

Inspection Summary:

Inspection Conducted: June 8 through July 6, 1988 (Report 50-445/88-46; 50-446/88-44)

Areas Inspected: Unannounced, resident safety inspection of applicant's actions on previous inspection findings, follow-up on violations/deviations, follow-up on NRC Compliance Bulletin 87-02, Comanche Peak Response Team (CPRT) issue-specific action plans (ISAPs) VII.b.2, Corrective Action Program (CAP) for Mechanical and for Conduit supports A & B Train and C Train > 2", and general plant areas (tours).

Results: Within the areas inspected, the NRC inspectors identified no significant strengths or weaknesses during the inspection. Two violations (failure to provide documented instructions, paragraph 6.a, and failure to adequately document existing conditions, paragraph 6.b) were identified.

DETAILS1. Persons Contacted

- *R. P. Baker, Licensing Compliance Manager, TU Electric
- *J. L. Barker, Manager, Engineering Assurance, TU Electric
- *M. R. Blevins, Manager, Technical Support, TU Electric
- *J. T. Conly, APE-Licensing, Stone and Webster Engineering Corporation, (SWEC).
- *W. G. Council, Executive Vice President, TU Electric
- *G. G. Davis, Nuclear Operations Inspection Report Item Coordinator, TU Electric
- *D. E. Deviney, Deputy Director, QA, TU Electric
- *W. G. Guldmond, Executive Assistant, TU Electric
- *P. E. Halstead, Manager, Quality Control (QC), TU Electric
- *T. L. Heatherly, Licensing Compliance Engineer, TU Electric
- *R. T. Jenkins, Manager, Mechanical Engineering, TU Electric
- *S. D. Karpyak, CPRT, TU Electric
- *J. J. Kelley, Manager, Plant Operations, TU Electric
- *O. W. Lowe, Director of Engineering, TU Electric
- *J. W. Muffett, Manager of Civil Engineering, TU Electric
- *D. M. Reynerson, Director of Construction, TU Electric
- *M. J. Riggs, Plant Evaluation Manager, Operations, TU Electric
- *C. E. Scott, Manager, Startup, TU Electric
- *J. C. Smith, Plant Operations Staff, TU Electric
- *S. L. Stamm, Project Engineering Manager, SWEC
- *P. B. Stevens, Manager, Electrical Engineering, TU Electric
- *C. L. Terry, Unit 1 Project Manager, TU Electric
- *J. R. Waters, Licensing Compliance Engineer, TU Electric
- *C. E. Watters, QA Program Manager, SWEC

The NRC inspectors also interviewed other applicant employees during this inspection period.

*Denotes personnel present at the July 6, 1988, exit meeting.

2. Applicant's Action on Previous Inspection Findings (92701)

(Closed) Open Item (445/8516-O-51): During a reinspection of Inspection Package I-S-COSP-046 for Unit 1 Conduit Support C03G09956-04, which was witnessed by the NRC inspector, Evaluation Research Corporation identified that there was a 1/8-inch gap between the unistrut base and the wall. Subsequent to this reinspection activity, it was determined that conduit C03909956 and its supports had been deleted by Document Change Authorization (DCA) 21297, Revision 0. The NRC inspector reviewed the DCA to confirm that the conduit was no longer required and inspected Room 173 to ensure that the action required by the DCA had been completed. This item is closed.

3. Follow-up on Violations/Deviations (92702)

(Closed) Violation (445/8626-V-08, 446/8622-V-05): The NRC inspector identified that, with respect to position limitation and qualified material thickness ranges, Bahnson Service Company's welder performance qualification records dated March 1979, June 1981, and March 1983 certify their welders as being qualified in more positions and material thickness ranges than allowed by the reported number of test results.

TU Electric responded to the violation by issuing Nonconformance Report (NCR) CM-87-3541 which was dispositioned use-as-is with the following reason:

The contractor of record, Bahnson, did not fill out all test results on the Welder Qualification Record for bend test results (i.e., 2G, 3G, and 4G). A letter (BSC-EB-054) from Bahnson states that all test positions were tested in accordance with ASME Section IX.

The same letter (BSC-EB-054, attached to the NCR) continues on to state that welders that qualified in the 4G position are automatically qualified to the 1G position. This is in compliance with ASME Section IX. Thickness range should read 1/16" - 1/2" groove welds, unlimited thickness fillets. (See QW303.1 in ASME Section IX.) In addition, TU Electric states that there is a new architect engineer and contractor on site, and all field welds are to be reevaluated and reworked as required.

The NRC inspector reviewed approximately 50 welders Qualification Records for the period from 1978 to 1984, reviewed ASME Section IX, and during the period from March 1987 to present, interviewed Bahnson's Engineering Assurance staff and interviewed several Bahnson welders. As a result of the NRC inspector's reviews and interviews, the NRC inspector feels that both Bahnson's welder position limitations and the Welder Qualification Records meet the intent of the ASME Section IX Code.

This violation is closed.

