director  
BWR Project Directorate No. 3  
U.S. Nuclear Regulatory Commission  
7920 Norfolk Avenue  
Washington, DC 20555

Dear Ms. Adensam:

Re: Nine Mile Point Unit 2  
Docket No. 50-410

This letter transmits corrected Tables 3.9B-2m and 3.9B-2w to the Nine Mile Point Unit 2 Final Safety Analysis Report. The corrections include the addition of equation term subscripts which were inadvertently dropped in the preparation of Amendment 26. There were no intended changes to these equations from Amendment 25 to Amendment 26. This transmittal documents information previously given your staff by Mr. D. Hill on July 8, 1986. The revised pages will be included in a subsequent Final Safety Analysis Report amendment.

Very truly yours,

*C. V. Mangan*

C. V. Mangan  
Senior Vice President

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xc: W. A. Cook, NRC Resident Inspector  
Project File (2)

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
Niagara Mohawk Power Corporation )  
(Nine Mile Point Unit 2) )

Docket No. 50-410

AFFIDAVIT

C. V. Mangan, being duly sworn, states that he is Senior Vice President of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information and belief.

C. V. Mangan

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 24<sup>th</sup> day of July, 1986.

Christine Austin  
Notary Public in and for  
Onondaga County, New York

My Commission expires:

**CHRISTINE AUSTIN**  
Notary Public in the State of New York  
Qualified in Onondaga Co. No. 4787687  
My Commission Expires March 30, 1987

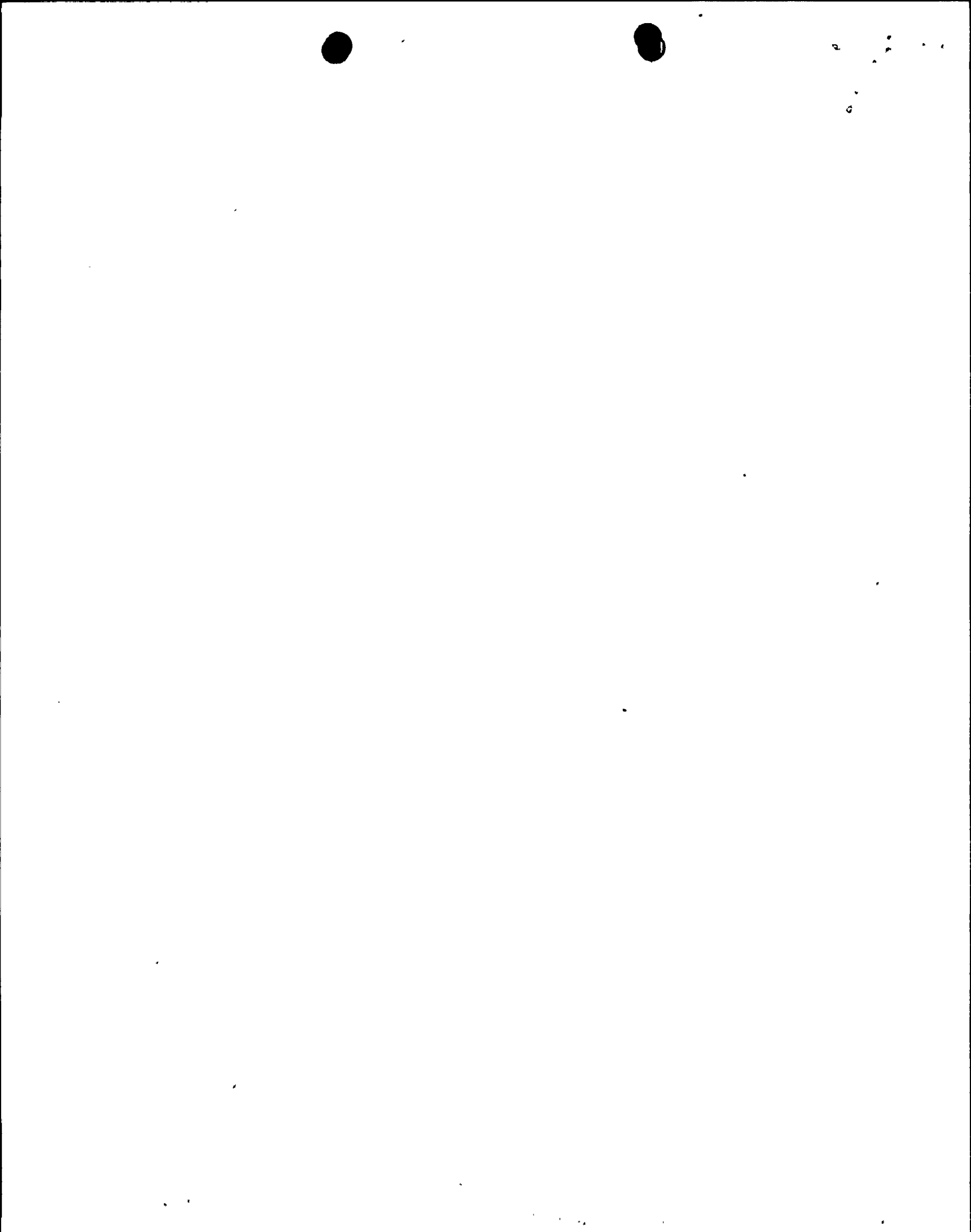
CHRISTINE ANSTIN  
Notary Public in the State of New York  
Qualified in Orange Co. No. 478287  
My Commission Expires March 30, 19

