



KANSAS GAS AND ELECTRIC COMPANY

GLENN L KOESTER  
VICE PRESIDENT - NUCLEAR

July 19, 1982

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

KMLNRC 82-224

Ref: Letter of 5/14/82 from BJYoungblood, NRC, to  
GLKoester, KG&E

Dear Mr. Denton:

The Reference transmitted the ACRS letter on Wolf Creek Generating Station, Unit No. 1 (WCGS) to KG&E. In discussions with the NRC's Wolf Creek Project Manager, KG&E was asked to comment on the first paragraph of page two of the ACRS letter. This letter provides the requested comments.

The ACRS recommended in the subject paragraph that KG&E build "a strong in-house capability for analyzing and understanding the nuclear-thermal-hydraulic behavior and systems performance of this plant". KG&E fully intends to develop such in-house capability. In fact, as will be discussed below, KG&E has already taken steps to develop expertise in these areas. KG&E organizational elements which have varying responsibilities in these technical areas are listed in the attached table.

As discussed in SER Section 13.1.2(2) and as was discussed before the ACRS, long-term service agreements with Westinghouse, Bechtel and Nuclear Projects, Inc. are being negotiated. These organizations are presently providing the majority of the analytical expertise that is supporting the WCGS Application while KG&E is building its analytical capability. Economics dictate that, even when the fully planned KG&E capability is in place, certain infrequently-used expertise will be provided by organizations such as those above. Examples of such instances include reload LOCA analyses and analysis supporting major system modifications.

Major steps taken to date to build in-house analytical capabilities are listed below. These steps are indicative of KG&E's current intentions and are not intended to represent commitments to the use of the computer codes or consultants cited. These steps have included:

- 1) Nuclear Associated Incorporated (NAI) was contracted in 1980 to train KG&E employees in the development of a core physics

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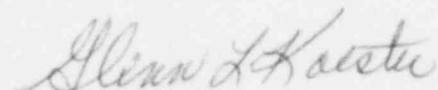
model. That training is still ongoing. The methods utilize a three-dimensional nuclear reactor core physics calculational code sponsored by EPRI which is used by several nuclear utilities to provide nuclear parameter input to safety analysis codes. These utilities have joined together to form a Users' Group in which KG&E is actively participating.

- 2) KG&E through SNUPPS contracted with Energy, Inc. (EI) in 1980 to build a SNUPPS plant RETRAN model and run checks on certain FSAR Chapter 15.0 accident analyses. RETRAN is a systems simulator computer code that calculates the overall plant response to various initiating events and conditions. KG&E personnel have attended workshops conducted by EI in the use of RETRAN. KG&E has obtained RETRAN for use in-house, duplicated the EI analysis results, checked the EI model for appropriateness, and converted the RETRAN-01 model EI developed to the newer RETRAN-02 version. RETRAN was also developed through EPRI sponsorship and KG&E also is participating in the RETRAN Users' Group.
- 3, KG&E obtained the VIPRE computer code from EPRI earlier this year. VIPRE is a core thermal-hydraulics code used for subchannel and channel analyses. To date KG&E has not formally trained anyone in the use of this code. However, KG&E hired an Engineer in 1982 from a Navy-sponsored national lab who has several years experience in the use of codes similar to VIPRE. There is also a VIPRE Users' Group which KG&E will begin participating in at the next meeting.
- 4) EPRI proposed in March 1982 to develop a package to link all computer codes together necessary to perform reload analyses. The package is called RASP (Reactor Analysis Support Package) and the codes presently planned to be linked include ARMP, SIMULATE, VIPRE, RETRAN and FREY. Several utilities, including KG&E, have agreed to support this effort with manpower and computing time.

KG&E anticipates that, based on the above-mentioned progress to date, a significant portion of its planned capabilities will be in place for the initial fuel load of WCGS, but that this capability will continue to develop through subsequent reloads.

We appreciate the opportunity to tell of KG&E's plans and activities to date in developing in-house nuclear-thermal-hydraulic and systems performance capability.

Yours very truly,



GLK:bb  
Attach  
(See Page 3 for Copies)

Mr. Harold R. Denton  
KMLNRC 82-224

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July 19, 1982

cc: Mr. J.B. Hopkins (2)  
Division of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Thomas Vandel  
Resident NRC Inspector  
P.O. Box 311  
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TABLE  
WOLF CREEK SUPPORT CAPABILITIES

<u>TECHNICAL AREA</u>	<u>SITE BASED SECTION (1)</u>	<u>HOME OFFICE BASED SECTION (2)</u>
Nuclear Behavior	Reactor Engineering	Nuclear Fuel Engineering
Thermal-Hydraulic Behavior	Results Engineering	Facilities and Analysis Mechanical Engineering Licensing (Safety Analysis)
Systems Performance	Results Engineering	Facilities and Analysis Mechanical Engineering Licensing (Safety Analysis)

(1) See SER Figure 13.7

(2) See SER Figures 13.4 and 13.5