

NUCLEAR REGULATORY COMMISSION 7. C. (1) 11 RYAN PLAZA DRIVE, SUITE 1000 ARLINGTON, TEXAS 76012

FACSIMILE TRANSMITTAL

DATE/TIME 12-18-85	PRIORITY: IMMEDIATELY 1 HOUR
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PECIAL INSTRUCTIONS/ATTACHMENTS(S	- Here is the
	eport on Protective Coatin
Review and comme	at it any.
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FRANSMITTED & VERIFIED BY:	DISPOSITION: RETURN TO ORIGINATOR
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Protective Coatings

The purpose of this inspection is to determine if the implementation of the protective coatings program since declassification is an adequate program to assure good will mendup quality which enhances integrity of the roating systems.

Procedures/Specification

The NRC inspector reviewed protective coatings procedures and specifications utilized at CPSES to determine if the procedures/ specifications contained adequate technical criteria and instructions to assure accomplishment of important activities.

The reatings procedures have been condense considerably but have more consistency and clarity.

Procedures contained all performed inspection altributes and toler-nees. The specification backedly referenced the procedures or manufacturer's commendation.

broadures seviceed by the No imposter descrabed the cultawings

- Publification and training of personnel who implement the program to ensure quality and workmanship.
- . Reinspection of concrete and Steel with missing or discrepant decimentation.
- . Test methods and instructions of
- . Hetheds for records to be completed, reviewed, tracked and maintenned.
- . Adequate respection afterheles
- . Directs parents.
- . Actoplance tratemas for repeat

Procedures reviewed that used coating systems which deviated clightly in milage thickness were approved by the manufacturer.

In summary the review of the protective roatings procedures after the TRI review indicates a more comprehensive instruction which is condense but contains adequate technical criteria and is more stringent than the old procedures in some cases.

No violations or devictions were identified.

Procedures Feviewed

Chilb 14.2, "Engineering Verit; ation of Protective Coatings Applied to

Steel Surfaces, " revision 1, dated 7-25-05

- CU-TE-14.3, "Engineering Varification of Protective Coatings Applied to Concrete Surfaces," revision 2, dated 10 22 85
- CF_FF-19.3. "Ingineering Verification of Commente Costings with Missing or Discrepant Documentation," revision 1. dated 10-31-05
- CP CF-14.8, "Engineering Verification of Steel Coatings With Missing or Discrepant Documentation," revision 1, dated 10-31-85
- CCP-40. "Protective Coaling of Concrete Surfaces," revision 9, dated 6 17-85
- CCP-39. "Application of Protective Coatings to Carbon Steel Surfaces Inside Containment," revision 14, dated 6-17 R5
- If EF-14.4. "Completion, issuence and Control of Engineering Verification in velocity," revision U. dated to 12-18.
- (4-15 11.1. "Punitication and Training of Conting Field Engineers."
- TEAT 14.7. "Themster Odiesion Testing," revision O. dated of 13-85
- CE: EE: 16.0. "Engineering Verification of Containment Coating Work." revision of dated 5 17 33
- CF-CF 14.5, "Coating Deliciemry Reporting," revision 0, dated 6-13-95
- (DrEP-6.2. "Review and Approval of Engineering Procedures for Verification of Protective Coating Work Inside Containment," revision 0, dated 2-01-85
- "Apprished too 2000 April. "Protective Coutings," revision 4. dated 6-7-85
- LF CF 14.6. "Engineering Verification of Coating Storage and Hendling," revision 0, dated 6-13-65

130 SET VALLOD

The NSG inspector observed completed work and work in progress in Unit 2 sociains at the iding. The areas elserved were the following:

- to Pres or Room #11 (in process final Inspection)
- (2) Stram Scator Compertments Hoom 26 and 29 (surface propersyson)
- (3) Election Chaft room 30 (surface preparation)
- (4) R. m. A. Concrete and Steel liner, approximate asimuth 127 to such 151 bd., fl 860' to El 705' (final inspection and face preparation in process)

- (5) Fabrication Shop (In process final on miscellaneous steel)
- (6) Faint Storage Building

their of the work observed by the MhC tospector was surface propagation of their and concrete in process. There was some completed concrete epplication in room 21 and some in process final application of miscellaneous structural steel at the tabrication shop.

Application and proparation methods observed by the NEC inspector indicated good standard industry practices.

The coating field inspectors were present at the place of the activity or in the immediate vicinity. They were notified by the Craft at various hold points. Craft and field coating engineers observed and interviewed by the NRC inspector appeared to be knowledgeable of what they were doing. If also appears that a good working relationship between coating field enamers a and craft personnel enist.

The 46th trepertor class territor the parist everyor was chouse for proper standard. Content at a content of was matrixatived in specify. Stady to the extension are property.

He violation or deviations were identified.

Burneds

Protective Costings Paper Flow Group (FEG)

The purpose of the PFG is to establish a method of initiating, preparing, issuing, tracking, logging, and controlling protective coatings travelers and associated supporting documentation for the verification of coatings activities.

the NRL inspector reviewed protective coalings travelers to determine if the records were adequate, complete, legible, easily retrievable and documented in accordance to site procedures. In addition, the NRC inspector compared the completed and in process travelers to the PfD tracking system to determine if the tracking system was accurate. The computer printout is used for the tracking system, listing the traveler number, package number, unit, area code/room number, any cutstanding coating deficiency reports and the traveler status.

Records reviewed were legible, easily retrievable and complete in accordance to site coatings procedures. Review of Unit 2 coatings record tracking system by the NRC inspector indicated that the system at CFSES now, is a very reliable and accorate tracking system. The tracking system is updated on a daily basis.

The NEC imprector also reviewed in process travelers in the field. There was one minor isolated discrepancy note in traveler 2-21-0.

however, it was brought to the attention of the foremen to be corrected. The discrepancy was a signature in the wrong block. All other travelers reviewed indicated no discrepancies.

West the facility revieweds

27-27	1			2524 0
2 21				2 21 N
2-21				7-21-B
2 11				71-A1
500 13	P.		*	문 없다

* Note: Worl packages contained more than one traveler inside.

No violations or desiations were identified.

learning.

Ecoting field ingineers are quelified in accordance to site procedure of alternations. About 65.2.6 is no imager applicable once the declaration of protection and implicable of protection and implicable operations and large large teaching.

- Promises of one and one half (1 1/2) years esperience in the inspection and documentation of protective costings perform a notion for the first factors of t
- . thall be physically capable of performing the assigned tasks.
- Shall have natural or corrected near distance visual activity such that they are capable of reading J-1 letters on a standard Jerger 1. Chart.

three substitutes are given classroom instruction on all costing proceeders, and a professors less, for all instrumentation used to partie a the inspections. The Comings Field Supervisor evaluates the professors of the inspection on the use of the instruments.

the NHC inspector reviewed approximately eight Coalings Field Engineering records. Coating Field Engineers records reviewed indicated that they were qualified in accordance to site procedures.

Majority of the Coating Field Engineers qualification records reviewed by the MRC inspector indicated that they had been qualified or certified to ANSI 45.2.6 before declassification of Protective Coatings.

The NRC inspector did not review craft (painters) qualification become during the TRI's review, they stated that the crafts qualifications were adequate.

No violations or deviations were identified.

Calibration

The NRC imspector reviewed calibration records of two Elecometer Adhesion testers and four DFT gauges. Records indicated that the instruments were calibrated at their proper intervals. No discrepancies were noted.

The MPC inspector reviewed two procedures, one for the ralibration of the filternator spherion tester and the other for calibration of bli gauges. Both instruments were calibrated to an accuracy of 1/ 10%. The cratings field empineers procedures for minimum adhesion readings for the Electmeter Adhesion lester is more conservative than required.

Decuments reviewed

· Propertures

Hills, "Calibration of Drf Gauges," revision 5, dated 3-11-05 Hills, "Calibration of Adhesion Testers," revision 3, dated 2-77-84

. Cathrogator territor

155 (E. 6 74) 155 (E. 8, 904 DFT Georges.

MESTER RESPONDE

PR-TE #4/57/5

MN II BLV

No violations or deviations were admittage.

ALLER REquired of THEC (NURLE 0277 Supplement No. 9)

The NSC inspertor reviewed the status of actions required by HMC related to the IKI findings in NUKLG-0797, Supplement No. 9, page M 12.

(1) Darlit tour Programs

The TRC inspector reviewed the data cultecton in the flometer calibration correction to the data for adhetion tests covering miscellaneous size! Items in that I & 2. The data is complete but has not been finalized into report form for cubmittel to TRC for review.

(2) Traceability

This category deats with NCE's which provide "use as is" dispositions for discrepant coatings materials with inadequate technical distification for the disposition.

the action required for this category has been completed by the licenses and submitted to Mr. Vince 5. Noonan, Director of Nuclear Reactor Regulation, dated November 18, 1985, letter TXX 4613 for review.

(3) Costinus Presedures

The TRI tound deficiencies in procedures and instruction for costing work and related inspection activities during the construction phase, which rendered them inappropriate or inadequate for determining satisfactory accomplichment of important activities—the JEL also found that the procedure covers and epochatic years anadequate to detect and correct their didetal founds.

The NMC importor's review of this estegery indicates that IULG has revised their coating procedures for the construction phase of their 2 and reinspection activities of Unit 1 to include inspection attributes for determining satisfactory accumplishment of important activities. CF-EF-5.2 has been established to assure that procedures and instructions are reviewed and approved by technically qualified individuals to assure consistency and clarity.

Lister IXX data, data Movember 18, 1985, was submitted to Mr. Vince Namen. Director of No Trar Featter Regulation actioning the real one currentlance program (or operation).

the Cartings Engine Log -

the compact on up between treat of additional above to be control on the exempt tog. On 2 exempt tog is current and op to date. However, that a will not have as much enterior to exempt log, because if the leading is described, it will be completed on repaired, that i's estimate will be completed entered on the exempt tog when the backett fest Programmer.

however, it was brought to the attention of the foreman to be corrected. The discrepancy was a signature in the wrong block. All other travelers reviewed indicated no discrepancies.

Work packages reviewed:

. 2-21-F . 2-21-0 . 2-21-N . 2-21-H . 2-21-E . 2-21-AJ . 2-21-6

Note: Work packages contained more than one traveler inside.

restate The NAC in spectron & records training wends for

cating Field Engineers are qualified in accordance to site procedure F-EP-14.1, revision O. ANSI 45.2.6 is no longer applicable since the eclassification of protective coating a larger, a beginning coating teld Engineer must have the following qualification requirements:

- . Minimum of one and one half (1 1/2) years experience in the inspection and documentation of protective coatings work at a nuclear facility
- . Shall be physically capable of performing the assigned tasks.
- . Shall have natural or corrected near distance visual activity such that they are capable of reading J-1 letters on a standard Jaeger's Chart.

these inspectors are given classroom instruction on all coatings rocedures, and a proficiency test for all instrumentation used to erform the inspections. The Coatings field Supervisor evaluates the roficiency of the inspection on the use of the instruments.

the MRC inspector reviewed approximately eight Comings Field Engineering sconds. Posting field Engineers records reviewed indicated that they are qualified in accordance to site procedures.

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Ne NRC inspector did not review craft (painters) qualification because pring the TRT's review, they stated that the crafts qualifications were proquate.

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Kspelling

The NRC inspector reviewed calibration records of two Elecometer Adhesion testers and four DFT gauges Records indicated that the instruments were calibrated at their proper intervals. No discrepancies were noted.

The NRC inspector reviewed two procedures, one for the calibration of the Girameter Adhesion tester and he other for calibration of DIT gauges. Both instruments were calibrated to an accuracy of 1/- 10%. The cratings field engineers procedures for minimum adhesion readings for the Elecometer Adhesion Tester is more conservative than required.

Dockoodtet caxtemed

/ Proceduces

JEI-15, "Calibration of DFT Gauges, revision 5, dated 3-11-82 and JEI-35, "Calibration of Adhesion Teaters," revision %, dated 2-27-84

L-follows Tour Test the

METE #2904)

THE WAR

METE #4353,

METE 112009, and METE 112923 1

No violations or deviations were identified.

Action Required of TUEC INTREG - 1777 Supplement No. 9)

The NEC inspector reviewed the status of actions required by TUEC related to the TRT findings in NUREG-0797, Supplement No. 9, page M-13.

(1) Backfit Jest Ecopram - 5

speeling

The NRC inspector reviewed the data callected for the Elemeter calibration correction to the data for adhesion tests covering miscellaneous steel items in Unit 1 & 2. The data is complete but has not been finalized into report form for admittal to NRC for review.

(2) LASSAPHILLY -5

norinformance regents

This category deals with NCE's which provide "use at is" dispositions for discrepant coating materials with inadequate technical justification for the disposition.

The action required for this nategory has been completed by the licensee and submitted to Mr. Vince S. Noonan, Director of Nuclear Reactor Regulation, (dated November 18, 1905) history (TXX-4613) to review.

(3) Costions Procedures -

FROM US NRC RIU STP C 12/16/85 15:31 P.

The TRI found deficiencies in procedures and instruction for coating work and related inspection activities, during the construction phas, which rendered them inappropriate or inadequate for determining satisfactory accomplishment of important activities. The 181 also found that the procedure review and approval system was inadequate to detect and correct these deficiencies.

TUGEO The NRC inspector's review of this category indicates that TUEG-has revised their coating procedures for the construction phase of Unit 2 and reinspection activities 24 Unit 1 to include inspection attributes for determining satisfactory accomplishment of important ectivities. CF-EF-6.2 has been established to assure that procedures and instructions are reviewed and approved by technically qualified individuals to assure consistency and clarity.

TU660 Letter TXX-9613 Arate November To 1965 Was not mitted to Mr VIACE NORMAL DIRECTOR AT NUMBER PORCEOF REQUIRECTOR DULL I TO FACE the coalings surveillance program for operations.

(4) Coatings Evempt Log

the number of Tiel request on supdated estimate of additional stems to be entered on the exempt log. Unit 2 exempt log is current and up to date. However, Unit 2 will not have kt 4 will be exempt log because the coating to beficient the will be reworked or repaired. Unit 1's perimate will be complete and entered on the exempt log which the backett Test Program data is complete, an estimal will be entered into the exempt log-

No violations or deviations were identified.

FILE NAME : REPORT.14 HUAC RUDIT

DECEMBER 28, 1985

There are no problems with the audit trail from hardware to documentation. More work can be performed on this audit in the area of assembly, weld, and component documentation.

During the audit, MUAC components in Unit 2 were inspected for identification markings which were a permanent part of the component. These markings or (identification from a drawing) drawing component identifications were then used to identify unique documents which traced the component markings to test reports and other documentation which described how that component was manufactured.

The CPSES does not have Safety Class 1, Seismic Category I HUAC components. The highest classification is Safety Class 2, Seismic Category I.

The components inspected during this audit are part of the Reactor Containment Boundary. They are passive components which serve to contain any radioactive materials which can become airborne during abnormal reactor operations.

