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GL 91-06
Ref # 10CFR50.54(f)

October 28, 1991

William J. Cahill, Jr.
Group Vice President

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

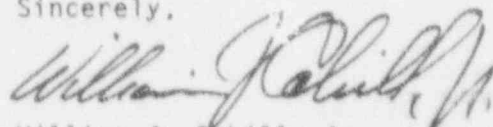
SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
RESPONSE TO GENERIC ISSUE (GI) A-30, "ADEQUACY OF
SAFETY-RELATED DC POWER SUPPLIES"

On April 29, 1991, the NRC Staff issued Generic Letter 91-06, "Resolution of Generic Issue A-30, 'Adequacy of Safety-Related DC Power Supplies,' Pursuant to 10CFR50.54(f)." The generic letter requested licensees to provide the attached information regarding the maintenance, surveillance and monitoring provisions for safety-related systems.

CPSES Unit 2 is in the construction phase. Although the information provided is for CPSES Unit 1, the design and operation of CPSES Unit 2 is similar. Therefore, the attached response resolves GI A-30 for both Units.

If there are any questions, contact Veronica Cornell at (214) 812-8886.

Sincerely,



William J. Cahill, Jr.

VPC/gj
Attachments

cc: Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (2)
Mr. T. A. Bergman, NRR
Mr. M. B. Fields, NRR

DO29

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

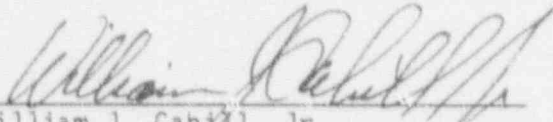
In the matter of

Texas Utilities Electric Company
(Comanche Peak Steam Electric
Station, Units 1 & 2)

Docket Nos. 50-445
50-446

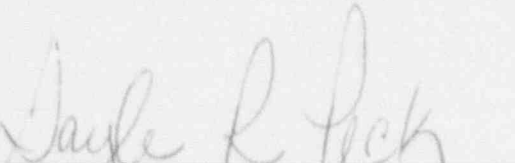
AFFIDAVIT

William J. Cahill, Jr. being duly sworn, hereby deposes and says that he is Group Vice President, Nuclear of TU Electric, that he is duly authorized to sign and file with the Nuclear Regulatory Commission this response to Generic Letter 91-06, that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.


William J. Cahill, Jr.
Group Vice President, Nuclear

STATE OF TEXAS }
COUNTY OF Dallas }

Subscribed and sworn to before me, a Notary Public, on this 28th day of
October, 1991.


Notary Public

NRC Question 1: Unit ?

TU Electric Response 1: 1

NRC Question 2a: The number of independent redundant divisions of Class 1E or safety-related DC power for this plant?

TU Electric Response 2a: 2

NRC Question 2b: The number of functional safety-related divisions of DC power necessary to attain safe shutdown for this Unit is?

TU Electric Response 2b: 1

NRC Question 3: Does the control room at this unit have the following separate, independently annunciated alarms and indications for each division of DC power?

a. Alarms

NRC Question 3.a.1: Battery disconnect or circuit breaker open?

TU Electric Response 3.a.1: See Question 5.

NRC Question 3.a.2: Battery charger disconnect or circuit breaker open (both input AC and output DC)?

TU Electric Response 3.a.2: See Question 5.

NRC Question 3.a.3: DC system ground?

TU Electric Response 3.a.3: See Question 5.

NRC Question 3.a.4: DC bus undervoltage?

TU Electric Response 3.a.4: See Question 5.

NRC Question 3.a.5: DC bus overvoltage?

TU Electric Response 3.a.5: See Question 5.

NRC Question 3.a.6: Battery charger failure?

TU Electric Response 3.a.6: See Question 5.

NRC Question 3.a.7: Battery discharge?

TU Electric Response 3.a.7: See Question 5.

b. Indications

NRC Question 3.b.1: Battery float charge current?

TU Electric Response 3.b.1: Yes, control room ammeters are available.

NRC Question 3.b.2: Battery circuit output current?

