

*Reviewed & commented  
on 2-12-5.*

*#42*

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
TEXAS UTILITIES GENERATING	)	
COMPANY, et al.	)	Docket Nos. 50-445-2
	)	and 50-446-2
(Comanche Peak Steam Electric	)	
Station, Units 1 and 2)	)	

CASE'S REQUESTS FOR ADMISSION

CASE hereby requests that Applicant and Staff admit that:

1. The Technical Review Team (TRT) found a lack of awareness on the part of quality control (QC) electrical inspectors to document in the inspection reports when the installation of the "nuclear heat-shrinkable cable insulation sleeves" was required to be witnessed. [September 18, 1984 Letter from D. Eisenhut to M. Spence ("TRT Report #1", I.a.1)]
2. The TRT found inspection reports that did not indicate that the required witnessing of splice installation was done. (TRT Report #1, I.a.2)
3. The TRT found a lack of splice qualification requirements and provisions in the installation procedures to verify the operability of those circuits for which splices were being used. (TRT Report #1, I.a.3)
4. The TRT found selected cable terminations that did not agree with their locations on drawings. (TRT Report #1, I.a.4)

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5. The TRT found cases where nonconformance reports (NCRs) concerning vendor-installed terminal lugs in GE motor control centers had been improperly closed. (TRT Report #1, I.a.5)

6. The TRT found, in numerous cases, that safety-related cables within flexible conduits inside main control room panels did not meet the minimum separation requirements. (TRT Report #1, I.b.1)

7. The TRT found, in several cases, that separate safety and nonsafety-related cables and safety and nonsafety-related cables within flexible conduits inside main control room panels did not meet minimum separation requirements. No evidence was found that justified the lack of separation. (TRT Report #1, I.b.2)

8. The TRT found that the existing TUEC analysis substantiating the adequacy of the criteria for separation between conduits and cable trays had not been reviewed by the NRC staff. (TRT Report #1, I.b.3)

9. The TRT found two minor violations of the separation criteria inside panels CPl-EC-PRCB-09 and CPl-EC-PRCB-03 concerning a barrier that had been removed and redundant field wiring not meeting minimum separation. The devices involved with the barrier were FI-2456A, PI-2453A, PI-2475A, and IT-2450, associated with Train A; and FI-2457A, PI-2454A, PI-2476A, and IT-2451, associated with Train B. The field wiring was associated with devices HS-5423 of Train B and HS-5574, nonsafety-related. (TRT Report #1, I.b.4)

Σ

10. The TRT found that the support installation for non-safety-related conduits less than or equal to 2 inches was inconsistent with seismic requirements and could find no evidence that substantiated the adequacy of the installation for nonsafety-related conduit of any size. (According to Regulatory Guide 1.29 and FSAR Section 3.7B.2.8, the seismic Category II and nonseismic items should be designed in such a way that their failure would not adversely affect the function of safety-related components or cause injury to plant personnel.) (TRT Report #1, I.c)

11. The TRT found a lack of supportive documentation regarding personnel qualifications in the training and certification files, as required by procedures and regulatory requirements. (TRT Report #1, I.d.1)

12. The TRT found a lack of documentation for assuring that the requirements for electrical QC inspector recertification were being met. Specific examples are:

- One case of no documentation of a high school diploma or General Equivalency Diploma.
- One case of no documentation to waive the remaining 2 months of the required 1 year experience.
- One case where a QC technician had not passed the required color vision examination administered by a professional eye specialist. A makeup test using colored pencils was administered by a QC supervisor, was passed, and then a waiver was given.
- Two cases where the experience requirements to become a Level 1 technician were only marginally met.
- One case of no documentation in the training and certification files substantiating that the person met the experience requirements.

(TRT Report #1, I.d.1)

Σ

13. The TRT found a lack of guidelines and procedural requirements for the testing and certifying of electrical QC inspectors. Specific examples are:

- No time limit or additional training requirements existed between a failed test and retest.
- No controls existed to assure that the same test would not be given if an individual previously failed that test.
- No consistency existed in test scoring.
- No guidelines or procedures were available to control the disqualification of questions from the test.
- No program was available for establishing new tests (except when procedures changed). The same tests had been utilized for the last 2 years.