The following identifies the contents and backup material in aftached REPORT.18:

1. Appendix A documents and identifies the areas in the HURC systems where the CPRT effort and I spection Module Form Overlapped Tourish is in the inspection of As Installed Equipment. The equipment is:

Seismic Support for Ductwork Ductwork Isolation Dampers Fans and Motors Filters

- Appendix B documents the Safety Classifications and Seismic Categories of the HURC system. All components and equipment are of Safety Class 2, Seismic Category I or less.
- Appendix C documents the field audit of the components on the inside and outside of five penetrations which are part of the Reactor Containment boundary.
- 4. Appendix D documents the Audit Trail from the Unit 2 Reactor Containment to the Unit 2 Document Control Center. A total of seventeen items are traced to their respective documents.

The remaining audit items are pipe and weld identification which was documented in the field. The Unit 2 DCC computer was down on the last day. 12/28/85, I was on site, so these items could not be traced.

APPENDIX A

The audit began with a review of Inspection Module 50100, from the Inspection and Enforcemer Manual. The NRC is also performing and audit of the wo. being performed as a result of the CPRT. A review of this audit was performed using the following documents;

ERC QA/QC-RT-859
ERC QA/QC-RT-981
QI-023 Rev 1
QI-024 (This document was not available as of 12/23/85)
QI-035 Rev 0
QI-036 Rev 0
QI-039 Rev 0
QI-040 Rev 0

The review was undertaken to determine how much of the work performed by the CPRT audit could be applied toward credit in the performance of IP module 50:100.

Specific statements of audit instructions in the module were identified and documented. A search for similar statements in the ERC Instructions was then made to determine where credit for the module audit can be taken from the NRC audit of the CPRT. The following table identifies where the two audits overlap.

I E MANUAL

50100-024c In this paragraph the following table identifies where the procedure overlaps the NRC audit.

Locat	Config	Ident	CPRT Audit Items
yes	yes	no	QI-035, Rev 0, 5.1.A, 5.2
yes	185	yes	QI-039, Rev 0, 5.1
yes	yes	yes	QI-023, Rev 1, 5.1, 5.2, 5.3
yes	yes	Yes	QI-023, Rev 1, 5.1, 5.2, 5.3
yes	yes	yes	QI-023, Rev 1, 5.1, 5.2, 5.3
	yes yes yes yes	yes yes yes yes yes yes	yes yes no yes yes yes yes yes yes yes yes yes

APPENDIX 3

The following statements are from the FBAR, and are used in this audit to establish which HUAC items or components are Safety Class 1 and Seismic Category 1.

- A. Control Room HUAC and filtration systems equipment rooms
- 1. page 9.4-2. The system is equipped with four modular air-conditioning units. Each pair of air-conditioning units is powered from an independent Class IE bus and is physically separated by a dividing fire wall...
- 2. page 9.4-3, All dampers are set to fail in the safe position or are provided with separate, bottled air supplies for emergency operation.
- 3. page 9.4-3, All control values and dampers are equipped with manual operators at accessible locations ...
- 4. page 9.4-3, System components and ductwork are of seismic Category I and ANS Safety Class 3 design ...
- B. Spent Fuel Pool Area Ventilation System

1.page 9.4-13, emergency fan coil units are located in the spent fuel pool cooling pump room ...

- 2. page 9.4-13, emergency fan coil units are supplied with chilled water from the safety-related chilled water system.
- 3. page 9.4-14. Each emergency fan coil unit is interconnected with the same Class 1E bus as the equipment it serves.
- 4. page 9.4-17, The Fuel Building air exhaust ductwork is ANG Safety Class 3 and seismic Categor; 1.
- 5. page 9.4-17, The emergency fan coil units, which are located in the safety related pump rooms, are seismic Dategory I and RNS Safety Class 3.
- C. Auxiliary Building and Radwaste Area

1.page 9.4-16, The ductwork layout is arranged so that in areas where airborne radioactivity may be present, airflow is directed from areas of lower potential radioactivity toward areas of higher potential radioactivity.

- 2. page 9.4-19, Each emergency fan coil unit is interconnected so that it starts with the equipment it serves.
- 3.page 9.4-21, The exhaust system is seismic Category I up to the fan discharge.
- 4. page 9.4-21, The air supply system is seismic Category I except for the fams and the dampers which are seismic Category II.
- D. Engineered Safety Features Ventilation System
- 1. page 9.4-27, At least one ESF exhaust fan is automatically energized from its Class 1E bus following a LOCA: ...
- 2. page 9.4-27, ... each of the pump compartments is equipped with emergency fan coil units ... which is powered from the same Class 1E buss as the equipment it serves.

- 3. The auxiliary cooling units are supplied with chilled water from the safety-related chilled water system ...
- 4. page 9.4-29, The exhaust system, cooling units, and safety features chilled water system are of seismic Category I and RNS Safety Class 3 design.
- E. Containment Ventilation Systems

Containment Recirculation and Cooling System CRCS
Control Rod Drive Mechanism Ventilation System CRDMUS
Neutron Detector Well Cooling System NDWCS
Containment Process Filtration CPF

- 1. page 9.4A-1; CRCS Post DBA cooling is provided by the Containment Spray System.
- 2. page 9.48-4, CRCS Containment Recirculation fans are provided with a connection to the Class 1E Buses ...
- 3. page 9.4A-4, CRCS Monitors consist of air temperature, humidity, and pressure...
- 4. page 9.4A-10, The systems inside the Containment are seismic Category II.
- 5. page 9.4A-10, Penetrations are RNS Safety Class 2 and Seismic Category I.
- 6. page 9.4A-10, Exhaust air is passed through iodine adsorber beds prior to its discharge.
- F. Diesel Generator Building Ventilation System
- 1. page 9.40-1. The system is seismic Category I and ANS Safety Class 3.
- 2. page 9.40-1. The fans in each diesel generator compartment start automatically on receipt of diesel generator start signal.
- 3. page 9.40-2; Fans are powered from the same safety-related electrical bus as the diesel that is being ventilated.
- G. Uninterruptable Power Supply and Distribution Rooms Air Conditioning Systems
- 1. page 9.4C-9. The air _onditioning system is comprised of two 100% capacity self-contained air-conditioning units located in adjacent rooms that are physically separated by a dividing fire wall.
- 2. page 9.4C-9. The redundant R/C units are powered from independent Class 1E buses.
- 3. page 9.4C-1. The UPS and Distribution Room A/C system is ANS Safety Class 3 and Seismic Category I.
- H. From Appendix 17A of the FSAR, the following statements in TABLE 17A-1 are made for components of Safety Class 2 (there are no Safety Class 1 components listed for HUAC, however, the HUAC panels in the control room are Safety Class 1E);

Items 8, 22f, and 22g. Piping and values of all systems penetrating the containment are Safety Class 2. Seismic Category I. The QR requirements are; (NOTE 26) Meets quality assurance requirements as set forth in Gibbs & Hill spec. 2323-GS-903, Rev

1, QA for Procurement of Materials and Equipment, which satisfies requirements of 10CFR50, Appendix B, and (NOTE A) an Operations QA Program will be implemented which satisfies applicable requirements of Regulatory Guide 1.33, Rev. 2, "Quality Assurance Program Requirements (Operations). Other requirements include (NOTE 13b) Generic Analysis dynamic method and (NOTE 13d) testing method will be used for seismic qualification (see Section 3.7).

Item 9b, Hydrogen Purge System Exhaust filter units are Safety Class 3, Seismic Category I. See NOTES 26 and A. Also the method of testing (NOTE 13c) used fro seismic qualification is the Static method or equivalent static method using dynamic load factors.

Item 9b, Hydrogen Purge System Exhaust ductwork, supports & dampers outside containment are Safety Class 3, Seismic Category I. Meets quality assurance provisions of Brown & Roots' Quality Assurance Program (see FSAR Section 17.1.1.3), which satisfies requirements of 10CRF50, Appendix B. Also see NOTE A and NOTES 13c and 13d.

Item 17, Diesel Generator Combustion Air Intake and Exhaust System Piping and Valves outside Scope of Diesel Gen Mfr. are Safety Class 3 and Seismic Category I. (NOTE 13a) Seismic qualification is by the Individual Analysis dynamic method. See NOTES 26, A, and 13c. The Supports for Class 3 piping are also Safety Class 3, Seismic Category I. This is to meet pertinent portions of the QA criteria set forth in 18CFR50, Appendix B as defined by the specification. Component supports are designed in accordance with ASME B&PU Code, Section III, Class 3 but fabricated to AISC-1970. See also NOTES 13a and A.

Item 23c, Control Room HUAC panels are Safety Class 1E, Seismic Category I. See NOTES 26, A, 13c, and 13d.

I. NUREG-6797

NUREG-0797, Supplement No. 8, SER, Civil, Structural, and Misc, page K-137, "FSAR volume IV, Section 3.2, Classification of structures, Components and Systems, states that part of the containment ventilation system is seismic Category I; however, FSAR Volume XIV, Section 17.0, Appendix 17A, list of Quality Assured Items, states that the containment ventilation system is seismic Category II and nonsafety related with the exception of the containment purge exhaust ductwork, supports, debris screen, and isolation valves, which are seismic Category I. Only the isolation valves, which are safety and code class 2, are safety related and seismic Category I.

The TRT determined that the entire containment ventilation system is nonsafety related, except for the isolation values referenced above. None of these nonsafety-related systems is necessary for the safe shutdown of the reactor or to prevent or mitigate the consequences of accidents or malfunctions in the reactor coolant pressure boundary.

APPENDIX C

Two drawings were used for the audit; 2323-M2-0301 Rev. CP-4, and 2323-M2-0592 Rev. 1. Drawing number M2-0502 was used to locate the Unit 2 Containment Penetrations. From Drawing 2323-M2-0301, Rev CP-4, the containment penetration numbers for the main air ducts are as follows:

PENETRATION NUMBER	LINE NUMBER	FUNCTION
M III - 18 M III - 19 M U - 1 M U - 2 M U - 14	12-UA-2-01-151-2 12-UR-2-13-151R-2 48-UA-2-902-152-2 48-UA-2-901-152-2 18-UA-2-900-152-2	H2 PURGE SUPPLY H2 PURGE EXHAUST CONT PURGE SUPPLY CONT PURGE EXHAUST CONT PRESS RELIEF

These Unit 2 penetrations and their attached values and pipes were inspected on 12/26/85 and 12/27/85. The values and pipes identified here are part the containment boundary; i.e. they are the first barriers on the inside and outside of the containment penetration. The following information was recorded during that inspection.

PENETRATION

INSIDE CONT

OUTSIDE CONT

M III 18

Could not reach these valves as the scaffolding had been removed.

From the DWG.

2HU 5543

2HU 5563

These numbers are from a value. 9144-03-07-03

2HU 5542

These numbers are from a pipe.

UAXAB 03

M III 18

These numbers are from a valve. 2UA 881

GF 074 Serial no. H 2012-1 Lot no.

These numbers are from a pipe.

The main pipe

HT F81200

MR 31486

These numbers are from a pipe.

3/4 inch pipe

HT 405447

MR 16154

These numbers are from a pipe.

Weld-o-let

12-6×3/4

3M 501

? 1F 37 BH ?

9144-03-07-03 14759-1A These numbers are from a valve. 9144-03-07-03 14759-1B These numbers are from a Y pipe. HT 26278 MR 092555 These numbers are from the drawing.

2HU 5541 2HU 5562 12 UR-2-13-151R-2

These numbers are from a value.

14759-1C

9144-03-07-03

This number is from the drawing.

2HU 5540

These numbers are from a value.

UA-X-AB-004A

AF 083 Serial no.

H2012-1 Lot no.

This number is from the drawing.

20A 002 These numbers are from a value. 48-9134-05-07-03 14759-30

This number is from the drawing. 2HU 5539

These numbers are from a value. 14759-3D 48-9134-05-07-03 This number is from the drawing. 2HU 5538

These numbers are from a value. 14759-28 2HU 5549

These numbers are from a valve. 14759-2B 2HU 5548 These numbers are from a valve. 2VA 005 AD 213 Serial no. H1820-1 Lot no.

These numbers are from a valve. 2HU 5537 14759-3A

These numbers are from a value.
2HU 5536
14759-3B
These numbers are from a value.
TB 307
AD 219 Serial no.
H1826-1 Lot no.
This number is from the drawing.
2UA 003

M U 2

M U 14

. . . .

M U 1

APPENDIX D

This appendix is the audit paper trail from the Construction Document Control Center. The value numbers and Penetration number were entered into the computer. With these numbers, the computer identified the Receiving Inspection Report Numbers (RIR). The computer also identified some of these values as non-content and number cross referencing. One value number (2HU value 14759-2B, was entered into the computer to identify the RIR.

PENETRATION NO.	UALUE .	RIR	P.O.	SERIAL HO.
M III 18	2HU 5543 2HU 5563 2HU 5542 2UR 001	12191 12191 12191 9579	CP 0086 CP 0086 CP 0086 CP 0020A.1	14759-1B 14759-1E 14759-1F RF 074
M III 19	2HU 3541 2HU 5562 2HU5540 2UA 002	H 2012-1 (12191 12191 12191 9579	CP 0086 CP 0086	14759-1A 14759-1B 14759-1C AF 083
MV2	2HU 5539	H2012-1 (12191	ot no. CP 0086	
M U 14	2HU 5538 2HU 5549 2HU 5548	12191 12191 12191	0. 0000	14759-3D 14759-2A 14759-2B
M U 1	2UR 005 2HU 5537	08565 H1826-1 L 12191	CP 0020A.1 .ot no. CP 0086	
	2HU 5536 2UA 003	12191 08509 H1826-1 L	CP 0086 CP 0020A.1	14759-3B

For selected pipes;

M III 18 03565 CP 0074 802252/14

The computer was down so I could not cross the Heat numbers to the RIR's for the pipes.

The RIR package contents consisted of the following;

RIR-8509, PO-CP 0020A.1, Lot Number-H1826-1

Page 1 - Certified to conformance

1. Fluid flow +/- 15% of published values

2. No visible leakage

Page 2 - Wall thickness inspection

Page 3 - Final acceptance plan

Manufacturers data report Final acceptance plan

Serial nos & traceability report Wall Thickness Certs Reference list

Page 4 - Requirements check list

4 inspection categories

Page 5 - Cleaning, Assembly, Hydro, Tagging, Packing,

Page 6 - Code conformance

Page 7 - Value serial no. list/ body, bonnet, etc.

RIR-9579, PO-CP 0020A.1, Lot Number -H2012-1, is similar to — the above listing for RIR-8509

RIR 8565, M III 18

This package looks complete, the receiving check-list does not have non-conformances, 70368--037.

RIR 12191, RIR 13110, RIR 13186, RIR 13187 These RIR packages contained the following;

Receiving Check-List

Drawings

QA check-list

Doc. Package

Drawings

Order Spec Sheet

Material Traceability List

Body Mill Test Report (MTR)

Disc MTR

Stem MTR

Disc Pin MTR

Gasket Retainer MTR

Gasket Retainer Bolts Certs

Filler Metal Test Report

Manufacturers Cert Material Test Report

Cert of Compliance

Liquid Penetration TR

Weld Repair Report

Body Radiographic Report

Wall Thickness Measurement Report

Final TR

Cleaning Cert

Cycle TR

ASME Data Report

Assembly Shop Traveler

FILE NAME: REPORT. 16

HUAC Summary

Reference; Report.14, IE Modules 50100

JANUARY 13, 1986

The HVRC system at CPSES is not classified as Safety Related. The highest classification is Safety Class 2, Seismic Category I. This classification is assigned to the HVRC system values and penetrations which are part of the Reactor Building Containment Boundary. Inspection Module Procedure 50:00 - 24c. item 3, configuration, identification, and damage.



UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 1000 ARLINGTON, TEXAS 78011

76(3)

FACSIMILE TRANSMITTAL

DATE/TIME: _/	2286	PRIORITY: Immediately 1 Hour 2-4 Hours
MESSAGE TO:	S. PHILLIP	25
MESSAGE FROM:	P. MICHA	UD
	NUMBER OF PAGES: 2	PLUS TRANSMITTAL SHEET
TELECOPY NUMBER:	8/7-897-3/12 VERIF	ICATION NUMBER:
ONTACT:		

世76(1)

I/P 50090 Sabety Related Pipe Supports and Restraint System

Section 021 - QA Implementing Procedures Reviewed solected portions of the CPSES QA Manual and the CPSES ASME Quality Assurance Procedures / Instructions for conformance with the requirements of this section and found no items of noncompliance, Did not review design and procurement documents QA procedures per item c of this section Ref. 1. CPSES QA Manual (Brown + Root, In

a. Sec. 16.0, Rev. 16 Nonconforming Items * b. Sec. 19.0, Rev. 8 QA Audits

* C. APP. 1.0, Rev. 3 Evaluating and Reporting of Defects, Noncompliances, and Deficiencies.

2. ASME QA Procedures/Instructions (Brown+Root, Inc - CRES)

*a. CP-QAP-2.1, Rev. 12 Personnel Training and Qualification

6. CP-QAP-11.1, Rev. 8 Fabrication and Installation Inspection of Component Supports and Piping

c. CP-QAP-11.1-28, Rev. 39 Fabrication component supports component supports

& indicates only selected portion of these documents were reviewed

Section 022 - Work Procedures

Did not review work procedures

specifically, only completed works packages

and in -process work packages which

will be detailed in another section

Section 023 - Observation of Work and Work Activities

Interviewed three individuals performing installation of an archor support for certainment spray piping in the Sufeguards Birly. Witnessell welding of the support (including prehiat) and Torquing of bacylate archor botts.

Reviewed the work package being used, including drawings. No deficiences were noted.

Interviewed two individuals anotalling HICTI anchor bolts in containment. Witnessel entire installation and reviewed works package - no difficiencies noted. This was a non-safety related item, though, and cannot be included under this module.

Inspected a total of 24 pipe supports on the Safety I njection system siping. Of these, Two were large bore spring largers, One small bore snubber, one large bore snubber, Two equipment snubbero, eleven small bore restraints, and seven large bore restraints. Several discrepancies were noted However, QC has not performed their inspection of these supports, and hence installation can not be considered complete so no finding can be filed at this time. The descripancies found were generally insufficient clearance or a departure from the clearing drawing. The basic design of the support Those supports found to have items of concern will be reparrised later, after work package completion, to determine whether a nonconforming condition does spirat.

Section 024 - Review of Records

Reviewed seven safety related pyce support documentation packages, including records of materials, welding, QC inspection,

reinspection. The tems of nonconformance were generally for dimensions slightly out of tolerance (i.e. Helt bolt min. spacing). All NCR's appeared to be dispositioned properly. comment - Although I had some reservations concerning the number of NCR's and the time /process involved in dispositioning them, a clack of their background indicated all NCR's I examined were in fact justified.

The remainder of this module will be completed in glater.

If you have any questions or need further information - please call me at 860-82.93

Paul

#76.12)

The NM in spector Inspected a total of 24 pipe supports on the Safety I njection system siping. Of these, Two were large bore spring largers, one small bore snubber, one large bore mubber, two spripment snubbers, eleven small bore restraints, and seven large bore restraints Several discrepancies were noted. Nowever, QC has not performed their inspects. Note 1 su P. Mischaud of these supports, and hence installation numbers n not be considered complete so no inding can be filed at this time. The iscripancies found were generally insufficient learance or a departure from the design nowing. The basic design of the support hose supports found to have itemp of concern ill be examined letter, after work package repletion to determine whether a nonconform. ndition does spirat.

Note ?

The NMI in spector

Note ?

Reviewed seven safety related pipe

port documentation factoring including

rds of materials, welding, QC inspection,

No su for * , New It as follows: reinspection 1 5The it ms of nonconformance will generally for dimensions slightly out of " Grance (i.e. Helt bolt min. spacing). All 1 2's appeared to be dispositioned properly. Though I had some reservations concerning number of NER's and the time prockers wolved in dispositioning them, a check of their background indicated all / NCR's examined were infact justified. remainder of this module will be you have any questions or need itter information - please call me + 860 -82.43 Saul No violation, or deviation, were identified

Supports with design changes or discrepancies which must be re-examined once design package and work on them is complete:

Note 1. Phone place them numbers after the sentence "on the

Note part 18 - 5I - 2 - 58 - 020 - 1 - 253-2 following supports: 4-5=-2-58-019-1-21 SI -2 -039 -401 - 5 ZZRV SI -2 -039 -409 - 522RV 5I-2-039-406-522RV 5I-2-049-401-522RV SI-Z-070-404-522RV 5I-2-070 -405-522KV SI -2 - 070 -406 - 522R V

Safety Related Pipe Support Documentation Fachage and NCR review , wind numbers on page 19

RH -2-5B-029-001-22

CT-2-038-402-C52R2

CS-2-RB-072-702-12

CC-2-091-713-A63R2

MS-2-150-498-C52K2

H-CS-2-RB-021-712-12

.: 17:

Time charged by P. Michael to 50090 for week of 12-9-85

H - SI - 2 - RB - 058 - 701 - 2

1. d. 1 'd roill sers lenen sag- 27 M 535 d 2 HOB)

Dec. CP 95 18.

Observation of Electrical Installation Activities

During this reporting period the NRC inspector observed two safety-related cable termination activities. The first termination activity observed was a termination of a Train A (orange cable) in a junction box in containment; the second was the termination of two Train B (green cables) in a motor control center (MCC) in the green switchgear room.

. In-process work observation was performed to verify that: the latest drawings and termination cards are being used; the cables are protected from damage from nearby construction activities; that proper separation is maintained; segregation of power, control and instrument cables is maintained; cable identification is preserved; bending radius is maintained; cable entry point is acceptable; tools requiring calibration are in good repair and properly calibrated; connection tightness is eul; terminetions are of the correct type and properly located; junction boxes, MCC's and switchgear are free of debris: QC activities are performed at the times specified; nonconformances are identified and resolved in accordance with procedures; and installation and inspection activities are being documented during the in-process work activity. Terminations of two types were observed. One required terminal lugs, the other did not. The attributes specific to the termination type in addition to those attributes common to both were inspected. numbers and termination points were; Cable No. E02199710, term ptom junction box (JB) 20245 in containment and Cable Nos. EG213268, AG213254 term. pt. o. mi

6

CP2-EPMCEB-06 in the green switchgear room. The NRC inspector verified that all pertinent requirements had been met.

No violations or deviations were identified.

FILE NAME: REPORT.13

This file summarizes the audit of the IE Information Notice and Generic Letter files that TUGCo maintains. The audits were performed to IE Manual Inspection Procedure 92717-02 and 92703-02.03. These TUGCo files are in the care of Dean Palmer, Industry Operating Experience Coordinator.

IE INFORMATION NOTICE AUDIT

	NOTICE RECEIVED	REU FOR	DISTRI- BUTION	CORRECTIVE	SEE
IDENT		ABILITY	2011011	ACTION.	HOTE
85-22	yes	yes	yes	yes	A
85-04	yes	yes	yes	none	-
85-56	yes	yes	Yes	yes	В
85-33	yes.	yes	V 65	no	
85-34	yes	Yes	Yes	no	D
85-35	yes	yes	no	N/A	E
85-36	yes	yes	yes	none	-
				7 - W. T S. W.	

NOTES:

- A Revision to maintenance procedures to include verification that the pinion gear is not reversed by 9-1-85, Bill Dockey, 7-2-85, Maint. Engr.
- B Chemistry layup program defined in TIM 850907, Bob Delano, ext 5246, Data sheets use to document program;

 RHR HEAT EXCH Tubes Hydrazine & LiOH

Shell - Comp Cooling Water

DIESEL GEN WATER JACKET

Tubes - C1 Service Water Shell - Sodium Nitrite

SAFETY INJECTION SYS - Dry Open to Atmosphere

- C An NRC CAT inspection at several sites identified that undersized nozzle to shell welded joints in tanks & heat exch existed. Originally sent to R. Baker 5/16/85 for action. As of 7/19/85, no action by Baker, he questions IOER's existence. Plamer sent him another copy 7/19/85.
- D Stress corrosion cracking of PASS, sent to Doug Davis on 5/21/85. reply on 8/25/85, by Maint Eng, Want more verification from Tech Support that these conditions could exist.

E - NRC auditor agrees that the No's are appropriate.

GENERIC LETTER AUDIT

In this audit, all (about 15) the Generic Letter folders were opened and briefly read to understand the general thrust of the NRC letter. Two folders were reviewed for content, 83-11 and 83-16. So Both files contained documentation to show that the letter was reviewed by TUGCo Engineers and was distributed to the appropriate TUGCo personnel. The other audit items identified by Inspection Procedure 92703-02.03 did not apply to these letters.

Generic Letter 83-11 identified an NRC concern that users of Safety Analysis Codes (RETRAN, RELAP, TRAC, etc, ...) must understand and perform code certification prior to performing site specific analysis. Randy Janne, TUGCo Nuclear Fuels, was contacted about the letter. He stated that W & EXXON will perform the Safety Analysis for the first five cycles. TUGCo intends to develop the expertise.

Generic Letter 83-16 discussed the SALEM ATWS. The engineering review included a discussion with training which identified that the SALEM scenario was part of the course work for TUGCo trainees.

The NRC auditor noted that Licensing appears to be the receiver of correspondence from the NRC. They then distribute (unknown how distribution is determined) the material to Ted Jenkins group, Superintendent, Operations Support. The NRC material is then split into two categories, responses not required (Dean Falmer) and responses required (Roy Cisneros). These groups then perform an engineering review on the material, determine its significance, determine where it should be distributed and who should provide the response (if required). As a follow up, the appropriate TUGCo personnel are then contacted by phone to determine if the issues have been resolved or whether questions remain. These actions are documented in the files reviewed by the NRC inspector.

APPENDIX &

CONSTRUCTION INSPECTION REPORT

U. S. NUCLEAR REGULATORY COMMISSION REGION IV

NRC Inspection Report: 50-445/85-11/8

50-446/85-15

Permit: CPPR-126

CPPR-127

Dockets: 50-445

50-446

Category A2

Elactric Applicant: Texas Utilities Company (TUEC)

Skyway Tower

400 North Olive Street

Lock Box 81

Dallas, Texas 75201

Facility Name: Comanche Peak Steam Electric Station (CPSES), Units 1 and 2

Inspection At: Glen Rose, Texas

In ction Conducted: October 1-31, 1985

Inspectors: 11. 3. Phillips, Senior Resident Reactor Inspector (SRRF), Construction, Region IV CPSES Group (paragraphs 1, 2, 3, 4, 5, 6, 9, 10) Construction, Region III, South Texas Projet poregrap

D. W. Michauk, Reactor Inspector,

Date Region I (paragraph 10) Kelley, SRRI, Operations, Region IV Date ES Group (paragraph 8) Region IV CASES Group (paragraph 7)

Consultants: EG&G - J. H. McCleskey Parameter-T.Ut. Vottog Reviewed by: I. Barnes, Group Leader, Region IV CPSES Group Approved: T. F. Westerman, Chief, Region IV CPSES Group Inspection Summary Decamber Inspection Conducted: October 1-31, 1985 ((Report 50-445/85-5)) Areas Inspected: Routine, unannounced inspections of Unit 1 which included on previous NRC inspection findings, and Exercise and handling of Characters. The inspection involved ___ inspector-hours onsite by NRC inspectors and # / comments. Results: Within the four areas inspected, no violation failure to establish procedures for control and accountability of the shipment of original design records to Stone & Webster Engineering Corporation (SWEC), paragraph 5b) was identified. December Inspection Conducted: October 1-31, 1985(Report 50-446/85-3) Areas Inspected: Routine, announced and unannounced inspections of Unit 2 applicant actions on previous inspection findings, section, protection, and of QA records; audit of QA records; welding material control, and (valing); M cable tray/equipment walkdown. The inspection involved -hours by A NRC inspectors and & consultant? Record Within the seven areas inspected, three violations (a repeat failure) satture sy ent minimum wall pipe violations on a nonconformance report(NE), . 4.5; a repeat failure to control issue of design documents, paragraph ure to establish written procedures for control and accountability of of design records to SWEC, paragraph 5b) were identified.

 Persons Contacted Applicant
Personnel

> J. Merritt, Assistant Project General Manager P. Halstead, Manager, Quality Control (QC)

AF. Madden, Tu Gco Nuclear Engineering (TNE) Mechanical Engineer & L. Hart, Quality Assurance (QA) THE Electrical

2) P. Stevens, TNE Electrical Engineer

(1). Palmer, In dustry sperating Experience Gordinator

The NAL inspectors also interviewed other applicant employees during this inspections period

2. Applicant Action on Previous NRC Inspection Finding,

(Open) Unresolved Items 445/85/4-4-02 and 03;
446/85/1-4-01 and 02; Procedures did not adoress
construction deficiency side content; incomplete
inspection of second files; The NRC inspector continued this
inspection period. Tub(0 is still
inspection on this
inspection on the coverent system
the review and taking necessary
action to improve the coverent system
by March 1, 1985.

(Open) Unresolved Items 445/8516-4-02 and 3; 446/8513-4-02 and 03: IF Bulletin frowdures, construction responsibilities, and reopenin did not address construction responsibilities, and reopenin of IE Bulletin felis 79-14. The NAC inspectors Continued this inspection by following up on this item. TUGCO is working an improving the IE Bulletin system and have nound a new coordinator. They will consolidate the file, and place QA records in the vould. The correction action on applicable Bullotin, regaining hardware evaluation, regain and replacement will be reviewed to assure that such action is thereof to assure

the cognizant construct in a genization thacks there items to completion.

(Chosed) Violation 445 18434-02: Failing to regort alleged falsified record per 10C fx 50.55(2). The NRC in spector found that TUGCO had conducted an in vestigation of this methor to validate the signatures of accurrences. This problem arose when two in spectors porticipated in an inspection and one or spector left before the inspection and one inspector left before the inspection was complited and the other inspector signed for him. Notes added by the second inspector were mistending and he received a reprisend. The inspection was a valid inspection of anchor botts asid to secure a stair way in unit!

Satequards Building threat to Training was conducted to emphasize correct documentation.

No violations or deviations were identified.

3. Maglicant Action on 10 (FR 10 50.55/e) Deficiencie.

(Closed) Construction Defining Construction Deficiency

D-1-0181 ((D-85-30): Switch year Cabinet Terminations

By the vendor. The NAC in spector received a

regress to inspect this item to be browner who the

termination, were explaced when Tugeo 1s that

TXX-4598 datab october 16, 1985 staked it was not reportable.