4. Follow-up on NRC Compliance Bulletin 87-02 (25026)

(Closed) NRC Compliance Bulletin 87-02 pertains to testing of fasteners to determine conformance with applicable material specifications. In response to a concern raised by the Industrial Fastener Institute, NRC had testing performed on a small sample of fasteners collected at various nuclear plants. Results of this testing indicated that 11 out of 32 fasteners tested did not meet specification requirements. This data,

along with data provided by Baltimore Gas and Electric which demonstrated a similar reject rate, resulted in the issuance of this NRC compliance bulletin.

The bulletin required the applicant to provide a description of their program with respect to receipt inspection and internal control procedures for fasteners. Further, it required that a minimum sample of 10 safety-related and 10 nonsafety-related fasteners (studs, bolts, and/or cap screws), and a like number of nuts which would be used for each of the sampled fasteners, be selected for independent testing. These samples were to be selected from current, in use, stock with the participation of a NRC inspector. The testing was to be performed in accordance with the requirements of the applicable fastener's specification, grade, and class. The results of all tests, including supporting information and any safety-significance evaluations that were required, were to be reported to the NRC.

NRC participation of the selection of fasteners to be tested in response to Bulletin 87-02 was documented in NRC Inspection Report 50-445/87-35; 50-446/87-26. A total of 20 safety-related fasteners, 12 safety-related nuts, 10 nonsafety-related fasteners, and 10 nonsafety-related nuts were selected with the following material types/grades: A-193 Grade B7; A-193 Grade B8; SAE-J429; A-307; A-325; A-325 Type 1, 2, and 3; A-354 Grade BD; A-490; A-320; A-194 Grade 2H; A-194 Grade 7; A-563; A-563 Grade C; A-563 Grade D; A-540; and A-453 Grade 660.

Testing for these fasteners was performed by Southwestern Laboratories under the applicant's Purchase Orders CPF-35104 (nonsafety) and CPF-14524-S (safety-related).

On February 11, 1988, the applicant issued a notarized response to this bulletin which documented the CPSES procedures establish quality requirements and controls to ensure that material, parts, and equipment used in safety-related applications are receipt inspected, controlled, stored and issued from stock in accordance with applicable codes, standards, specifications, and purchase requirements.

The NRC inspector reviewed procedures for receiving inspection, storage, identification, control, and issuance of safety-related as well as nonsafety-related items, and verified that the necessary characteristics are adequately reviewed, inspected, and controlled.

As part of the response, the applicant provided the results of all the tests performed by Southwestern Laboratories. These results indicated that all but seven of the fasteners and nuts met the requirements of the material specifications in effect

at the time of the test. Two of the nonconformances were for deviations in chemical content, and the remainder of the deviations were for differences in tensile strength or hardness (which can be converted to an approximate tensile strength value). As required by this bulletin, the applicant performed an evaluation of the safety significance for each of the items found out-of-specification. The results of these generic evaluations were that the fasteners and nuts which did not meet specification would have still been able to fulfill their function had they been installed.

The NRC inspector reviewed the test results and safety significance evaluations and finds that the conclusions arrived at are reasonable and concurs with the stated conclusions that internal controls are adequate to ensure the integrity of and operability of safety-related systems. This item is closed.

5. Applicant's Action on Issue-Specific Action Plans (ISAPs)(48063)

The following CPRT ISAP VII.b.2, Valve Disassembly, activities were inspected during this report period:

Perform an Analysis to Determine the Safety Consequences of Improperly Assembled Valves (NRC Reference 07.b.02 03)

The Results Report states, in part, "While the potential for switching non-ASME and ASME code class bonnets did exist, there is no implication that switching of non-ASME and ASME valve bonnets could be safety-significant."

The NRC raised questions as to how the results report considered the difference between non-ASME and ASME code requirements with respect to various items which are detailed in NRC Inspection Report 50-445/86-07 and are the subject of Unresolved item 445/8607-U-27. The applicant provided additional information in response to this unresolved item. This information was contained in a letter from the manufacturer of the valves in question explaining the basic differences in the manufacturing process and of material certification of non-ASME and ASME code class bonnets. This data was reviewed by the NRC inspector and the results of that review are documented in NRC Inspection Report 50-445/88-32. It states that the additional information presented does not support the Results Report conclusion relative to safety significances.

No violations or deviations have been identified to date. No further NRC inspection is planned for this reference item. The unresolved item will be closed upon receipt of the applicant's acceptable response.

6. Corrective Action Program (CAP)a. Mechanical (50073)

CPRT evaluation of reinspection results determined that a special case exists for the configuration of manway covers. This special case resulted in CPRT recommending that TU Electric incorporate the guidance and recommendations, as appropriate, from Westinghouse Technical Bulletin 87-01 into procedures for installing manway covers and similar closures on vessels supplied by the NSSS vendor.

