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Ref. 10CFR2.201

CPSES-200200611
Log # TXX-02048
File # 10130 (IR 01-07)

March 6, 2002

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

**SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 and 50-446; APPEAL OF THE FINAL
SIGNIFICANCE DETERMINATION FOR A WHITE FINDING
AND REPLY TO A NOTICE OF VIOLATION**

- REF: 1. NRC's letter from Ellis Merschoff to C.L. Terry, dated February 21, 2002; Final Significance Determination for a White Finding and Notice of Violation for NRC Inspection Report No. 50-445/01-07; 50-446/01-07.
2. NRC Inspection Report No. 50-445/01-07; 50-446/01-07 dated December 31, 2001.

Gentlemen:

TXU Generation Company LP (TXU Energy) has reviewed the NRC letter (Reference 1) concerning the final results of the NRC's significance determination for a preliminary White Finding identified in the inspection report (Reference 2) under the Cornerstone of Public Radiation Safety. The issue cited nine (9) examples in which radiological surveys required by Technical Specification required procedures were deemed not adequate by the NRC and items containing very low levels of radioactivity were released from CPSES radiologically controlled areas.

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With respect to the WHITE finding and its associated Notice of Violation, TXU Energy has performed a thorough review of these issues and elects to appeal the staff's characterization of the significance of this finding. TXU Energy does not dispute that a violation occurred, however, we do appeal its characterization as escalated enforcement based upon our appeal of the WHITE finding.

TXU Energy believes that the examples identified in Reference 1, individually or in aggregate, have only minor safety significance. The cumulative amount of radioactivity involved in these examples is less than the amount of radioactivity found in a common household smoke detector. In particular, the cumulative amount was not sufficient to provide any credible potential for a dose in excess of 5.0 mrem as evidenced by our conservatively calculated potential dose estimate of 0.0043 mrem. Therefore, these examples do not provide a sufficient basis for a WHITE finding under the NRC's guidance for the significance determination process in NRC Inspection Manual Chapter 0609.

Attachment 1 of this letter provides the basis for our Significance Determination Process (SDP) appeal of the WHITE Finding pursuant to the guidance of NRC Inspection Manual Chapter 0609, Attachment 2; Process for Appealing NRC Characterization of Inspection Findings.

Attachment 2 of this letter provides TXU Energy's response to the Notice of Violation pursuant to the requirements of 10 CFR 2.201.

Should you have any comments or require additional information, please contact Roger Walker at (254) 897-8233 or Bob Kidwell at (254) 897-5310 for assistance.

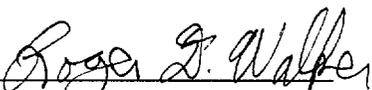
This communication contains no new licensing basis commitments regarding CPSES Units 1 and 2.

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Sincerely,

TXU Generation Company LP
By: TXU Generation Company Management LLC
Its General Partner

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

By: 
Roger D. Walker
Regulatory Affairs Manager

RJK/rjk
Attachments

cc: Mr. E. W. Merschoff, Region IV
Mr. W. D. Johnson, Region IV
Mr. A. T. Gody, Region IV
Mr. D. H. Jaffe, NRR
Resident Inspectors, CPSES

**TXU GENERATION COMPANY LP (TXU ENERGY)
COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)**

**APPEAL OF WHITE FINDING
CORNERSTONE: PUBLIC RADIATION SAFETY**

Introduction

TXU Energy lists five bases for its appeal of this WHITE finding:

- 1) The examples cited by the NRC have minor safety significance and should have been screened out by use of the Group 1 questions of the SDP.
- 2) Contrary to the staff's assertion, there was not a potentially unmonitored pathway for the release of radioactive material to the public from the radiologically controlled areas at CPSES. Instead, the amount of radioactivity involved was so minute it was not detected by the normal and acceptable methods of monitoring.
- 3) The cumulative amount of radioactive material involved in the examples cited are not sufficient to warrant a WHITE finding under the SDP guidance in IMC 0609, Appendix D.
- 4) Final significance does not agree with the clear wording of the SDP OBJECTIVE and BASIS statements in that the examples cited did not involve any release of radioactive materials to an unrestricted area.
- 5) NRC staff in Region IV appear to have assessed these examples at CPSES differently than similar events have been assessed in other Regions.