The inspector reviewed the Tugeo confunction and found

that this tem was not reportable because they concluded it

would not after adversely affect the sale operation of the plant.

It was replaced because it did not meet Tugeo's

standards (Attachment 7 of as-67-113-22) which man be more stringers.

Applicant Action on 4. Inspection and Enforcement (E) Information Notices The IE In for mation one sent to him dustry action by the Lieuneus on Applicants with present to Importing to the NAL but, may Require action on applicable to Inspiriting to the NAL but, may Require action on applicable to Inspiriting to the NAL but, may Require action on applicable to Institute to Inspirit he have to regulation of the NAL but, may require action on applicable to Institute to Inst The handling of their notices are not covered by NRC regulations; however, the NRC is interested in how the subject notices are handled. The following to determine how for TUGIO determines applicability; makes distribution, and applies the information: 85-56. TUGGOTE Les Shows that their system were taken, satisfactoring as required actions No vistations or deviations were identified Applicant Action on Generic Le Hers The Generic letters are also sent to the industry for information purposes del require no response to the Nec. Again of NEC is interested in how the utility e takes granting action. The NAC in spector neview 15 files to grand antent and selected Generic Le Hers 83-11 and 83-14 for a more detailed review. TU600 siunsing receives and distributes these letters to

the operations support group for Their review and action. Review of the files indicates revealed that the TV6CO system does adequately consider Generic Letters and appropriate action was taken on these 12 2 converie letters.

No violation, or deviation, were identified.

Plant Frequeties,

At various times during the inspection period, NRC inspectors conducted general towns of the reactor building, safeguards building, and the electrical and control building. During the tours, the NRC inspector observed ongoing construction work and discussed various subjects with personnel engaged in work activities. Specific planned in specific discussed in Work activities.

2. Frotective Coating, Unit & and 2

a. Protective Coating, Unit & and 2

coating procedures openification, and procedures

for clerity, consistency, technical criteria,

and application in structions. These procedures

contain bether criteria than the old procedures

which were, reviewed by the NAC Technical

Neview Team, in 1984. Personnel of training

[qualification, concrete/stee/seeinspection and

inspection, testing, documentation and support and

well covered in 1984. Ep-14.2, 14.3, 14.7, 14.8 &

cepsque 14.1, 14.4, 14.5, 14.0, 14.5, 16.2;

CCP-30 and 40.

b. Observation of work Activity - The inspector observed work in progress and completed work as follows: pressurize room 31, steam generation rooms 26 and 24, elevator some shaft room 30, room 21, fabrication stop and paint storage building.

Most of the work observed was surface pregaration however, a final application of the contingues should on in room 21. The preparation of application was accomplished in accordance will forth commercial grackers and the crafts and field engineers were knowledgeble. Field inspectors were present and were not feil of by the craft when hold points were applied imposed in shift storage areas are temperature applied imposed shift storage areas are temperature applied imposed in the life was closely monitored and controlled.

C. Re cords twistohe in spector to observed the operation of

Frecords Review -

The Protective Coatings Paper Flow Group KFFG)

The purpose of the PFG is to establish a method of initiating, preparing, issuing, tracking, logging, and controlling protective coatings travelers and associated supporting documentation for the verification of coatings activities.

The NRC inspector reviewed protective coatings travelers to determine if the records were adequate, complete, legible, easily retrievable and documented in accordance to site procedures. In addition, the NRC inspector compared the completed and in process travelers to the PFB tracking system to determine if the tracking system was accurate. The computer printout is used for the tracking system, listing the traveler number, package number, unit, area code/room number, any cutstanding coating deficiency reports and the traveler status.

Records reviewed were legible, easily retrievable and complete in accordance to site coatings procedures. Review of Unit 2 coatings record tracking system by the NRC inspector indicated that the system at british now, is a very reliable and accurate tracking system. The tracking system is updated on a daily basis.

The NRC inspector also reviewed in process travelers in the field. There was one minor isolated discrepancy note in traveler 2-21-0,

Heating Ventilation and Air Conditioning Systems. A. FSAR, and Spicification, and Front of Francisco

Safety Analysis Report (FSAR) to identify the HVAC's design and quality assurance requirements. FSAR Volume IV, Section 3.2, "Classification of Structures, Components and Systems," states that part of the containment ventilation system is seismic Category I; however, FSAR Volume XIV, Section 17.0, Appendix 17A, "List of Quality Assured Items," states that the containment ventilation system (which contains eight subsystems/components) is seismic Category II and nonsafety related with the exception of the containment purge exhaust ductwork, supports, debris screen, and isolation valves, which are seismic Category I. Only the isolation valves, which are safety and code class 2, are safety related and seismic Category I.

The G.hh, & Hill inc. Specification which for HUAC systems is 2323-ms-85 Reviseon 3. Selected portion, of this specification were reviewed and two to select the hordware to be in specified. Iso la tion dampers or values and hydrogen pur se systems were in specified.

The NMC in spector record used drawings nos. 2323-m-z-0301 Revision & cop-4 2nd 2323-m-z-0502 Revision & to verify the equipment as-installed, i.e., identification, location, and configuration for the following of the 1ty drogen suggety/exhaust, and containment suggly/purge/relief systems. The following were in spected and were:

batis

Contain ment		1		
'NO.	UALUL	RIR	90.	SERIAL NO.
M III 18	2HU 5543 2HU 5563 2HU 5542 2UR 001	12191 12191 12191 9579	CP 0086 CP 0086 CP 0086 CP 0020A.1	14759-18 14759-1E 14759-1F RF 074
M 111 19	2HU 5541 2HU 5562 2HU5540 2UR 002	H 2012-1 Lo 12191 12191 12191 9579		14759-18 14759-18 14759-10 AF 083
m V a	2HU 5539	H2012-1 Lo	t no.	14759-30
M V 14	2HU 5538 2HU 5549 2HU 5548 2UA 905	12191 12191 12191 08565	CP 0066 CP 0086 CP 0086 CP 0020A.1	14759-3D 14759-2A 14759-2B AD 213
M V 1	2HU 5537 2HU 5536 2UN 003	12191 12191 08509	cp eess cp eess cp eess cr eesea.1	14759-3A 14759-3B AD 219

The NAC in spector reviewed RAR packages A. which (Maine)

RIR 13110, RIR 13186, RIR 13187)

RIR packages contained the following;

Receiving Check-List

Drawings

QR check-list, and a check-list.

Aszembly Shop Traveler .

Material Traceability List , Body Mill Jest Report (MTR) , Disc MTR , Stem MTR , Disc Pin MTR , Gasket Retainer MTR , Gasket Retainer Bolts Certification (Cent), Filler Metal Test Report(TR),
Manufacturers Compt Material Test Report,
Cert of Compliance, Liquid Penetration TR , Weld Repair Report , Body Badiographic Report , Wall Thickness Measurement Report , Final tarting 7n, Cleaning Cert , C. cla TR ASME Data Report

8. Mechanical Penetration, Unit 2

For conjunction with the HUAC in spection, the

NRC in spector observed mechanical penetration

work which had been completed and streviewed

seinted records.

a. Work Observed. Pene tration Humbers MI -18, MI -19
MV-2, MV-14, and MV-1 were located from
drawing number 2323-m2-0502 Revision I and
were properly identified and configured.
The se genetration, 15 howers no damage.

b. Record, Reviewed.

The in spector reviewed RIR porking for peretration MIII-18 sul foundathe

package contained the proper documentation.

No violation, or deviation, were identified.

9. Sofety Related P. ge Supports and Restraint Systemse

a. Procedures live - The NAC inspector procedure

at monual section 16

from fact); Revision 16: CF ant 19, Revision

8 (in fact); Aggerdic 1.0 Devision 3 (in fact).

(in fact); Asme at procedures (P-GAP-21,

Revision 12; 11.1 Revision 8; 11.1-28 Revision 34; and

19.1 Revision 2 govern also reviewed.

b. Observation of Work Activity- The NKC inspector interviewed 3 craftemen who were installing on anchor support (for Containment spray piping in the Safe guards Beilding. The welding of the support and torquing of baseplate orchor holds were so witnessed. Work was accomplished in accordance with the work packages.

+6. Electrical Inspection - Kelly

In exil interview was conducted on January

— , 1986 with applicant regressen takings; dentified
in garagraph I of Aggentia E. During this interview
the NRC inspectors summarized the scope and findings
of the inspection. The applicant acknowledged the
findings.

Date

Draft 1, Red +

Trypist game

to Shower Print

to 2/4/86 No corlier.

PAGE 1 CONSTRUCTION INSPECTION REPORT

U. S. NUCLEAR REGULATORY COMMISSION RESION IV

MRC Inspection Report: 50-445/85-18 Permit: CPPR-126

50-446/85-15

CPPR-197

Docket: 50-445

50-446

Category A2

Applicant: Texas Utilities Electric Company (TUEC)

Skyway Tower

400 North Olive Street

Lock Box 81

Dallas, lexas 75201

Facility Name: Commanche Peak Steam Electric Station (CPSES) Unit 1

Inspection At: 61en Rose, Texas

Inspection Conducted: December 1-31, 1985

Inspectors:

" S. Philips, senior Resident Reaftor (Riv) V Date Inspector (SRRI), Construction, Region IV CPSES Group (paragraphs 1, 2, 3, 4, 5, 6, 9, 90)

C. E. Johnson, Senior Resident Reactor Inspector (SRRI), Construction, Region IV South Texas Project (paragraph 7)

P. W. Michaus, Reactor Inspector, Region IV (paragraph 10)

		V	V	
		SRRI, Operation (paragraphs 11		Date

Consultant: E646 - J. H. McCleskey

Reviewed by:		
	I. Barnes, Group Leader, RIV CPSES Group	Date
Approved:		
	T. F. Westerman, Chief, Region IV CPSES Group	Date

PAGE 3

Type in unit I from touf 1.

Inspection Summary

VV

Inspection Conducted: December 1-31, 1985(Report 50-445/85-15)

Areas_Inspected: Routine, unannounced inspections of Unit 2 which included a review of plant status and applicant actions on construction deficiencies; previous inspection findings; IE Notices; and Generic Letters; Protective coatings; heating ventilation and airconditioning (HVAC); pipe supports; and electrical cable tray/equipment them. The inspection involved inspector-hours onsite by four NRC inspectors and one consultant.

Results: Within the seven areas inspected, no violations or deviations were identified.

DETAILS

1. Fersons Contacted

Applicant Personnel

L. Hart, Quality Assurance (QA) TUGCO Nuclear Energy (TNE) Electrical

Engineer

- F. Halstead, Manager, Quality Control (QC)
- F. Madden, TUGCO Nuclear Engineering (TNE) Mechanical Engineer
- J. Merritt, Assistant Project General Manager, TUGCO
- D. Falmer, Industry Operating Experience Coordinator
- P. Stevens, TNE Electrical Engineer
- C. Welch, QA Supervisor, TUGCO

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

2. Applicant Action on Frevious NRC Inspection Findings, Unit 1 and

(Open) Unresolved Items 445/8514-U-02 and 03: 446/8511-U-01 and 02; and 445/8516-U-01; 446/8513-01: Frocedures did not address construction deficiency file content: incomplete DA record files:

| The MRC inspector continued the inspection of the NRC inspector continued the inspection of the inspecti

(OPEN) Unresolved Items 445/8516-U-02 and 03; 446/8513-U-02 and 03: IE Bulletin files for 79-14 and 79-28. The NRC inspectors continued this inspection by following up on this titem. TUGCO is working on improving the IE Bulletin system and has named a new coordinator. They will consolidate the file, and place OA records in the vault. The corrective action on applicable IE Bulletins requiring hardware evaluation, repair and replacement will be reviewed to assure that the cognizant construction organization tracks these items to completion.

(Closed) Violation 445/8434-02: Failure to report alleged falsified records per 10 CFR 50.55(e). The NRC inspector found that TUGCO had conducted an investigation of this matter to validate the signatures of QC inspectors and found no other similar occurrences. This problem arose when two inspectors participated in an inspection and one inspector left before the inspection was completed and the other inspector signed for him. Notes added by the second inspector were misleading and he received a reprimand. The inspection was a valid inspection of anchor bolts used to secure a stairway in Unit 1 Safeguards Building. Training was conducted to emphasize correct documentation.

No violations or deviations were identified.

3. Applicant Action on 10 CFR 50.55(e) Deficiencies

Rolet 1

(Closed) Construction Deficiency D-1-0181(CP-85-30): Switch gear cabinet terminations by the vendor. The NRC inspector received a request to inspect this item to determine why the terminations were replaced when TUGCO letter TXX-4598 dated October 16, 1985 stated it was not reportable. The inspector eviewed the TUGCO evaluation and found that this item was not reportable because they concluded it would not adversely affect the safe operation of the plant. It was replaced because it did not meet TUGCO's standards (Attachment 9 of QI-QP-11.3-28) which may be more stringent than the manufacturer's standard.

4. Applicant Action on Inspection and Enforcement 41E) Information Notices(IFN)

The IE Information is sent to the nuclear industry for information purposes and require no action by the Licensees and applicants with respect to reporting to the NRC but may require to prout in iter to handling of these notices are not covered by NRC regulations; however, the NRC is interested in how the subject notices are handled. The following notice files were reviewed to determine how TUGCO determines applicability; makes distribution, and takes action; 85-04, 85-22, 85-33, 85-34, 85-35, 85-36, and 85-56.

This revision of TUGCO files shows that their system is working satisfactorily as required actions were takes.

5. Applicant Action on Generic Letters

The Generic Letters are also sent to the industry for information purposes and require no response to the NRC. Again the NRC is interested in how the utility distributes, evaluates, and, if applicable, takes corrective action. The NRC inspector reviewed 15 files and selected Generic Letters 83-11 and 83-16 for a more detailed review. TUGCO Licensing receives and distributes these letters to the operations support group for their review and action. Review of the files revealed that the TUGCO system does adequately consider Generic Letters and appropriate action was taken on these generic letters.

No violations or deviations were identified.

6. General Flant Inspections of Unit 2

At various times during the inspection period, NRC inspectors conducted unplanned inspections of the reactor building, safeguards building, and the electrical and control building.

During the bours, the NRC inspector observed ongoing construction work and discussed various subjects with personnel engaged in work activities. Specific blanned inspections are discussed in the following paragraphs.

No violations or deviations were identified.

7. Protective coatings, Unit 1 and 2

- a. The NRC inspector reviewed the coating specifications and procedures for clarity, consistency, technical criteria, and application instructions. These procedures contain better criteria than the old procedures which were reviewed by the NRC Technical Review Team (TRT) in 1784. Personnel of training/qualification, concrete/steel reinspection and inspection, testing, documentation, and repair are well covered in specification 2323-AS-31 and in Procedures CP-EP-14.2, 14.3, 14.7, 14.8, 14.1, 14.4, 14.9, 14.0, 14.5, 14.6, 6.2; CCP-30 and 40.
- in progress and completed work as follows: pressurizer room 31, steam generator rooms 26 and 29, elevator shaft room 30, room 21, fabrication shop and paint storage building. Most of the work observed was surface preparation, however, a final application of the coating of the steel liner was observed in room 21. The preparation and application was accomplished in accordance with good commercial practices and the crafts and field engineers were knowledgable. Field inspectors were present and were notified by the craft when hold points were imposed. Paint storage areas are temperature controlled and material shelf life was closely monitored and controlled.

