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Docket File
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DEisenhut
BJYoungblood
GEdison
MRushbrook
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TMurley
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RHartfield, MPA
WJohnston
WHouston
AChu
KDempsey
BJElliot
GJohnson
Pawlicki

WHazelton

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NSIC
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ACRS (16)

JUL 28 1981

RECEIVED AUG 05 1981 U.S. NUCLEAR REGULATORY COMMISSION

Docket Nos.: STN 50-482
and STN 50-483

Mr. Glenn L. Koester
Vice President - Nuclear
Kansas Gas and Electric Company
201 North Market Street
Post Office Box 208
Wichita, Kansas 67201

Dear Mr. Koester:

Subject: SNUPPS FSAR - Request for Additional Information - Materials Engineering

As a result of our review of your application for operating licenses we find that we need additional information regarding the SNUPPS FSAR. The information required is related to Reactor Vessel Material, Reactor Coolant Pressure Boundary Materials, and Reactor Coolant Pump Flywheel, which are being reviewed by the Component Integrity section of the Materials Engineering Branch. The specific information required is listed in the Enclosure.

To maintain our licensing review schedule for the SNUPPS FSAR, we will need responses to the enclosed request by September 7, 1981. If you cannot meet this date, please inform us within seven days after receipt offthis letter of the date you plan to submit your responses so that we may review our schedule for any necessary changes. Please note that advance copies of these questions were provided to the SNUPPS staff on July 21, 1981 at the public meeting with the Reactor System Branch.

Please contact Dr. G. E. Edison, Licensing Project Manager, if you desire any discussion or clarification of the enclosed request.

Sincerely,

Original signed by
Robert L. Tedesco

Robert L. Tedesco, Assistant Director
for Licensing
Division of Licensing

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PDR ADOCK 05000482
A PDR

Enclosure:
As stated

cc: See next page

OFFICE	DL:LB#1	DL:LB#1	DL:AD/L				
SURNAME	GEdison/ys	BJYoungblood	RLTedesco				
DATE	7/ /81	7/ /81	7/ /81				

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ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION

WOLF CREEK UNIT NO. 1

123.0 MATERIALS ENGINEERING BRANCH--COMPONENT INTEGRITY SECTION

123.1WC Identify whether SA-540 Class 1 or 2 material was used for closure bolting in reactor coolant pumps. If SA-540 Class 1 or 2 materials were used for closure bolting in reactor coolant pumps, demonstrate the generic adequacy of the fracture toughness and demonstrate compliance with Paragraph I.C of Appendix G, to 10 CFR Part 50.

123.2WC Indicate whether the individuals performing the fracture toughness tests were qualified by training and experience and whether their competency was demonstrated in accordance with a written procedure. If the above information cannot be provided, state why the information cannot be provided and identify why the method used for qualifying individuals is equivalent to those of Paragraph III.B.4 Appendix G, 10 CFR Part 50.

123.3WC To demonstrate compliance with the beltline material test requirements of Paragraph III.C.2 of Appendix G, 10 CFR Part 50:

a. Provide a schematic for the reactor vessel showing all welds, plates and/or forgings in the beltline. Welds should be identified by shop control number, weld procedure qualification number, the heat of filler metal, and type and batch of flux. Provide the chemical composition for these welds (particularly Cu, P, and S content).

b. Indicate the post-weld heat treatment used in the fabrication of the test welds.

c. Indicate the plates used to fabricate the test welds.

d. Indicate whether the test specimen for the longitudinal seams were removed from excess material and welds in the vessel shell course following completion of the longitudinal weld joint.

123.4WC To demonstrate compliance with the fracture toughness requirements of Paragraph IV.A.1 of Appendix G, 10 CFR Part 50:

a. Provide the RT_{NDT} for all RCPB welds which may be limiting for operation of the reactor vessel.

b. Indicate whether there are any RCPB heat-affected zones which require CVN impact testing per paragraph NB-4335.2 of the 1977 ASME Code. Provide CVN impact test data fo these heat-affected zones which may be limiting for operation of the reactor vessel.

c. Indicate that there are no ferritic RCPB base metals other than in vessels which require fracture toughness testing to NB-2300 of the ASME Code. If there are ferritic RCPB base metals other than in vessels which require fracture toughness testing to NB-2300 of the ASME Code, provide CVN impact and drop weight data for all materials which will be limiting for operation of the reactor vessel.

123.5WC Revise the FSAR to indicate that the conclusions of Westinghouse Topical Report WCAP 9292 is applicable to Callaway Unit 1 SA-533 Grade A, Class 2 steel and SA 508 Class 2a steels.

123.6WC Provide actual pressure-temperature limits for Callaway Unit 1 based upon the limiting fracture toughness of the reactor vessel material and the predicted shift in the adjusted reference temperature, RT_{NDT}, resulting from radiation damage. The pressure-temperature limits for the following conditions must be included in the technical specifications when they are submitted:

1. Preservice hydrostatic tests,
2. Inservice leak and hydrostatic tests,
3. Heatup and cooldown operations, and
4. Core operation.

123.7WC Provide full CVN impact curves for each weld and plate in the beltline region. Provide the data in tabulated and graphical form.

123.8WC To demonstrate the surveillance capsule program complies with Paragraph II.C.3 of Appendix H:

a. Provide the withdrawal schedule for each capsule.
b. Provide the lead factors for each capsule.

c. Indicate the estimated reactor vessel end of life fluence at the ¼ wall thickness as measured from the ID.

123.9WC Identify the location of each material surveillance capsule and the materials in each capsule.

a. For each base metal and heat-affected zone surveillance specimen provide the specimen type, the orientation of the specimen relative to the principal rolling direction of the plate, the heat number, the component code number from which the sample was removed, the chemical composition especially the copper (Cu) and phosphorus (P) contents, the melting practice and the heat treatment received by the sample material.

b. For each weld metal surveillance specimen provide the weld identification from which the sample was removed, the weld wire type and heat identification, flux type and lot identification, weld process and heat treatment used for fabrication of the weld sample.

c. Provide a sketch which indicates the azimuthal location for each capsule relative to the reactor core.

123.10 WC Indicate the normal operating temperature of the flywheels and provide CVN impact and drop weight test data from each flywheel that indicates the RT_{NDT} of the flywheels are 100°F less than their normal operating temperatures.

123.11 WC Submit for review an inservice inspection program for the pump flywheels which complies with Paragraph C.4 of Safety Guide 14, October 27, 1971.