These points of appeal are discussed in more detail in the following pages of this attachment.

Point of Appeal #1 - The examples cited by the NRC have minor safety significance and should have been screened out by use of the Group 1 questions of the SDP.

- A. Using the guidance provided in “Guidance for Classifying Violations as Minor Violations” (Borchardt 1999), TXU Energy believes that the examples are best characterized as minor issues and should not have been cited in the inspection report. Each example is a minor violation because these were procedural implementation errors that had no actual safety consequences in that the items contained only low levels of radioactivity, and no member of the public was actually exposed to these items. In addition, all of these examples were self-identified by our radiological monitoring and surveillance program, entered into our corrective action program, and resolved in a manner commensurate with their risk.
- B. These events have been taken through the Group 1 questions “in aggregate” versus individually. This does not agree with our understanding of how the Group 1 questions of 0610* were intended to be used. Most, if not all, of the individual items would not meet “more than minor” criteria if judged alone.

The NRC Enforcement Manual, section 3.8 states that “. . . the significance of a violation should not be increased if it is repetitive. Similarly, the staff should not view the significance of a group of related programmatic violations as greater than the individual violations (i.e., aggregation).” By combining these events when applying the Group 1 questions, the caution contained within the Enforcement Manual is not being considered.

- C. NRC staff appears to have relied upon guidance from a draft version of the SDP that has not been fully developed or approved for use. The concept of having a final survey point, outside the restricted area but before entering an unrestricted area, is only introduced by this draft SDP. If this draft guidance is to be used, then the accompanying concepts of that draft that “for low levels of contamination, it can be a minor issue and resolved through the licensee’s corrective action program” and “to determine the number of occurrences, it is not simply the number of items that was found” should also be applied to the assessment of our finding.
- D. NRC staff stated at the Regulatory Conference that they regularly look at an issue’s significance using the Significance Determination Process (SDP) charts, and only then answer the Group 1 questions of IMC 0610*. This practice could have inappropriately influenced the staff’s judgement when they subsequently applied the Group 1 questions of 0610*. Statements made at the Regulatory Conference that this issue had to be more than minor since we were looking at a potential WHITE finding and that there would be too much of a gap in the process if these items screened out being possible examples of how this prejudgement of the issues could have influenced staff’s opinion when they subsequently addressed the Group 1 questions.

This application of the SDP is not seen by TXU Energy as consistent with the program design or its intended application as was presented to the industry by the NRC in workshops given to the regions prior to implementation of RROP (1Q2000). At these sessions, NRR staff acknowledged in response to industry questions that such a “gap” would exist in some instances, but emphasized that this is why it was so important to use the Group 1 questions first to prevent false positive outcomes from the SDP.

Point of Appeal #2 - Contrary to the staff's assertion, there was not a potentially unmonitored pathway for the release of radioactive material to the public from the radiologically controlled areas at CPSES. Instead, the amount of radioactivity involved was so minute it was not detected by the normal and acceptable methods of monitoring.

- A. The NRC staff's letter of February 21, 2002, states that there was a "potentially unmonitored pathway for radioactive material to be released from the facility." TXU Energy does not agree that the "potentially unmonitored pathway" cited by the final significance determination of this finding exists. Most of the examples in this finding were in fact monitored by instrumentation meeting the guidance contained within NRC IE Circular 81-07. However, the activity levels were so minute that they did not alarm the monitor(s). It was only when these examples were subjected to monitoring instrumentation with a greater sensitivity that the low levels of activity contained by the articles were identified.
- B. TXU Energy further believes that the concern expressed in the final significance determination for a "potentially unmonitored pathway" is an example of a non credible scenario. To present a significant risk, items would need variation in one of two variables from their actual circumstances, either:
- a higher activity than was present; **OR**
 - a different egress path than was used by these items.

A change in either variable (but not both) would not result in any instance under consideration presenting a significant risk to the public. If the activity of most of these items had been slightly higher than their actual activity, the item would have set off an alarm for the monitor that it did pass through or would have been detected by the routine surveys. This restriction severely limits the activity that could have been released under any credible scenario.

