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RECIP. NAME RECIPIENT AFFILIATION
ADENSAM, E. G. BWR Project Directorate 3

SUBJECT: Forwards revised FSAR Page 2.4-18 re plant & heat sink dependability requirements. Rev will be incorporated into future FSAR amend.

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NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

October 3, 1986
(NMP2L 0895)

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

In response to concerns by your staff during conferences held on September 26, 1986, and October 1, 1986, the following information is submitted for your consideration.

Attached is a revised Final Safety Analysis Report page to change Table 3.9B-1. This information supercedes that previously submitted in our letter dated September 23, 1986 (NMP2L 0884). Also included is a change to Final Safety Analysis Report page 2.4-18. This change is provided to make page 2.4-18 consistent with Final Safety Analysis Report page 9.2-33.

These changes will be included in a subsequent Final Safety Analysis Report update.

Very truly yours,

C. V. Mangan
Senior Vice President

AZP:rla
2000G
Attachment

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

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UNITED STATES OF AMERICA
NULCEAR 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 3rd day of October, 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

(1998G)

CHRISTINE AUSTIN
Notary Public in the State of New York
Qualified in Onondaga Co. No. 4787627
My Commission Expires March 30, 19__

about elevation 73.3 m USLS, natural controls, such as had existed before the project, would be reestablished, and the lake levels would rise and fall thereafter in accordance with natural supplies delivered to Lake Ontario from the Great Lakes watershed.

2.4.11.4 Future Controls

It is expected that the current plan of regulation of Lake Ontario will continue throughout the plant lifetime of Unit 2. In addition, even if an unexpected alteration were made in the regulation of the lake, there would be no change in the design low water, which is the probable minimum low water level of 72.0 m (236.2 ft) USLS.

2.4.11.5 Plant Requirements

The required minimum safety-related cooling water flow is 82,130 l/min (21,700 gpm) at the design maximum cooling water inlet temperature of 25°C (77°F). The maximum required service water flow during normal operation is 137,010 l/min (36,200 gpm) at the design maximum cooling water inlet temperature of 25°C. As discussed in ~~Section 9.2.5,~~ the minimum postulated intake bay water elevation is 71.0 m (233.0 ft), occurring with the minimum postulated lake elevation of 72.0 m (236.3 ft) which is lower than the water level resulting from the 100-yr drought. The suction of the service water pumps is at el 68.9 m (226 ft 2 in). The minimum design operating water level is el 70.4 m (231.0 ft) which provides sufficient suction head to prevent vortexing in the service water pump intake bay. Therefore, low lake levels do not affect the capability of the service water pumps to provide the required cooling water flows.

233.1

The discharge system is designed to diffuse and dilute all thermal discharges so that the maximum rise in the ambient temperature at the lake surface is less than 1.7°C (3°F) with the lake at the minimum controlled level of 74.1 m (243 ft). Therefore, the temperature rise at the lake surface will be less than 1.7°C under any condition. A detailed description of the plant discharge system is in Section 9.2.5.

2.4.11.6 Heat Sink Dependability Requirements

The source and discharge point of all the cooling water required by Unit 2 is Lake Ontario. In addition to the cooling water, the lake intake system is designed to supply

TABLE 3.9B-1

PLANT EVENTS

Normal, Upset, and Testing Condition	No. of Cycles
1. Bolt up(1)	123
2. Design hydrostatic test	130
3. Startup (100°F/hr heatup rate)(2)	(117) /120
4. Daily reduction to 75% power(1)	10,000
5. Weekly reduction 50% power(1)	2,000
6. Control rod pattern change(1)	400
7. Loss of feedwater heaters (80 cycles total)	80
8. 50% SSE event at rated operating conditions (OBE)	10/50(3)
9. Scram:	
a. Turbine generator trip, feedwater on, isolation valves stay open	40
b. Other scrams	140
c. Loss of feedwater pumps, isolation valves closed	10
d. Single safety or relief valve blowdown	8
10. Reduction to 0% power, hot standby, shutdown (100°F/hr cooldown rate)(2)	111
11. Unbolt	123

TABLE 3.9B-1 (Cont)

Emergency Condition	No. of Cycles
12. Scram:	
a. Reactor overpressure with delayed scram, feedwater stays on, isolation valves stay open	1(4)
b. Automatic blowdown	1(4)
13. Improper start of cold recirculation loop	1(4)
14. Sudden start of pump in cold recirculation loop	1(4)
15. Hot standby, RPV drain shutoff, recirculation pumps restart	1(4)
Faulted Condition	
16. Pipe rupture and blowdown	1(4)
17. Safe shutdown earthquake at rated operating conditions	1(4)

(1) Applies to reactor pressure vessel only.
(2) Bulk average vessel coolant temperature change in any 1-hr period.
(3) 50 peak OBE cycles for NSSS piping; 10 peak OBE cycles for other NSSS equipment and components.
(4) Annual encounter probability of the one-cycle events is $<10^{-2}$ for emergency and $<10^{-4}$ for faulted events.