



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

SEP 30 1998

Mr. C. L. Terry
TU Electric
Senior Vice President & Principal Nuclear Officer
ATTN: Regulatory Affairs Department
P.O. Box 1002
Glen Rose, Texas 76043

SUBJECT: RESPONSE TO NRC NOTICE OF VIOLATION
(INSPECTION REPORT 50-445/98-03; 50-446/98-03)

Dear Mr. Terry:

Thank you for your letter dated August 3, 1998, in response to our July 2, 1998, letter and Notice of Violation (50-445/9803-01, 50-445/9803-03, 50-445(446)/9803-04, 50-445(446)/9803-05, and 50-445/9803-07) concerning several issues, including: failure to meet the requirements for the design of the emergency core cooling system switchover, failure to comply with 10 CFR 50.59 requirements pertaining to Unreviewed Safety Questions, inadequate control of reactor vessel water level during reduced inventory, and failure to identify and correct conditions adverse to quality involving fire doors. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review your corrective actions during a future inspection.

As indicated in your response, TU Electric believes that Violations 50-445/9803-01 and 50-445/9803-03 met the criteria for enforcement discretion and, therefore, should not be cited. During a meeting held on July 20, 1998, you indicated that the violations were identified independently from the NRC resident inspectors, and that timely and appropriate corrective actions had been initiated. Your staff reemphasized the activities surrounding the reduced inventory level problem, the corrective actions taken, and additional commitments made to alleviate any further incidents of the identified concern. Also provided, was a demonstration, through the use of a mock-up, of the water level problems encountered during reduced reactor vessel inventory. After consideration of the items discussed above, the NRC concurs that TU Electric has met the requirements of NRC Enforcement Manual, Section VI.B.2.b, Credit for actions related to identification. These non-repetitive, licensee-identified and corrected violations will be treated as non-cited violations, consistent with Section VII.B.1 of the NRC enforcement policy.

Sincerely,

Joseph A. Tapia, Chief
Project Branch A
Division of Reactor Projects

9810060163 980930
PDR ADOCK 05000445
G PDR

TU Electric

-2-

Docket Nos.: 50-445
50-446
License Nos.: NPF-87
NPF-89

cc:

Mr. Roger D. Walker
TU Electric
Regulatory Affairs Manager
P.O. Box 1002
Glen Rose, Texas 76043

Juanita Ellis
President - CASE
1426 South Polk Street
Dallas, Texas 75224

TU Electric
Bethesda Licensing
3 Metro Center, Suite 610
Bethesda, Maryland 20814

George L. Edgar, Esq.
Morgan, Lewis & Bockius
1800 M. Street, NW
Washington, D.C. 20036

G. R. Bynog, Program Manager/
Chief Inspector
Texas Department of Licensing & Regulation
Boiler Division
P.O. Box 12157, Capitol Station
Austin, Texas 78711

Honorable Dale McPherson
County Judge
P.O. Box 851
Glen Rose, Texas 76043

Texas Radiation Control Program Director
1100 West 49th Street
Austin, Texas 78756

John Howard, Director
Environmental and Natural Resources Policy
Office of the Governor
P.O. Box 12428
Austin, Texas 78711

SEP 30 1998

cc to DCD (IE01)

bcc distrib. by RIV:

Regional Administrator

DRP Director

Branch Chief (DRP/A)

Project Engineer (DRP/A)

Branch Chief (DRP/TSS)

G. Michael Vasquez, Acting EO

W. L. Brown, RC

J. Lieberman, OE, MS: 7-H5

OE:EA File, MS: 7-H5

Resident Inspector (2)

DRS-PSB

MIS System

RIV File

DOCUMENT NAME: R:_CPSES\CP803AK.ATG

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:PE:DPR/A	C:DRP/A								
RAKopriva <i>[Signature]</i>	JITapia <i>[Signature]</i>								
09/29/98	09/30/98								

OFFICIAL RECORD COPY

SEP 30 1998

cc to DCD (IE01)

bcc distrib. by RIV:

Regional Administrator

DRP Director

Branch Chief (DRP/A)

Project Engineer (DRP/A)

Branch Chief (DRP/TSS)

G. Michael Vasquez, Acting EO

W. L. Brown, RC

J. Lieberman, OE, MS: 7-H5

OE:EA File, MS: 7-H5

Resident Inspector (2)