(TRT Report #1, I.d.2)

14. The TRT found that no engineering analysis was performed prior to corrective action being taken on a documented occurrence in which reinforcing steel was omitted from a Unit 1 reactor cavity concrete placement between the 812-foot and 819-foot 1/2-inch elevations. This reinforcement was installed and inspected according to drawing 2323-S1-0572, Revision 2. However, after the concrete was placed, Revision 3 to the drawing was issued showing a substantial increase in reinforcing steel over that which was installed. Gibbs & Hill Engineering was informed of the omission by Brown & Root Nonconformance Report CP-77-6. Gibbs & Hill Engineering replied that the omission in no way impaired the structural integrity of the structure. Nevertheless, the additional reinforcing steel was added as a precaution against cracking which might occur in the vicinity of the neutron detector slots should a loss of coolant accident (LOCA) occur. A portion of the omitted reinforcing steel was

also placed in the next concrete lift above the 819-foot 1/2-inch level. This was done to partially compensate for the reinforcing steel omitted in the previous concrete lift and to minimize the overall area potentially subject to cracking. The TRT cannot determine the safety significance of this issue until an analysis is performed verifying the adequacy of the reinforcing steel as installed. (TRT Report #1, II.a)

15. The TRT found that, based on the review of available inspection reports and related documents, on field observations, and on discussions with TUEC engineers, it cannot determine whether an adequate air gap has been provided between concrete structures. (TRT Report #1, II.c)

16. The TRT found that TUEC has not adequately demonstrated compliance with FSAR Sections 3.4.1.1.1, 3.8.4.5.1, and 3.7.B.2.8, which require separation of Seismic Category I buildings to prevent seismic interaction during an earthquake. (TRT Report #1, II.c)

17. The TRT could find no evidence that the possible effects of a failure of nonseismic items (other than the sloping suspended drywall ceiling) and for nonsafety-related conduits whose diameter is 2 inches or less, had been considered. In addition, the TRT determined that calculations for seismic Category II components (e.g., lighting fixtures) and the calculations for the sloping suspended drywall ceiling did not adequately reflect the rotational interaction with the nonseismic items, nor were the fundamental frequencies of the supported masses determined to assess the influence of the seismic response



spectrum at the control room ceiling elevation would have on the seismic response of the ceiling elements. (TRT Report #1, II.d)

18. The TRT found that certain test objectives of Chapter 14 of the FSAR and Regulatory Guide 1.68 requirements for the conduct of preoperational testing were not met. (TRT Report #1, III.a.1)

19. The TRT found a deficiency in Test Procedure 1CP-PT-02-12, "Bus Voltage and Load Survey" in that because acceptable voltages could not be achieved with the specified transformer taps, they were changed. A subsequent engineering evaluation required returning to the original taps, but no retest was performed.

20. The TRT found a deficiency in Test Procedure 1CP-PT-34-05, "Steam Generator Narrow Range Level Verification" in that level detectors 1-LT-517, 518 and 529 were replaced with temporary equipment of a design that was different from that which was to be eventually installed. (TRT Report #1, III.a.1)

21. The TRT found a deficiency in Test Procedure 1CP-PT-55-05 "Pressurizer Level Control" in that level detector 1-LT-461 appeared to be out of calibration during the test and was replaced after the test. The retest approved by the Joint Test Group was a cold calibration rather than a test consistent with the original test objective, which was to obtain satisfactory data under hot conditions. (TRT Report #1, III.a.1)

22. The TRT noted during a review of completed hot functional test data, that the Joint Test Group did not approve the data until after cooldown from the test. The tests are not

considered complete until this approval is obtained. In order to complete the proposed post-fueling, deferred preoperational hot functional test, the Joint Test Group, or a similarly qualified group, must approve the data prior to proceeding to initial criticality. The TRT did not find any document providing assurance that TUEC is committed to do this. (TRT Report #1, III.a.2)

23. The TRT found that in order to conduct preoperational tests at the necessary temperatures and pressures after fuel load, certain limiting conditions of the proposed technical specifications cannot be met, e.g., all snubbers will not be operable since some will not have been tested. (TRT Report #1, III.a.3)

24. The TRT found that data for the thermal expansion tests (which have not yet been approved by the Joint Test Group) did not provide for traceability between the calibration of the measuring instruments and the monitored locations, as required by Startup Administrative Procedure-7 (although the information was separately available in a personal log held by Engineering). (TRT Report #1, III.a.4)

25. The TRT found a deficient leak rate test in that apparently after repairing leaks found during the first two attempts, the third attempt at a CILRT was successful. It was successfully completed after three electrical penetrations were isolated because the leakage through them could not be stopped. Though the leaks were subsequently repaired and individually tested with satisfactory results, NRC approval was not obtained

to perform the CILRT with these penetrations isolated. In addition, leak rate calculations were performed using ANSI/ANS 56.8, which is neither endorsed by the NRC nor in accordance with FSAR commitments. (TRT Report #1, III.b)

26. The TRT found, in its review of prerequisite test records, that craft personnel were signing to verify initial conditions for tests in violation of startup Administrative Procedure-21, entitled: "Conduct of Testing" (CP-SAP-21). This procedure requires this function to be performed by System Test Engineers. Startup management had issued a memorandum improperly authorizing craft personnel to perform these verifications on selected tests. (TRT Report #1, III.c)

