

DUKE POWER COMPANY

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VICE PRESIDENT
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TELEPHONE
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October 8, 1982

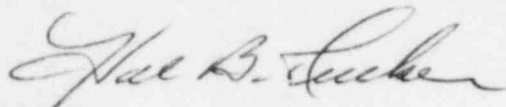
Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: Catawba Nuclear Station
Units 1 and 2
Docket Nos. 50-413 and 50-414

Dear Mr. O'Reilly:

Pursuant to 10 CFR 50.55e, please find attached Significant Deficiency Report SD 413-414/82-20.

Very truly yours,



Hal B. Tucker

RWO/php
Attachment

cc: Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. P. K. Van Doorn
NRC Resident Inspector
Catawba Nuclear Station

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ATLANTA, GEORGIA

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Duke Power Company
Catawba Nuclear Station

Report Number: SD 413-414/82-20

Report Date: October 8, 1982

Facility: Catawba Nuclear Station, Units 1 and 2

Identification of Deficiency:

Inappropriate material was used in the governor drive coupling supplied for the diesel generator. The deficiency was identified September 8, 1982.

Initial Report:

On September 9, 1982, Mr. A. J. Ignatonis of NRC Region II, Atlanta, Georgia was notified of the deficiency by Mr. W. O. Henry, Mr. J. M. Lines, and Mr. G. D. Rowland of Duke Power Company, Charlotte, North Carolina 28242. This notification was in response to Mr. R. A. Pratt's (Transamerica Delaval Inc.) letter dated August 18, 1982 to Mill Power Supply Company.

Supplier and/or Component:

Transamerica Delaval Incorporated of Oakland, California, supplied the governor drive couplings that are installed on the four Catawba diesels for Units 1 and 2, and are designated 1A, 1B, 2A, and 2B.

The governor drive couplings are manufactured by Koppers Company Incorporated, Baltimore, Maryland.

Description of Deficiency:

The governor drive couplings that were specified and supplied for the diesel generators by Transamerica Delaval, may use an isoprene material in the coupling elements in lieu of neoprene. Isoprene was designed for atmospheric use and was incorrectly applied by Transamerica Delaval for use in high temperature, oily atmosphere encountered in the engine's gear case. Therefore, the rubber element deteriorates rapidly and ultimately fails. While the coupling is designed to mechanically lock-up when the element fails, sufficient frequency instability could be induced that would result in the diesel tripping offline during a critical period.

Analysis of Safety Implication:

Based on the assumption that the deterioration of the rubber element could occur and remain undetected, this situation could compromise a diesel generator's ability to maintain a constant frequency and could potentially trip the diesel. Therefore, this could result in the unavailability of a diesel generator.

Corrective Action:

The governor drive couplings were generically furnished to many utilities with isoprene material, which deteriorates in high temperature and oily environments. New couplings with neoprene will replace the original couplings. Transamerica Delaval recognized their misapplication of this material and have revised their coupling specifications to require neoprene to prevent recurrence of this situation. Transamerica Delaval will furnish a certificate of compliance for the new couplings.

Isoprene couplings have been removed from Transamerica Delaval's stock.

Transamerica Delaval recommends a modification that corrects the potential deficiency described above. The modification involves removing each of the four governor drive couplings, and replacing each with a coupling (P/N AK-0070-000) that uses a neoprene material. Neoprene is designed to function in a high temperature, oily atmospheric environment without deterioration. Also, the installation of the new coupling will require reestablishing the correct 1/32" gap between the governor drive shaft and the female coupling shaft. Therefore, to ensure the correct gap, Transamerica Delaval recommends that the female coupling shaft (P/N 02-311-04-AA) also be replaced.

The above corrective action is expected to be completed by March 1, 1983.