DRS-PSB

MIS System

RIV File

000001

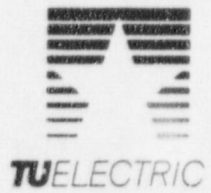
DOCUMENT NAME: R:_CPSES\CP803AK.ATG

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:PE:DPR/A	C:DRP/A							
RAKopriva <i>AK</i>	JITapia <i>JT</i>							
09/29/98	09/30/98							

OFFICIAL RECORD COPY

AUG - 4 1998
RECEIVED



Log # TXX-98176
File # 10130
IR 98-03
Ref. # 10CFR2.201

August 3, 1998

C. Lance Terry
*Senior Vice President
& Principal Nuclear Officer*

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
NRC INSPECTION REPORT NUMBERS 50-445/98-03 and
50-446/98-03
RESPONSE TO NOTICE OF VIOLATION

Gentlemen:

TU Electric has reviewed the NRC's letter dated July 2, 1998, concerning the inspections conducted by the NRC Resident Inspectors during the period of March 29 through May 9, 1998. Attached to the report was a Notice of Violation.

Via the attachment to this letter, TU Electric hereby responds to the Notice of Violation (50-445(446)/9803-04, 50-445(446)/9803-05, and 50-445/9803-01, 50-445/9803-03, 50-445/9803-07).

TU Electric accepts the violations, and TU Electric specifically notes full agreement with the necessity for heightened awareness and attention to detail when in reduced inventory operations. However, as discussed at the July 20, 1998 management meeting with the NRC related to mid-loop level monitoring issues, TU Electric believes that violations 50-445/9803-01 and 50-445/9803-03 met the criteria for enforcement discretion, and therefore should not be cited. In discussions with the NRC Resident Inspector subsequent to the July 20, 1998 meeting, he agrees that the violations were identified independently from the NRC Resident Inspectors, and that timely and appropriate corrective actions had been initiated. At the July 20 meeting, Mr. Gwynn (NRC Region IV) encouraged TU Electric to reiterate the basis for these violations not being cited in the response to the Notice of Violation. The following is provided to support this conclusion, which we believe is also consistent with the intent of the newly issued Enforcement Guidance Memorandum 98-006.

Although he did not suspect that the test instruments had not been vented when he directed that they be placed in service, the Shift Manager was well aware of the potential for some air in the instrument lines (based on experience) prior to the mid-loop level perturbations and he specifically cautioned the operators during the course of his brief for drain down operations that they might see erratic indication on some instruments. In addition, he made the operators aware that both the narrow range level indication, which is the primary indication in mid-loop operations, and the ultrasonic level indication would be reliable. The operators did see level indication perturbations in the wide range and extended wide range indications, and due in part

COMANCHE PEAK STEAM ELECTRIC STATION
P.O. Box 1002 Glen Rose, Texas 76043-1002

9808070056 16 pp.

98-1901

to the caution from the Shift Manager, they were ready to control the plant evolution. Reliable level indication was always available and was used to control the evolution. A conservative and appropriate decision was made to stop the change in inventory until the erratic indication on the wide range and extended wide range level indicators was understood and corrective actions were initiated to resolve the indication discrepancy.

The issues associated with this event were documented on two separate corrective action documents, teams were appointed to investigate the issues, and TU Electric believes that these teams identified the cited violations independent of the NRC's identification of the violations. The NRC Senior Resident Inspector was in the Control Room when the mid-loop level perturbations occurred, and TU Electric understands that there may be disagreement related to whether the violations were discovered by TU Electric or the NRC Resident Inspector as part of his immediate followup from his control room observations. TU Electric feels that a reasonable interpretation of the NRC's Enforcement Policy in this area is that the NRC intended to allow licensees the opportunity for their corrective actions to function prior to taking enforcement actions.

TU Electric believes the NRC's current Enforcement Policy has sufficient flexibility in it to endorse the application of the non-cited violation provisions of that policy in situations where the indications are that the licensee would have identified and corrected the violation as part of their corrective action program when the identification of the violations are a part of followup actions to a self disclosing event. TU Electric believes that they did discover the cited violations at issue in this case independent from the NRC, however, we would certainly argue that even if we may not have identified the violation first, it was only because of the immediate involvement of the NRC Resident Inspector in the issue prior to completion of our corrective action program for the issue. TU Electric believes that any other interpretation of the NRC Enforcement Policy other than the one expressed above with respect to self identification of violations in these situations leaves the licensee in the untenable position of having to expedite the corrective action process to identify and document any potential violations prior to the NRC Resident Inspector, or risk the assertion that the violations were not discovered by the licensee's corrective action program.