27. The TRT found that System Test Engineers were not being provided with current design information on a routine, controlled basis, and had to update their own material when they considered it appropriate. (TRT Report #1, III.d)

28. The TRT found that no fillet weld inspection criteria existed for certain types of skewed welds. The TRT found that Brown & Root weld inspection procedures CP-QAP-12.1 and QI-QAP-11.1-28 for NF supports did not address some types of skewed welds. Although TRT was told by Brown & Root personnel that procedure QI-QAP-11.1-26 for piping weld inspection was used, no evidence documenting the use of this inspection procedure was provided to the TRT. The lack of inspection criteria and lack of verification of proper inspection procedures being conducted for some types of skewed welds are a violation of ASME Code for NF supports committed to by TUEC in FSAR Section 5.2.1 and a



violation of Criterion XVII in Appendix B of 10 C.F.R. 50.

[November 29, 1984 Letter from D. Eisenhut to M. Spence ("TRT Report #2, V.a)]]

29. The TRT found that, although the small sample of welds the TRT inspected are acceptable, due to deficiencies in inspection records and the apparent lack of inspection criteria, the TRT is not certain whether some types of skewed welds were inspected properly. The lack of documented inspections and criteria for some types of skewed welds in NF supports represents a safety concern regarding the possible existence of under-sized welds in supports which are required to resist various design load. (TRT Report #2, V.a)

30. The TRT attempted to review TUEC records for ultrasonic (UT) measurement results and general installation practices. The TRT was told that ultrasonic testing of these types of bolts was not a procedural requirement; however, TUEC was unable to provide any other installation records for TRT review. The TRT concludes that this lack of installation inspection records is a violation of QA procedures and Criterion XVII in Appendix B of 10 C.F.R. 50. (TRT Report #2, V.b)

31. The TRT, in reviewing the SRT findings in the area of piping design considerations, has discovered that piping systems, such as Main Steam, Auxiliary Steam and Feedwater, are routed from the Electrical Control Building (seismic category I) to the Turbine Building (non-seismic category I) without any isolation. To be acceptable, each seismic category I piping system should be isolated from any non-seismic category I piping system by separation, barrier or constraint. (TRT Report #2, V.c)

32. Region IV inspections have confirmed the existence of plug welds in cable tray supports located in the Unit 2 Cable Spreading Room. (TRT Report #2, V.d)

33. The TRT determined that the alleged incident pertained to restoration of the Unit 1, loop 1 main steam line to its initial, correct installation position. (The line had shifted during flushing operations due to the weight of the added water and because the temporary supports sagged.) The TRT also determined that the modifications to permanent pipe supports were necessary to provide proper support to the main steam line in its restored position (initial designs for and construction of the supports had been based on the shifted position of the line) and, although the alleged vibrations could not be confirmed, their associated stresses might not have damaged the main steam line. The TRT review of a TUEC analysis, performed 1 year after the incident, concluded that the analysis was incomplete. An evaluation for the full sequence of events leading up to the incident had not been performed. The TRT review of Gibbs & Hill Specification No. 2323-MS-100 indicated that there were inadequate requirements and construction practices for the support of the main steam line during flushing, and for temporary supports for piping and equipment in general. In particular, evaluations to assure the adequacy of temporary supports during flushing and installation were not required. (TRT Report #2, V.e)

*Admit* ✓  
34. The TRT found, based on a review of about 200 fuel pool travelers, that the fuel pool travelers included irregularities such as:

- 1) There was apparently a routine practice during construction of the fuel pool that allowed craft personnel to complete a portion of the inspection report forms prior to the actual inspection. Craft personnel entered the word "SAT", dated the entry, and left blank only the space for the QC inspector's signature. It appeared that the craft personnel were judging the inspection results prior to inspection.
- 2) The date accompanying the signature for visual examination of an inside weld was changed to a date that appeared to precede the examination.
- 3) Entries by the same inspector for two different inspections did not appear to match in that one entry appeared to be written by another person.
- 4) The procedure number for a dye penetrant inspection was changed by an inspector different from the one who conducted the inspection.
- 5) The date for a dye penetrant inspection was changed by an inspector other than the one who performed the inspection.
- 6) Fuel pool travelers were found with missing QC signoffs for fitup and cleanliness. No proof could be found that some of the required weld fitup and cleanliness inspections were ever performed.
- 7) The TRT review disclosed the following irregularities with traveler entries in addition to those listed above:
  - (a) Date changes after the fact
  - (b) Signoffs for functions out of sequence
  - (c) Corrections after the fact
  - (d) Changes to first party inspector date signoffs
  - (e) Missing signatures

