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 FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moho 05000410  
 AUTH. NAME AUTHOR AFFILIATION  
 MANGAN, C.V. Niagara Mohawk Power Corp.  
 RECIP. NAME RECIPIENT AFFILIATION  
 SCHWENCER, A. Licensing Branch 2

SUBJECT: Forwards info re effects of PMP to close SER Open Item 4.  
 Info will be included in FSAR Amend 17.

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NOTES:

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	IE/DQASIP/QAB21	1 1	NRR ROE, M.L	1 1
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	NRR/DSI/METB 12	1 1	NRR/DSI/PSB 19	1 1
	NRR/DSI/RAB 22	1 1	NRR/DSI/RSB 23	1 1
	<u>REG FILE</u> 04	1 1	RGN1	3 3
	RM/DDAMI/MIB	1 0		
EXTERNAL:	BNL (AMDTs ONLY)	1 1	DMB/DSS (AMDTs)	1 1
	FEMA-REP DIV 39	1 1	LPDR 03	1 1
	NRC PDR 02	1 1	NSIC 05	1 1
	NTIS	1 1	PNL GRUEL, R	1 1



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December 14, 1984  
(NMP2L 0297)

Mr. A. Schwencer, Chief  
Licensing Branch No. 2  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

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

Dear Mr. Schwencer:

Enclosed for your use and information is the Nine Mile Point Unit 2 revised response to a Nuclear Regulatory Commission's Final Safety Analysis Report question. This information has been previously discussed with your staff and is submitted to aid your review of the Unit 2 license application for the resolution of this question. This information includes a revised response to question 240.10 which provides the information requested to close SER open item 4 on the effects of Probable Maximum Precipitation.

The enclosed information will be included in Final Safety Analysis Report Amendment 17.

Very truly yours,

*C. V. Mangan*

C. V. Mangan  
Vice President

Nuclear Engineering & Licensing

NLR:ja  
Enclosure  
xc: R. Gramm, 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 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 14 day of DECEMBER, 1984.

DOMINICK T. SCAFIDI  
NOTARY PUBLIC STATE OF NEW YORK  
RESIDING IN Onondaga COUNTY  
COMMISSION EXPIRES MARCH 30, 1986  
Dominick T. Scafidi  
Notary Public in and for  
Onondaga County, New York

My Commission expires:

March 30, 1986



## Nine Mile Point Unit 2 FSAR

Even though NMPC believes that it is inappropriate to consider the roof drains blocked, for purposes of analysis, the project will install QA Category I parapet scuppers for Category I structures.

- b) The PMP rate of 8.4 in/hr was established at the construction permit stage. This value was approved by the NRC in the construction permit stage SER and provides for an acceptable level of safety in the design of site drainage for Unit 2. The use of NOAA Hydrometeorological Report No. 33 is consistent with the SRP.

Niagara Mohawk has re-evaluated the effects of runoff from the local probable maximum precipitation on safety related structures. The probable maximum precipitation values were developed using hydromet reports 51 and 52, as requested by the NRC. A Stone & Webster proprietary calculation which determined the onsite water surface elevations and durations of the probable maximum precipitation generated runoff was provided to the NRC by separate correspondence dated November 30, 1984. The study has determined that the effects of the onsite water surface elevations and durations caused by the probable maximum precipitation on safety related facilities and has classified the findings as follows:

- 1) No in leakage to buildings will occur.
- 2) In leakage to buildings occurs; however, the accumulated quantity is such that no building up of water will result that might affect safe shutdown capability.
- 3) In leakage would occur resulting in unacceptable accumulation buildup of water (assuming the building drains and sumps inoperable). This occurred in only one facility. A neoprene gasket material will be added to make the area of concern watertight.

Table 240.10-1 provides a summary of the results on building flooding for this analysis.



The following information was obtained from the files of the Department of the Interior, Bureau of Land Management, concerning the land owned by the United States in the State of California, and more particularly in the County of Los Angeles.