TU Electric acknowledges administrative errors in both configuration management and procedural controls which contributed to the erratic indication experienced. TU Electric believes that despite these administrative configuration management and procedural control issues, the Comanche Peak mid-loop level instrumentation has consistently performed it's function during reduced inventory operations due to stable mid-loop level indications always being available via the ultrasonic monitor and the primary level indication.

TU Electric again wishes to note that they do strongly agree with the NRC's statement in the cover letter to Inspection Report 98-03 that reduced inventory operations require special attention and a higher level of awareness. TU Electric also believes that this special attention and awareness was present prior to commencing reduced inventory operations as evidenced by our briefs and preparations, and during and after the level indication perturbations as evidenced by our conservative decisions and actions to address the issues.

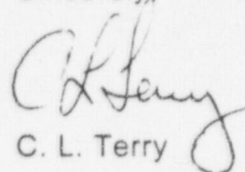
This communication contains the following new commitments which will be completed as noted:

<u>CDF Number</u>	<u>Commitment</u>
27155	A lessons learned on this event will be issued reminding Shift Operations personnel that off normal conditions created as part of a corrective action should be clearly indicated so the corrective action is not inadvertently undone.
27156	A review of time-sensitive operator actions and associated equipment limitations assumed in the design and licensing basis will be conducted and the applicable Design Basis Documents (DBDs) will be revised, as needed, to document these in the operator interface sections. Calculation reviews will be included, as appropriate. System Engineering and Operations Support will review these changes in accordance with existing design control procedures to ensure the ERGs are consistent.
27157	Future troubleshooting related to reduced inventory level indication issues, if necessary, will be conducted in a more appropriately controlled and coordinated manner. This would include, as appropriate, having specific steps in the procedure related to the timing of installation, filling, venting, and operation of the temporary instrumentation.

The CDF number is used by TU Electric for the internal tracking of CPSES commitments.

Should you have any comments or require additional information, please do not hesitate to contact Gary Merka at (254) 897-6613 to coordinate this effort.

Sincerely,



C. L. Terry

GLM:glm
Attachment

cc: Mr. E. W. Merschoff, Region IV
Mr. J. I. Tapia, Region IV
Resident Inspectors
Mr. T. J. Polich, NRR

RESPONSE TO THE NOTICE OF VIOLATION

RESTATEMENT OF THE VIOLATION

(50-445(446)/9803-04)

- A. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that design control measures provide for verifying or checking the adequacy of design, and that design changes be subject to design control measures commensurate with those applied to the original design.

Contrary to the above, four examples were identified, where the licensee failed to meet this requirement for the design of the emergency core cooling system switchover from the refueling water storage tank to the containment recirculation sumps:

1. The licensee changed Emergency Response Guideline Procedures EOS-1.3A, Revision 6, and EOS-1.3B, Revision 1, "Transfer to Cold Leg Recirculation," by adding nine additional steps and failed to revise Calculation 16345-ME(B)-389, "RWST Setpoints, Volume Requirements and Time Depletion Analyses," Revision 1, which was based on a sequence of six steps to shift suction from the refueling water storage tank to the containment sumps for the emergency core cooling system pumps. As a result, the licensee did not verify the adequacy of the design when they failed to account for the additional water volume required to complete the switchover added by the additional steps.
2. Westinghouse Letter WPT-3358, dated July 16, 1980, and referenced in Calculation 16345-ME(B)-389, provided the outflow requirements during switchover and specified that sufficient volume be provided below the empty alarm to allow sufficient time for operator action to shut off any pump still taking suction from the refueling water storage tank while providing adequate net positive suction head and maintaining sufficient height above the refueling water storage tank outlet nozzle to minimize the possibility of vortex formation.

The licensee failed to verify the adequacy of design in that neither Calculation 16345 ME(B)-320, "Vortex Potential at Charging Pump Outlet in RWST," Revision 0, nor Calculation 16345-ME(B)-389, Revision 1, accounted for operator response time in determining the empty alarm setpoint.

3. Calculation 16345-ME(B)-389, Revision 1, used 60 seconds for accomplishing switchover of the containment spray system from the refueling water storage tank (RWST) to the containment sumps as a design basis to determine the RWST empty level alarm.

The licensee failed to verify the adequacy of design in that the opening and closing times for the containment spray system valves to the RWST and to the containment sumps was 120 seconds.

4. In Calculation 16345-ME(B)-389, Revision 2, the licensee reduced the total analyzed instrument uncertainty from 13 inches to 7 inches when determining the RWST volume available to complete switchover to cold leg recirculation based on the erroneous assumption that the total uncertainty was not affected by instrument setpoint drift.

