NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/301 PLAINFIELD ROAD, SYRACUSE, N.Y. 13212/TELEPHONE (315) 474-1511

July 28, 1988
NMP1L 0290

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:

Generic Letter 88-01, dated January 25, 1988, requested information regarding the implementation of NUREG 0313, Revision 2. The attachment to this letter provides Niagara Mohawk's position with respect to austenitic stainless steel piping at Nine Mile Point Unit 1.

Under separate cover, we will be submitting an application for an amendment to the Technical Specifications to incorporate the requirements of this generic letter.

Niagara Mohawk will revise the Nine Mile Point Unit 1 Inservice Inspection Program as appropriate to incorporate the requirements of this generic letter. This revision will be completed prior to our next refueling outage which is scheduled in 1990.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

C. D. Terry
Vice President
Nuclear Engineering and Licensing

KBT/pns
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Attachment

xc: Regional Administrator, Region I
Mr. R. A. Capra, Director
Ms. M. F. Haughey, Project Manager
Mr. W. A. Cook, Resident Inspector
Records Management

6pp.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	]	
	]	
Niagara Mohawk Power Corporation	]	Docket No. 50-220
	]	
(Nine Mile Point Unit 1)	]	

AFFIDAVIT

C. D. Terry, 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 D Terry

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 28th day of July, 1988.

Diane R. Kimball
Notary Public in and for
Onondaga County, New York

DIANE R. KIMBALL
Notary Public in the State of New York
Qualified in Onondaga County No. 4903560
My Commission Expires May 31, 1990

My Commission expires: May 31, 1990

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT UNIT 1

DOCKET NO. 50-220

IMPLEMENTATION OF NUREG 0313, REVISION 2, "TECHNICAL REPORT ON MATERIAL SELECTION AND PROCESS GUIDELINES FOR BWR COOLANT PRESSURE BOUNDARY PIPING."

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NRC Generic Letter 88-01 requires that all austenitic stainless steel piping, four inches or larger nominal diameter and containing reactor coolant at a temperature above 200°F during power operation, be reviewed for the augmented requirements of NUREG 0313, Rev. 2. In response to NRC Generic Letter 88-01, Niagara Mohawk initiated a review of all plant systems to identify those falling within the criteria of NUREG 0313, Rev. 2.

Niagara Mohawk has been performing augmented inspections at Nine Mile Point Unit 1 since 1978. We have evaluated our inspection program using the criteria of NUREG 0313 Revision 2 and have reviewed the mitigation measures applied to the weldments of the affected systems. Based upon this review, we have assigned IGSCC categories as directed by the generic letter.

Systems having pipe welds that fall within the scope of Generic Letter 88-01 and categorization of the welds are listed in Table 1.

In general, many of the susceptible materials at Nine Mile Point Unit 1 have been replaced with materials resistant to IGSCC which, accordingly, can be classified as Category A. The remaining materials are monitored through our augmented inspection program and stringent leak detection criteria. Additional material replacements conforming to the guidelines of NUREG 0313 Revision 2 will be considered if IGSCC indications are detected.

Position on Materials

Niagara Mohawk has had a program of material replacement to improve resistance to Intergranular Stress Corrosion Cracking (IGSCC). Under this program, materials used in past replacements have been low carbon wrought austenitic stainless steel. These materials were not tested for resistance to sensitization in accordance with ASTM A262-A in all cases since this requirement was not in effect at the time of the replacement. Material selection was based on the best information available at the time the replacement was made. Filler metal used in the replacement of austenitic piping also complied with the best available information. The filler metal had a minimum ferrite content of 5% (5FN). In some cases, the ferrite content may be below the new requirement of 7.5% (7.5FN). In addition, cast austenitic materials are generally original plant equipment and were not purchased as low carbon material. In addition, the documentation for the ferrite content of these castings is not available. Under the criteria of Generic Letter 88-01, the welds between replacement piping and nonconforming cast austenitic pumps, valves and fittings are a special case. Since we are planning to install a permanent hydrogen injection system, we have classified these weldments as Category A. If the installation of the permanent hydrogen injection system is delayed beyond the next refueling outage, these weldments will be reclassified as Category D. Thus, all replacement materials and their weldments are classified as Category A. They will be examined using augmented techniques for austenitic materials in accordance with the selection criteria and frequency required by the ASME Boiler and Pressure Vessel Code, Section XI, 1983 Edition, Summer 1983 addenda and ASME Code Case N-408.

There are no IGSCC Category B, C, E and F weldments at Nine Mile Point Unit 1. There are, however, 107 weldments in Table 1 that are classified as Category D. A portion of these weldments will be examined during the 1990 refueling outage. The balance will be examined during the 1992 refueling outage.

There are 54 weldments classified as Category G. Thirteen of these weldments are inaccessible for ultrasonic examination. They will be visually examined each refueling outage for evidence of leakage. The remaining 41 welds will be examined during the 1990 refueling outage. They will then be reclassified as Category D and scheduled for re-examination in 1994.

Summary

1) Niagara Mohawk has already replaced susceptible materials in the Reactor Recirculation System and in portions of the Emergency Cooling System, Clean Up System, and Shutdown Cooling System with resistant materials. We intend to implement a Hydrogen Water Chemistry Program as a further mitigation measure. We do not plan to replace any additional piping at this time. However, if piping repair or replacement becomes necessary, we will follow the appropriate staff positions as described in Generic Letter 88-01.

2) The Inservice Inspection Program will be revised prior to the next refueling outage to incorporate the examination categories and frequencies specified in the generic letter. The examination techniques and personnel qualification methods used for the volumetric examinations will be qualified in accordance with the NDE Coordination Plan through the EPRI NDE Center in Charlotte, North Carolina. Niagara Mohawk does not intend to use any alternate plans, such as ASME Code Case N-409, at this time.

   If one or more cracked welds in IGSCC categories are detected, we will expand the sample examined in accordance with the staff position stated in the generic letter.

3) Under separate cover, we are submitting an application to amend the technical specifications to incorporate the requirements of the generic letter.

4) Plant Technical Specification Section 3.2.5 already conforms to the Generic Letter 88-01 staff position on leak detection.

5) Niagara Mohawk will notify the Commission of any flaws identified that exceed the acceptance criteria of ASME Section XI, subsection IWB-3500. This notification will include our justification for continued operation and/or our repair plans.

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TABLE 1

IGSCC CATEGORY [4]

System	A	B	C	D	E	F	G	Total
Emergency Cooling	27	-	-	31	-	-	32 [1]	90
Shutdown Cooling	4	-	-	8	-	-	8 [2]	20
Core Spray	-	-	-	68	-	-	6 [3]	74
Reactor Recirculation	94 [5]	-	-	-	-	-	-	94
Reactor Water Cleanup	8	-	-	-	-	-	8	16
TOTAL	133	0	0	107	0	0	54	294

NOTES:
1 - 3 welds are 100% obstructed by penetrations
2 - 4 welds are 100% obstructed by penetrations
3 - 6 welds are 100% obstructed by penetrations or a permanent hanger attachment
4 - Table 1 is based on categories that will be applicable after completion of the 1988 refueling outage inspections that are currently in progress.
5 - Thirty welds may be reclassified as Category D if a hydrogen water chemistry program is delayed.