The NRC inspector reviewed the revised installation procedure for the steam generator secondary side manway closure installation, Mechanical Maintenance Instruction (MMI) 904, Revision 3 dated October 21, 1987, and witnessed installation of the Unit 2 steam generator No. 4, secondary side manway closure. NRC verifications included but were not limited to the following:

- . Compliance with cleanliness requirements established by Procedure STA-612.
- . Compliance with housekeeping requirements established by Procedure STA-607.
- . Proper completion of work order and quality control inspection documentation.
- . Compliance with installation requirements established by the NSSS vendor.

The NRC inspector noted that MMI-904, Revision 3, requires a three-step torque sequence (i.e., 125 ft/lbs, 300 ft/lbs, and 450 ft/lbs). After the third sequence, the MMI requires the removal of one bolt at a time, relubrication, and retorquing to the second incremental value. After all of the bolts have been relubricated and torquing to the second incremental value, the MMI requires torquing of the bolts to the third incremental value.

The NRC inspector questioned project personnel concerning the MMI's compliance with the NSSS vendors recommendations. Westinghouse Technical Bulletin NSID-TB-87-01 requires the removal, relubrication, and retorquing of each bolt after the third incremental torque pass. However, the technical bulletin specifies that the retorquing after relubrication be performed to the third incremental value.

The NRC inspector identified to project personnel that the MMI, as written, allows a release of torquing compression on the flexatallic gasket when performing relubrication and retorquing to the second incremental value. This is not in accordance with the Westinghouse Technical Bulletin or common industry practice and may cause leakage around the gasket sealing surface. Common industry practice is to discard and replace flexatallic gaskets after one full compression has been achieved.

The NRC inspector contacted the mechanical maintenance engineer responsible for Revision 3 of MMI-904 and was informed that the requirement to retorque to the second incremental value after relubrication was probably an oversight during the procedure revision process.

The failure to provide documented instructions appropriate to the circumstances and ensure work activities have been satisfactorily accomplished is a violation of Criterion V (445/8846-V-01; 46/8844-V-01).

As a result of the NRC inspection finding, the applicant has issued NCR 88-10921, Revision 0, to document the nonconforming flange installations and Deviation Report (DR) P-88-03387 to document the deficient installation procedure.

b. Conduit Supports A & B Train and C Train > 2" (48053)

During this inspection period the NRC inspector selected a sample of 12 modifications to conduit supports in Room 133 - cable spread room - in the electrical control building. These supports were modified as a result of the design verification phase of the post construction hardware validation portion of the CAP and had been inspected and accepted by QC. Listed below are the supports that were inspected:

IN-C04G31220-51
 C13K14134-08
 C14K06416-02
 C15R11114-51
 IN-C13O07898-52
 C13G13637-01
 IN-C15B10771-51
 IN-C02O11932-06
 IN-C13G16982-51
 IN-C12G13056-10
 IN-C14Y11219-20
 IN-C13O20344-05

These conduit supports were inspected in accordance with the detail drawing provided with the design change authorizations that were issued to craft and NQA - 3.09-2.03, Revision 3. Results of the NRC inspection were compared to the inspection criteria in Specification 2323-SS-16B, Appendix B, Section III, "Conduit Supports" and Quality Assurance Procedure NQA 3.09-10.01, "Requirements for Visual Weld Inspection." The NRC inspection for the conduit supports listed above resulted in the following discrepancies:

- (1) On support No. IN-CO4G31220-51, the drawing locates this support 4' - 1" south of the centerline of column No. 3703, the NRC inspector measured this dimension to be 3' - 8". The tolerance for this measurement, provided in SS-016B, is +/- 3" based on the tolerance for span lengths.
- (2) Also, on support No. IN-CO4G31220-51, the design drawing requires two flare bevel groove welds and two 1/4" fillet welds between a section of 3" x 3" structural tubing and the existing structural framing. This weld connection is required at both of the support's connections to the building structure. However, the NRC inspector's review revealed that the 1/4" fillet welds were missing and this condition was not noted by the QC inspector.

The failure to adequately document existing conditions is a violation of Criterion V (445/8846-V-02).

7. Plant Tours (92700)

- a. On June 24 and June 25, 1988, the NRC inspector accompanied Mr. J. Doyle, a representative of CASE, on a plant tour of CPSES conducted by the Director of Projects and other site management personnel. The purpose of Mr. Doyle's visit was to tour the plant and related facilities, view corrective actions resulting from design and hardware validation, and ask questions related to implementation and adequacy of those corrective actions. Management representatives from SWEC, Ebasco, and Impell presented Mr. Doyle an overview and detailed explanation of their respective site responsibilities.
- b. The NRC inspectors made frequent tours of Unit 1, Unit 2, and common areas of the facility to observe items such as housekeeping, equipment protection, and in-process work activities. No violations or deviations were identified and no items of significance were observed.

8. Exit Meeting (30703)

An exit meeting was conducted July 6, 1988, with the applicant's representatives identified in paragraph 1 of this report. No written material was provided to the applicant by the inspectors during this reporting period. The applicant did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection. During this meeting, the NRC inspectors summarized the scope and findings of the inspection.