TU Electric Response 3.b.2: Yes, control room ammeters are available.

NRC Question 3.b.3: Battery discharge?

TU Electric Response 3.b.3: Yes, indication is available in the control room via ammeters and voltmeters.

NRC Question 3.b.4: Bus voltage?

TU Electric Response 3.b.4: Yes, bus voltmeters are available in the control room.

c. Procedures

NRC Question: Does the Unit have written procedures for response to the above alarms and indications?

TU Electric Response: Yes, per station Alarm Procedures.

NRC Question 4: Does this Unit have indication of bypassed and inoperable status of circuit breakers or other devices that can be used to disconnect the battery and battery charger from its DC bus and the battery charger from its AC power source during maintenance or testing?

TU Electric Response 4: Yes, bypassed and inoperable indication is available for the battery disconnects. The battery charger switchboard disconnect breaker alarms through the control room annunciators.

NRC Question 5: If the answer to any part of question 3 or 4 is no, then provide information justifying the existing design features of the facility's safety-related DC systems.

NRC Question 5.a.1: See (3.a.1).

TU Electric Response 5.a.1: Inoperable/bypass light indication (Safety System Inoperable Indication, SSII) is available in the control room if any battery disconnect switch for an associated division (or train) is opened. SSII will annunciate for other inputs as well; therefore it does not have a separate, independent alarm. Action is then required to determine the specific alarm condition.

NRC Question 5.a.2: See (3.a.2).

TU Electric Response 5.a.2: The battery chargers associated with a specific safety-related battery have a control room annunciator with inputs from the battery charger disconnect breaker locally at the switchboard and the battery charger AC and DC undervoltage relays. If the battery charger AC breaker is off, AC undervoltage is actuated and annunciated. This is also true for the DC undervoltage device.

NRC Questions 5.a.3, 5.a.4, 5.a.5: See (3.a.3, 3.a.4, 3.a.5).

TU Electric Response 5.a.3, 5.a.4, 5.a.5: A common alarm is generated in the control room for either an undervoltage, overvoltage, or ground condition on the bus. Action is then required locally at the switchboard to determine the specific alarm condition.

NRC Question 5.a.6: See (3.a.6).

TU Electric Response 5.a.6: There is no specific battery charger failure alarm. However, the battery charger common alarm is provided in the control room for an DC input undervoltage or DC output undervoltage condition which does indicate failure.

NRC Question 5.a.7: See (3.a.7).

TU Electric Response 5.a.7: There is no specific battery discharge alarm. Battery discharge is monitored by control room voltmeters and ammeters. However, battery discharge condition will occur due to an undervoltage alarm on the bus. This alarm will occur shortly after the loss of the AC supply since the setting of the relay is near the open circuit voltage of the battery.

NRC Question 6(1): Have you conducted a review of maintenance and testing activities to minimize the potential for human error causing more than one DC division to be unavailable?

TU Electric Response 6(1): Yes, this is controlled via reviews governed by procedure.

NRC Question 6(2): Do plant procedures prohibit maintenance or testing on redundant DC divisions at the same time?

TU Electric Response 6(2): Yes, per station procedure.

NRC Question 7: Are maintenance, surveillance and test procedures regarding station batteries conducted routinely at this plant?

TU Electric Response 7: CPSES station batteries maintenance and surveillance is based on the Westinghouse Standard Technical Specifications.

NRC Question 8: Does this plant have operational features such that following loss of one safety-related DC power supply or bus?

NRC Question 8.a: Capability is maintained for ensuring continued and adequate reactor cooling?

TU Electric Response 8.a: Yes, the other train of DC power is completely redundant.

NRC Question 8.b: Reactor coolant system integrity and isolation capability are maintained?

TU Electric Response 8.b: Yes, loss of a single train will not impair safe shutdown. CPSES utilizes completely redundant trains of DC power.

NRC Question 9: If the answer to any part of question 6, 7, or 8 is no, then provide your basis for not performing the maintenance, surveillance and test procedures described and/or the bases for not including the operational features cited.

TU Electric Response 9: There are no "no" answers to questions 6, 7, or 8.