



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

November 2, 1982

Office of Inspection and Enforcement
Region I
Attention: Mr. R. W. Starostecki, Director
Division of Project and Resident Programs
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Re: Nine Mile Point Unit 2
Docket No. 50-410

Dear Mr. Starostecki:

Your Inspection Report No. 50-410/82-10 dated September 13, 1982, identified three apparent violations resulting from an inspection conducted at the Nine Mile Point Unit 2 Construction Site. Niagara Mohawk's response is enclosed.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

C. V. Mangan, Vice President
Nuclear Engineering & Licensing

TRL/djm
Enclosure
cc: Mr. R. D. Schulz, Resident Inspector

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PDR ADOCK 05000410
G PDR

STATE OF NEW YORK

SS:

COUTY OF ONONDAGA

C. V. MANGAN, being duly sworn says:

I am Vice President - Nuclear Engineering & Licensing of Niagara Mohawk Power Corporation. I have read the foregoing letter and attachment, and the information contained in the letter and attachment is true to the best of my knowledge, information and belief.

C. V. Mangan
C. V. Mangan

Sworn to before me on

this 2nd day of November, 1982

Janet Leathley
Notary Public

JANET LEATHLEY
Notary Public in the State of New York
Qualified in Onond. Co. No. 30-7461665
My Commission Expires March 30, 1984

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT UNIT 2
DOCKET NO. 50-410

Response to Notice of Violations
Attached to NRC Inspection Report
No. 50-410/82-10

The first apparent violation was identified as follows:

- A. 10CFR50, Appendix B, Criterion IX states in part that measures shall be established to assure that special processes, including welding, are controlled and accompanied in accordance with specifications, criteria and other special requirements.

10CFR50, Appendix B, Criterion XVI states in part that conditions adverse to quality such as non-conformance and deficiencies are promptly identified and corrected.

Stone and Webster Engineering Corporation Engineering and Design Coordination Report No. F40230 required plate attachment fillet welds for seismic cable tray cross braces, detail H on drawing 12177-EE-340DE, to have a 6 inch long center weld, both sides.

As a result of prior identification by the NRC in March 1982, Stone and Webster Engineering Corporation issued Non-Conformance and Disposition Report No. 3148, dated March 31, 1982, for the purpose of identifying, in the condition details, all the plate attachment fillet welds that had not been designed with sufficient weld deposit including a 6 inch center weld.

Contrary to the above, Non-Conformance and Disposition Report No. 3148 did not identify eight plate attachment fillet welds that required a 6 inch center weld. These eight fillet welds, detail H on drawing 12177-EE-340E, were found on August 24, 1982 to have only a 5 inch center weld. The subject plate attachment fillet welds were designed to support seismic cable tray cross braces between SP-159-1 and SP-159-2. Additionally, several plate attachment fillet welds, identified on Non-Conformance and Disposition Report No. 3148, had less than 6 inch center welds but were accepted by quality control.

This is a Severity Level IV Violation (Supplement II).

The following is submitted in response to this item of non-conformance:

E&DCR F40230 was issued to revise a weld detail which had not been specified in accordance with the design calculations on E&DCR C40935.

A reinspection of those welds identified on SWEC Non-Conformance and Disposition Report (N&D) No. 3148 and the eight welds on supports SP-159-1 and SP-159-2 was performed by SWEC FQC. As a result of this reinspection, two welds identified on N&D No. 3148 and the eight welds on supports PS-159-1 and PS-159-2 were found to be unsatisfactory, and SWEC FQC has issued N&D No. 3683 identifying the deficiencies.

The circumstances under which it occurred and the reinspection indicate that this is an isolated case. However, additional written instructions have been provided to SWEC's Field Quality Control and Site Engineering Group and the responsible contractor to clarify requirements in this area and prevent recurrence.

The second apparent violation was identified as follows:

- B. 10CFR50, Appendix B, Criterion V states in part, "Activities affecting quality shall be prescribed by document instructions, procedures... and shall be accomplished in accordance with these instructions, procedures or drawings".

The Nine Mile Point Nuclear Station Unit 2, PSAR Appendix D adopts the Stone and Webster Quality Assurance Program which provides quality assurance throughout the designated phases of the project including the Concrete Testing Services Specification.

Specification 203H, Concrete Testing Services, Revision 1, states in part, under the frequency of tests section, that Soundness Tests and Los Angeles Abrasion Tests shall be performed every six months after initial tests for each gradation of coarse aggregates to be used during subsequent concrete production.

Contrary to the above, Soundness Tests and Los Angeles Abrasion Tests were not performed since January 28, 1981 for aggregate gradation No. 8, resulting in eight pours in which the aggregate was used from April 20, 1982 to May 19, 1982 violating the six month test frequency.

