



TXU Energy
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Ref. # 10CFR50.73(a)(2)(i)(B).

CPSES-200203686
Log # TXX-02171
File # 10200

November 15, 2002

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NO. 50-445 AND 50-446
CONDITION PROHIBITED BY TECHNICAL SPECIFICATIONS
LICENSEE EVENT REPORT 445/02-001-00**

Gentlemen:

Enclosed is Licensee Event Report (LER) 02-001-00 for Comanche Peak Steam Electric Station Units 1 and 2, "Emergency Diesel Generators Inoperable While Paralleled to Offsite Source."

IE22

A member of the **STARS** (Strategic Teaming and Resource Sharing) Alliance

Callaway • Comanche Peak • Diablo Canyon • Palo Verde • South Texas Project • Wolf Creek

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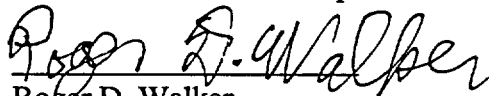
This communication contains no new licensing basis commitments regarding CPSES
Units 1 and 2.

Sincerely,

TXU Generation Company LP

By: TXU Generation Management Company LLC,
Its General Partner

C. L. Terry
Senior Vice President and Principal Nuclear Officer

By: 
Roger D. Walker
Regulatory Affairs Manager

GLM/gm
Enclosures

c - E. W. Merschoff, Region IV
W. D. Johnson, Region IV
D. H. Jaffe, NRR
Resident Inspectors, CPSES

NRC FORM 366 (7-2001)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB NO. 3150-0104 EXPIRES 07/31/2004 Estimated burden per response to comply with this mandatory information collection request 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.
LICENSEE EVENT REPORT (LER)		

Facility Name (1) COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1	Docket Number (2) 05000445	Page (3) 1 OF 5
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Title (4)
CONDITION PROHIBITED BY TECHNICAL SPECIFICATIONS

Event Date (5)			LER Number (6)			Report Date (7)			Other Facilities Involved (8)		
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Name	Docket Numbers	
09	20	02	02	001	00	11	15	02	CPSES UNIT 2	05000446 05000	

Operating Mode (9)	1	This report is submitted pursuant to the requirements of 10 CFR : (Check all that apply) (11)			
Power Level (10)	100	20.2201(b)	20.2203(a)(3)(i)	50.73(a)(2)(i)(C)	50.73(a)(2)(vii)
		20.2201(d)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(A)
		20.2203(a)(1)	20.2203(a)(4)	50.73(a)(2)(ii)(B)	50.73(a)(2)(viii)(B)
		20.2203(a)(2)(i)	50.36(c)(2)(i)(A)	50.73(a)(2)(iii)	50.73(a)(2)(ix)(A)
		20.2203(a)(2)(ii)	50.36(c)(1)(ii)(A)	50.73(a)(2)(iv)(A)	50.72(a)(2)(x)
		20.2203(a)(2)(iii)	50.36(c)(2)	50.73(a)(2)(v)(A)	73.71(a)(4)
		20.2203(a)(2)(iv)	50.46(a)(3)(ii)	50.73(a)(2)(v)(B)	73.71(a)(5)
		20.2203(a)(2)(v)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(C)	OTHER Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(vi)	X 50.73(a)(2)(i)(B)	50.73(a)(2)(v)(D)			

Licensee Contact For This LER (12)	
Name John A. Taylor - Design Basis Engineering Supervisor	Telephone Number (Include Area Code) 254-897-6260

Complete One Line For Each Component Failure Described in This Report (13)										
Cause	System	Component	Manufacturer	Reportable To EPIX		Cause	System	Component	Manufacturer	Reportable To EPIX
				N						

Supplemental Report Expected (14)				EXPECTED SUBMISSION DATE (15)	Month	Day	Year
YES <small>(IF YES, complete EXPECTED SUBMISSION DATE)</small>	X	NO					

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On September 20, 2002, at 12:00 p.m., it was identified that an Emergency Diesel Generator (EDG) should be declared inoperable while paralleled to an offsite source because the single failure criterion of IEEE Standard 379-1972 would not be satisfied when an EDG is operated in parallel with offsite power in Modes 1 - 4. The Comanche Peak Steam Electric Station (CPSES) Unit 1 and 2 EDGs were operated in parallel with offsite power on some occasions in the past for a time period greater than the time allowed to complete the Required Actions of the applicable Technical Specification.

TXU Generation Company LP (TXU Energy) has determined that the cause of this event was that the uniqueness of the design and the operating restrictions of the CPSES electrical system were not clearly apparent. Upon determining that the EDGs were inoperable while paralleled to an offsite source, the EDG surveillance test procedures were changed to ensure that an EDG that is paralleled to an offsite source is declared inoperable.

All times in this report are approximate and Central Daylight Savings Time unless noted otherwise.

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Facility Name (1) COMANCHE PEAK STEAM ELECTRIC STATION UNIT 1	Docket 05000445	LER Number (6)			Page(3) 2 OF 5
		Year 02	Sequential Number 001	Revision Number 00	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

I. DESCRIPTION OF REPORTABLE EVENT**A. REPORTABLE EVENT CLASSIFICATION**

Any operation or condition which was prohibited by the plant's Technical Specifications.

B. PLANT OPERATING CONDITIONS PRIOR TO THE EVENT

On September 20, 2002, CPSES Units 1 and 2 were in Mode 1, Power Operation, operating at 100 percent power.

C. STATUS OF STRUCTURES, SYSTEMS, OR COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

Not Applicable – There were no structures, systems, or components that were inoperable at the start of the event which contributed to this event.

