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SUBJECT: Responds to NRC 880610 ltr re violations noted in Insp Rept 50-220/88-09.

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July 15, 1988
NMP1L 0285

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

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

Gentlemen:

Attached please find Niagara Mohawk's response to the Notice of Violation contained in Combined Inspection Report Nos. 50-220/88-09 and 50-410/88-09, dated June 10, 1988.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

C. D. Terry
Vice President
Nuclear Engineering and Licensing

KBT/pns
5237G
Attachment

xc: Regional Administrator, Region I
Mr. R. A. Capra, Director
Mr. R. A. Benedict, Project Manager
Mr. W. A. Cook, Resident Inspector
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# RESPONSE TO A NOTICE OF VIOLATION

Niagara Mohawk Power Corporation
Nine Mile Point Unit 1

Docket No. 50-220
License No. DPR-63

Violation 50-220/88-09-01

10 CFR 50, Appendix B, Criteria XI requires that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures. Further, it requires that test results be documented and evaluated to assure that test requirements have been satisfied.

The Nine Mile Point Site QA Topical Manual invokes 10 CFR 50, Appendix B. Site procedures CBI-SI No. 1 Rev. 0 and NES-80A2433 Rev. 3 were established to perform nondestructive testing thickness measurements of class 1, 2, 3 and other piping.

Contrary to Criterion XI:

(1) Site procedures CBI-SC No. 1 Rev. 0 and NES-8042433 Rev. 3 do not establish adequate controls over the nondestructive testing process for making precision thickness measurements in that a grid location marking system is not utilized in order to establish repeatability and meaningful data for evaluation of thickness measurements.

(2) Torus shell thickness measurements were taken, in some cases, to two decimal place accuracy when three decimal places were required for meaningful evaluation. Also, measurements were not taken in the same locations which rendered the data meaningless for comparison.

This is a Severity Level V violation. (Supplement I)

Response

Niagara Mohawk does not believe that the concerns stated above constitute a violation of Criterion XI of 10 CFR 50 Appendix B.

The thickness tests were performed in accordance with approved written procedures and the test results were documented. The results of thickness tests were provided to the Inspector at the time of the inspection. This data was also in the process of being reviewed by Nuclear Engineering and had not been accepted by Nuclear Engineering as evident by no acceptance stamp or Project Engineer sign-off on the title page of the test results.

Our Erosion/Corrosion Program, as developed and implemented, meets our commitments made in response to IE Bulletin 87-01 and exceeds the Industry (NUMARC) mandated requirements. The Erosion/Corrosion Program involves the inspection of non-safety related piping. However, we realize that some additional recommendations by the Inspector would further improve our program and, therefore, we have taken the following actions:

1) Procedure CBI-SC No. 1, Revision 0 was revised on April 12, 1988 to address consistent marking of data stations to more easily assure repeatability. Additional changes have been made and Procedure CBI-SC No. 1 is currently at Revision 4.

2) The Project Engineer will issue a completion memo to the Superintendent Operations-Nuclear per agreement with the NRC Resident Inspector. This memo will serve as notification of the completion of the Erosion/Corrosion Program for clearance for plant startup.

The thickness measurements taken to support the erosion/corrosion program will all be reviewed by Niagara Mohawk. Acceptable data has been obtained for 60 of 73 examinations. Seven (7) data packages are in review and six (6) data packages have yet to be examined, but will be completed prior to startup. Data packages that do not include fully described sketches of the examined component will not be accepted by Nuclear Engineering.

Regarding the torus shell thickness measurements, Niagara Mohawk has completed a thorough evaluation of the torus wall thinning problem. The results of this evaluation were discussed with the Commission at a meeting on April 26, 1988, and were submitted on May 27, 1988 (NMP1L 0260). As indicated at the meeting and in our submittal, we are not concerned with localized pitting that may encroach upon the minimum wall thickness. We are concerned about a general reduction in thickness. As shown in the following paragraphs, the data taken by NES was sufficiently accurate for this evaluation.

