NOV 04 1985

Docket No.: STN 50-483

Mr. D. F. Schnell
Vice President - Nuclear
Union Electric Company
P. O. Box 149
St. Louis, Missouri 63166

Dear Mr. Schnell:

Subject: Callaway - Request for Additional Information Regarding Functional and Task Analysis

The NRC staff is continuing its review of Union Electric Company's Functional and Task Analysis submitted by letter dated April 26, 1985 and a supplement thereto dated May 24, 1985. The information requested in Enclosure 1 is necessary to permit the staff to complete its review. Enclosure 2 provides further details regarding the information requested.

Please provide the requested information within 60 days of your receipt of this letter.

Sincerely,
(5)

B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing

Enclosures: As stated

cc: See next page

Distribution:
Docket File
NRC PDR
Local PDR
PRC System
NSIC
LB#1 rdg
MRushbrook
TAlexion
PO'Connor
OELD
ACRS (16)
JPartlow
BGrimes
EJordan

LB#1/DL	LB#1/DL	LB#1/DL	LB#1/DL
TAlexion/mac	MRushbrook	PO'Connor	BJYoungblood
11/ /85	11/ /85	11/ /85	11/18/85

ENCLOSURE 1

CALLAWAY UNIT 1

REQUEST FOR ADDITIONAL INFORMATION

FUNCTION AND TASK ANALYSIS

The staff's review indicates that the licensee has satisfactorily described the process which it used to conduct a function and task analysis for deriving the instrumentation and control characteristics from the generic technical guidelines and related background information. However, the licensee did not describe and justify, as part of its Procedures Generation Package (PGP), potentially safety-significant information and control deviations from the generic technical guidelines or indicate that deviations of this type did not exist. Based on our review, we conclude that the licensee should provide the following information within 60 days of receipt of this letter:

1. Demonstrate that the task analysis based on Revision 1 of the Emergency Response Guidelines (ERGs) is applicable to Callaway.

2. Modify the PGP to state that the task analysis which supported the Emergency Operating Procedures (EOP) Upgrade Program was described as part of the Detailed Control Room Design Review (DCRDR).

3. Describe and justify the deviations from Revision 1 of the ERGs indicated in the Task Analysis Final Report, Findings 1, 6, 8, 9, and 10.

4. Review the method used for identifying deviations and describe and justify all potentially safety-significant deviations not identified in Items 1 and 3 above.

5. Provide a cross-reference of the Callaway EOPs to Revision 0 and Revision 1 of the ERGs and identify each step of the eight EOPs given in Enclosure 2 that lists the Component Coolant Water Flow to the Seal Water Heat Exchanger as an instrumentation requirement.

6. Describe the indications, other than steam generator water level, that the operator will use to identify the steam generator with a ruptured tube.

Please refer to Enclosure 2 for further details regarding these requirements.

ENCLOSURE 2

CALLAWAY UNIT 1

FURTHER DETAILS REGARDING THE STAFF'S

REQUEST FOR ADDITIONAL INFORMATION

The staff has reviewed the Final Report for the Task Analysis for SNUPPS Detailed Control Room Design Review (DCRDR) submitted April 26, 1985, and the clarification letter dated May 24, 1985, as these documents apply to the EOP Upgrade Program for Callaway Plant, Unit #1. These two submittals were made to satisfy Facility Operating License No. NPF-30, condition 2.C.(7),(a). The license condition resulted from conclusions stated in SSER Nos. 3 and 4. These conclusions indicated that the function and task analysis, conducted by SNUPPS to satisfy the requirements of the DCRDR and the EOP Upgrade Program contained in Supplement 1 to NUREG-0737, was incomplete. To satisfy the requirement of applying the function and task analysis to the EOP Upgrade Program, the licensee was to describe its process for deriving the instrumentation and control characteristics from the generic technical guidelines and related background information. Where the licensee deviated from the generic instrumentation and control characteristics or developed its own needed characteristics, it was to identify the deviations as part of the plant-specific technical guidelines portion of the Procedures Generation Package (PGP).

