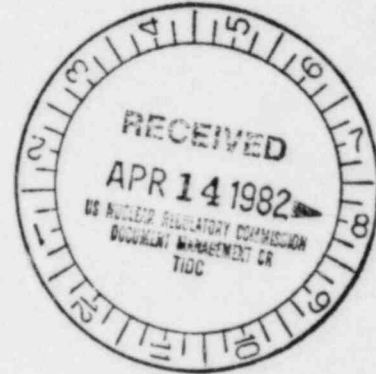




NIAGARA MOHAWK POWER CORPORATION / 300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202 / TELEPHONE (315) 474-1511

April 2, 1982

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



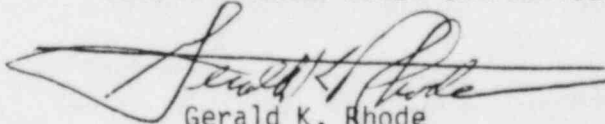
Re: Nine Mile Point Unit 2
Docket No. 50-410

Dear Mr. Starostecki:

On November 25, 1981 a deficiency concerning Power Strut spring nuts was reported to Mr. H. Kister of your staff in accordance with 10 CFR 50.55(e). An interim 30 day report was subsequently submitted on December 23, 1981 describing the deficiency and indicating a final report would be forthcoming. Enclosed is that report. A detailed description of the deficiency and corrective actions to be performed are included in the final report.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION


Gerald K. Rhode
Vice President
System Project Management

PM:bd

Enclosure

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

Mr. R. D. Schulz, Resident Inspector

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NIAGARA MOHAWK POWER CORPORATION
Nine Mile Point - Unit 2
Docket No. 50-410

FINAL REPORT FOR REPORTABLE
DEFICIENCY REGARDING
POWER-STRUT SPRING NUTS

Description of the Deficiency

On November 9, 1981, Power-Strut filed a 10CFR21 report with the NRC identifying a potential noncompliance with regard to slip-load values of PS-9227-1/2 RS spring nuts. Power-Strut amended its 10CFR21 notification, to include Nine Mile Point Unit 2 as one of the affected plants, by a letter dated November 25, 1981. The 10CFR21 report indicated that the failure of these nuts to achieve rated slip-load values resulted from a condition of insufficient tooth serration depth. The report further indicated that the deficiency was isolated to specific shipping lots, one of which (Field Purchase Order No. 12113) was delivered to the Unit 2 site. At the request of Power-Strut this lot (approximately 2,000 nuts) was returned to the vendor. Subsequently, the vendor inspected these nuts and returned the majority of them to the site, indicating that the nuts being returned had adequate tooth serration depth.

Subsequently, slip-load testing was conducted at Power-Strut on samples from the remaining shipping lots.

1. Lot #9941 (approximately 2,000 nuts)
2. Lot #12234 (approximately 8,000 nuts)

The results of these tests, which were witnessed by a representative of Stone & Webster Engineering Corp., were inconsistent. The samples from Field Purchase Order (FPO) No. 12234 exhibited acceptable slip-load resistance, but the samples from Field Purchase Order No. 9941 did not. All samples tested had adequate tooth serration depth, and further investigation revealed a variation in surface hardness. The samples from FPO 9941 were found to be softer than those from FPO 12234. Power-Strut then performed a review of their production records which established that FPO 9941 had not undergone case hardening.

In view of the above, the portion of FPO 12113 nuts returned by the vendor have been placed on hold and will be returned to the vendor.

Analysis of Safety Implications

These spring nuts are used in the supports for raceways containing Class 1E circuits. Therefore, during a seismic event the spring nuts with the lower slip resistance could fail rendering certain Class 1E circuits inoperable.

Corrective Actions

1. a. FPO 12113

Nuts from this lot have neither been installed nor will they be used in the future. These nuts will be returned to the vendor.

b. FPO 9941

An estimated 250 nuts from this lot have been installed. The nuts in this lot are distinguishable since they do not have yellow chromate finish. The installed nuts will be removed, and the entire lot will be returned to Power-Strut.

c. FPO 12234

The slip-load capability of nuts sampled from this lot was demonstrated in testing. Use of nuts from this lot will continue onsite.

However, there were approximately another 250 nuts from this lot installed prior to the identification of the problem. Since these nuts do not have the yellow chromate finish, they are indistinguishable from the unacceptable ones. Therefore, these nuts will also be removed and replaced with nuts having a yellow chromate finish.

2. To alleviate the problem in the future, the vendor has instituted a new QA procedure. This procedure describes the manufacturing and inspection sequence for the PS-9227-1/2 RS spring nuts. Deviations from this procedure requires approval of the Power-Strut QA Manager.
3. Future orders of the PS-9227-1/2 RS spring nuts shall require documentation of case hardening and minimum tooth serration depth. Field Quality Control will sample inspect each lot for minimum tooth serration depth.