- C. In attempting to provide additional insights and provide a check for consistency, another method could be used to assess the significance of these items. This method is the Occupational Radiation Safety SDP's concept of determining an issue's substantial potential for overexposure in excess of 10CFR20 limits.

A substantial potential, consistent with the current Enforcement Manual (NUREG/BR-0195, subsection 8.4.1), is an occurrence in which a minor alteration of the circumstances would have resulted in a violation of Part 20 limits and it was only fortuitous that the altered circumstances did not occur. This tool is more clearly explained in IMC 0609 than the Public Radiation Safety SDP tool, and has been used extensively since the creation of the ROP.

If this substantial potential concept were to be applied to the Public Radiation Safety SDP, our issues would clearly not rise to this standard since it was not just by luck that the items discovered had extremely low levels of contamination. Our processes were sufficient to detect the release of any material with more than a minute amount of radioactivity. Therefore, there was no substantial potential for an overexposure. In any event, processes and/or surveys built into our Radiation Protection Program did identify these items and they never had a credible potential of being released from the facility.

Point of Appeal #3 - The cumulative amount of radioactive material involved in the examples cited are not sufficient to warrant a WHITE finding under the SDP guidance in IMC 0609, Appendix D.

The staff has stated that the examples at Comanche Peak must be classified as a WHITE finding, regardless of their lack of significance individually, because there are more than five (5) examples. In this regard, the staff refers to the Public Radiation Safety Significance Determination Process and states that more than five events must be treated as a WHITE finding.

The staff has not fully cited the SDP guidance. In particular, Appendix D does state that more than five (5) examples will be classified as WHITE. However, it also states that "However, if there were more than 5 events in the assessment period where licensed radioactive material was released, there is a potential for the cumulative dose from the occurrences to be 0.005 rem TEDE or greater. This will result in a WHITE classification."

The focus of this basis statement goes to the comparability of dose consequences, rather than merely the number of occurrences. This basis of comparability was also presented by the NRC staff when the greater than five (>5) events criterion was questioned at the NRC public workshop on the Revised Regulatory Oversight Program (ROP) in Washington, D.C. in January 2000, immediately preceding industry-wide implementation of the RROP.

Using the full guidance in IMC 0609, Appendix D, it is apparent that the cited examples at Comanche Peak do not qualify as a WHITE finding since not only did each example individually involve minute amounts of radioactivity; but cumulatively, the examples still involved such small amounts of radioactivity that the total calculated hypothetical dose from all 11 examples would have been 0.0043 mrem TEDE. This cumulative dose is three (3) orders of magnitude less than the 5.0 mrem TEDE specified in IMC 0609, Appendix D as being necessary for a WHITE finding.

In summary, the cited examples did not present a credible potential for the cumulative dose from all the occurrences to be 0.005 rem TEDE. Therefore, these examples cumulatively do not warrant a WHITE finding.

Point of Appeal #4 - Final significance does not agree with the clear wording of the SDP OBJECTIVE and BASIS statements in that the examples cited did not involve any release of radioactive materials to an unrestricted area.

- A. Under IMC 0609, Appendix D, the OBJECTIVE statement of the SDP for Radioactive Material Control Program “assesses the licensee’s ability to prevent the inadvertent release of licensed radioactive materials to an unrestricted area that can cause a radiation dose to members of the public.”

This SDP assigns a WHITE finding to five “occurrences” under the Radioactive Material Control Program. The SDP does not define what an “occurrence” is. However, given the risk-informed performance-based nature of the SDP, the only reasonable interpretation of the SDP, consistent with its own objective statement, is to define “occurrences” as meaning occurrences of the inadvertent release of licensed radioactive materials to an unrestricted area.

The examples cited by the NRC staff did not involve any occurrences of a release of radioactive material to an Unrestricted Area. At Comanche Peak, the Unrestricted Area is defined by the Offsite Dose Calculation Manual (ODCM) as any area beyond the site boundary. None of the examples cited by the NRC staff involved any release of radioactive material to the Unrestricted Area, as defined by the ODCM. Therefore, for the purposes of the SDP, there were no occurrences and the examples should have been cited as GREEN.