[January 8, 1985 Letter from D. Eisenhower to M. Spence ("TRT Report #3", 2.A)] ✓

*Object*  
*W. J. 1/14*  
35. The TRT found no basis or criteria for paint removal or identification methodology of "worst case" pipe whip restraints which had received inadequate source inspections. This resulted

*Inadequate source inspections are examples of limited correction - not to be confused with paint removal problem.*

from a TRT review of 12 NCRs issued involving weld defects. (TRT Report #3, 2.B)

Admit 36. The TRT found that although pipe support components had been previously inspected and accepted by TUEC QC as meeting the respective construction and installation requirements, of 42 pipe supports inspected, 46 deficiencies were identified. (TRT Report #3, 4.A) (See Attachment 1, "Table 1 Pipe Supports in Unit 1")

Admit 37. The TRT found that TUEC did not report to the NRC, pursuant to 10 C.F.R. 50.55(e)(1), the omission of thread-locking devices in the Unit 1 nuclear safety systems and did not attempt corrective action until May 1984, when TUEC tested previously applied paint for thread-lock capability. That test was inconclusive, since it did not establish that the paint, an epoxy process, would reliably perform as an effective locking device under all service conditions and throughout the expected lifetime of the plant. (TRT Report #3, 4.A.2)

Admit 38. The TRT found that TUEC could not identify to the TRT which paint was the subject of testing. (TRT Report #3, 4.A.2)

Admit 39. The TRT found that paint was applied to ASME code-controlled, NF hardware per specification 2323-AS-30 (non-Q) which required no inspection. (This issue appears to be generic for Unit 1.) (TRT Report #3, 4.A.2)

Admit 40. The TRT found that TUEC did not initiate an NCR, required by procedure, identifying the widespread problem of missing locknuts; only a Request for Information was apparently generated which TUEC could not locate for the TRT. (TRT Report #3, 4.A.2)

*Admit* 41. The TRT found that pipe support RC-1-901-702-C82S had a load bolt at a beam attachment which did not exhibit an approved locking device. (The bolt material type was SA-307 grade A.) The TRT found that pipe support CS-1-085-003-A42K had no approved locking device on the "special clamp" bolts, even though the design drawing for this clamp showed each bolt with a nut and a locknut. (TRT Report #3, 4.A.2)

*Admit* 42. The TRT found that the baseplate for pipe support CC-X-039-006-F43R, located in the component cooling system, Room 249A, Fuel Handling Building, violated minimum edge distance criteria for bolt holes. (TRT Report #3, 4.A.3) *h*

*Admit* 43. The TRT found the horizontal member of Support CC-1-126-010-F33R was 3 inches lower at its centerline relative to the upper bolt-hole centerline than shown on the vendor-certified drawing. (TRT Report #3, 4.A.4) (2)  
+30

*Admit* 43. The TRT found that the as-built drawing of the above-listed support had not been revised to reflect the actual installed condition in the plant. This support was located in the component cooling system, Room 247A, in the Fuel Handling Building. (TRT Report #3, 4.A.4)

*Admit* 44. The TRT found that an excessive free gap existed between spherical bearing and washers on the sway strut assembly of support CC-1-126-015-F43R. (TRT Report #3, 4.A.5)

*Admit* 45. The TRT found that other supports with similar bearing gap anomalies found in TRT's inspections were: RC-1-052-016-C41K, RC-1-052-020-C41K, and MS-1-416-001-S33R. (TRT Report #3, 4.A.5)



*Admit*

46. The TRT found that the frequency of this type of procedure violation in the TRT's limited inspection suggests that this problem is generic for Unit 1. (TRT Report #3, 4.A.5)

*Object*

47. The TRT found paint contamination in the bearings of both snubber assemblies on component support SI-1-909-006-C41K that severely obstructed the bearing cavities and limited their movement. (TRT Report #3, 4.A.6)

090

*Admit*

48. The TRT found that a similar condition exists on support MS-1-416-002-S33R. (TRT Report #3, 4.A.6)

*Admit*

49. The TRT found that procedure QI-QAP-11.1-28, Revision 25, Attachment 29 permits less than full thread engagement in threaded plates. This allowance for less than full thread engagement is a potential violation of the ASME Code Section III, NF-4711; no code case was invoked to set aside this procedure. (TRT Report #3, 4.A.7)

*Admit*

50. The TRT found that snubber (shock arrester) adapter-plate bolt threads were insufficiently engaged in all four threaded holes of component support MS-1-416-002-S33R. (TRT Report #3, 4.A.7)