D. NARRATIVE SUMMARY OF THE EVENT, INCLUDING DATES AND APPROXIMATE TIMES

On July 23, 2002, during review of a license change request submitted by another utility related to on-line testing of the EDGs [EIS:(DG)], CPSES Engineering personnel (Utility, Non-Licensed) noted a potential operability concern with the EDGs when operated in parallel with offsite power. Additionally, CPSES Regulatory Affairs personnel (Utility, Non-Licensed) identified that another utility declared their EDGs inoperable when paralleled with offsite power, but CPSES did not.

As a precautionary measure, procedures were changed on July 30, 2002, to declare an EDG paralleled to offsite power inoperable. A detailed analysis was initiated by CPSES Engineering to complete the determination of EDG operability during the current testing configuration. The assessment included postulated design basis scenarios resulting in Safety Injection (SI) initiation and/or a Loss of Offsite Power (LOOP) when an EDG is operating in normal mode in parallel with offsite power (i.e., the typical EDG test configuration). Electrical protective device coordination, system loading, and short circuit current levels were needed to complete the assessment. A separate review was initiated by CPSES Engineering to determine if the EDGs had been operated in parallel with offsite power for greater than the Completion Times of CPSES Technical Specifications.

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

On September 20, 2002, CPSES Engineering's assessment had reached a point sufficient to conclude that the single failure criterion of IEEE Standard 379-1972 is not satisfied when an EDG is operated in parallel with offsite power in Modes 1 - 4. The operation of the EDGs in parallel with an offsite power source is a unique condition. The under voltage relay [EIS:(27)] to detect the offsite power source non-availability is located at the 6.9kV bus [EIS:(BU)] on the 6.9KV side of the offsite source transformers [EIS:(XFMR)]. When an EDG is operating in parallel with offsite power and the offsite power is lost, the undervoltage relays will not detect the loss of offsite power. Additionally, because the offsite power source feeds both trains of the safety related buses, as allowed by General Design Criterion (GDC)-17, the parallel operation of an EDG also results in a condition where an EDG may be feeding the opposite train bus. GDC-17 is unique in that the non-safety related offsite source, which feeds both of the safety related busses, is the recognized preferred source.

It was determined that the CPSES Unit 1 and 2 EDGs had been operated in parallel with offsite power on some occasions in the past for a time period greater than the Completion Time allowed to complete the Required Actions of the applicable Technical Specification, without the required actions being performed. CPSES Technical Specification 3.8.1, Condition B.1, requires that with one EDG inoperable, Surveillance Requirement 3.8.1.1 is to be performed for the required offsite circuit(s) within one hour. Surveillance Requirement 3.8.1.1 requires verification of correct breaker alignment and indicated power availability for each required offsite circuit. If Condition B.1 is not met, then Condition G.1 requires being in Mode 3 within 6 hours. Normally, an EDG is paralleled to offsite power in a test configuration for approximately 2 to 4 hours. However, review of past EDG run time data indicates that the EDGs on Units 1 and 2 operated on some occasions in the past while paralleled to an offsite source for longer than 7 hours (allowed time of Condition B.1 plus Condition G.1). Therefore, the EDGs were determined to have been inoperable in the past in violation of Technical Specification requirements.

E. THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE, OR PROCEDURAL OR PERSONNEL ERROR

CPSES Engineering personnel (Utility, Non-Licensed) determined, during an evaluation conducted to address a concern related to operating the EDGs in parallel with offsite power, that the EDGs had been inoperable in the past for a period of time that exceeded Technical Specification completion times.

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

II. COMPONENT OR SYSTEM FAILURES

A. FAILURE MODE, MECHANISM, AND EFFECTS OF EACH FAILED COMPONENT

Not applicable – No component or system failures were identified during this event.

B. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

Not applicable – No component or system failures were identified during this event.

C. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS

Not applicable – No component or system failures were identified during this event.

D. FAILED COMPONENT INFORMATION

Not applicable – No component or system failures were identified during this event.

III. ANALYSIS OF THE EVENT

A. SAFETY SYSTEM RESPONSES THAT OCCURRED

Not applicable – No safety system responses occurred during this event.

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY

As discussed above, the EDGs were determined to have been inoperable at some times in the past in violation of Technical Specification requirements. For the last 3 years, the EDGs have been operated in parallel with offsite power on some occasions for up to approximately 12 hours.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

This event is the result of not considering a scenario where the single failure criterion of IEEE Standard 379-1972 was not satisfied during a test configuration. The assumptions of this scenario include the occurrence, during the testing of an EDG in Modes 1 - 4, of an initiating event that leads to an SI Actuation Signal coincident with a LOOP and a single failure. The single failure is the EDG output breaker failing to open on demand. Additionally, the scenario considered no operator actions to mitigate the event. The probability of all these conditions

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occurring at the same time was determined to be very small, and any increase in risk due to exceeding the applicable Technical Specification Required Action Completion Time is negligible.

There were no safety system functional failures associated with this event.

Because CPSES has not experienced any plant events when an EDG was aligned for parallel operation with an offsite power source, this event did not adversely affect the safe operation of CPSES Units 1 and 2 or the health and safety of the public.

IV. CAUSE OF THE EVENT

TXU Energy has determined that the cause of the event was that the uniqueness of the design and the operating restrictions of the CPSES electrical system were not clearly apparent. It was not clearly apparent that parallel operation may cause the EDG under test to feed the loads of the opposite train and that the location of the loss of voltage instruments being on the 6.9KV side of the power transformers may prevent detection of the loss of offsite power if it were to occur during EDG parallel operation. This condition was determined to be unique to EDG operation in parallel with offsite power.

V. CORRECTIVE ACTIONS

The EDG test procedures for both units have been revised to declare an EDG paralleled to off-site power as inoperable. In this condition, single failure criteria is not required.

VI. PREVIOUS SIMILAR EVENTS

There have been no previous similar events in the last three years.