Records Review - The protective coatings paper flow group (PFG). The purpose of the PFG is to establish a method of initiating, preparing, issuing, tracking, logging, and controlling protective coatings travelers and associated supporting documentation for the verification of coatings activities.

The NRC inspector reviewed protective coatings travelers to determine if the records were adequate, complete, legible, easily retrievable and documented in accordance to site procedures. In addition, the NRC inspector compared the completed and in process travelers to the FFG tracking system to determine if the tracking system was accurate. The computer printout is used for the tracking system. Listing the traveler number, package number, unit, area code/room, number, any outstanding coating deficiency reports and the traveler status.

Records reviewed were legible, easily retrievable and with a complete in accordance to site coatings procedures. Review of Unit 2 coatings records tracking system, by the NRC inspector, indicated that the system at the site is now a very reliable and accurate tracking system. The tracking system is updated on a daily basis.

The NRC inspector also reviewed in process travelers in the field. There was one minor isolated discrepancy note in

PAGE 10 Revised in spector responsible.

the signature which was in

traveler 2-21-0., however, it was brought to the attention the wrong block record primpt attention when the foreman to be corrected. The discrepancy was a it was brought to the foreman attention.

Signature in the wrong block All other travelers reviewed were cornect to a discrepancies.

The following & which contained more than one trouler were V V Work packages Treviewed:

2-21-F, 2-21-I, 2-21-H, 2-21-E, 2-21-B, 2-21-AJ, MI

Note: Work packages contained more than und traveler

The NRC inspection reviewed 8 training records for coating field engineers who were trained and qualified in accordance with to site procedure CP-EP-14.1, Revision D. - American National Standards

declassification of protective coatings; The majority of that were the coating field engineers qualification records reviewed by the NRC inspector indicated that they had been qualified or certified to ANSI 45.2.6 before declassification of protective coatings. Regardless, a beginning coating field engineer must still meet the following qualification requirements:

PAGE 11

- Minimum of one and one-half (1 1/2) years experience in the inspection and documentation of protective coatings work at a nuclear facility
- Shall be physically capable of performing the assigned tasks.
- Shall have natural or corrected near distance visual activity such that they are capable of reading J-1 letters on a standard Jaeger's Chart.

These inspectors are given classroom instruction on all coatings procedures, and a proficiency test for all instrumentation used to perform the inspections. The coatings field supervisor evaluates the proficiency of the inspection on the use of the instruments.

The NRC inspector did not review craft (painters)

qualification because during the TRT's review, they stated

that the crafts qualifications were adequate.

d. Calibration

821,

The WRC inspector reviewed two procedures, IEI-15, V "Calibration of DFT Gauges," Revision 5, dated 3-11-02 and

IEI-35, "Calibration of Adhesion Testers," Revision 3, dated From 17 1984 V The gauge and admission Haters V 2-27-64. Both instruments were calibrated to an accuracy of

+/- 10%. The coatings field engineers procedures for

minimum adhesion readings for the Electrometer Adhesion Tester is more conservative than required.

The NRC inspector reviewed calibration records of two electrometer adhesion testers, (M&TE #3741 and M&TE #2904) and four DFT gauges, (M&TE #4332, M&TE #4333, M&TE #2809, and M&TE #2923). Records indicated that the instruments were calibrated at their proper intervals. No discrepancies

- Action required of TUEC (NUREG-0797) Supplement No. 9). The NRC inspector reviewed the status of actions required by TUEC related to the TRT findings in NUREG-0797, Supplement No. 9, page M-13.
 - 1). Backfit test program The NRC inspector reviewed the data collected for the Eleckometer calibration correction to the data for adhesion tests covering miscellaneous steel items in Unit 1 % 2. The data is complete but has not been finalized into report form for submittal to NRC for review.
 - 2). Traceability This category deals with nonconformance reports (NCR's) which provide "use as is" dispositions for discrepant coating materials with inadequate technical justification for the disposition.

The action required for this category has been completed by the licensee and submitted for review to the Mr. Vince S. Noonan. Director of Nuclear Reactor Regulation in TUGCO letter (TXX-4613) dated November 18, 1985).

2). Coatings procedures. The TRT found deficiencies in procedures and instruction for coating work and related inspection activities, during the construction phase. Which rendered them inappropriate or inadequate or determining satisfactory accomplishment of important work activities. The TRT also found that the procedure review and approval system was inadequate to detect and cor ect these deficiencies.

The NRC inspector's review of this category indicates that TUGCO has revised their coating procedures for the Unit 2 construction phase and the reinspection activities for Unit 1 to include inspection attributes for determining satisfactory accomplishment of important work activities. CP-EP-6.2 has been established to assure that procedures and instructions are reviewed and approved by technically qualified individuals to assure consistency and clarity.

TUGCO letter TXX-4613 outlines the coatings surveillance program for operations.

4). Coating exempt log. The TRT requested an updated estimate of the number of additional items to be entered on the exempt log. Unit 2 exempt log is current and up-to-date. However, Unit 2 will have very find entering into the exempt log because deficient coatings will be reworked or repaired. When the Unit 1 Backfit Test Program data is complete, an estimate will be entered into the exempt log.

No violations or deviations were identified.

- B. Heating Ventilation and Air Conditioning (HVAC) Systems, Unit 2.
 - FSAR, specification, and drawings reviewed. The inspector reviewed the Comanche Peak Steam Electric Station (CPSES)

 Final Safety Analysis Report (FSAR) to identify the HVAC's design and quality assurance requirements. FSAR Volume IV.

 Section 3.2, "Classification of Structures, Components and Systems," states that part of the containment ventilation system is seismic Category I; however, FSAR Volume XIV.

 Section 17.0, Appendix 17A, "List of Quality Assured Items," states that the containment ventilation system (which contains eight subsystems/components) is seismic Category II and nonsafety related with the exception of the containment purge exhaust ductwork, support, debris screen, and isolation valves, which are seismic Category I. Only the

PAGE 15

isolation valves, which are safety and code class 2, are safety related and seismic Category I.

The Gibbs & Hill Inc. specification for HVAC systems is 2323-MS-85 Revision 3. Selected portions of this specification were reviewed to select the the hardware to be inspected. Isolation dampers or valves and hydrogen purge systems were inspected.

b. Work observed. The NRC inspector used drawings numbers 2323-M-2-0301, Revision CP-4 and 2323-M2-0502, Revision 1 to verify the equipment as-installed, i.e., identification, location, and configuration of the hydrogen supply/exhaust. and containment supply/purge/relief systems. The following were inspected:

CONTAINMENT	YALVE	SERIAL NO.	BIR
PENEIRALION			
NO.			
M III 18	2HV 5543	14759-1B	12191

2HV 5543 14759-1B 12191 2HV 5563 14759-1B 12191 2HV 5542 14759-1F 12191 2VA 001 AF 074 9579

H 2012-1 Lot no.

M III 19	2HV 5541	14759-1A	12191
	2HV 5562	14759-1B	12191
	2HV 5540	14759-1C	12191
	2VA 002	AF 003	9579
			H 2012-1 Lot no.
M V 2	2HV 5539	14759-3C	12191
	2HV 5538	14759-3D	12191
M V 14	2HV 5549	14759-2A	12191
	2HV 5548	14759-28	12191
	2VA 005	AD 213	08565
			H 1/826-1 Log. no.
M V 1	2HV 5537	14759-3A	12191
	2HV 5536	14759-3B	12191
	2VA 003	AD 219	03509
			H 1826-1 Lot no.

Inspection Report packages (RIR) which contained (RIR 12191, RIR 13110, RIR 13186, RIR 13187) the following:

Receiving check-list, drawings, QA check-list, and a documentation package with drawings, order spec sheet, material traceability list, body mill test report (MTR), disc MTR, stem MTR, disc pin MTR, gasket retainer MTR, gasket retainer MTR, test report (TR), manufacturers material test report.

measurement **eport, final TR, cleaning Cert, cycle TR, ASME data report assembly shop traveler.

No violations or deviations were identified.

9. Mechanical Penetrations, Unit 2

In conjunction with the HVAC inspection, the NRC inspector observed mechanical penetration work which had been completed and reviewed selected records.

- a. Work observed Penetration Numbers MIII-18, MIII-19, MV-2, MV-14, and MV-1 were located from drawing number for to be 2323-M2-0502. Revision 1 and were properly identified and configured. These penetrations were properly protected and showed no damage.
- b. Records reviewed The inspector reviewed RIR package for penetration MIII-18 and found that the package contained the proper documentation.

No violations or deviations were identified.

10. Safety Related Pipe Supports and Restraint Systems

- a. Procedures The NRC inspector Brown & Root Inc. (B&R) QA manual, Section 16, Revision 16; Section 19, Revision 8 (in part); and Appendix 1.0, Revision 3 (in part). ASME QA procedures CF-DAP-2.1, Revision 12; 11.1, Revision 8; 11.1-28, Revision 34; and 19.1, Revision 2 (in part) were also reviewed.
- b. Observation of work activity The NRC inspector interviewed 3 craftsmen who were installing an anchor support for containment spray piping in the Safeguards building. The welding of the support and torquing of baseplate anchor bolts were witnessed. Work was accomplished in accordance with the work packages.

Gxt in But from The NRC inspector reviewed seven safety related pipe support documentation packages *support numbers including records of materials, welding, QC inspection, nonconformance reports, and rework and reinspection as follows:

The items of nonconformance were generally for dimensions slightly out of tolerance, (i.e. Hilti bolt minimum spacing). All NCR's appeared to be dispositioned properly.

No violations or deviations were identified.

Electrical Inspection 11.

12. Exit Interview

An exit interview was conducted January , 1986, with the applicant representatives identified in paragraph 1 of Appendix E of this report. During this interview, the NRC inspectors summarized the scope and findings of the inspection. The applicant acknowledged the findings.

PAGE 1

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APPENDIE C CONSTRUCTION INSPECTION REPORT

U. S. NUCLEAR RESULATORY COMMISSION REGION IV

MRC Inspection Report: 50-445/85-18

Peraiti

CPPR-126

50-446/85-15

CPPR-127

Category A2

Docket: 50-445

50-446

Applicant: Texas Utilities Electric Company (TUEC)

Skyway Tower

400 North Olive Street

Lack Box 81

Dollas, Texas 75201

Facility Name: Commonche Peak Steam Electric Station (CFSES) Unit 1 & 2

Inspection At: Slen Rose, Texas

Inspection Conducted: December 1-31, 1985

Inspectors.

M. S. Phillips, Senior Resident Reactor Date
Inspector (SRRI), Construction, Region IV (RIV) CPSES Group
(paragraphs 1, 2, 3, 4, 5, 6, 8, 9, 12)

C. E. Johnson, Senior Resident Reactor Inspector (SRRI), Construction, RIV South Texas Project (paragraph 7)

Date

P. W. Michaud Reactor Inspector, RIV (paragraph 10) Date

	D. L. Kelley, SRRI, Operations, RIV, CPSES Group (paragraphs 11)	Date
Consultant:	EG&6 - J. H. McCleskey	
Reviewed by:	I. Barnes, Group Leader, RIV CPSES Group	- Date
Approved:	T. F. Westerman, Chief, RIV CPSES Group	Date

Inspection Summary

Observation of Electrical Installation Activities

During this reporting period the NRC inspector observed two safety-related cable termination activities. The first termination activity observed was a termination of a Train A (grange cable) in a junction box in containment; the second was the termination of two Train B (green cable) in a motor control center (MCC) in the green switchgear room.

In-process work observation was performed to verify that: the latest drawings and termination cards are being used; the cables are protected from damage from possibly construction activities; that proper separation is maintained; segregation of power, control and instrument cables is maintained; cable identification is preserved; bending radius is maintained; cable entry point is acceptable; tools requiring calibration are in good repair and properly calibrated; connection tightness is correct; terminations are of the correct type and properly located; junction boxes, MCC's and switchgear are free of debris; OC activities are performed at the times specified; nonconformances are identified and resolved in accordance with procedures; and installation and inspection activities are being documented during the in-process work activity. Terminations of two types were observed. One required terminal lugs, the other did not. The attributes specific to the termination type in addition to those

attributes common to both were inspected. Cable numbers and termination points were; cable no. E02199710, termination point junction box (JB) 20245 in containment and cable nos. E0213168, AG213254 termination point.

CP2-EPMCEB-06 in the green switchgear room. the NRC inspector verified that all pertinent requirements had been met.

No violations or deviations were identified.

Inspection conducted: December 1-31, 1985 (Report 50-445/85-18)

Areas Inspected: Routine, unannounced inspections of Unit 1 which included applicant actions on construction deficiencies, applicant actions on previous NRC inspection findings, IE Notices, Generic Letters, and TRT coatings. The inspection involved 59 inspector-hours onsite by two NRC inspectors and one consultant.

Results: Within the four areas inspected, no violation or deviation was identified.

Inspection Conducted: December 1-31, 1985 (Report 50-446/85-15)

Areas_Inspected: Routine, announced and unannounced inspections of Unit 2 which included plant tours and applicant actions on -nnstruction deficiencies; previous inspection findings; IE Notices;

PAGE 5

and Generic Letters; and inspection of protective coatings; heating ventilation and air-conditioning (HVAC); pipe supports; and electrical cable tray/equipment. The inspection involved 168 inspector-hours onsite by four NRC inspectors and one consultant.

Results: Within the seven areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

Applicant Personnel

L. Hart, Quality Assurance (QA) TUGCO Nuclear Energy (TNE) Electrical

Engineer

- P. Halstead, Manager, Quality Control (QC)
- F. Madden, TUGCO Nuclear Engineering (TNE) Mechanical Engineer
- J. Merritt, Assistant Project General Manager, TUGCO
- D. Palmer, Industry Operating Experience Coordinator
- P. Stevens, TNE Electrical Engineer
- C. Welch, QA Supervisor, TUGCO

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

Applicant Action on Previous NRC Inspection Findings, Unit 1 and 2

(Open) Unresolved Items 445/8514-U-02 and 03; 446/8511-U-01 and 02; and 445/8516-U-01; 446/8513-01: Procedures did not address construction deficiency file content; incomplete GA record files; and TUGCO commitment to review this matter. The NRC inspector continued the previous inspection by following up on each of these items during this inspection period. TUGCO is still working on these items and anticipates completing the review and taking necessary action to improve the current system by March 1. 1985.

(Open) Unresolved Items 445/8516-U-O2 and O3; 446/8513-U-O2 and O3: IE Bulletin files for 79-14 and 79-28. The NRC inspectors continued the previous inspection by following up on each of these items. TUGCO is working on improving the IE Bulletin system and has named a new coordinator. They will consolidate the files, and place OA records in the vault. The corrective action on applicable IE Bulletins requiring hardware evaluation, repair and replacement and verification will be reviewed to

assure that the cognizant construction organization tracks these actions to completion.

No vio tions or deviations were identified.

Applicant Action on 10 CFR 50.55(e) Deficiencies

(Closed) Construction Deficiency D-1-0181(CP-85-30): Switch gear cabinet terminations by the vendor. The NRC inspector inspected this item to determine why the terminations were replaced when TUGCO letter TXX-4578 dated October 16, 1985 stated it was not reportable. The inspector reviewed the TUGCO evaluation and found that this item was not reportable because they concluded it would not adversely affect the safe operation of the plant. It was only replaced because it did not meet TUGCO's standards (Attachment 9 of QI-OP-11.3-28) which may be more stringent than the manufacturer's standard.