The total area of land owned by the United States in the County of Los Angeles is approximately 1,200,000 acres. This land is divided into several categories, including:

- Public Domain Land
- Land Reserved for the Indians
- Land Reserved for the Reclamation
- Land Reserved for the National Forests
- Land Reserved for the National Parks
- Land Reserved for the National Monuments
- Land Reserved for the National Seashores
- Land Reserved for the National Historic Sites
- Land Reserved for the National Trails
- Land Reserved for the National War Relocation Authority
- Land Reserved for the National War Relocation Authority
- Land Reserved for the National War Relocation Authority

The following table shows the distribution of land owned by the United States in the County of Los Angeles, by category:

Category	Approximate Area (Acres)
Public Domain Land	1,000,000
Land Reserved for the Indians	100,000
Land Reserved for the Reclamation	50,000
Land Reserved for the National Forests	20,000
Land Reserved for the National Parks	10,000
Land Reserved for the National Monuments	5,000
Land Reserved for the National Seashores	2,000
Land Reserved for the National Historic Sites	1,000
Land Reserved for the National Trails	1,000
Land Reserved for the National War Relocation Authority	1,000
Land Reserved for the National War Relocation Authority	1,000
Land Reserved for the National War Relocation Authority	1,000

The following information was obtained from the files of the Department of the Interior, Bureau of Land Management, concerning the land owned by the United States in the State of California, and more particularly in the County of Los Angeles.



SUMMARY OF RESULTS  
ANALYSIS OF BUILDING FLOODING  
DUE TO PMP BASED ON HYDROMET 51 & 52

<u>Building</u>	<u>Door</u>	<u>Length (ft)</u>	<u>Total Flow (ft<sup>3</sup>)</u>	<u>Bldg. Depth (in)</u>	<u>Distribution of Flow/Flux</u>
Diesel Generator	Stop Logs	11	404.2	9	Evenly over floor; fix would be to provide neoprene gasket material to make stop logs watertight.
		15	551.1		
Control Building	C261-29	7	257.2	1	C261-29 and C261-31 flows will combine and spread through E1. 261 corridors and into some rooms. C261-24 will flow down stairwell and spread through corridors on lower floors. No fix is required.
	C261-24	3	110.2		
	C261-31	3	110.2		
Auxiliary Bay South	SA262-3	3	63.6	1.1	Flow will be confined to auxiliary bay stairwell area. No fix is required.
Electrical Tunnel South Area	ET262-4	3	63.6	<1	Flow will be spread evenly through each tunnel.
Electrical Tunnel North Area	ET261-1	3	102.6	<1	
	ET261-2	3	102.6	<1	
Auxiliary Bay North	NA262-1	3	63.6	1.1	Flow will be confined to auxiliary bay stairwell area. No fix is required.
RB Railroad Track Bay	RR-261-1	17	NA	NA	Doors are equipped with inflatable air seals, water leakage will be negligible. No safety related equipment is in this area.
Standby Gas Treatment	SG261-2	8	273.6	4	Flow is spread evenly throughout the building. (See Note 5)
	SG261-1	8	273.6		
	SG261-6	3	102.6		
Service Water Pump Room (North) from Auxiliary Boiler Room	AB261-3	3	NA	2.5	Flow into auxiliary boiler building is distributed into the pumphouse if AB261-3 is open.