The licensee failed to verify the adequacy of design in that the reduction in uncertainty was not valid and the resultant calculation did not ensure sufficient water between the switchover setpoint and the empty alarm.

This is a Severity Level IV violation (Supplement 1) (50-445(446)/9803-04).

RESPONSE TO THE VIOLATION

(50-445(446)/9803-04)

TU Electric accepts the violation, the response as requested is provided below:

1. Reason for Violation

TU Electric believes that the reasons for each of the four examples of the violation are:

- Emergency Response Guideline Procedures

The Emergency Response Guideline Procedures (ERG) EOS-1.3A and EOS-1.3B for "Transfer to Cold Leg Recirculation" are based on the Westinghouse Owners Group Technical Guideline and had previously undergone extensive industry and NRC review. The additional steps added to the procedure were technically justifiable for response to an emergency. However, the System Engineering reviews conducted prior to initial licensing on each unit for technical accuracy of the ERG failed to identify that the procedure contained additional actions not included in the plant specific design calculations and the response to an NRC question in the FSAR. This oversight was due to the failure to recognize and verify time-dependent operator action requirements.

- Inclusion of Operator Response Times in ECCS Pump NPSH Calculation

The calculation performed prior to initial licensing on each unit inappropriately neglected operator response time. This oversight was due to the failure to identify time-dependent operator action requirements. TU Electric believes that this violation was self-identified and that appropriate corrective actions were taken.

- Containment Spray System Switchover Timing

The calculation performed prior to initial licensing on each unit made assumptions without proper consideration for the opening times of the containment spray sump suction valves when calculating the RWST empty alarm setpoint. Nominal or typical times were assumed without confirming or referring to the actual installed valve times. This oversight was due to the failure to identify and verify time-dependent operator action requirements including the equipment limitations. TU Electric believes that this violation was self-identified and that appropriate corrective actions were taken.

- RWST Level Instrument Uncertainty

TU believes that the methodology used in addressing the RWST Level Instrument uncertainty was appropriate and that Revision 2 of Calculation 16345-ME(B)-389 correctly addressed instrument drift in the analysis of entry into EOS 1.3A and EOS 1.3B in accordance with existing procedures on receipt of a one out of four (1/4) RWST Low-Low alarm. This assumption was confirmed by discussions with the operators and examination of procedures. The minimum RWST switchover volume available assuming the worst instrument drift and uncertainty of all four channels

was used in the analysis of the latest entry into the procedure and the earliest "empty" alarm based on full loop uncertainty including drift. The calculation of the minimum available volume for this specific case was correct and has been retained.

However, the calculation did not identify or address a hypothetical situation where instrument drift and other uncertainties of one channel is indicating significantly lower than actual and three channels are indicating significantly higher than actual. In this case, the operator might disregard a valid 1/4 alarm and wait for the two out of four (2/4) alarm to enter the procedure. This would hypothetically result in a smaller available switchover volume if the operator also did not disregard the corresponding "Empty" alarm. This condition was reported on a ONE Form and the calculation was conservatively revised to address the issue and to calculate a new (smaller) available switchover volume. By starting the switchover later, the required switchover volume was also reduced by a reduction in the tank head. The revised calculation concluded that adequate switchover volume was available between existing setpoints even in the case of delayed entry into the switchover procedure. Nevertheless, the calculation revision identified procedural enhancements which provided design margin for this new, smaller available switchover volume.

TU Electric does not believe that the above hypothetical case is realistic because routine surveillance of the four level channels would identify such a condition. It is an operator practice to request re-calibration when one of the channels drifts out of a nominal band with the other channels. Since the condition would not be something which could occur unexpectedly after an accident, it would also be expected that if the 1/4 low-low alarm were disregarded in favor of the other three channels of level indication, then the operator would also disregard the 1/4 empty alarm. This case would result in more water available for switchover (i.e. would be bounded by the analysis of entry into the procedure on a 1/4 alarm).

In summary, design control and interface procedures were followed, reanalysis shows that an adequate switchover volume was maintained, and the hypothetical case could actually result in a larger available switchover volume bounded by the previous calculation.

2. Corrective Steps Taken and Results Achieved

- Emergency Response Guideline Procedures

A Operations Notification and Evaluation (ONE) Form was issued to document the deficient condition. Procedures EOS-1.3A and EOS-1.3B have been revised in agreement with revised calculation 16345-ME(B)-389. Both the procedure and the calculated water volume for the completion of the ECCS transfer are acceptable.