This is a Severity Level V Violation (Supplement II).

The following is submitted in response to this item of non-conformance:

Samples of the No. 8 aggregate used in the eight pours identified was taken on June 2, 1982, and submitted to Pittsburgh Testing Lab (PTL) for performance of the Soundness and Los Angeles Abrasion Tests. The results of these tests, which are documented on PTL's report dated July 16, 1982 have been reviewed and found to be satisfactory.

The SWEC FQC has issued N&D No. 3563 addressing the eight concrete pours listed in NRC Inspection Report No. 82-10.

SWEC is now implementing these tests at 6 month intervals and is in compliance with the specification and ASTM requirements. To prevent recurrence, SWEC FQC will adhere to a testing matrix that describes the tests to be performed and specifies the testing frequencies.

Full compliance has been achieved.

The third apparent violation was identified as follows:

- C. 10CFR50, Appendix B, Criterion II states in part that the Quality Assurance Program shall provide control over activities affecting the quality of the identified structures and components and assure that all pre-requisites for a given activity have been satisfied including the need for verification of quality by inspection and test.

The Nine Mile Point Nuclear Station 2 PSAR, Appendix D adopts the Stone and Webster Quality Assurance Program which provides quality assurance throughout the designated phases of the project including installation specifications.

The Stone and Webster Quality Assurance Program in Quality Assurance Directive 10.43, Revision A, Hanger and Anchor Bolt Installation Inspection and Installation Specification S203G including Addendum 1 to Revision 3, Drilled-In Expansion Type Concrete Anchors require that inspections be performed by quality control with regard to bolt diameters, anchor hole diameters and depth, embedded depth, bolt perpendicularity, anchor spacing and edge distance and torque tests. In addition, Specification S203G states that all unused anchor or problem holes shall be filled solid with dry pack consistency patching mortar and that before a seventh hole can be drilled to locate an anchor, due to the previous six holes being rejected, the six holes must be filled and allowed to harden three days.

Contrary to the above, neither the electrical nor piping concrete expansion anchor inspection programs provide for inspections of bolt diameters, anchor hole diameters and depth, embedded depth, bolt perpendicularity, anchor spacing and edge distance, torque testing and repaired concrete anchor holes on a 100 percent basis or in accordance with a statistical sampling plan to assure that the requirements for anchor bolt installations have been satisfied through verification of quality by inspection and test.

This is a Severity Level IV Violation (Supplement II).

The following is submitted in response to this item of non-conformance:

We are of the opinion that no program violation exists because Specification No. S230G describes the installation requirements for drilled-in anchor bolts. These requirements are adhered to by the installer to ensure that the installed anchor bolts will perform their intended function.

To provide assurance of proper installation, the specification requires certain activities to be verified by inspection. The final torque test is considered the essential inspection to provide assurance that the installed drilled-in anchor bolts will perform their intended function, therefore, the specification requires this test to be performed at a specific frequency in accordance with a sampling plan and is the basis for final acceptance of the installed anchor bolts.

Other installation activities require inspection, but the specification does not provide a specific frequency. These inspections are considered necessary to ensure that the installation requirements of the specification are being adhered to and to help minimize the potential for rejection during the final inspection. These inspections are performed on a random basis as directed by the SWEC Quality Assurance Program.

Random inspections are performed at a frequency determined by the Senior FQC Representative at the site to ensure that the installation requirements as detailed in the specification are met.

It is our opinion that concrete anchors which have been installed by properly trained personnel in accordance with specified requirements governing anchor hole drilling, anchor spacing and edge distance, anchor perpendicularity and embedment depth and which have been set to the minimum installation torque and within the "turns-of-nut" range determined in the on-site prequalification test program, do not require inspection of each attribute on a 100 percent basis. We believe that torque testing of installed anchors at the specified frequency provides sufficient assurance of the acceptability of the anchors.

Therefore, since SWEC is complying with the existing anchor bolt program, SWEC FQC will continue to perform inspection of all applicable attributes as directed by the SWEC QA program and specification requirements for anchor bolt installation pertaining to embedment plates on a weekly basis as detailed in the applicable inspection plan.

All contractors that utilize Specification No. NMP2-S203G will be required to comply with these requirements as directed by SWEC.

To enhance the program and resolve the issue, NMPC has directed SWEC to institute the following changes to the anchor bolt program:

1. Divide the original FQC inspection plan into separate in-process and final inspection plans.
2. Perform final torque testing on anchors associated with base plates at a minimum frequency of one bolt per plate.

These enhancements will be fully implemented by November 15, 1982.