- B. The staff’s letter of February 21, 2002 states the examples should be counted under the SDP because there “is a potential to release material inadvertently from the protected area.” However, under the SDP, a “potential for release” is not a relevant factor. Instead, there must be an actual release to an Unrestricted Area. Since no actual releases to an Unrestricted Area occurred, there is no basis for a WHITE finding under the current SDP.
- C. For the purposes of this SDP, the NRC staff seems to redefine an Unrestricted Area from its current conformance with our site boundary (as defined in 10 CFR 20 in general and for CPSES in the ODCM in particular) to either the Protected Area boundary or any areas outside the Restricted Area. In application of this SDP, all areas outside of the Restricted Area are treated as Unrestricted Areas. This is contrary to the NRC’s position expressed in SECY 95-140 which discussed a proposed rule change to 10 CFR 20 designed to provide this same result. This proposed rule was opposed by industry as a backfit. NRC staff agreed with these industry comments and the concept of a controlled area was retained in the regulation.

Any application of this SDP that treats site boundaries in a manner that does not agree with the literal definitions contained within the regulation would appear to be an inappropriate backfit and should not be an appropriate basis for assessing the significance of an issue.

Point of Appeal #5 - NRC staff in Region IV appear to have assessed these examples at CPSES differently than similar events have been assessed in other Regions.

A comparison of the 4Q2001 ROP Inspection Finding matrix provided on the NRC's website (www.nrc.gov/NRR/OVERSIGHT/ASSESS/pim_summary.html) indicates that NRC Region IV has interpreted the SDP differently and more stringently than other regions in their application and/or interpretation of IMC 0609 Appendix D.

The results listed below indicate the differing outcomes between regions when using the same SDP tool.

Region I

No instances of using this SDP (No Findings).

Region II

IR 50-425/00-005; single instance/event was cited only due to an actual release of radioactive material to an offsite area.

Region III

IR 50-461/00-021; multiple instances with similar circumstances were counted as a single event for processing through the SDP chart.

IR 50-316/00-018; multiple instances with similar circumstances were counted as a single event for processing through the SDP chart.

Region IV

All items are counted individually, and are not grouped if related to common root causes, as is seen in Region III reports above.

See the following Inspection Reports for further details:

- IR 50-483/01-003
- IR 50-458/00-016
- IR 50-275/00-016
- IR 50-313/00-013
- IR 50-445/01-004

In addition, since the 4Q01 matrix was posted, Region IV has issued another GREEN finding using this SDP in IR 50-361/02-03.

Supporting Documents:

1. NRC Inspection Report No. 50-445/01-07; 50-446/01-07 dated December 31, 2001.
2. TXU Energy letter, logged TXX-02016, from C.L. Terry to the NRC, dated January 18, 2002; Licensee Response to Potential Safety Significant Inspection Finding.
3. TXU Energy presentation at the Regulatory Conference of January 23, 2002.
4. TXU Energy letter, logged TXX-02020, from C.L. Terry to the NRC, dated January 25, 2002; Additional Information Requested During Regulatory Conference of 23 January, 2002.
5. NRC letter from Ellis Merschoff to C.L. Terry, dated February 21, 2002; "Final Significance Determination for a White Finding and Notice of Violation for NRC Inspection Report No. 50-445/01-07; 50-446/01-07"
6. NUREG/BR-0195; NRC Enforcement Manual
7. "Guidance for Classifying Violations as Minor Violations" (Borchardt 1999)
8. NRC Inspection Manual Chapter (IMC) 0609, Attachment 2
9. NRC Inspection Manual Chapter (IMC) 0609, Appendix C
10. NRC Inspection Manual Chapter (IMC) 0609, Appendix D
11. NRC Inspection Manual Chapter (IMC) 0610*
12. SECY 95-140; "Final Rule: 10 CFR Parts 19 and 20 Radiation Protection Requirements; Amended Definitions and Criteria "
13. NRC IE Circular 81-07 ; "Control of Radioactively Contaminated Material
14. NRC Inspection Reports
 - a. 50-425/00-005
 - b. 50-461/00-021
 - c. 50-316/00-018
 - d. 50-483/01-003
 - e. 50-458/00-016
 - f. 50-275/00-016
 - g. 50-313/00-013
 - h. 50-361/02-003
 - i. 50-445/01-004

