

May 14, 1986
(NMP2L 0715)

DESIGNATED ORIGINAL

Certified By Kathleen August

Mr. R. W. Starostecki, Director
U.S. Nuclear Regulatory Commission
Region I
Division of Reactor Projects
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 the standby diesel generator - failure to meet 10-second start requirement.

This problem was reported via tel-con to J. Linville of your staff on April 9, 1986.

Very truly yours,

C. V. Mangar
C. V. Mangar
Senior Vice President

CVM/GG/c1a
(1572H)

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

R. A. Gramm, NRC Senior Resident Inspector
NMPC Project File

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

FINAL REPORT FOR A PROBLEM CONCERNING
STANDBY DIESEL GENERATOR 2EGS*EG1 FAILURE TO MEET 10-SECOND
START REQUIREMENT (55(e)-86-04)

Description of the Problem

Standby diesel generator, 2EGS*EG1, did not meet its 10-second starting requirement due to the slow retraction of the fuel control cylinder. This cylinder is extended in the stopped (fuel-off) condition by 80 psig air and is retracted to the fuel-on position by a combination of 80 psig air and an internal compression spring.

Since the cylinder is mounted horizontally, the compressor spring lies against the low cylinder wall. Engine-induced vibration caused erosion of the softer metal of the cylinder. This eroded material migrated to the piston rod/cylinder cap seal area, which caused galling and increased friction.

It was only the first start of the standby diesel generator from a standby condition that did not meet the 10-second start requirement. The actual starting time was 13 seconds. Subsequent starts after the condition was detected have been acceptable.

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Analysis of Safety Implications

Due to the nature of this problem (binding of the fuel control cylinder), engine starting could have been delayed well beyond the 3-second delay experienced. This problem could have eventually resulted in a failure to start. If this problem had remained uncorrected, it could have adversely affected the safe operation of the plant during accident conditions due to the delay in supplying Division I and Division II power to the safety-related equipment.

Corrective Action

Niagara Mohawk is pursuing the acquisition of new fuel control cylinders which have been coated with armaloy. The new cylinders should effectively prevent this condition from recurring since the armaloy coating provides a harder surface where contact between the spring and the cylinder occurs. In the interim, periodic cleaning of the cylinder will be initiated to prevent the accumulation of wear products. This periodic cleaning has resulted in satisfactory starting of these diesel generators (2EGS*EG1 and EG3).