- Inclusion of Operator Response Times in ECCS Pump NPSH Calculation

The NPSH/Vortex calculations and the RWST setpoint calculation were revised during corrective action for the Containment Spray Switchover Timing issue, below, to include operator response times. Procedures EOS-1.3A and EOS-1.3B have been revised in agreement with revised calculation 16345-ME(B)-389. Both the procedure and the calculated water volumes for the completion of the ECCS and containment spray pump protection cautions are now acceptable.

- Containment Spray System Switchover Timing

A ONE Form was issued to document the deficient condition. The RWST setpoint calculation has been revised appropriately accounting for the opening time of the containment spray sump suction valves. Procedures EOS-1.3A and EOS-1.3B have been revised in agreement with revised calculation 16345-ME(B)-389. Both the procedure and the calculated water volumes for the completion of the ECCS and containment spray pump transfer from injection to recirculation are now acceptable. A new Low-Low alarm setpoint has been established based on these calculations.

- RWST Level Instrument Uncertainty

The calculations impacted by the RWST level instrument uncertainty error have been revised appropriately accounting for all potential operator responses.

3. Corrective Actions Taken to Preclude Recurrence

- Emergency Response Guideline Procedures

Current procedures require System Engineering review of changes to ERGs. A review of time-sensitive operator actions and associated equipment limitations assumed in the design and licensing basis will be conducted and the applicable Design Basis Documents (DBDs) will be revised, as needed, to document these in the operator interface sections. Calculation reviews will be included, as appropriate. System Engineering and Operations Support will review these changes in accordance with existing design control procedures to ensure the ERGs are consistent.

- Inclusion of Operator Response Times in ECCS Pump NPSH Calculation

Calculation reviews will be included, as appropriate, to support the verification of time-sensitive operator actions described above.

- Containment Spray System Switchover Timing

Calculation reviews will be included, as appropriate, to support the review of time-sensitive operator actions described above.

- RWST Level Instrument Uncertainty

No additional corrective action is required since the calculation has been revised to address the issue and the current setpoints were found to be acceptable.

4. Date of Full Compliance

TU Electric is in full compliance. The review and revision of the applicable DBDs to include time-sensitive operator actions will be completed by December 31, 1998.

RESTATEMENT OF THE VIOLATION
(50-445(446)/9803-05)

- B. 10 CFR 50.59(a)(1), in part, permits the licensee to make changes to the facility and procedures as described in the safety analysis report without prior Commission approval provided the change does not involve a change in the technical specifications or an Unreviewed Safety Question (USQ). 10 CFR 50.59(a)(2) defines a proposed change as a USQ if a malfunction of a different type than any evaluated previously in the safety analysis report may be created.

10 CFR 50.59(b)(1) requires, in part, that records of changes to the facility must include a written evaluation which provides the bases for the determination that the change does not involve an USQ.

Contrary to the above,

1. On January 3, 1997, the licensee made a change to procedures as described in the safety analysis report which involved an USQ. Final Safety Analysis Report (FSAR) Table 6.3-7 listed six manual operator steps required to switchover the emergency core cooling system from injection. FSAR Table 6.3-11 stated that 90,166 gallons were required to complete the switchover and that this was based on 30 seconds of operator response time for each step. Section 6.3.2.8 stated that 94,179 gallons were available for switchover. 10 CFR 50.59, Evaluation 97-001, Revision 0, was generated to evaluate the impact of going from six manual operator steps to the 15 steps listed in Emergency Response Guidelines Procedures EOS-1.3A, Revision 6, and EOS-1.313, Revision 1, "Transfer to Cold Leg Recirculation." The results of the evaluation disclosed that the additional water volume required by the nine additional steps was not available. The licensee shortened the assumed operator response time from 30 seconds to less than 15 seconds in order to provide the required volume. This change increased the probability of occurrence of a malfunction of equipment important to safety, and therefore, did involve a USQ which was not approved by the Commission.
2. As of December 19, 1996, Emergency Response Guidelines Procedure EOS-1.3, "Transfer to Cold Leg Recirculation" had been revised to include additional steps to perform the manual actions required to switchover the emergency core cooling system pumps from injection to recirculation. This revision changed the facility as described in FSAR Table 6.3-7 and no written safety evaluation was prepared to provide the bases for the determination that the changes did not constitute a USQ. As a result, Table 6.3-11 was not accurate in that it underestimated the water volume required to complete the manual switchover.

This is a Severity Level IV violation (Supplement 1) (50-445(446)/9803-05).

RESPONSE TO THE VIOLATION
(50-445/9803-05)

TU Electric accepts the violation, the response as requested is provided below.