4. Applicant Action on Inspection and Enforcement Information Notices (IEN)

The IE Information notices are sent to the nuclear industry for information purposes and require no action by the licensees and applicants with respect to reporting to the NRC but are encouraged to take action on applicable notice technical issues

to prevent similar technical problems. The handling of these notices are not covered by NRC regulations; however, the NRC is interested in how the technical issues in the subject notices are handled. The following notice files were reviewed to determine how TUGCO determined applicability; make distribution, and took action on IEN 85-04, 85-22, 85-33, 85-34, 85-35, 85-36. and 85-56. This review of TUGCO files shows that their established system is working satisfactorily as technical issues were addressed.

No violations or deviations were identified.

Applicant Action on Generic Letters

The Generic letters are also sent to the industry for information purposes and require no response to the NRC. Again the NRC is interested in how the utility distributes, evaluates, and, if applicable, takes corrective action. The NRC inspector reviewed 15 files and selected Generic Letters 83-11 and 83-16 for a more detailed review. TUGCO Licensing receives and distributes these letters to the operations support group for their review and action. Review of the files revealed that the TUGCO system does adequately consider Generic Letters and appropriate action was taken on these generic letters.

No violations or deviations were identified.

6. General Plant Inspections of Unit 2

At various times during the inspection period, NRC inspectors conducted unplanned inspections of the reactor building, safeguards building, and the electrical and control building. The NF.C inspector observed ongoing construction work and discussed various subjects with personnel engaged in work activities.

No violations or deviations were identified.

7. Protective coatings, Unit 1 and 2

- procedures for clarity, consistency, technical criteria, and instructions for applying coatings. These procedures contain better criteria than the old procedures which were reviewed by the NRC Technical Review Team (TRT) in 1984. Fersonnel training/qualification, concrete/steel reinspection and inspection, testing, documentation, and repair are well covered in specification 2323-AS-31 and in Procedures CP-EP-14.2, 14.3, 14.7, 14.8, 14.1, 14.4, 14.9, 14.0, 14.5, 14.6, 6.2: CCP-30 and 40.
- b. Observation of work activity The inspector observed work in progress and completed work as follows: pressurizer room

- 31, steam generator rooms 26 and 29, elevator shaft roum 30, room 21, fabrication shop and paint storage building. Most of the work observed was surface preparation, however, a final application of the coating of the steel liner was observed in room 21. The surface preparation and application of coating were accomplished in accordance with good commercial practices and the crafts and field engineers were knowledgeable. Field inspectors were present and were notified by the craft when hold points were imposed. Paint storage areas are temperature controlled and material shelf life was closely monitored and controlled.
- c. Records Review The protective coatings paper flow group (PFR). The purpose of the PFG is to establish a method of initiating, preparing, issuing, tracking, logging, and controlling protective coatings travelers and associated supporting documentation for the verification of coatings activities.

The NRC inspector reviewed protective coatings travelers to determine if the records were adequate, complete, legible, easily retrievable and documented in accordance with site procedures. In addition, the NRC inspector compared the completed and in process travelers to the PFG tracking system to determine if the tracking system was accurate. The computer printout is used for the tracking system.

listing the traveler number, package number, unit, area code/room, number, any outstanding coating deficiency reports and the traveler status.

Records reviewed were legible, easily retrievable and complete in accordance with site coatings procedures.

Review of the Unit 2 coating records tracking system, by the NRC inspector, indicated that the system, at the site is now a very reliable and accurate tracking system. The tracking system is updated on a daily basis.

The NRC inspector also reviewed in process travelers in the field. One minor isolated discrepancy was noted on traveler 2-21-0., however, the signature which was in the wrong prock received prompt attention when it was brought to the foreman's attention. All other travelers reviewed were correct.

The following work packages which contained more than one traveler were reviewed: 2-21-F, 2-21-0, 2-21-I, 2-21-N, 21-H, 2-21-B, 2-21-E, 2-21-AJ, 2-21-G, and 2-21-L.

The NRC inspector reviewed 8 training records for coating field engineers who were trained and qualified in accordance with site procedure CP-EP-14.1, Revision O. The American National Standards Institute (ANSI) 45.2.6 is no longer

applicable since the approved declassification of protective coatings; however, the majority of the coating field engineers qualification records that were reviewed by the NRC inspector indicated that they had been qualified or certified to ANSI 45.2.6 before the declassification of protective coatings occurred. Regardless, a beginning coating field engineer must still meet the following qualification requirements:

- Minimum of one and one-half (1 1/2) years experience in the inspection and documentation of protective coatings work at a nuclear facility
 - tasks.
- Shall have natural or corrected near distance visual actuity such that they are capable of reading J-1 letters on a standard Jaeger's Chart.

These inspectors are given classroom instruction on all coatings procedures, and a proficiency test for all instrumentation used to perform the inspections. The coatings field supervisor evaluates the proficiency of the inspector's use of these instruments.

The NRC inspector did not review craft (painters)
qualification because during the TRT's review, they stated
that the crafts qualifications were adequate.

d. Calibration. The NRC inspector reviewed two procedures.

IEI-15, "Calibration of DFT Gauges," Revision 5, dated March
11, 1982 and IEI-35, "Calibration of Adhesion Testers,"
Revision 3, dated February, 27, 1984. The gauges and
adhesion testers were calibrated to an accuracy of +/- 10%.

The coatings field engineers procedures for minimum adhesion
readings for the Electometer Adhesion Tester is more
conservative than required.

The NRC inspector reviewed calibration records of two electometer adhesion testers. (M&TE #3741 and M&TE #2904) and four DFT gauges. (M&TE #4332, M&TE #4333, M&TE #2809, and M&TE #2923). Records indicated that the instruments were calibrated at their proper intervals.

- e. Action required of TUEC (NUREG-0797) Supplement No. 9). The NRC inspector reviewed the status of actions required by TUEC related to the TRT findings in NUREG-0797, Supplement No. 9, page M-13.
 - Backfit test program The NRC inspector reviewed the data collected for the Electometer calibration

correction to the data for adhesion tests covering miscellaneous steel items in Unit 1 & 2. The data is complete but has not been finalized into report form for submittal to NRC for review.

2). Traceability - This category deals with nonconformance reports (NCR's) which provide "use as is" dispositions for discrepant coating materials with inadequate technical justification for the disposition.

The action required for this category has been completed by the licensee and submitted for review to the, Director of Nuclear Reactor Regulation in TUGCO letter (TYY-1813) dated Fovember 18, 1985:.

3). Coatings procedures. The TRT found deficiencies in procedures and instructions for coatings work and related inspection activities, during the construction phase, which rendered them inappropriate or inadequate for determining satisfactory accomplishment of important work activities. The TRT also found that the procedure review and approval system was inadequate to detect and correct these deficiencies.

The NRC inspector's review of this category indicates that TUGCO has revised their coating procedures for the

Unit 2 construction phase and the reinspection activities for Unit 1 to include inspection attributes for determining satisfactory accomplishment of important work activities. CP-EP-6.2 has been established to assure that procedures and instructions are reviewed and approved by technically qualified individuals to assure consistency and clarity.

TUGCO letter TXX-4613 outlines the coatings surveillance program for operations.

4). Coating exempt log. The TRT requested an updated estimate of the number of additional items to be entered on the compt log. Unil 2 exempt log is current and up-to-date. However, Unit 2 will have few entries into the exempt log because any deficient coating areas will be reworked or repaired. When the Unit 1 backfit test program data is complete, an estimate will be entered into the exempt log.

No violations or deviations were identified.

- B. Heating Ventilation and Air Conditioning (HVAC) Systems, Unit 2.
 - a. FSAR, specification, and drawings reviewed The inspector reviewed the Comanche Peak Steam Electric Station (CPSES)

Final Safety Analysis Report (FSAR) to identify the HVAC's design and quality assurance requirements. FSAR Volume IV, Section 3.2, "Classification of Structures, Components and Systems," states that part of the containment ventilation system is seismic Category I; however, FSAR Volume XIV, Section 17.0, Appendix 17A, "List of Quality Assured Items," states that the containment ventilation system (which contains eight subsystems/components) is seismic Category II and nonsafety related with the exception of the containment purge exhaust ductwork, support, debris screen, and isolation valves, which are seismic Category I. Only the isolation valves, which are safety and code class 2, are safety related and seismic Category I.

The Gibbs & Hill Inc. specification for HVAC systems is 2323-MS-85 Revision 3. Selected portions of this specification were reviewed to select the the hardware to be inspected. Isolation dampers or valves and hydrogen purge systems were selected for inspection.

b. Work observed. The NRC inspector used drawings numbers 2323-M-2-0301, Revision CP-4 and 2323-M2-0502, Revision 1 to verify the equipment as-installed, i.e., identification. location, and configuration of the hydrogen supply/exhaust, and containment supply/purge/relief systems. The following were inspected:

PAGE 17

CONTAINMENT	VALVE	SERIAL NO.	R1R
PENEIRALION			
NO.			
M III 18	2HV 5543	14759-15	12191
	2HV 5563	14759-1B	12191
	2HV 5542	14759-1F	12191
	2VA 001	AF 074	9579
			H 2012-1 Lot no.
M III 19	2HV 5541	14759-1A	12191
	2HV 5562	14759-1B	12191
	2HV 5540	14759-10	12191
	2VA 002	AF 003	9579
			H 2012-1 Lot no.
M V 2	2HV 5539	14759-30	12191
	2HV 5538	14759-3D	12191
M V 14	2HV 5549	14759-2A	12191
	2HV 5548	14759-2B	12191
	2VA 005	AD 213	08565
			H 1826-1 Lot no.
M V 1	2HV 5537	14759-3A	12191
	2HV 5536	14759-3B	12191
	2VA 003	AD 219	08509
			H 1826-1 Lot no.

PAGE 18

c. Records Received - The NRC inspector reviewed receiving inspection report (RIR) packages (RIR 12191, RIR 13110, RIR 13186, and RIR 13187) which contained the following:

Receiving check-list, drawings, QA check-list, and a documentation package with: drawings, order specification sheet, material traceability list, body mill test report (MTR), disc MTR, stem MTR, disc pin MTR, gasket retainer MTR, gasket retainer bolts certification (Cert), filler metal test report (TR), manufacturer's material TR, certificate of compliance, liquid penetrant TR, weld repair report, body radiographics TR, wall thickness measurement report, final TR, cleaning Cert, cycle TR, ASME data report

No violations or deviations were identified.

9. Mechanical Penetrations, Unit 2

In conjunction with the HVAC inspection, the NRC inspector observed mechanical penetration work which had been completed and reviewed selected records.

a. Work observed - Penetration Numbers MIII-18, MIII-19, MV-2, MV-14, and MV-1 were located using drawing number 2323-M2-0502, Revision 1 and were fount to be properly

identified and configured. These penetrations were properly protected and showed no damage.

b. Records reviewed - The inspector reviewed RIR package for penetration MIII-18 and found that the package contained the proper documentation.

No violations or deviations were identified.

10. Safety Related Pipe Supports and Restraint Systems

- A. Procedures The NRC inspector reviewed Brown & Root Inc.

 (B&R) QA manual, Section 16. Revision 16; Section 19.

 Revision 8 (in part); and Appendix 1.0, Revision 3 (in part). ASME QA procedures CF-QAF-2.1, Revision 12; 11.1.

 Revision 8; 11.1-28, Revision 34; and 19.1, Revision 2 (in part) were also reviewed.
- b. Observation of work activity The NRC inspector interviewed 3 craftsmen who were installing an anchor support for containment spray piping in the Safeguards building. The welding of the support and torquing of baseplate anchor bolts were witnessed. Work was accomplished in accordance with the work packages.

The NRC inspector inspected a total of 24 pipe supports on the Safety I injection system piping. Of these, two were large bore spring hangers, one small bore snubber, one large bore snubber, two equipment snubbers, eleven small bore restraints, and seven large bore restraints. Several discrepancies were noted on the following supports: H-SI-2-SB-020-1-2, -3-2, 5-2, 6-2, 8-2, 10-2, 11-2, and 12-2; H-SI-2-SB-019-1-2, 3-2, 4-2, and 5-2; SI-2-039-401-S22R, SI-2-039-404-S22R; SI-2-309-406-S22R; SI-2-044-401-S22R; SI-2-070-404-S22R; SI-2-070-405-S22K; and SI-2-070-406-S22R. However, OC has not performed their inspection of these supports, and hence installation can not be considered complete so there are no findings at this time. The discrepancies found were generally insufficient clearance or a departure from the design drawing. The basic design of the support systems examined appeared to be adequate.

The NRC inspector reviewed seven safety related pipe support documentation packages including records of materials, welding. OC inspection, nonconformance reports, and rework and reinspection as follows: RH-2-5B-024-001-2, CT-2-038-402-C52R, CS-2-RB-072-702-1, CC-2-041-713-A63R, MS-2-150-448-C52K, H-CS-2-RB-021-7120-1, and H-SI-2-RB-0580-701-2.

The items of nonconformance were generally for dimensions slightly out of tolerance. (i.e. Hilti bolt minimum spacing).

All NCR's appeared to be dispositioned properly.

No violations or deviations were identified.

11. Electrical Inspection

12. Exit Interview

PAGE 1

DRAFT MO.1, REV.2

APPENDIX C CONSTRUCTION INSPECTION REPORT

U. S. NUCLEAR REGULATORY COMMISSION REGION IV

NRC Inspection Report: 50-445/85-18

Permit:

CPPR-126

50-446/85-15

CPPR-127

Category A2

Docket: 50-445

50-446

Applicant: Texas Utilities Electric Company (TUEC)

Skyway Tower

400 North Olive Street

Lock Box B1

Dallas, Texas 75201

Facility Name: Commanche Peak Steam Electric Station (CPSES) Unit 1 & 2

Inspection At: Glen Rose, Texas

Inspection Conducted: December 1-31, 1985

Inspectors:

H. S. Phillips, Senior Resident Reactor
Inspector (SRRI), Construction, Region IV (RIV) CPSES Group (paragraphs 1, 2, 3, 4, 5, 5, 8, 9, 12)

C. E. Johnson, Senior Resident Reactor Inspector (SRRI), Construction, RIV South Texas Project (paragraph 7)

Date

P. M. Michaud Reactor Inspector, RIV (paragraph 10)

Date . . V

	D. L. Kelley, SRRI, Operations, RIV, CPSES Group (paragraphs 11)	Date	·V
Consultant:	EG&6 - J. H. McCleskey		
Reviewed by:	I. Barnes, Group Leader, RIV CPSES Group		Date
Approved:	T. F. Westerman, Chief, RIV CPSES Group	Date	

Inspection Summary

| Observation of Electrical Installation Activities

During this reporting period the NRC inspector observed two safety-related cable termination activities. The first termination activity observed was a termination of a Train A (orange cable) in a junction box in containment; the second was the termination of vo Train B (green cable) in a motor control center (MCC) in the green switchgear room.