*Admit*

51. The TRT found a similar lack of full thread engagement deficiencies on NF supports SI-1-090-006-C41K and CT-1-013-012-S32K. (TRT Report #3, 4.A.7)

*Admit*

52. The TRT found that sight holes were present in the strut body to verify threaded rod engagement. The rod was not visible through the sight hole for support RC-1-901-702-C82S. (TRT Report #3, 4.A.8)

*admit* 53. The TRT found locking device deficiencies. An example was that sway strut No. AF-1-001-014-S33R had a broken cotter pin. (TRT Report #3, 4.A.9)

*admit* 54. The TRT found load sides of pipe clamp halves that were not parallel. An example is that clamp halves for pipe supports AF-1-001-001-S33R and AF-1-001-014-S33R were not parallel. (TRT Report #3, 4.A.10)

*admit.* 55. The TRT found pipe clearance outside of allowable tolerance violations. An example of is that pipe support CC-1-126-013-F33R exhibited no clearance on top or bottom, while the hanger drawing called out 0" on the bottom and 1/16" on top. (TRT Report #3, 4.A.11)

*admit* 56. The TRT found that a similar problem existed for pipe support AF-1-001-702-S33R. (TRT Report #3, 4.A.11)

*- algt* 57. The TRT found that pipe clamp locknuts <sup>was</sup> ~~were~~ loose. An example was that a pipe clamp locknut for pipe support AF-1-035-011-S33R was found loose (less than finger-tight). (TRT Report #3, 4.A.12)

*admit* 58. The TRT found that pipe support CC-1-126-014-F43R exhibited angularity that exceeded requirements. (TRT Report #3, 4.A.13)

*admit* 59. The TRT found that a similar problem existed with pipe support RC-1-052-020-C41R. (TRT Report #3, 4.A.13)

*admit* 60. The TRT found that snubber cold set (AC) dimension did not match the design drawing. An example was that pipe support CS-1-085-003-A42K deviated by approximately 1" from the cold set dimension shown on the design drawing. (TRT Report #3, 4.A.14)

*admit*

61. The TRT found that support configuration did not match the design drawing. An example was that pipe support snubber CT-1-005-004-S22K was installed end-to-end opposite from the orientation shown on the drawing. (TRT Report #3, 4.A.15)

*admit*

62. The TRT found that a similar problem existed with pipe support CT-1-013-010-S22K, where dimensional discrepancies existed on the support drawing that detailed the orientation of the snubber. (TRT Report #3, 4.A.15)

*admit*

63. The TRT found that a component type/model number did not match the design drawing. An example was that model numbers of installed snubbers for pipe support SI-1-090-006-C41K did not match the model number on the design drawing. (TRT Report #3, 4.A.16)

*admit*

64. The TRT found that a similar problem existed with pipe support RC-1-052-020-C41R. (TRT Report #3, 4.A.16)

*Object*

65. The TRT found that weld data *card* cards were missing QC initials for welds. An example was that support number CC-1-126-013-F33R had some welds performed with no QC inspector initials or signature on the corresponding blocks of the weld data card for that support inspection package. (TRT Report #3, 4.A.17)

*Admit*

66. The TRT found deficiencies in identification of materials and parts. An example was that a replacement part (sway strut eyerod) for pipe support CT-1-013-014-S32R had no apparent material identification either on the hardware or in the documentation package for the support. The Material Identification Log (MIL) did not list any identification traceable to the origin of the replace part. (TRT Report #3, 4.A.18)

*admit* 67. The TRT found that a similar problem existed with pipe supports CC-1-126-012-F33R, CC-X-039-005-F43R, and AF-1-035-011-S33R. (TRT Report #3, 4.A.18)

*admit* 68. The TRT found a frequently occurring number of strut and snubber load pin spherical bearing clearance with washers that were excessive (Ref. QI-QAP-11.1-28, Sec. 3.7.3.1 Rev. 25). (See Attachment 2, Table 3 Summary of Additional TRT Inspections) (TRT Report #3, 4.B)

*admit* 69. The TRT found a frequently occurring number of strut and snubber load pin locking devices (cotter pins or snap lock rings) which were damaged or missing (Ref. QI-QAP-11.1-28 Rev. 25, which did not specifically address load pin locking devices). (See Attachment 2, Table 3 Summary of Additional TRT Inspections) (TRT Report #3, 4.B)

*admit* 70. The TRT found a frequently occurring number of pipe clamp halves on load side which were not parallel (Ref. QI-QAP-11.1-28, Sec. 3.7.3.1 Rev. 25). (See Attachment 2, Table 3 Summary of Additional TRT Inspections) (TRT Report #3, 4.B)

