NIAGARA MOHAWK

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

December 20, 1984
(NMP2L 0305)

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

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

Dear Mr. Starostecki:

Enclosed is a final report in accordance with 10CFR50.55(e) for the problem concerning cable terminations involving heat shrinks or tapes. This problem was reported to W. Lazarus of your staff on October 17, 1984. An interim report was submitted via our letter dated November 16, 1984.

Very truly yours,

C. V. Mangan
Vice President
Nuclear Engineering and Licensing

CVM/GG:csb
(0614H)

xc: Director of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, DC 20555

R. A. Gramm, NRC Resident Inspector

Project File (2)

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

Final Report for a Problem
Concerning Cable Terminations Involving Heat Shrinks or Tapes
(55(e)-84-45)

Description of the Problem

The problem concerns the Category I cable terminations, involving heat shrinks or tapes, that were completed without witnessing by Field Quality Control. Specification No. NMP2-E061A specifies that all Quality Assurance Category I terminations and splices involving heat shrinks or tapes be mandatory hold points requiring witnessing by Field Quality Control prior to the application of heat shrinks or tapes. The Field Quality Control inspector was not present for the required inspections. Witnessing by Field Quality Control provides additional assurance for the following:

1. Proper termination of wires

2. Proper testing of insulation of QA Category terminations

3. Proper landing and torque connections.

Analysis of Safety Implications

The cables in question were disconnected and heat shrink insulation removed. An inspection of cables identified the following nonconformances:

1. Calbes 2EJSAGL001-FR, Phases 2 and 3 did not have sufficient wire protrusion into the top of the lug.

2. Cable 2EJSAGL002-FR, Phase 3 had a crack in the cable jacket.

These nonconformances are documented in Nonconformance and Disposition Report No. 8980.

These nonconformances could have resulted in the improper operation of safety-related systems. Therefore, if the problem were to have remained uncorrected, it could have adversely affected the safety of operations of the plant. Thus, the criteria for reportability have been met.

Corrective Actions

The inspector who failed to witness the subject cable terminations was subsequently terminated. The following additional corrective actions were completed in accordance with Nonconformance and Disposition Reports 8536, 8748, 8795, and 8980:

1. Cables in question were disconnected and heatshrink insulation removed. The correct number of compressions using the correct die was verified by Field Quality Control. A visual inspection was done by Field Quality Control to verify that the conductor wires are present beyond the last compression. Heatshrink was then applied in accordance with the manufacturer's instruction.

2. The cables were tested and reconnected in accordance with Specification No. NMP2-E061A, with Field Quality Control witnessing the tests.

3. Proper landing and torque connections were verified by Field Quality Control for each cable termination to ensure that the torque values are in accordance with Specification No. NMP2-E061A.