In-process work observation was performed to verify that: the latest drawings and termination cards are being used: the cables are protected from damage from nearby construction activities; that proper separation is maintained: segregation of power, control and instrument cables is maintained; cable identification is preserved; bending radius is maintained; cable entry point is acceptable; tools requiring calibration are in good repair and properly calibrated; connection tightness is correct; terminations are of the correct type and properly located; junction boxes, MCC's and switchgear are free of debris; OC activities are performed at the times specified; nonconformances are identified and resolved in accordance with procedures; and installation and inspection activities are being documented during the in-process work activity. Terminations of two types were observed. One required terminal lugs, the other did not. The attributes specific to the termination type in addition to those

attributes common to both were inspected. Cable numbers and termination points were; cable no. E02199710, termination point junction box (JB) 20245 in containment and cable nos. E6213168. A6213254 termination point.

CP2-EPMCEB-06 in the green switchgear room. the NRC inspector verified that all pertinent requirements had been met.

No violations or deviations were identified.

Inspection conducted: December 1-31, 1985 (Report 50-445/85-18)

Areas Inspected: Routine, unannounced inspections of Unit 1 which included applicant actions on construction deficiencies, applicant actions on previous NRC inspection findings, IE Notices. Generic NAC Felhard Form Tone Letters, and (TRT) coatings. The inspection involved 59 inspector-hours onsite by two NRC inspectors and one consultant.

Results: Within the four areas inspected, no violation or deviation was identified.

Inspection Conducted: December 1-31, 1985 (Report 50-446/85-15)

Areas_Inspected: Routine, announced and unannounced inspections of Unit 2 which included plant tours and applicant actions on construction deficiencies; previous inspection findings: IE Notices:

PAGE 5

and Generic Letters; and inspection of protective coatings; heating ventilation and air-conditioning (HVAC); pipe supports; and electrical cable tray/equipment. The inspection involved 168 inspector-hours onsite by four NRC inspectors and one consultant.

Results: Within the seven areas inspected, no violations of deviations were identified.

DETAILS

Persons Contacted

Applicant Personnel Congress (Tucce

- L. Hart, Quality Assurance (QA) TUGCO Nuclear Energy (TNE)

 Flectrical ()

 Engineer
- P. Halstead, Manager, Quality Control (QC)
- F. Madden, TUGGO Nuclear Engineering (TNE) Mechanical Engineer
- J. Merritt, Assistant Project General Manager, IUGCO V
- D. Palmer, Industry Operating Experience Coordinator
- F. Stevens, INE Electrical Engineer
- C. Welch, QA Supervisor __ IUGCO V

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

Applicant Action on Previous NRC Inspection Findings, Unit 1
 and 2

(Open) Unresolved Items 445/8514-U-02 and 03; 446/8511-U-01 and 02; and 445/8516-U-01; 446/8513-01: Procedures did not address construction deficiency file content: incomplete OA record files; discuss 76 following a commitment to review this matter. The NRC inspector continued the previous inspection by following up on each of these items during this inspection period. TUGCO is still working on these items and anticipates completing the review and taking necessary action to improve the current system by March 1, 1985.

(Open) Unresolved Items 445/8516-U-O2 and O3: 446/8513-U-O2 and O3: IE Bulletin files for 79-14 and 79-28. The NRC inspectors continued the previous inspection by following up on each of these items. TUGCO is working on improving the IE Bulletin system and has named a new coordinator. They will consolidate the files, and place OA records in the vault. The corrective action on applicable IE Bulletins requiring hardware evaluation. repair and replacement and verification will be reviewed to

assure that the cognizant construction organization tracks these actions to completion.

No violations or deviations were identified.

3. Applicant Action on 10 CFR 50.55(e) Deficiencies

(Closed) Construction Deficiency D-1-0181(CF-85-30): Switch gear cabinet terminations by the vendor. The NRC inspector inspected this item to determine why the terminations were replaced when TUGCO letter TX)-4098 dated October 16. 1985 stated Lay Na. it. may be the vendor reviewed the TUGCO evaluation and found that this item was not reportable. The inspector reviewed the TUGCO evaluation and found that this item was not reportable because they concluded it would not adversely affect the safe operation of the plant. It was only replaced because it did not meet TUGCO's standards (Attachment 9 of OI-OF-11.3-28) which may be more stringent than the manufacturer's standard.

4. Applicant Action on Inspection and Enforcement Information Notices (IEN)

The IE Information notices are sent to the nuclear industry for information purposes and require no action by the licensees and applicants with respect to reporting to the NRC but, are encouraged to take action on applicable notice technical issues, if applicable hu, t

to prevent similar technical problems. The handling of these notices are not covered by NRC regulations; however, the NRC is interested in how the technical issues in the subject notices are handled. The following notice files were reviewed to determine how TUGCO determined applicability; make distribution, and took action on IEN 85-04, 85-22, 85-33, 85-34, 85-35, 85-36, and 85-56. This review of TUGCO files shows that their established system is working satisfactorily as technical issues were addressed.

No violations or deviations were identified.

5. Applicant Action on Generic Letters

The Generic Tetters are also sent to the industry for information purposes and require no response to the NRC. Again the NRC is interested in how the utility distributes, evaluates, and, if applicable, takes corrective action. The NRC inspector reviewed 15 files and selected Generic Letters 83-11 and 83-16 for a more detailed review. TUGCO Licensing receives and distributes these letters to the operations support group for their review and action. Review of the files revealed that the TUGCO system does adequately consider Generic Letters and appropriate action was taken on these generic letters.

No violations or deviations were identified.

6. General Plant Inspections of Unit 2

At various times during the inspection period, NRC inspectors conducted unplanned inspections of the reactor building, safeguards building, and the electrical and control building. The NRC inspector observed ongoing construction work and discussed various subjects with personnel engaged in work activities.

No violations or deviations were identified.

7. Protective coatinus, Unit 1 and 2

- The NFC inspector reviewed the coating specifications and procedures for clarity, consistency, technical criteria, and instructions for applying coatings. These procedures contain better criteria than the old procedures which were reviewed by the NFC Technical Review Team (TRT) in 1984. Fersonnel training/qualification, concrete/steel reinspection and inspection, testing, documentation, and repair are well covered in specification 2323-AS-31 and in frocedures CP-EF-14.2, 14.3, 14.7, 14.8, 14.1, 14.4, 14.9, 14.0, 14.5, 14.6, 6.2: CCP-30 and 40.
- b. Observation of work activity The inspector observed work in progress and completed work as follows: pressurizer room

31, steam generator rooms 26 and 29, elevator shaft room 30. room 21, fabrication shop and paint storage building. Most of the work observed was surface preparation, however, a final application of the coating of the steel liner was observed in room 21. The surface preparation and application of coating were accomplished in accordance with good commercial practices and the crafts and field engineers were knowledgeable. Field inspectors were present and were notified by the craft when hold points were imposed. Paint storage areas are temps are controlled and material shelf life was closely monity and controlled.

c. Records Review - The protective coatings paper flow group (DCG). The purpose of the FFD .4 to establish a method of initiating, preparing, issuing, tracking, logging, and controlling protective coatings travelers and associated supporting documentation for the verification of coatings activities.

The NRC inspector reviewed protective coatings travelers to determine if the records were adequate, complete, legible, easily retrievable and documented in accordance with site procedures. In addition, the NRC inspector compared the completed and in process travelers to the PFG tracking system to determine if the tracking system was accurate. The computer printout is used for the tracking system.

listing the traveler number, package number, unit, area code/room, number, any outstanding coating deficiency reports and the traveler status.

Records reviewed were legible, easily retrievable and complete in accordance with site coatings procedures.

Review of the Unit 2 coating records tracking system, by the NRC inspector, indicated that the system, at the site is now a very reliable and accurate tracking system. The tracking system is updated on a daily basis.

The NRC inspector also reviewed in process travelers in the field. One minor isolated discrepancy was noted on traveler 2-21-0. however, the signalure (which was in the wrong block) received prompt attention when it was brought to the foreman's attention. All other travelers reviewed were correct.

The following work packages which contained more than one traveler were reviewed: 2-21-F, 2-21-0, 2-21-1, 2-21-N, 21-H, 2-21-B, 2-21-E, 2-21-AJ, 2-21-G, and 2-21-L.

The NRC inspector reviewed 8 training records for coating field engineers who were trained and qualified in accordance with site procedure CP-EP-14.1, Revision O. The American National Standards Institute (ANS!) 45.2.6 is no longer

applicable since the approved declassification of protective coatings; however, the majority of the coating field engineers qualification records that were reviewed by the NRC inspector indicated that they had been qualified or certified to ANSI 45.2.6 before the declassification of protective coatings occurred. Regardless, a beginning coating field engineer must still meet the following qualification requirements:

Sheel have a

- A Minimum of one and one-half (1 1/2) years experience in the inspection and documentation of protective coatings work at a nuclear facility.
- . Shall be physically capable of performing the assigned tasks.
- Shall have natural or corrected near distance visual acuity such that they are capable of reading J-1 letters on a standard Jaeger's Chart.

These inspectors are given classroom instruction on all coatings procedures, and a proficiency test for all instrumentation used to perform the inspections. The coatings field supervisor evaluates the proficiency of the inspector's use of these instruments.

qualification because during the TRT review they stated that the crafts qualifications were adequate.

d. Calibration. The NRC inspector reviewed two procedures.

IEI-15, "Calibration of DFT Gauges," Revision 5, dated March
11, 1982 and IEI-35, "Calibration of Adhesion Testers,"

Revision 3, dated February, 27, 1984. The gauges and
adhesio, testers were calibrated to an accuracy of +/- 10%.

The coatings field engineers procedures for minimum adhesion
readings for the Electometer Adhesion Tester is more
conservative than required.

The NRC inspertor reviewed relibration records of two electometer adhesion testers. (M&TE #3741 and M&TE #2904) and four DFT gauges, (M&TE #4332, M&TE #4333. M&TE #2809. and M&TE #2923). Records indicated that the instruments were calibrated at their proper intervals.

- e. Action required of TUEC (NUREG-0797) Supplement No. 9). The NRC inspector reviewed the status of actions required by 2 TUEC related to the TRT findings, in NUREG-0797. Supplement No. 9, page M-13.- V
 - 1). Backfit test program The NRC inspector reviewed the data collected for the Electometer calibration

miscellaneous steel items in Unit 1 & 2. The data is friendly to complete but has not been finalized into report form for submittal to NRC for review.

2). Traceability - This category deals with nonconformance reports (NCR's) which provide "use as is" dispositions for discrepant coating materials with inadequate technical justification for the disposition.

The action required for this category has been completed by the licensee and submitted for review to the, Director of Nuclear Reactor Regulation in TUGCO Latter (TXX-46:3) dated November 10, 1903).

3). Coatings procedures. The TRT found deficiencies in procedures and instructions for coatings work and related inspection activities, during the construction phase, which rendered them inappropriate or inadequate for determining satisfactory accomplishment of important work activities. The TRT also that the ? procedure review and approval system was inadequate to detect and correct these deficiencies.

The NRC inspector's review of this category indicates that TUGCO has revised their coating procedures for the

Unit 2 construction phase and the reinspection activities for Unit 1 to include inspection attributes for determining satisfactory accomplishment of important work activities. CP-EP-6.2 has been established to assure that procedures and instructions are reviewed and approved by technically qualified individuals to assure consistency and clarity.

TUGCO letter TXX-4613 butlines the coatings surveillance program for operations.

4). Coatino exempt log. The IRI requested an updated estimate of the number of additional items to be entered on the exempt log. Unit 2 compt log is current and up-to-date. However, Unit 2 will have few entries into the exempt log because any deficient coating areas will be reworked or repaired. When the Unit 1 backfit test program data is complete, an estimate will be entered into the exempt log.

No violations or deviations were identified.

- 8. Heating Ventilation and Air Conditioning (HVAC) Systems, Unit 2.
 - a. FSAR, specification, and drawings reviewed The inspector reviewed the Comanche Peak Steam Electric Station (CPSES)

Final Safety Analysis Report (FSAR) to identify the HVAC's design and quality assurance requirements. FSAR Volume IV. Section 3.2, "Classification of Structures. Components and Systems." states that part of the containment ventilation system is seismic Category I: however, FSAR Volume XIV. Section 17.0, Appendix 17A, "List of Quality Assured Items," states that the containment ventilation system (which contains eight subsystems/components) is seismic Category II and nonsafety related with the exception of the containment purge exhaust ductwork, support, debris screen, and isolation valves, which are seismic Category I. Only the isolation valves, which are safety and code class 2, are safety related and seismic Category I.

The Gibbs & Hill Inc. specification for HVAC systems is 2323-MS-85 Revision 3. Selected portions of this specification were reviewed to select the the hardware to be inspected. Isolation dampers or valves and hydrogen purge systems were selected for inspection.

b. Work observed. The NRC inspector used drawings numbers 2323-M-2-0301. Revision CF-4 and 2323-M2-0502. Revision 1 to verify the equipment as-installed, i.e., identification, location, and configuration of the hydrogen supply/exhaust, and containment supply/purge/relief systems. The following were inspected:

PAGE 17

CONTOTNWENT	YALYE	YALVE SERIAL NO RIR	
PENEIBALLON			
NO.			
W III 18	2HV 5543	14759-1B	12191
	2HV 5563	14759-1B	12191
	2HV 5542	14759-1F	12191
	2VA 001	AF 074	9579
			H 2012-1 Lot no.
M III 19	2HV 5541	14759-1A	12191
	2HV 5562	14759-1B	12191
	2HV 5540	14757 15	12191
	2VA 002	AF 003	9579
			H 2012-1 Lot no.
M V 2	2HV 5539	14759-3C	12191
	2HV 5538	14759-3D	12191
M V 14	2HV 5549	14759-2A	12191
	2HV 5548	14759-2B	12191
	2VA 005	AD 213	08565
		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	H 1826-1 Lot no.
M V 1	2HV 5537	14759-3A	12191
	2HV 5536	14759-3B	12191
	2VA 003	AD 219	08509
			H 1826-1 Lot no.

c. Records Refered - The NRC inspector reviewed receiving inspection report (RIR) packages (RIR 12191, RIR 13110, RIR 13186, and RIR 13187) which contained the following:

Receiving check-list, drawings, GA check-list, and a documentation package with: drawings, order specification sheet, material traceability list, body mill test report (MTR), disc MTR, stem MTR, disc pin MTR, gasket retainer MTR, gasket retainer bolts certification (Cert), filler metal test report (TR), manufacturer's material TR, certificate of compliance, liquid penetrant TR, weld repair report, body radiographics TR, wall thickness measurement report, final TR, cleaning Cert, cycle TR, ASME data report assembly shop travelor.

No violations or deviations were identified.

9. Mechanical Penetrations, Unit 2

In conjunction with the HVAC inspection, the NRC inspector observed mechanical penetration work which had been completed and reviewed selected records.

MV-14, and MV-1 were located using drawing number

2323-M2-0502, Revision 1 and were fount to be properly

identified and configured. These penetrations were properly protected and showed no damage.

b. Records reviewed - The inspector reviewed RIR package for penetration MIII-18 and found that the package contained the proper documentation.

No violations or deviations were identified.

10. Safety Related Pipe Supports and Restraint Systems

- a. Procedures The NRC inspector reviewed Brown & Root Inc.

 (B&R) CA manual. Section 16. Revision 16; Section 19.