1. Reason for Violation

TU Electric believes that the reasons for each of the two examples of the violation are:

- Improper Unreviewed Safety Question (USQ) Determination

The 10 CFR 50.59 evaluation (SE-97-001) concluded that an Unreviewed Safety Question (USQ) did not exist in spite of an identified "slight increase" in the probability that one low head ECCS pump and the intermediate and high head pumps would be temporarily stopped in the event of a large break LOCA and the specific single active failure of an RWST tank isolation valve. It concluded that this was not an increase in the probability of a malfunction of equipment important to safety as previously evaluated in the FSAR because one RHR pump would continue to perform the ECCS safety function. It noted that the safety function would be maintained even if all pumps were temporarily shut down to complete transfer. The bounding malfunction previously evaluated in the FSAR is loss of an entire electrical train. In the subject scenario, both trains of pumps are operating at run out. Any consequential failure of a pump would be bounded by the single failure criterion. The subject evaluation was performed in response to an attempt to support an operability/inoperability decision. During this decision process, assumptions were manipulated from those contained in the existing licensing basis of record at that time. The preparer and reviewer understood that the 50.59 evaluation was not changing the facility or procedures under 10CFR50.59 and would not be implemented. This type of "50.59/operability evaluation" was unprecedented and the preparer believed that engineering judgement and a qualitative evaluation would be acceptable for the interim while corrective action was being determined and implemented. The resulting conclusion of the evaluation was that a USQ did not exist as documented and approved via the procedural requirements and regulatory interpretations in existence at CPSES.

As stated in the inspection report, "the additional steps added by the changes and the reduced response time required by these steps could reasonably increase the probability of occurrence of a malfunction of equipment important to safety . . ." However, the preparer and reviewers of the evaluation believed the consequences of the malfunctions were already bounded by the existing licensing basis. As stated previously, the evaluation was used to support an operability call as was TU Electric's understanding of the regulatory expectation for degraded and non-conforming conditions at the time of performance of the evaluation based on the draft NRC positions put forth in NUREG-1606 related to 'de-facto' changes. It should be noted that this guidance has been superseded via revision to Generic Letter 91-18 and under the latter guidance no 10CFR50.59 evaluation would have been called for in this instance. Accordingly, the evaluation did not support plant or procedure changes and was not intended to support these changes when prepared.

The inappropriate conclusions as viewed by the NRC were specific to this evaluation and are not indicative of programmatic weakness or breakdown.

- Lack of 10 CFR 50.59 Evaluation for changes to EOS-1.3A/B

As background, the procedure became discrepant from the FSAR prior to the issuance of the operating license for CPSES Unit 1 and therefore the application of 10CFR50.59 to this change was not required. The fact that a significant portion of the "procedure" for transfer to cold leg recirculation was contained within the Question and Response (Q & R) section of the FSAR contributed to the emergency response procedure/FSAR discrepancy. Specifically, the time and outflow analysis that is currently contained within Table 6.3-11, was contained in the Q & R section. Therefore, during the development of the emergency operating procedure the information contained within Table 6.3-7 was considered by the reviewers to be the required steps as opposed to the entirety of the steps in the transfer process. It should also be noted that the applicable Q & Rs were rolled into the appropriate

FSAR sections during Amendment 91 in April 1994. These misconceptions led to additional steps being added in accordance with the Westinghouse Owner's Group Technical Guidelines, without due consideration of the overall effect on the licensing basis.

With the procedure discrepant from the FSAR, future revisions to the EOS procedures compared the changes within that revision to the licensing basis during the required 10 CFR 50.59 review. As only the current changes were focused upon as the activity being screened for compliance with the guidance of 10 CFR 50.59, the existing discrepancy was never identified and therefore a full evaluation for the existence of an Unreviewed Safety Question (USQ) did not occur.

2. Corrective Steps Taken and Results Achieved

- Improper Unreviewed Safety Question (USQ) Determination

Per TU Electric's original intentions, the subject evaluation was revised and approved based on actual plant changes prepared as corrective action for the non-conforming condition as opposed to support of operability of the initially identified condition. The current plant design basis and procedures are in agreement consistent with the original licensing basis of CPSES, including operator response times, with no USQs in existence. The FSAR is current in accordance with the applicable regulatory requirements for the corrective action for ECCS transfer from injection to cold leg recirculation.

