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TO: Mr Lear	FROM: Niagara Mohawk Pwr Corp Syracuse, NY G K Rhode	DATE OF DOCUMENT 10-14-76 DATE RECEIVED 10-19-76

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DESCRIPTION

Ltr re their 10-1-76 ltr....trans the follow

PLANT NAME:
Nine Mile Pt #1

ENCLOSURE

Revised pgs to their Report entitled Plant Unique Analysis for the Tourus Support System.....to incorporate changes required by our 9-14-76 ltr .....(40 cys encl rec'd)

FOR ACTION/INFORMATION ENVIRO 10-23-76 ehf

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BRANCH CHIEF:	Lear (5)	BRANCH CHIEF:	
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NIAGARA MOHAWK POWER CORPORATION

NIAGARA MOHAWK

300 ERIE BOULEVARD WEST
SYRACUSE, N.Y. 13202

October 14, 1976

Director of Nuclear Reactor Regulation
Attn: Mr. George Lear, Chief
Operating Reactors Branch #3
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Dear Mr. Lear:

In our October 1, 1976 letter we indicated that replacement pages to our Plant Unique Analysis for the Torus Support System would be provided to incorporate changes necessitated by your September 14, 1976 letter. Attached are revised Figures 14, 15 and Pages 59 and 73. Page 73 has been corrected to incorporate the proper references used in the Plant Unique Analysis.

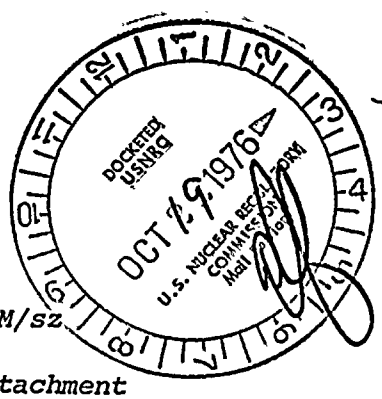
The effect of variation on water level has been investigated to ensure that the Torus Support System and attached piping remains within the criteria of the Short Term Program. For a 1.0 psid, the maximum allowable downcomer submergence is 4.0 feet. Operation at a downcomer submergence of 4.5 feet could be tolerated if the pressure differential were increased to 1.5 psig. Technical Specifications governing the above will be submitted by November 5, 1976 pursuant to your September 30, 1976 letter.

Verification of input parameters has been completed. The Design Basis Break Area was corrected to 5.446 square feet and the Vent Header outside diameter was corrected to 58.5 inches. These changes have a negligible effect on the results of the analysis.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