The Task Analysis Final Report described the process that was used to derive instrumentation and control characteristics from Revision 1 of the Westinghouse Owners Group (WOG) generic Emergency Response Guidelines (ERGs) and related background information. This partially satisfies the license condition. However, the staff has the following concerns as a result of reviewing the final report and clarification letter:

1. It is the staff's understanding that Callaway used the older Revision 0 of the ERGs to develop its EOPs and that EOPs based on Revision 0 of the ERGs are currently in use. Since the task analysis performed by SNUPPS to support the Callaway EOP Upgrade Program used Revision 1 of the

ERGs, the licensee should provide the staff with assurance that the task analysis is applicable to Callaway.

2. The PGP should be modified to state that the task analysis to support the EOP Upgrade Program was described as part of the DCRDR.

3. Potentially safety-significant deviations from the generic instrumentation and control characteristics have not been described as part of the plant-specific technical guidelines portion of the licensee's PGP, nor was it indicated that there are no potentially safety-significant deviations from the generic instrumentation and control characteristics. The staff has determined that Findings 1, 6, 8, 9, and 10 of the Task Analysis Final Report are potentially safety-significant deviations from Revision 1 of the ERGs and each finding should be described and justified as a deviation in the plant-specific technical guidelines portion of the PGP.

4. In addition to describing the previously-mentioned findings as deviations, the licensee should review the method it used for identifying plant-specific technical deviations from the generic technical guidelines, and its method for identifying deviations from the generic instrumentation and control characteristics to determine whether any additional deviations from the generic technical guidelines exist. Additional, potentially safety-significant deviations should be described and justified by the licensee as part of the plant-specific technical guidelines portion of the PGP.

Following are examples of potentially safety-significant deviations from generic technical guidelines as listed in NUREG-0800, Standard Review Plan, Section 13.5.2, Appendix A:

- any modification to the mitigative strategy of the generic technical guidelines (e.g, for a Westinghouse plant, initially depressurizing the RCS following a steam generator (SG) tube rupture without first having conducted a limited cooldown in accordance with the guidelines to establish a margin to saturation).

- differences in equipment operating criteria (e.g., RCP trip criteria, SI injection termination criteria).

- differences in equipment operating characteristics (i.e., between the plant-specific equipment and that assumed in the generic analyses, such as SI that can be throttled vs. only on/off).

- identification of methods and equipment used to address the technical areas of the generic guideline that are specified as "plant-specific."

- plant-specific setpoints or action levels that are calculated or determined in the manner other than specified in the generic technical guidelines.

  NOTE: Plant-specific setpoints (e.g., setpoints associated with automatic initiations of ECCS) called for by the generic guidelines need not be included.

- actions that are taken in addition to those specified in the generic guidelines and that affect the mitigative strategy.

- differences that affect the equipment's ability to adequately provide the necessary mitigative function.

- use of different instruments or control parameters than those specified in the generic technical guidelines or determining instrumentation and control characteristics in a manner different than, or with a different basis than, that specified in the generic technical guidelines.

- identification of items not covered by the NRC-approved generic technical guidelines (e.g, plant-specific conditions, equipment, operations, or bracketed [] information from the generic technical guidelines that relate to systems, functions or methods).

Staff review of the SNUPPS Task Analysis Final Report and clarification letter has identified the following additional concerns that relate to Callaway Plant, Unit #1:

1. Reference Finding 9 of the Final Report:
   Although the following item pertains to Wolf Creek EOPs, the staff believes that it also applies to Callaway:

   In a telephone discussion with the staff, a representative from the Wolf Creek Generating Station, Unit #1, indicated that the following EMG (Wolf Creek's nomenclature for EOP) steps referred to CCW Flow to Seal Water Heat Exchanger as an information requirement for control room operators:

   1. EMG FR I-1, steps 2 & 4
   2. EMG E-3, step 34
   3. EMG ES-11, step 26
   4. EMG EF-03, step 16
   5. EMG C-21, step 27
   6. EMG C-31, step 31
   7. EMG C-32, step 25
   8. EMG C-33, step 18

Staff review of Revision 1 (HP Version) of the WOG ERGs was unable to trace items 3-8 of the above list to the ERGs. The content and purpose of these EOP steps (and the entire EMG for each step) are of concern to the staff because they are not traceable to the ERGs and are considered by the staff as potentially safety-significant deviations from the generic technical guidelines. To address this concern as it applies to Callaway's EOPs, the licensee should (1) identify the steps in its EOPs that relate to Finding 9 and the eight Wolf Creek EMG steps listed above, (2) describe and justify as a deviation, each EOP step that cannot be traced back to Revision 1 of the ERGs, as part of the plant-specific technical guidelines portion of the PGP, and (3) provide a list of Callaway EOPs, cross-referenced to Revision 0 of the ERGs.