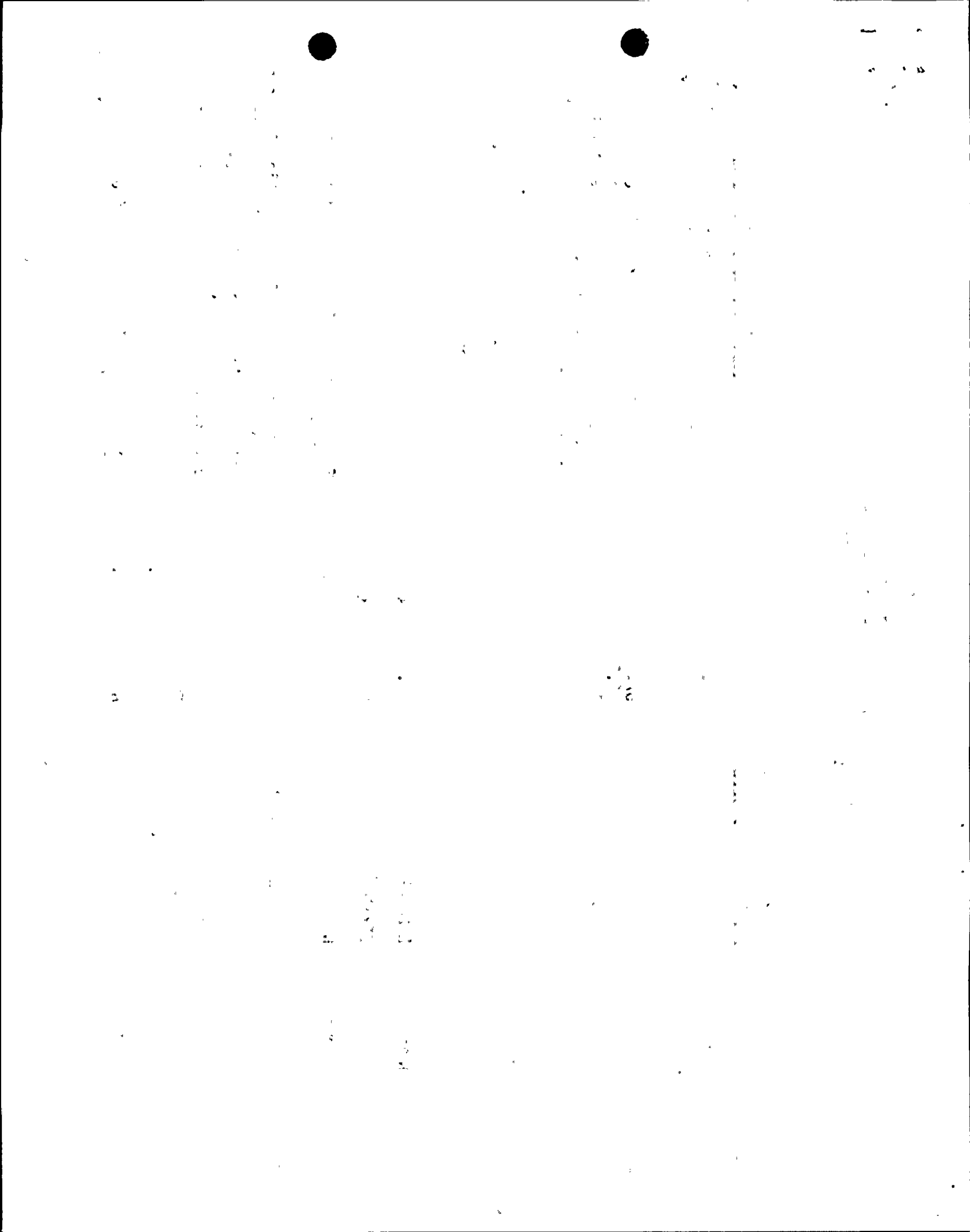


TABLE 240.10-1 (Con't.d)

<u>Building</u>	<u>Door</u>	<u>Length (ft)</u>	<u>Total Flow (ft<sup>3</sup>)</u>	<u>Bldg. Depth (in)</u>	<u>Distribution of Flow/Flux</u>
Service Water Pump Room (South) from Screenwell Area	SW261-14	3	94.2	<1	Evenly throughout building.

Notes:

1. Use hydrographs from Calculation No. 12177-WH(B)-062 for water surface elevations.
2. Door sill elevation is in the door identification number, e.g., SW261-14, where "261" is the door sill elevation.
3. Calculation method for inflow through doorways from PMF submerged orifice discharge equation:  

$$Q = CA\sqrt{2gh}$$

$$Q = \text{Flow (cfs)}$$

$$C = \text{Discharge coefficient} = 0.6$$

$$A = \text{Cross sectional area of flow} = \text{length of door} \\ (L) \times \text{crack width of door opening (1/16 in, due to flow "necking")}$$

$$g = \text{Gravity}$$

$$h = \text{Head-water surface elevation on exterior of door}$$
4. No credit has been taken in the analysis for sump water retainage or sump pump operation.
5. Since equipment structural pad height is 6 inches, resultant building water depths less than this are acceptable.

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