- Lack of 10 CFR 50.59 Evaluation for changes to EOS-1.3A/B

The steps required to transfer from ECCG injection to cold leg recirculation have been thoroughly analyzed, including sequence, flows, volumes, setpoints and timing. The procedures have been revised and evaluated for the existence of a USQ. The current plant design basis and procedures are in agreement consistent with the original licensing basis of CPSES with no USQs in existence.

3. Corrective Actions Taken to Preclude Recurrence

- Improper Unreviewed Safety Question (USQ) Determination

The CPSES Review Guide for performing 10CFR50.59 reviews has been revised to be consistent with the new guidance for addressing degraded and non-conforming conditions as forwarded by Generic Letter 91-18 Supplement 1, dated October 8, 1997, and the associated guidance in NEI Guidance Document NEI 96-07. This new guidance does not require that a 10CFR50.59 review be performed for degraded and non-conforming conditions (de-facto changes) while they are in the corrective action phase, unless additional compensating actions, in themselves, require it. When following the new guidance, although operability is still addressed, a 10CFR50.59 review is only performed if the disposition of the non-conforming condition will result in a final configuration that is different from that described in the "SAR". Implementation of the new guidance will help preclude recurrence of this type of violation associated with non-conforming conditions in the future because no evaluation to determine if a USQ exists would be required.

- Lack of 10 CFR 50.59 Evaluation for changes to EOS-1.3A/B

As previously discussed in TXX-97049, dated February 21, 1997, TU Electric System Engineers will review the applicable sections of the FSAR that relate to their areas of responsibility, and will complete and document these reviews by October 18, 1998. Any discrepancies will be documented and addressed as required. The primary purpose of this review will be to reconfirm that the as-built configuration and design documentation of their individual systems and structures are consistent with the FSAR descriptions and the accident analysis assumptions in Chapter 15 of the FSAR.

4. Date of Full Compliance

TU Electric is in full compliance.

RESTATEMENT OF THE VIOLATION
(50-445/9803-01)

- C. Technical Specification 6.8.1 states, in part, that written procedures be established, implemented, and maintained as recommended by Appendix A of Regulatory Guide 1.33, Revision 2. Regulatory Guide 1.33 specifies that procedures for operating safety-related pressurized water reactor systems, such as the reactor coolant system, include instructions for filling, venting, and draining.

Contrary to the above, on April 18, 1998, Integrated Plant Operating Procedure IPO-010A, "Reactor Coolant System Reduced Inventory Operations," was used to install temporary reactor coolant level instrumentation during reduced inventory operations but did not include instructions for filling, venting or operating the temporary instrumentation attached to the reactor coolant system and, as a result, a partial loss of reactor coolant system level indication occurred.

This is a Severity Level IV violation (Supplement 1)(50-445/9803-01)

RESPONSE TO THE VIOLATION
(50-445/9803-01)

TU Electric accepts the violation, the response as requested is provided below:

1. Reason for Violation

TU Electric believes that the reason for the violation was an inadequate revision of Integrated Plant Operating Procedure IPO-010A, "Reactor Coolant System Reduced Inventory Operations" prior to the sixth refueling outage on Unit 1. The procedure was revised prior to the Unit 1 outage to add a prerequisite step for installing test gauges on the Reactor Coolant System (RCS). The gauges were to be used as a tool to assist in determining the cause if a discrepancy in level was encountered during initial drain down of the RCS. The step added to the procedure did not contain enough details related to the intended location or operation of the test gauges and consequently the wide range and extended wide range mid-loop level instruments were adversely affected by air introduction into the sensing lines when the test gauges were valved into the RCS. Stable mid-loop level indications were always available and were used to control the evolution via the ultrasonic monitor and the primary level indication.

2. Corrective Steps Taken and Results Achieved

The prerequisite step for installing test gauges on the RCS has been removed from IPO-010A. Lessons Learned related to this occurrence were issued to Operations and Maintenance personnel to provide awareness of the circumstances of this occurrence.

3. Corrective Actions Taken to Preclude Recurrence

Future troubleshooting related to reduced inventory level indication issues, if necessary, will be conducted in a more formally controlled and coordinated manner. This would include, as appropriate, having specific steps in the procedure related to the timing of installation, filling, venting, and operation of the test instrumentation.

4. Date of Full Compliance

TU Electric is in full compliance.

RESTATEMENT OF THE VIOLATION
(50-445/9803-03)

- D. Technical Specification 6.8.1 states, in part, that written procedures be established, implemented, and maintained as recommended by Appendix A of Regulatory Guide 1.33, Revision 2. Regulatory Guide 1.33 specifies, in part, that procedures be developed for planning and performing maintenance that can affect the performance of safety-related equipment.