2. Reference Finding 10 of the Final Report:
Emergency Response Guideline E-3 (Revision 1, HP Version) states:

> Identify Ruptured SG(s):
>
> o Unexpected increase in any SG narrow range level
>
> - OR -
>
> o High radiation from SG sample
>
> - OR _
>
> o High radiation from any SG steamline
>
> - OR -
>
> o High radiation from any SG blowdown line:
> [Enter plant-specific means]

The staff understands that Callaway Plant, Unit #1, does not have SG steamline radiation monitors. However, Callaway license condition 2.C.(7),(c) of license NPF-30 requires Union Electric to install, prior to restart following the first refueling outage, radiation monitors for

releases from SG safety/relief valves or atmospheric dump valves and auxiliary feedwater pump turbine exhaust monitor. It appears that these monitors which are required by the license condition may be used in place of the SG steamline radiation monitors.

Although SG water level is expected to be a good indication of which SG experiences a full (design basis) tube rupture, other symptoms could be better indicators of a partial tube rupture or a tube rupture with a secondary rupture. The licensee should describe, as part of Finding 10 of the Task Analysis Final Report, the operator actions that will be taken at Callaway, other than observation of SG water level, to identify the SG having a ruptured tube. Limiting operator action times should be included. Also, the radiation detectors and their location in the main steam system, the emergency feedwater turbine exhaust, and in the SG blowdown system should be described.

Mr. D. F. Schnell
Union Electric Company

Callaway Plant
Unit No. 1

cc:
Mr. Nicholas A. Petrick
Executive Director - SNUPPS
5 Choke Cherry Road
Rockville, Maryland 20850

Gerald Charnoff, Esq.
Thomas A. Baxter, Esq.
Shaw, Pittman, Potts & Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

Mr. J. E. Birk
Assistant to the General Counsel
Union Electric Company
Post Office Box 149
St. Louis, Missouri 63166

U. S. Nuclear Regulatory Commission
Resident Inspectors Office
RR#1
Steedman, Missouri 65077

Mr. Donald W. Capone, Manager
Nuclear Engineering
Union Electric Company
Post Office Box 149
St. Louis, Missouri 63166

A. Scott Cauger, Esq.
Assistant General Counsel for the
Missouri Public Service Comm.
Post Office Box 360
Jefferson City, Missouri 65101

Ms. Marjorie Reilly
Energy Chairman of the League of
Women Voters of Univ. City, MO
7065 Pershing Avenue
University City, Missouri 63130

Mr. Donald Bollinger, Member
Missourians for Safe Energy
6267 Delmar Boulevard
University City, Missouri 63130

Mayor Howard Steffen
Chamois, Missouri 65024

Professor William H. Miller
Missouri Kansas Section, American
Nuclear Society
Department of Nuclear Engineering
1026 Engineering Building
University of Missouri
Columbia, Missouri 65211

Mr. Robert G. Wright
Assoc. Judge, Eastern District
County Court, Callaway County,
Missouri
Route #1
Fulton, Missouri 65251

Lewis C. Green, Esq.
Green, Hennings & Henry
Attorney for Joint Intervenors
314 N. Broadway, Suite 1830
St. Louis, Missouri 63102

Mr. Earl Brown
School District Superintendent
Post Office Box 9
Kingdom City, Missouri 65262

Mr. Harold Lottman
Presiding Judge, Dasconade County
Route 1
Owensville, Missouri 65066

Mr. John G. Reed
Route #1
Kingdom City, Missouri 65262

Mr. Dan I. Bolef, President
Kay Drey, Representative
Board of Directors Coalition
for the Environment
St. Louis Region
6267 Delmar Boulevard
University City, Missouri 63130

cc:
Regional Administrator
U. S. NRC, Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. Ronald A. Kucera, Deputy Director
Department of Natural Resources
P. O. Box 176
Jefferson City, Missouri 65102

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

Eric A. Eisen, Esq.
Birch, Horton, Bittner and Moore
Suite 1200
1155 Connecticut Avenue, N. W.
Washington, D. C. 20036