GERALD K. RHODE
Vice President - Engineering



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Attachment

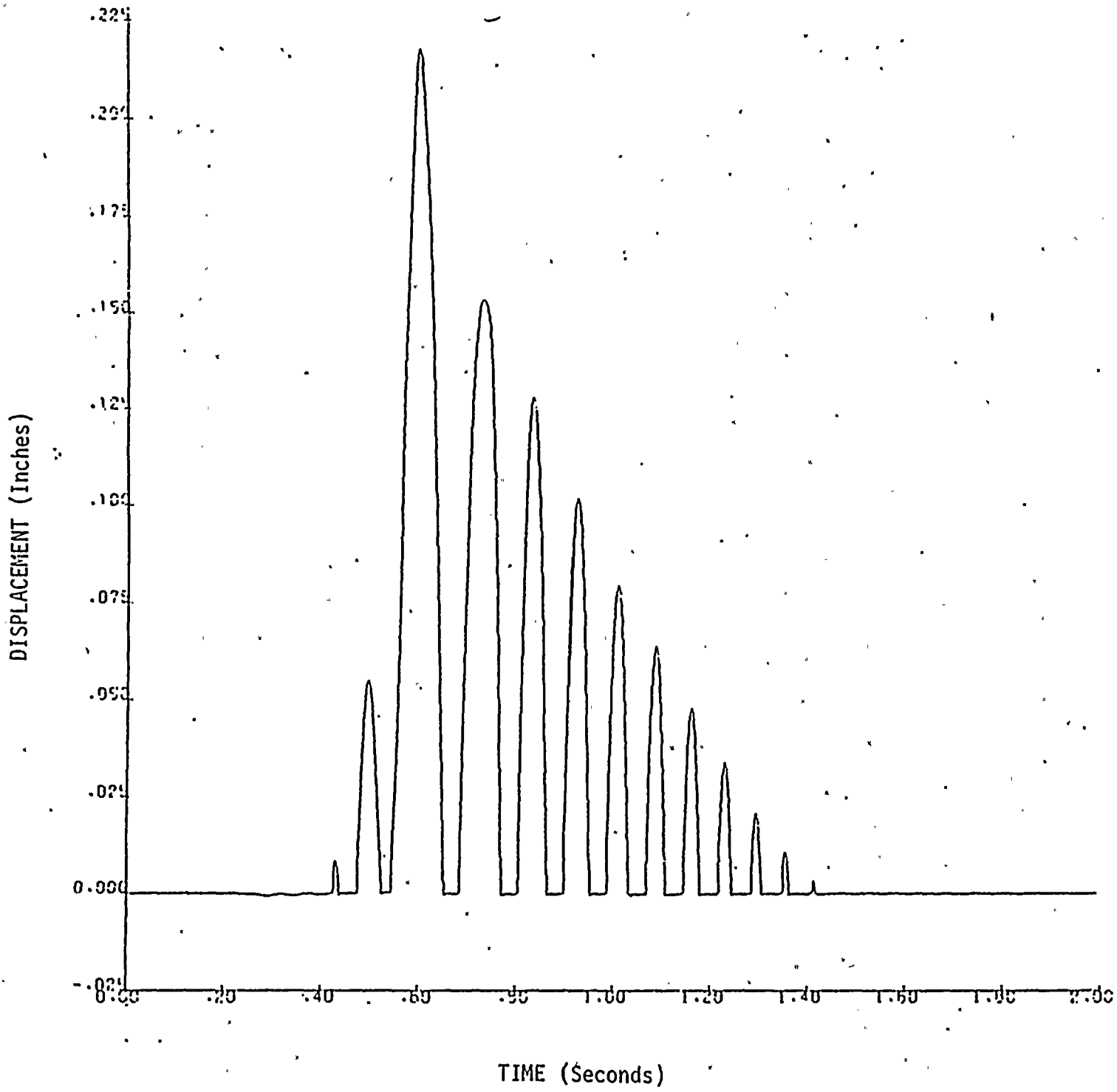

Fig. 14 Anchor Bolt Displacement vs Time

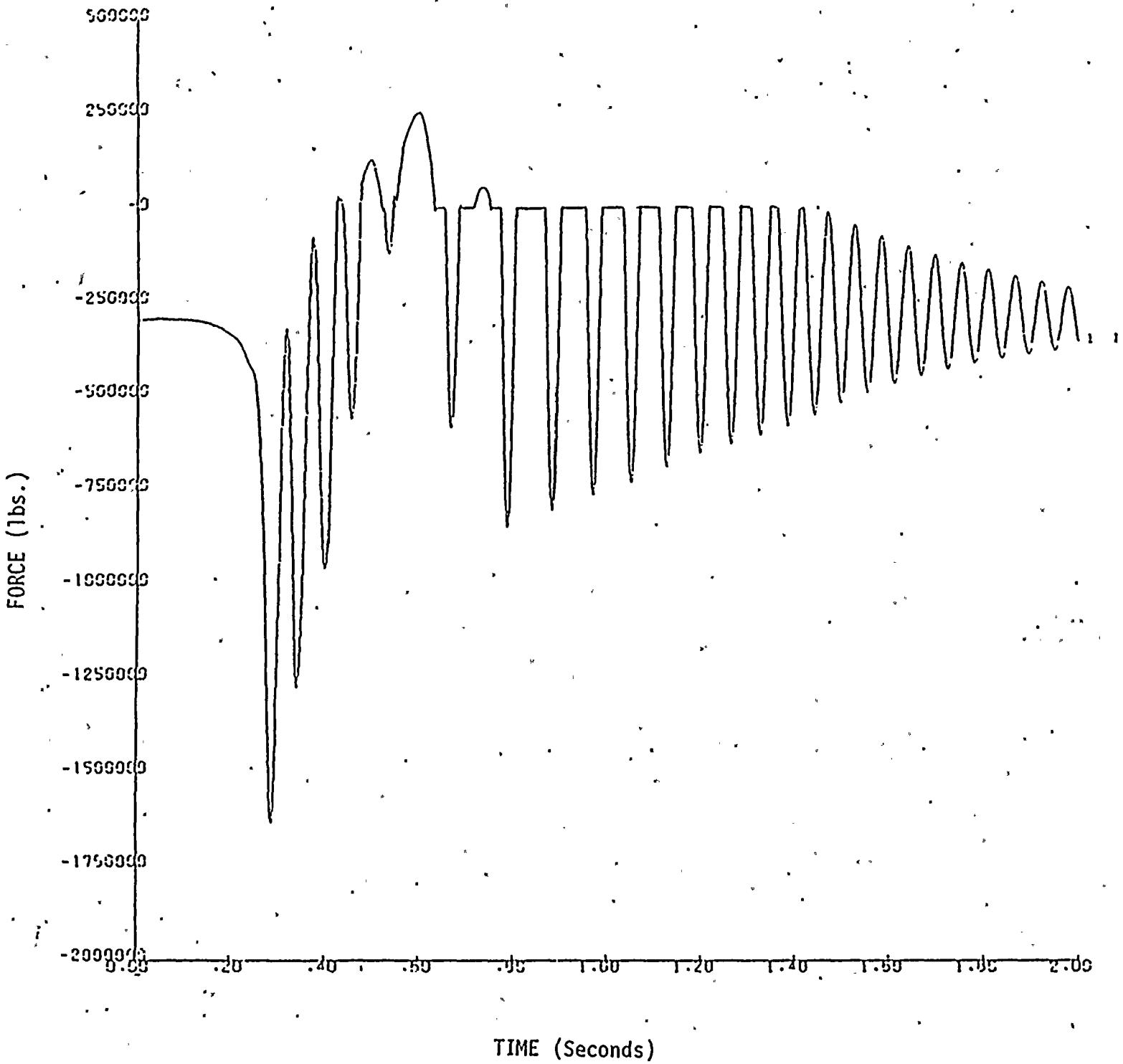

Fig. 15 Column Load vs Time.

6.2.4 Anchor Bolts

Each column of the Nine Mile Point torus is tied to the concrete floor by two 1 1/2 inch diameter hook-type anchor bolts embedded 40 inches into the concrete. The bolts are made of A-36 steel.

Evaluation of the structural capacity of the anchor bolts to the STP criteria requires the use of the 1-D model results. Response plots of total anchor bolt deflection (including effects of concrete) and total column load (including deadweight) are presented in figures 14 and 15.

Evaluation of the anchor bolt's acceptability is greatly simplified by examining the column forces first. We find that the maximum upward column force is equal to 255,000 lbs and occurs at .55 sec. Applying this load statically to the four anchor bolts and calculating the resulting strain, we find that the anchor bolts are well below yield and have experienced only 0.0013 strain. This is well below the strain limitations of the STP criteria and therefore satisfies the requirements for the bolts themselves.

Evaluation of column loads due to fallback presents no problem since they never reach the axial column loads shown in section 6.2.1; i.e., 1012.2 KIPS for two columns.