*admit* 71. The TRT found a frequently occurring number of bolts threaded into tapped holes of snubber adapter plates that had less than full thread engagement. (See Attachment 2, Table 3 Summary of Additional TRT Inspections) (TRT Report #3, 4.B)

*admit* 72. The TRT found that a frequently occurring number of "Hilti Kwik" bolts (concrete expansion anchors) as installed did not meet minimum effective embedment criteria (Ref. QI-QP-11.2-1, Sec. 3.5.1 Rev. 16). (See Attachment 2, Table 3 Summary of Additional TRT Inspections) (TRT Report #3, 4.B)

*Admit* 73. The TRT frequently found that locking devices for threaded fasteners were missing or of a non-approved type. (See Attachment 2, Table 3 Summary of Additional TRT Inspections) (TRT Report #3, 4.B)

*Admit* 74. The TRT found undersize welds on electrical conduit supports and cable tray hangers. An example of undersize welds was that three ~~or~~<sup>of</sup> four welds on conduit support C120-21-194-3 (cable spread room) were undersized. The required weld size was 1/4" at all weld joints, while the measured weld size was 7/32" to 5/32" for the full lengths of three out of the four welds. (See Attachment 3, Table 4 Summary of Electrical Raceway Support Inspection by the TRT - Unit 1) (TRT Report #3, 4.C.1)

*Object* 75. The TRT found that cable hanger CTH 5824 (Containment Building) had <sup>12</sup>13 undersize welds. The all-around welds on the six horizontal beams should be 1/4" in size, according to details L1 and L2 on Drawing FSE-00159, sheet 5824, 1 of 2. The measured size of these welds was 3/16" to 5/32" at each connection. (See Attachment 3, Table 4 Summary of Electrical Raceway Support Inspection by the TRT - Unit 1) (TRT Report #3, 4.C.1)

*Admit* 76. The TRT found that support IN-SP-7b exhibited undersize welds measuring 7/32" to 5/32" instead of the required 1/4". (See Attachment 3, Table 4 Summary of Electrical Raceway Support Inspection by the TRT - Unit 1) (TRT Report #3, 4.C.1)

*Object* 77. The TRT found misplaced welds on hangers. <sup>a hanger</sup> An example was on hanger CTH-6742, where the TRT found that two structural welds were made in the wrong direction. The 3/16" shop welds which join MK-10 and MK-11 were made horizontally instead of



vertically, as shown on drawing FSE-00159, sheet 6742. QC Inspection Report ME-I-0024909, dated February 16, 1984, accepted all inspectable attributes as satisfactory prior to the TRT inspection. (TRT Report #3, 4.C.2)

*admit* 78. The TRT found unauthorized configuration changes on cable tray hanger CTH 5824 (Containment Building) which had been fabricated to include 40 more stiffeners and 80 more welds than required or shown on drawing FSE-00159, sheet 5824, 2 of 2, Detail L2. Inspection Report ME-1-0006155 verified final QC inspection and acceptance on January 3, 1984. (TRT Report #3, 4.C.3)

*admit* 79. The TRT found that cable tray hanger CTH-6742 (Auxiliary Building), Clip, MK-12, should be 6" x 6" x 3/4" angle stock in accordance with FSE-00159, sheet 6742. The actual flange thickness of MK-12 was 3/8". (TRT Report #3, 4.C.3)

*admit* 80. The TRT found Hilti anchor bolt installation deficiencies. An example was CTH-6742 (Auxiliary Building) anchor bolt torque which was not verified (paragraph 3.5 of the procedure). (TRT Report #3, 4.C.4)

*admit* 81. The TRT found that Hilti bolts were not marked in accordance with Attachment 1 of the procedure on CTH-6742. (TRT Report #3, 4.C.4)

*admit* 82. The TRT found that the length of the Hilti bolts was not verifiable (paragraph 3.2) on CTH-6742. (TRT Report #3, 4.C.4)

*admit* 83. The TRT found that five base plate bolt holes on CTH-5824 (Containment Building) had violated minimum edge distance -- edge distance cannot be less than 1 7/8" (Attachment 2 of the

procedure). Actual distance was 1 5/8" to 1 3/8" from the nearest plate edge. (TRT Report #3, 4.C.4)

*Admit* 84. The TRT found that one Hilti bolt on CTH-5824 was skewed to more than 15 degrees. (Maximum allowable skew was 6 degrees without corrective bevel washers (paragraph 3.1.2) (TRT Report #3, 4.C.4)

*Admit* 85. The TRT found that Hilti bolt torque on hanger CTH-6741 (Auxiliary Building) was not documented as being verified by QC (paragraph 3.5). (TRT Report #3, 4.C.4)