Nine Mile Point Unit 2 PSAR

TABLE 3.9B-2m

ASME SAFETY CLASS 1 RECIRCULATION PIPING AND PIPE MOUNTED EQUIPMENT  
HIGHEST STRESS SUMMARY

<u>Acceptance Criteria</u>	<u>Limiting Stress Type</u>	<u>Calculated Stress<sup>(1)</sup> or Usage Factor</u>	<u>Allowable Limits</u>	<u>Ratio Actual/ Allowable</u>	<u>Loading</u>	<u>Identification<sup>(2)</sup> of Locations of Highest Stress Points</u>	
ASME Section III, NB-3600							
Design Condition:							
Eq. 9 $\leq 1.5 S_m$	Primary	16,532 psi	25,875 psi	0.64	1. Pressure 2. Weight	Hanger lug (Loop A)	26
Service Levels A and B (normal & upset) condition:							
Eq. 12 $\leq 3.0 S_m$	Secondary	31,613 psi	51,750 psi	0.61	1. Thermal	Header sweepolet (Loop A)	26
Service Levels A and B (normal & upset) condition:							
Eq. 13 $\leq 3.0 S_m$	Primary plus secondary (except thermal expansion)	38,289 psi	51,750 psi	0.74	1. Pressure 2. Weight 3. OBE 4. Operating transients	Header sweepolet (Loop B)	26
Service Levels A and B (normal and upset) condition:							
Cumulative usage factor	N/A	0.27	1.0	0.27		Header sweepolet (Loop A)	26
Service Level B (upset) condition:							
Eq. 9 $\leq 1.8 S_m$ & $1.5 S_y$	Primary	20,414 psi	29,388 psi	0.69	1. Pressure 2. Weight 3. OBE 4. SBV	RHR supply tee (Loop A)	26
Service Level C (emergency) condition:							
Eq. 9 $< 2.25 S_m$ & $1.8 S_y$	Primary	21,955 psi	35,266 psi	0.62	1. Pressure 2. Weight 3. Chugging 4. SBV	RHR return tee (Loop B)	26
Service Level D (faulted) condition:							
Eq. 9 $< 3.0 S_m$	Primary	27,203 psi	39,184 psi	0.69	1. Pressure 2. Weight 3. SSE 4. AP	RHR return tee (Loop B)	26





Nine Mile Point Unit 2 PSAR

TABLE 3.9B-2w (Cont)

Component	Loading Condition	Stress Criteria	Stress Type	Allowable Stress (psi)	Calculated Stress (psi)	Allowable Thickness (t) (in)	Actual Thickness (t) (in)
Suction nozzle	Design pressure and temperature	$S \leq S_a$	General membrane	14,000	5,085	0.309	0.75
Discharge nozzle	Design pressure and temperature	$S \leq S_a$	General membrane	14,000	3,856	0.248	0.75
Cover bolting	Design pressure and temperature	$S \leq S_a$	General membrane	25,000	21,874	NA	NA
Seal gland bolting	Design pressure and temperature	$S \leq S_a$	General membrane	33,000	27,668	NA	NA
Seal gland	Design pressure and temperature	$S \leq S_a$	General membrane	15,900	4,269	0.604	2.25
Pump cover	Design pressure and temperature	$S \leq S_a$	General membrane	14,000	6,769	0.236	0.625
Pedestal bolts (tensile)	Pressure loads Thermal loads Nozzle loads Seismic loads Deadweight Torsional loads	$S \leq S_a$	General membrane	25,000	10,543	NA	NA
Pedestal bolts	Pressure loads Thermal loads Nozzle loads Seismic loads Torsional loads	$S \leq S_a$	Shear	20,000	5,845	NA	NA
Pedestal bolts	Preload	$S \leq 0.9 S_y$	Shear	94,500	37,258	NA	NA

KEY:  $S_a$  = Allowable general membrane stress (ASME Section III, 1974 edition)  
 $S$  = Calculated stress  
 $t$  = Allowable thickness  
 $t_a$  = Actual thickness



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