REFERENCES

1. "Description of Short Term Program Plant Unique Torus Support Systems and Attached Piping Analysis," Nutech Report MK 1-02-12 Rev. 2, June 1976.

2. "Mark I Containment Program Loads for Plant Unique Torus Evaluation," Rev. 2, General Electric Co., June, 1976.

3. "Mark I Containment Evaluation - Short Term Final Report, Addendums 2 and 3" NEDC-20989-P.

4. Torus to Vent Pipe Matrix Data, transmitted to Mr. J. A. Hayward, Teledyne Materials Research, from Mr. K. Wiedner, Bechtel Power Corp., 4 September 1975.

5. "General Description of a Boiling Water Reactor," General Electric Atomic Equipment Department.

6. Letter from Mr. M.G. Mosier, Niagara Mohawk Power Corp., to Mr. N. Celia, Teledyne Materials Research, 11 June 1976.

7. ASME Boiler and Pressure Vessel Code, Section III, Subsections NA and NE, 1974 Edition with addenda through Summer 1975.

8. "Extrapolated Load-Displacement Curve for 1.5 Inch Diameter Anchor Bolts," transmitted to Mr. R. H. Buchholz, General Electric Co., from Mr. R. W. Wulf, Jersey Central Power & Light Co., with copy to Mr. R. Smart, Northeast Utilities Service Co., 17 May 1976.

9. Pathway Bellows Inc., Dwg. Q-2892 Rev. D, 90" Dia. Tandem Weld End Assembly

10. "Mark I Containment Evaluation--Short Term Program," NEDC-20989-P, General Electric Co.