*Admit* 86. The TRT found inconsistency in the application of nuts for SA-325 bolts in that both standard and heavy hex nuts were used. No stipulation was found which would permit the use of standard (non-heavy) hex nuts. This condition is a potential violation of the Material Specification ASTM A325 (ASTM, Part 4-1974) paragraph 1.5, which provides that "heavy hex structural bolts and heavy hex nuts shall be furnished unless other dimensional requirements are stipulated...." B&R Drawing No. FSE-000159, sheet 5824, 2 of 2, required the use of ASTM A325 bolts for cable tray hanger number CTH-5824. (TRT Report #3, 4.C.5)

*Admit* 87. The TRT found that many problems indicative of inadequate drawing control existed at CPSES from September 1981 to April 1984. These problems had been identified prior to the TRT's evaluation by both TUEC and NRC Region IV audits and reviews. (TRT Report #3, 5.B)

*Admit* 88. The TRT found that at least between August 1983 and April 1984: *misnumber (delete)*

- 1) Drawings released to the field were not current.
- 2) Drawing and specification changes were not current.
- 3) Design documentation packages were incomplete.
- 4) The document control center did not provide the satellites with up-to-date drawings, component modification cards, design change authorizations and document revisions.
- 5) Drawings hanging from an open rack, which had no checkout control, were available to craft and QC personnel.
- 6) Design change logs were inaccurate.
- 7) Design documents were not always accounted for in the document control center.
- 8) Current and superseded copies of design documents were filed together.
- 9) Satellite distribution lists were inaccurate.
- 10) There were discrepancies between drawings contained in the satellites and those in the document control center.
- 11) Some drawings were missing from the satellite files.
- 12) Telephone requests for design documents resulted in the issuance of documents that bypassed the controlled distribution system.

(TRT Report #3, 5.B)

*Admit* 89. The TRT found that the effects of document control inadequacies prior to July 1984 have yet to be fully analyzed by TUEC. (TRT Report #3, 5.B)

*Admit* 90. The TRT found that deficiency reporting procedure CP-EP-16.3 appeared to relate only to craft and engineering personnel and was not directed to noncraft and nonengineering personnel who may have had knowledge of reportable items. Procedure CP-EP-16.3 indicated that the applicable manager was

responsible for documenting and reporting Deficiency and Disposition Reports (DDRs); but there were no checks or balances to ensure that a manager or a designated substitute would process a DDR. (TRT Report #3, 5.C)

*admit* 91. The TRT found that TUEC did not consider the CYGNA audit findings regarding the document control center as appropriate for formal reporting to the NRC pursuant to 10 C.F.R. 50.55(e), as required by procedure CP-EP-16.3, "Control of Reportable Deficiencies." (TRT Report #3, 5.D)

*admit* 92. The TRT found that the document control center issued a controlled copy stamp to the QC department to expedite the flow of hanger packages to the Authorized Nuclear Inspector. Methods for this kind of issuance and control of such stamps were not described in TUEC's procedures. (TRT Report #3, 5.E)

*admit* 93. The TRT found that 20 percent of the training records reviewed contained no verification of education or work experience. (TRT Report #3, 6.A)

*admit* 94. The TRT found that the results of Level I certification tests were used for some Level II certifications rather than the results of a Level II test. (TRT Report #3, 6.B)

*admit* 95. The TRT found that after failing a certification test, a candidate could take the identical test again. (TRT Report #3, 6.C)

*admit* 96. The TRT found that certifications were not always signed or dated. (TRT Report #3, 6.D)

*admit* 97. The TRT found that white-out was used on certification tests. (TRT Report #3, 6.E)

*Admit* 98. The TRT found that seven inspectors had questionable qualifications. (TRT Report #3, 6.F)

*Admit* 99. The TRT found that there was no limit or control on the number of times an examination could be retaken. (TRT Report #3, 6.G)

*Admit* 100. The TRT found that no guidelines were provided for the use of waivers for on-the-job training. (TRT Report #3, 6.H)

*Admit* 101. The TRT found that in some cases recertification was accomplished by a simple "yes" from a supervisor. (TRT Report #3, 6.I)

*Admit* 102. The TRT found that there was no formal orientation training for document control center personnel prior to August 1983. (TRT Report #3, 6.J)

*Admit* 103. The TRT found that the responsibility for administration of the non-ASME training program was not clearly assigned to a single individual or group. (TRT Report #3, 6.K)

*Admit* 104. The TRT found that non-ASME personnel capabilities were loosely defined by levels (I, II, III). (TRT Report #3, 6.L)

*Admit* 105. The TRT found that there were numerous additional problems in non-ASME certification testing, such as: no requirement for additional training between a failed test and the retest; no time limitation between a failed test and a retest; two different scoring methods to grade a test and a retest; no guidelines on how a test question should be disqualified; no program for periodically establishing new tests except when procedures changed; and no details on how the administration of tests should be monitored. (TRT Report #3, 6.M)



