KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT - NUCLEAR

June 29, 1984

Mr. E.H. Johnson, Acting Chief
Reactor Project Branch 2
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

KMLNRC 84-106
Re: Docket No. STN 50-482
Subj: Potential 10CFR50.55(e) Interim Report - Microbiologically Influenced Corrosion

Dear Mr. Johnson:

This letter provides an interim report on a potential 10CFR50.55(e) concerning Microbiologically Influenced Corrosion in heat exchangers at Wolf Creek Generating Station. This matter was initially reported by Mr. H.K. Chernoff of Kansas Gas and Electric Company (KG&E) to Mr. William Johnson of the Nuclear Regulatory Commission, Region IV on June 1, 1984.

Due to an excessive demineralized water make-up rate to the turbine-generator stator cooling water system, an examination of the stator cooling water heat exchangers (non safety-related) was performed. An eddy current inspection of the heat exchangers revealed pitting of the heat exchanger tube walls. The eddy current test results identified that approximately 28% of the tubes exhibited some pitting. Preliminary investigations conducted by the Architect/Engineer and the turbine-generator vendor indicated that the source of the tube damage was microbiologically influenced corrosion (MIC), that is, corrosion caused in part by the life cycle of certain microorganisms. These organisms entered the heat exchanger by way of the service water (EA) system before Wolf Creek's service water chemical treatment system was operational. Water samples have been taken from Wolf Creek Generating Station (WCGS) cooling lake in an attempt to culture and isolate the responsible microorganism(s).

Since the WCGS cooling lake supplies cooling water to some safety-related heat exchangers, KG&E elected to inspect all heat exchangers that were exposed to lake water. These inspections have not been completed, however, a small number of tubes in four safety-related heat exchangers (Chemical and Volume Control System Chiller, Diesel Generator 'A' Intercooler, Jacket Water Heat Exchanger and Lube Oil Cooler) exhibit some pitting. The

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Architect/Engineer is evaluating the results of the aforementioned activities to determine what corrective action, if any, will be necessary to repair the affected heat exchangers and eliminate the microorganism(s).

Final resolution of this matter will await the completion of the eddy current examinations and evaluation of those results by the Architect/ Engineer. In the interim, the status of this potential 10CFR50.55(e) will be carried on the monthly status update as file 53564-K141. The final report or any significant new information will be submitted by separate correspondence.

Please direct any questions concerning this subject to me or to Mr. Otto Maynard of my staff.

Yours very truly,

Glenn L. Koester
Vice President - Nuclear

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