Accordingly, Maintenance Department Administrative Procedure MDA-111, "Troubleshooting Activities," Section 6.3.5 stated, in part, that test equipment and test leads be listed as pre-approved for use or, that their use be evaluated using a technical evaluation.

Contrary to the above, the pressure sensing devices, which were test equipment used for troubleshooting, were not pre-approved for use and no technical evaluation was performed by engineering prior to their use on April 18, 1998.

This is a Severity Level IV violation (Supplement 1)(50-445/9803-03)

RESPONSE TO THE VIOLATION
(50-445/9803-03)

TU Electric accepts the violation, the response as requested is provided below:

1. Reason for Violation

TU Electric believes that the reason for the violation was a misinterpretation of the requirements of MDA-111, "Troubleshooting Activities", by the Engineering personnel involved in the troubleshooting activities. MDA-111 requires in Section 6.3.5 that test equipment and test leads be listed in Attachment 8.A of the procedure as pre-approved for use or their use be evaluated using a Technical Evaluation per STA-504, "Technical Evaluations". Because Attachment 8.A referred exclusively to electronic equipment, the personnel involved incorrectly assumed that the need to perform a Technical Evaluation did not apply to mechanical equipment.

2. Corrective Steps Taken and Results Achieved

The personnel involved in the troubleshooting activities have been re-instructed to document any test equipment not listed on Attachment 8.A on a Technical Evaluation during future troubleshooting.

3. Corrective Actions Taken to Preclude Recurrence

MDA-111 has been enhanced to include more guidance related to mechanical troubleshooting, including instructions on filling and venting, the addition of a listing of pre-approved mechanical equipment, and clarification on the requirements for a Technical Evaluation of test equipment used in long term troubleshooting.

4. Date of Full Compliance

TU Electric is in full compliance.

RESTATEMENT OF THE VIOLATION
(50-445/9803-07)

- E. 10 CFR Part 50, Appendix B. Criterion XVI, "Corrective Action," requires, in part, that conditions adverse to quality, such as deficiencies and nonconformances, be promptly identified and corrected.

Contrary to the above, the licensee failed to identify and correct conditions adverse to quality involving fire doors for the Unit 1 uninterruptible power supply rooms in that, from March 1997 to April 1998, the licensee failed to identify that the inability of the fire doors to remain open on the fusible links impaired the ability of the doors to properly function during a tornado.

This is a Severity Level IV violation (Supplement 1)(50-445/9803-07)

RESPONSE TO THE VIOLATION
(50-445/9803-07)

TU Electric accepts the violation, the response as requested is provided below:

1. Reason for Violation

On March 21, 1997, the subject fire doors were identified as not being able to close and latch properly and fire impairments were issued to track the condition. A ONE Form was subsequently initiated on August 11, 1997 to correct the condition. However, because the condition was considered to be a fire protection deficiency (failure to fully close and latch) the ONE Form did not address any potential impact the doors being closed may have had on the tornado venting analysis.

The NRC Resident Inspector indicated that his memory was that he had informed TU Electric Shift Operations personnel that the subject fire doors were closed and he questioned the impact on the tornado venting analysis in November 1997. Operations Control Room management does not specifically recall this discussion and corrective actions associated with the Resident Inspector's notification could not be identified. On April 13, 1998, the doors were again found to be closed by the Resident Inspector and a ONE Form and Technical Evaluation were initiated to evaluate the impact of the condition on the tornado venting analysis and the doors were physically tied open.

On April 18, 1998, the Resident Inspector again identified that the subject fire doors were closed. Corrective actions from the ONE Form initiated on April 13, 1998 involved physically holding the subject doors open to prevent adverse impact on the tornado venting analysis, however, Operations Fire Protection personnel indicated that they had closed the doors because they believed that, even though fire impairments were in place on these doors, the doors would better serve their fire protection function if closed. The Operations Fire Protection personnel involved did not fully understand the impact on the tornado venting analysis requirements if the subject fire doors were closed.

2. Corrective Steps Taken and Results Achieved

The physical condition involving the subject fire doors not fully closing and latching has been corrected by a modification. Operations Fire Protection personnel who perform daily walkdowns of fire doors have been re-instructed on the importance of fire door position and corresponding impact on the tornado venting analysis.

3. Corrective Actions Taken to Preclude Recurrence

A lessons learned on this event will be issued reminding Shift Operations personnel that off normal conditions created as part of a corrective action should be clearly indicated so the corrective action is not inadvertently undone.

4. Date of Full Compliance

TU Electric is in full compliance.