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ACCESSION NBR: 8701050348 DOC. DATE: 86/12/30 NOTARIZED: YES DOCKET #
 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
 ADENSAM, E. G. BWR Project Directorate 3

SUBJECT: Submits info re resolution of downcomer problem, including proposed schedules & discussion of options, per 861126 request.

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MEMORANDUM FOR THE DIRECTOR, FBI
SUBJECT: [Illegible]

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DATE	TIME	LOCATION	PERSONS	ACTIVITIES
10/15/54	10:00	Room 5412	Walters, J.	Meeting
10/15/54	11:00	Room 5412	Walters, J., [Illegible]	Meeting
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December 30, 1986
(NMP2L 0963)

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

The following information on the Nine Mile Point 2 downcomers is provided as requested by Nuclear Regulatory Commission letter dated November 26, 1986.

1. Efforts and Progress on Downcomers

At the meeting held with the Nuclear Regulatory Commission Staff on April 2, 1986, various options were discussed concerning physical modifications and load reductions. Since that time, a feasibility study was conducted and a conceptual design was developed for a hardware modification. This entailed reinforcements on the upper part of the downcomers. This effort demonstrated that mechanical stiffening is possible.

Also, as a result of the load reduction effort, Kraftwerk Union (KWU) evaluated the Karlstein Test Group (KTG) data and identified two tests as controlling for applications below 3-Hz. Pressure response spectra were then developed and compared to Kernkraftwerk Brunsbuettel (KKB) trace 35, which is currently the basis for the Nine Mile Point Unit 2 downcomer design. The resulting response spectra exhibited the anticipated 35-percent SRV load reduction.

On August 1, 1986, we started reanalysis of the downcomer design to incorporate a suppression pool cutoff temperature of 130°F. In support of this effort, General Electric provided digitized Condensation Oscillation data. This data incorporated the Nine Mile Point Unit 2 pool temperature cutoff. These data indicated that the Nine Mile Point Unit 2 Condensation Oscillation load definition could be reduced by 35 percent using the LaSalle pool temperature cutoff approach (also see Item 4 for more details).

The above summarizes the primary efforts and progress since April 1986.

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2. Schedule for First Refueling Outage

The schedule for the first refueling outage has not been established, but will be in the Spring or Fall of 1989.

3a. Schedule for Submittal of Downcomer Design Reanalysis

The final report will be submitted to the Nuclear Regulatory Commission by May 15, 1987.

3b. Schedule for Submittal of Proposed Modification Descriptions

Proposed modifications, if required, will be submitted to the Nuclear Regulatory Commission by May 15, 1988.

4. Discussion of Options Presently Being considered by Niagara Mohawk Power Corporation

In addition to the hardware modification discussed above, the only option currently being considered to resolve the downcomer issue is a demonstration that adequate safety margin exists in the present downcomer design. This effort includes reevaluation of the hydrodynamic loads using the NUREG acceptance criteria. Both the load calculation and the downcomer analysis will be a straightforward application of approved procedures in order to facilitate the Nuclear Regulatory Commission review.

Hydrodynamic load reductions would include using the Karlstein test traces for the SRV load specification. This method has been used by Shoreham and was accepted by the Nuclear Regulatory Commission in NUREG 0802. Hydrodynamic load reduction would also employ the suppression pool temperature cutoff on 4TCO data. The pool temperature limit approach has been used by LaSalle and documented in the Mark II generic Condensation Oscillation load definition report, and subsequently has been accepted by the Nuclear Regulatory Commission in NUREG 0808. The option of using the acoustic method to recalculate the Condensation Oscillation submerged structure load is being delayed, although it was discussed with the Nuclear Regulatory Commission Staff in April 1986. This decision is based on the consideration that using established and approved methods without alteration is the best way of resolving the downcomer issue in a timely manner.

General Electric is specifying the Condensation Oscillation load definition for Nine Mile Point Unit 2 based on a pool temperature limit of 130°F. Kraftwerk Union has defined the SRV load for Nine Mile Point Unit 2 using the Karlstein traces. The downcomer analysis will be performed using the specified load definitions.

1. The first part of the document discusses the general situation of the country and the progress of the revolution.

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3. The third part of the document discusses the political situation and the measures taken to strengthen the revolution.

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5. The fifth part of the document discusses the international situation and the measures taken to support the revolution.

6. The sixth part of the document discusses the military situation and the measures taken to strengthen the revolution.

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9. The ninth part of the document discusses the role of the people in the revolution and the measures taken to mobilize them.

10. The tenth part of the document discusses the role of the Party in the revolution and the measures taken to strengthen it.

5. Schedule for Final Decision as to Which Option Will Be Pursued

The date for Niagara Mohawk Power Corporation's final decision as to which option will be pursued is February 1, 1988 (latest date at which engineering design of hardware must commence to avoid impact on completion of modifications).

6. Schedule for Completion of Nuclear Regulatory Commission Review in Order to Avoid Impact on Restart Schedule

The window for the Nuclear Regulatory Commission review of the reanalysis of the downcomer design is from May 15, 1987 to January 1, 1988.

7. Schedule for Procurement and Installation of Equipment Required for Modification

The schedule for procurement of equipment required for modification, if needed, begins on August 1, 1988, with installation beginning in the Spring or Fall of 1989.

8. General Schedule Information Concerning Downcomers

The following Chronology of Events shows the overall schedule for the resolution of the downcomer problem.

CHRONOLOGY OF EVENTS

August 1, 1986	Start reanalysis of the downcomer to incorporate 130°F temperature cutoff
February 1, 1987	General Electric and Kraftwerk Union provide revised forcing functions
February 1, 1987 to May 1, 1987	Stone and Webster Engineering Corporation reanalysis - calculate final faulted stress
May 15, 1987	Submit reanalysis for Nuclear Regulatory Commission review
January 1, 1988	Nuclear Regulatory Commission review and provide comments



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Ms. Elinor G. Adensam, Director
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If the final decision is to reinforce the downcomers, the following schedule would be applicable.

CHRONOLOGY OF EVENTS

February 1, 1988 - May 1, 1988	Final design
May 1, 1988 - August 1, 1988	Bid and award contract
August 1, 1988 - February 1, 1989	Procure material and plan outage modifications

Very truly yours,

C. V. Mangan

C. V. Mangan
Senior Vice President

EU/pns
2314G

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

Dear Sir,
I have the honor to acknowledge the receipt of your letter of the 15th inst. in relation to the above mentioned matter. The same has been referred to the appropriate authorities for their consideration.

Very truly yours,

W. J. [Name]

W. J. [Name]
[Address]

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 30th day of December, 1986.

Marie E. Giannone
Notary Public in and for
Onondaga County, New York

My Commission expires:

MARIE E. GIANNONE
Notary Public in the State of New York
Qualified in Onondaga County No. 4652703
My Commission Expires March 30, 1987



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