NOTICE OF VIOLATION

RESTATEMENT OF VIOLATION

TXU Energy
Comanche Peak Steam Electric Station

Docket No. 50-445/446
License No. NPF-87/89
EA-01-304

During an NRC Inspection conducted between October 29 - November 8, 2001, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

Technical Specification 5.4.1.a states, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, February 1978, Appendix A.

Regulatory Guide 1.33, Appendix A, Section 7.e.(4), recommends procedures for contamination control.

Section 4.2.1 of Procedure RPI-213. "Survey and Release of Material and Personnel," Revision 8, states, in part, that the criteria for unconditional release from a Radiologically Controlled Area is no detectable activity.

Contrary to the above, between January 24, 2000, and April 11, 2001, the licensee identified and documented nine instances in which items containing detectable activity were unconditionally released from a radiologically controlled area. Each of these instances was documented on a SMART form (SMF) and is referenced in NRC Inspection Report 50-445/01-07; 50-446/01-07, Section 40A2c.

This violation is associated with a White significance determination process finding.

RESPONSE TO NOTICE OF VIOLATION

LICENSEE RESPONSE TO VIOLATION

Even though TXU Generation Company LP (TXU Energy) chooses to appeal the significance determination of the inspection finding, we accept that a violation as captured by this citation has occurred.

TXU Energy wishes to restate that the examples cited did not meet our expectations for the proper control of radioactive materials and we take this very seriously. We know that the control of radioactive materials is essential to the safe and reliable operation of a nuclear power plant and this is an area in which improvement on our part was needed.

Detailed analysis and corrective actions taken in response to this violation have been previously docketed as part of the January 23, 2002 Regulatory Conference and in our response letter to the initial inspection finding. These detailed actions are summarized below.

1. Reason for Violation

TXU Energy believes the majority of these events resulted from underlying human performance issues identified by the licensee in the area of Radiation Worker Practices. This problem area was first identified by the Radiation Protection (RP) Department in 1999 and corrective/preventive actions have been in progress since.

Of the nine (9) events cited in this violation,

- Five (5) were determined to be caused by workers inappropriately carrying materials through the personnel contamination monitors in their modesty clothing,
- Two (2) were determined to be inadequate release surveys by Radiation Protection Technicians, and
- Two (2) were caused by unknown processes.

2. Corrective Steps Taken and Results Achieved

As captured in our presentation at the January 23, 2002 Regulatory Conference, corrective actions taken in response to these events consisted of both short term actions taken to immediately restore compliance and long term actions taken to prevent recurrence.

Short term actions taken:

- Return of the item(s) to the Radiologically Controlled Area (RCA).
- Followup surveys of potentially affected areas.
- Counseling of those individuals identified as responsible for inappropriately releasing the materials.

Long term actions taken:

- Procured and replaced licensee-supplied modesty clothing with a pocket-less design.
- Procured and replaced licensee-supplied protective clothing glove liners with a disposable design.
- Redesigned the Warehouse C RCA access/egress point followed by installation of a highly sensitive SAM-9 Small Article Monitor.

In addition, Radiation Protection Department has issued further guidance to the RP Technicians concerning the release of vehicles and equipment exiting the Fuel Building, RCA Yard, and Warehouse C. This guidance has been captured by Procedure Change Notice (PCN) R8- 01 to Procedure RPI-213, revision 8, dated February 28, 2002.

As a result of the corrective and preventative actions taken in response to these events, there have been no instances of the inadvertent release of radioactive materials from the RCA since May 24, 2001.

3. Corrective Steps That Will Be Taken to Preclude Recurrence

No additional steps are required to preclude recurrence. All necessary preventative actions have been completed as discussed in the previous item.

4. Date of Full Compliance

TXU Energy is currently in full compliance.