*Admit* 106. The TRT found that the exemption provision in ANSI N45.2.6, which allowed substitution of previous experience or demonstrated capability, was the normal method for qualifying inspection personnel rather than the exceptional method. (TRT Report #3, 6.N) 106

*Admit* 107. The TRT found that installation of certain butt-welded valves in three systems required removal of the valve bonnets and internals prior to welding to protect temperature-sensitive parts. The three systems involved were the spent fuel cooling and cleaning systems, the boron recycle system, and the chemical and volume control system. This installation process was poorly controlled in that disassembled parts were piled in uncontrolled areas, resulting in lost, damaged, or interchanged parts. This practice created the potential for interchanging valve bonnets and internal parts having different pressure and temperature ratings. (TRT Report #3, 7)

*Admit* 108. The TRT found that the scrap and salvage pile in the fabrication (fab) shop laydown yard was not identified and did not have restricted access. (TRT Report #3, 8.A)

*Admit* 109. The TRT found that material requisitions prepared in the fab shop did not comply with the applicable procedure. (TRT Report #3, 8.B)

*Admit* 110. The TRT found that the fab shop foremen were not familiar with procedures that controlled the work under their responsibility. (TRT Report #3, 8.C)

*Admit* 111. The TRT found that fabrication and installation procedures did not include information to ensure that B&R-

fabricated threads conformed to design specifications or to an applicable standard. (TRT Report #3, 8.D)

*Admit* 112. The TRT found that indeterminate bulk materials that accumulated as a result of site cleanup operations were mingled with controlled safety and nonsafety material in the fab shop laydown yard. (TRT Report #3, 8.E)

*Admit* 113. The TRT found that site surveillance of material storage was not documented. (TRT Report #3, 8.F)

*Admit* 114. The TRT found that work in the fab shop was performed in response to memos and sketches instead of hanger packages, travelers, and controlled drawings. (TRT Report #3, 8.G)

*Admit* 115. The TRT observed that not all snubbers were wrapped with protective covering when welding was being done in close proximity to them. This practice was a violation of B&R procedure CP-CPM-14.1, which required protection of installed equipment during welding. (TRT Report #3, 9.B)

*Admit* 116. The TRT found that the TUEC procedure for preparation and processing of NCRs did not contain explicit instructions for handling voided NCRs. (TRT Report #3, 10.A)

*Admit* 117. The TRT found that NCRs were used as a tracking document to record removal of a part from equipment on a permanent equipment transfer rather than for reporting a non-conforming condition; such usage of the NCR was not defined in procedures. (TRT Report #3, 10.B)

*Admit* 118. The TRT found that there was an inconsistency between paragraphs 2.1 and 3.2.1 in procedure CP-QP-16.0. Paragraph 2.1 required all site employees to report nonconformances to their

supervisor or to the site QA supervisor, while paragraph 3.2.1 required persons other than QA or QC personnel to submit a draft NCR to the Paper Flow Group. (TRT Report #3, 10.C)

*Admit* 119. The TRT found that the NCR form had no form number or revision date to indicate that the form was being adequately controlled. (TRT Report #3, 10.D)

*Admit* 120. The TRT found that there were two versions of the TUEC NCR form, one with and one without a space for the Authorized Nuclear Inspection (ANI) review. (TRT Report #3, 10.E)

*Admit* 121. The TRT found that the NCR form had no space to identify the cause of the nonconformance and the steps taken to prevent its recurrence. (TRT Report #3, 10.F)

*Admit* 122. The TRT found that the NCR form had no provision for quality assurance review. (TRT Report #3, 10.G)

*Admit* 123. The TRT found approximately 40 different forms (other than NCRs) for recording deficiencies. Many of these forms and reports were not considered in trending nonconforming conditions. (TRT Report #3, 10.H)

*Admit* 124. The TRT found the material traceability was adequate for those 33 pipe supports, with the exception of four material identification discrepancies out of 33 pipe supports checked (as noted in section 4 on as-built inspections). (TRT Report #3, 11)

*Object* { 125. The TRT found that TUEC failed to maintain material traceability for safety-related material and numerous hardware components. (TRT Report #3, 11) *not so! look as below*

126. The TRT found that a QA breakdown in material traceability maintenance for safety-related material and hardware components was reported to TUEC in an ASME Code survey in October

*should be combined to repeat last para on pg 25 of 1-8 letter.*

1981 yet was not reported to the NRC in accordance with the requirements of 10 C.F.R. 50.55(e). (TRT Report #3, 11)

Respectfully submitted,

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