1) Instrument Accuracy in 1988 - Teledyne Engineering Services recommended the use of the USL-38 ultrasonic testing device. Actual thickness measurements were taken in 1988 using a USL-48 ultrasonic testing device which is considered to be more accurate than the USL-38.

2) Two versus three decimal thickness readings - the 1984 and 1986 measurements were taken with instruments capable of reading to three decimal places, but the procedural instructions did not specify reporting accuracy. Therefore, the instrument operators reported to two (2) decimal places both maximum and minimum readings in their own judgment.

   The trending of the data from 1975 to 1988 is in the docketed NMPC calculation package. Pages 23 and 24 of this calculation package show the trending graphs for the "Area Number One" which is the area closest to the design thickness limit of 0.447". All of the trending analysis used the minimum thickness values given by the operator. Also, since the 1984 data appeared to be unusually high, it was omitted from the trending shown on page 24. The worst case line on this graph is the bottom, straight, sloping line called "STD" which is the mean value of the minimum thickness readings less one standard deviation. We believe that the upper, sloping line called "AVG" is conservative enough to use since it is based upon minimum readings. However, even the bottom line ("STD") does not intercept the analysis limit of .447" until 1990.

Therefore, two decimal accuracy is sufficient for trending the general thickness of the Torus.

3) Consistency in grid location measurements - page 5 of the docketed NMPC calculation package shows a location view for the five initial monitoring spots at which we have been monitoring one foot square areas since 1975 until 1988. These one foot squares were broken into a 5x7 grid (1975), a 6x6 grid (1977-1981) and a 12x12 grid (1984-1988) over the monitoring time period. The grids were labeled at the time measurements were taken as shown in the detailed inspection report sheets in the appendix of the NMPC calculation. Although the correlation between the individual grid boxes over time is not exact, the torus shell thickness within any two-inch square is fairly well tracked. Also, the TES report, TR-6801-2 contains a graphic methodology for assessing local loss of shell thickness as compared to more general loss of thickness. This methodology was discussed at the presentation in April 1988. In essence, minor variations in thickness over a small area will be assessed each inspection for all the grid locations on the torus. The average of the minimum readings over each of the one-foot squares is the trending basis for torus shell thickness at that location. Therefore, it is not important to have exact correlation of individual grid locations.

4) Concern over torus shell thickness - NMPC is presently studying corrosion reduction solutions which could be implemented in the 1990 outage. In addition, Niagara Mohawk has committed to perform Torus thickness measurements approximately every twelve months. We consider this matter resolved.

Unresolved Item 50-220/88-09-02

Section 5.4 of the NRC's combined Inspection Report Nos. 50-220/88-09 and 50-410/88-09 indicates the following:

5.4 Drywell Wall

Two areas were inspected on the drywell wall and the locations approximately opposite the drywell sand cushion. These areas were 4" x 5" grids located approximately 1" from the floor, and they were adjacent to main coolant pump 11S. The thickness taken ranged from a low of 1.078" and a high of 1.138" (see Attachment 4 for actual thickness). The licensee did not take thickness readings on the drywell wall. The uniformity of the thickness reading shows no large degradation. However, the drawing minimum for the drywell wall is 1.090". Subsequent to the inspection, the licensee informed the inspector that the 1.090" dimension included a corrosion allowance. When the corrosion allowance is taken into account, the NRC readings are above the minimal acceptable wall thickness.

This item is unresolved pending licensee documentation and NRC review 50-220/88-09-02 response.

Response:

Subsequent to the NRC inspection, Niagara Mohawk Nuclear Engineering has reviewed the original stress calculations for the drywell and found that there is a 1/16" allowance for corrosion on the drywell wall. Therefore, the minimum wall thickness assumed in the calculations is 1.0275", which is above the minimum wall thickness measured by the NRC. These calculations are available for review in Niagara Mohawk Nuclear Engineering.