

IES
INDUSTRIES INC.

P21 94054

March 1, 1994
NG-94-0877

NRC Operations Center
FAX 301-492-8187
Confirmation 301-951-0550

Subject: Initial Notification of 10CFR21 Report

Dear Sir:

Pursuant to 10 CFR Part 21, the purpose of this letter is to provide preliminary notification of a defect that was identified with the 'C' Residual Heat Removal (RHR) pump motor, 1P229C, at the Duane Arnold Energy Center (DAEC).

On December 15, 1993, the 'C' RHR pump failed to meet its required discharge pressure during the performance of a quarterly surveillance test. Subsequently, we discovered that the motor shaft nut washer tab was not bent to engage the motor nut. This allowed the motor nut to loosen with pump vibration and permitted the pump and motor shaft to lower until the pump impeller was running between 0.002 and 0.004 inches above the pump case versus a normal clearance of about 0.160 inches. This resulted in a degradation of pump performance by approximately 5% as compared to the pre-operational testing curves. Consequently, a new pump rotating element, wear ring and hydrostatic bearing were installed due to excessive pump wear and bent shaft. In addition, the pump mechanical seal and motor thrust and lower radial bearings were replaced.

This pump motor along with the three other RHR pump motors and both Core Spray pump motors had been overhauled in 1988 at General Electric's Memphis, Tenn. shop. It is believed that General Electric failed to bend the locking washer per shop procedures at that time. The locking washer tabs have subsequently been verified to be bent on the remaining RHR and Core Spray pump motors.

The potential significant safety hazard associated with this non-compliance is the possible inability of the pump to function as described in the Plant Safety Analysis.

It is IES Utilities' understanding that General Electric is also evaluating this issue under their 10 CFR Part 21 procedures. Therefore, IES Utilities will re-evaluate the necessity of a followup report if General Electric formally notifies you of this issue within the next 30 days.

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If you have further questions regarding this matter, please contact me or either of the following contacts:

George Carr - (319) 851-7444
Jeffrey Thorsteinson - (319) 851-7215

Sincerely,



John Franz
Vice President - Nuclear
IES Utilities Inc.
200 First Street S.E.
Post Office Box 351
Cedar Rapids, Iowa 52406

JF/LS/eh