 Revision R (in part); and Appendix 1.0. Pevision I (in part). ASME CA procedures CP-CAP-2.1. Revision 12; 11.1.

 Revision 8; 11.1-28, Revision 34; and 19.1. Revision 2 (in part) were also reviewed.
- b. Observation of work activity The NRC inspector interviewed 3 craftsmen who were installing an anchor support for containment spray piping in the Safeguards building. The welding of the support and torquing of baseplate anchor bolts were witnessed. Work was accomplished in accordance with the work packages.

The NRC inspector inspected a total of 24 pipe supports on the Safety I injection system piping. Of these, two were large bore spring hangers, one small bore snubber, one large bore snubber, two equipment snubbers, eleven small bore restraints, and seven large bore restraints. Several discrepancies were noted on the following supports: H-SI-2-SB-020-1-2, -3-2, 5-2, 6-2, 8-2, 10-2, 11-2, and 12-2: H-SI-2-5B-019-1-2, 3-2, 4-2, and 5-2: SI-2-039-401-S22R, SI-2-039-404-S22R; SI-2--309-406-S22R; SI-2-044-401-S22R; SI-2-070-404-S22R; SI-2-070-405-S22K; and Bir happedim SI-2-070-406-S22R. However, OC has hot performed their inspection of these supports, and hence installation can not be considered complete, so there are no findings at this time. The discrepancies found were generally insufficient clearance or a departure from the design drawing. The basic design or the support systems examined appeared to be adequate.

The NRC inspector reviewed seven safety related pipe support documentation packages including records of materials, welding, OC inspection, nonconformance reports, and rework and reinspection as follows: RH-2-5B-024-001-2, CT-2-03B-402-C52R, CS-2-RB-072-702-1, CC-2-041-713-A63R, MS-2-150-448-C52K, H-CS-2-RB-021-7120-1, and H-SI-2-RB-0580-701-2.

identified by Bill impactor, V

The items of nonconformance were generally for dimensions that work slightly out of tolerance, (i.e. Hilti bolt minimum spacing).

All NCR's appeared to be dispositioned properly.

No violations or deviations were identified.

11. Electrical Inspection

12. Exit Interview

An exit interview was conducted January . 1986, wit the applicant representatives identified in paragraph 1 of Appendix E of this report. During this interview, the NRC inspectors summarized the scope and findings of the inspection. The applicant acknowledged the findings.

TASE 1

FINAL DRAFT FEB. 25 TRANSMITTED TO OPS

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APPENDII C CONSTRUCTION INSPECTION REPORT

U. S. NUCLEAR REGULATORY COMMISSION REGION IV

NRC Inspection Report: 50-445/85-18

Permit: CPPR-126

50-446/85-15

CPPR-13"

Docke*: 50-445

Category A2

50-446

Applicant: Texas Utilities Electric Company (TUEC)

Skyway Tower

400 North Olive Street

Lock Box 81

Dallas, Texas 75201

Facility Name: Comanche Feak Steam Electric Station (CFSES) Units 1 & 2

inspection Att Gier Rose, Texas

Inspection Inclusted: Detenter 1-51, 1985

Inspectors:

M. C. Tallings, Co. ler Striffent Reutle-Inspector (SRRI), Construction, Region IV CPSES Broup iparagraphs 1, 2, 3, 4, 5, 6, 8, 9, 12)

C. E. Johnson, SRR1, Construction, Region 19 South Texas Project (paragraph 7)

P. W. Michaud, Reactor Inspector, RESION IV Date (paragraph 10)

D. L. Kelley, SRRI, Operations, Region IV,

CPSES Group (paragraphs 11)

Consultant: E016 - J. H. *cClesiev

Reviewed by:

I. Barnes, Group Leader, Region IV CPSES Group Date

Approved:

T. F. Westerman, Chief, Region IV CPSES Group Date

Inspection Summary

Inspection conducted: December 1-31, 1985 (Report 50-445/85-18)

Areas Inspected: Foutine, unannounced inspections of Unit 1 which included applicant actions on construction deficiencies, applicant actions on previous NRC inspection findings, IE Notices, Generic Letters, and NRC Technical Review Team (TRT) coatings. The inspection involved 59 inspector-hours onsite by two NRC inspectors and one consultant.

Femality: Within the four error interested, he violation or deviation was adopted by

Inspection Conducted: December 1-31, 1985 (Report 50-4%6/85-15)

Areas Inspected: Routine, announced and unannounced inspections of Unit 2 which included plant tours and applicant actions on construction deficiency and construction deficiency and construction of protective coatings; le National and Seneric Letters; and inspection of protective coatings; brating ventilation and sire-conditioning (HVAC): pipe supports; and electrical cable trav/equipment. The inspection involved 168 inspector shours onsite by four NNC inspectors and one consultant.

Results: Within the seven areas inspected, no violations or deviations were identified.

DETAILS

1. Fersons Contacted

Towas Utilities Generating Company (TUGCO)

- fil Hers, Sualsk, Schoolser (DA) field factor, Elega, inc.
- P. Halstead, Manager, Quality Control (OC)
- F. Madden. TNE Mechanical Engineer
- J. Merritt, Assistant Project General Manager
- D. Palmer, Industry Operating Esperience Coordinator
- Postmont. I'M Electrical Engineer
- E. Weich, OA Super orser

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

Applicant Action on Previous NRC Inspection Findings. Units 1 and 2

- a. (Open) Unresolved Items (445/8514-U-02 and 03: 446/0511-U-01 and 02: and 445/8512-01: 446/8513-01: Procedures did not address construction deficiency file content, incomplete 0A record files, deficiency report corrective action, and TUGCO commitment to review this matter. The NRC inspector continued the previous inspection by following up on each of those items during this inspection period. TUGCO is still working on these items and anticipates completing the review and taking none serves limb to improve the current system between taking none serves limb to improve the current system between taking none serves limb to improve the current system between taking none serves limb to improve the current system between taking none serves limb to improve the current system between taking none serves limb to improve the current system between taking none serves limb to improve the current system between taking none serves limb to improve the current system between taking none.
- and 03): IE Bulletin files for 79-14 and 79-28. The NRC inspectors continued the previous inspection by following up on each of these items. TUSCO is working on improving the 16 Bulletin system and has named a most recorder in the wall, the corrective action on applicable IE Bulletins requiring bardware evaluation, repair, replacement and verification will be reviewed to assure that the cognizant construction organization tracks these actions to completion.

No violations or deviations were identified.

3. Applicant Action on 10 CFR 50.55(e) Deficiencies

gear cabinet terminations by the vendor. The NRC inspector inspected this item to determine why the terminations were replaced when TUGCO letter TXX-4598 dated October 16, 1985, stated that the deficiency was not reportable. The inspector reviewed the TUGCO evaluation and found that this item was not reportable because they concluded it would not advertely affect the safe operation of the class. It was only replace because it is safe upon a first or the class of the cl

Notices (TEN)

The distribution Notices are sent to the meter for the to the increases and intermedian purposes and require no origin by the increases and emplicants with respect to reporting to the NEC but they are whosuraged to take action on applicable technical senses, if emplicable, to prevent similar technical problems. The handling of these notices are not covered by NEC regulations; however, the NEC is intermeted in how the technical issues in the subject notices are handled. The following notice tiles were reviewed to

determine how TUGCO determined applicability; make distribution, and took action on IEN 85-04, 85-22, 85-33, 85-34, 85-35, 85-36, and 85-56. This review of TUGCO files shows that their established system is working satisfactorily as trohnical issued were addressed.

No violations or deviations were identified.

5. Applicant Action on Generic Letters

The NRC Generic Letters are also sent to the nuclear industry for information purposes and require no response to the NRC. Again the flow is interested in a some still by distributes, evaluates, and, is applied ble, takes a restive action. The DRC inspector reviewed 15 files and selected Seneric Letters 83-11 and 83-16 for a more detailed review. TUBCH Licensing receives and distributes these letters to the operations support group for their review and action. Review of the files revealed that the TUBCH a stee does adequated appropriate action was for an these generic letters and appropriate action was for an these generic letter.

No violations or deviations were identified.

6. General Plant Inspections of Unit 2

At various times during the inspection period. NRC inspectors conducted inspections of the reactor, safeguards, and the electrical/control building. The NRC inspector observed ongoing construction work and discussed various subjects with personnel and described various subjects with personnel.

No violations or deviations were identified.

7. Projective coatings, Unit 1 and 2

- to the inspector observed work in progress and completed work as follows: prescurizer rhom 31, steam generator rooms 26 and 29, elevator shaft room 30, room 21, fabrication shop and paint storage building. Most of the work observed was surface preparation, however, a final application of the

coating of the steel liner was observed in room 21. The surface preparation and application of coating were accomplished in accordance with good commercial practices and the crafts and field engineers were inowledgeable.

Field inspectors were present and were notified by the craft when hold points were imposed. Faint storage areas are temperature controlled and material shelf life was closely monitored and controlled.

Records Review - The protective coatings paper flow group (PFG). The purpose of the PFG is to establish a method of initiating, preparties, common, transland, longing, and coatra tive and an endatings fragmant and accomplished discount for the verification of coatings activities.

The NRC inspector reviewed protective coatings travelers to determine if the records were adequate, complete, legible.

***scil, retrievable and document of in ance dance with nile procedures. In addition, the NRC inspector compared the completed and in process travelers to the PFG tracking system was accurate. The computer printbut is used for the tracking system.

listing the traveler number, package number, unit, area code/room, number, any occatanding coating deficiency reports and the traveler status.

Records reviewed were legible, easily retrievable and complete in accordance with site coatings procedures.

Review of the Unit 2 coating records tracking system, by the NRC inspector, indicated that the system, at the mile is near a very reliable and accurate tracking system. The tracking system is updated on a daily basis.

The NRC inspector also reviewed in process travelers in the field. One minor isolated discrepancy was noted on traveler 2-21-0., however, the signature (which was in the wrong block) was promptly corrected when it was brought to the formation of salication. All other travelers received were

The following work packages which contained more than one to a plant were reviewed: 2-21-F, 2-21-0, 2-21-1, 7-21-N, 21 N- 2-21-B, 2-21-E, 2-21-AJ, 2-21-G, and 2-21-L.

The PTT inspector reviewed A training rare ds to conting tion field engineers) who were trained and qualified in accordance with site procedure CP-CP-14.1. Revision B. The Smerican National Standards Institute (ANSI) 45.2.6 is no longer applicable since the approved declassification of protective coatings; however, the majority of the coating field engineers qualification records that were reviewed by the NRC inspector indicated that they had been qualified or

certified to ANSI 45.2.6 before the declassification of protective coatings occurred. Regardless, a beginning coating field engineer must still meet the following qualification requirements:

- Shall have a minimum of one and one-half (1 1/2) years experience in the inspection and documentation of protective coatings work at a nuclear facility
- Shall be physically capable of performing the assigned tasks.

Testers on a standard Jacquer's Chart.

These inspectors to a or an all amount instruction on all contings proceedings, into a profictency test for all inclination are true to a continuous the continuous treatment at or are a continuous the profictions. The inspector's use of those instruments.

The NRC inspector did not review craft (painters)
qualifications because the TRT reviewed them and they stated
that the crafts qualification were emequate.

d. Calibration. The NRC inspector reviewed two procedures.

IEI-15, "Calibration of DFT Gauges," Revision 5, dated March
11, 1982 and IEI-35, "Calibration of Adhesion Testers,"

Revision 3, dated February, 97, 1982. The gauges and

Adhesion and the open calibrated in the securary of the 1982.

The coating procedures for minimum adhesion readings for the ficometer Adhesion Tester is more conservative than required.

The NRC importor reviewed calibration records of two elements address in testors. ANLE Elici and each special and for the electric and so the electric and the

- The first required of THEC ompre-over Supplement No. 91. In a new or the first of the NPC inspector reviewed the statum of articles.
 - detained for the Elements although a continued to the data of address of the Elements of the data of address of the transfer of the data o

2). Traceability - This category deals with nonconformance reports (NCR's) which provide "use as is" dispositions for discrepant coating materials with inadequate technical justification for the disposition.

The action required for this category has been completed by the licensee and was submitted for review to the Director of Nuclear Reactor Regulation in TUGCO letter (TXX-A613) dated November 18, 1985).

- Destinate procedures. The TRI tound deficienties in .

 Procedures and instructions for continue work and

 College and procedures for special process.

 For determining satisfactory accomplishment of

 Local took work activation. The procedure review one approval special page 10 pages.

 Cotoct and correct these desiciencies.
 - that TURCS has several force outing process and like the thirt of construction process and like the thirt of construction some and the restaurant of a set estimate for thirt the rectude important attributes. For determining extractors accomplication to a simple than much activities. EP-EP-6.2 was established to a secure a that procedures and spectautions as a secure

and approved by technically qualified individuals to assure consistency and clarity.

TUSCO letter TXX-4613 outlines the coatings

4). Chating evempt log. The TRT requested an updated estimate of the number of additional items to be entered on the exempt log. Unit 2 exempt log is correct and up-to-date. However, Unit 2 will have few entries into the exempt log because any deficient.

And the resemble of the resemble of repaired. Dean the contract of the exempt log because any deficient.

en la conservation de la company de la conservation de la conservation

S. Mosting Ventilation of all Conditioning Systems (but in

First Special of the Posser's Real Stoop Electric Station Reserved first Special Special American Report (PSAR) to intentity the Mode a decign and quality at mrance requirements. Esce we me 10, Section 3.2, "Classiciation of Structures, Commonwhis and Section," states that part of the containment ventalation by the is second Category, Is because, FSAR Volume XIV.

Section 17.0, Appendix 17A, "List of Quality Assured Items," states that the containment ventilation system (which contains eight subsystems/components) is seismic Category [I and nonsafety related with the exception of the containment components of the containment contains at the last the last the seismic Category I. Only the isolation valves, which are seismic Category I. Only the isolation valves, which are safety and code class 2, are safety related and seismic Category 1.

The Gibbs & Hill Inc. Specification for HVAC systems is 2020-MS-85 Revision 5. Selected portions of this service specification were accounted to aloca the the ordinates of the first service of the serv

Not observed, the motor originator wood drawing compact at the professional properties of the properties.

CONTAINMENT VALVE SERIAL NO. FIR PENETRATION

NO.

M III 18	2HV 5543	14759-1B	12191
	2HV 5563	14759-1B	12191
	$\leq D + (\kappa_i)_{i,j}$	1476.5 IE	(21-1
	2VA -001	AF 0.24	9579
			H 2012-1 Lot no.
M 111 19	2HV 5541	14759-1A	12191
	2HV 5562	14759-1B	12191
	2H / 5540	14759-10	12191
	2VA 1102	6F 003	9579
			H Notestane pp.
		e de la company	
M A IN	2HV- STAS	14759-2A	12191
	end mus	11757-20	12191
	2VA CON .	An but in the	08564
			H 1820-1 Lot no.
MVI	2HV 55.7	14759 15	12121
	2992 55774	14 mm - 110 - 1	1.191
	We only	00-210	08509
			H 18 %-1 Lc- nc.

Fecords Review - The NRC inspector reviewed receiving inspection report (RIR) parkages (RIR : 191, RIV 13110, RIV 12186, and RIR 13187) which contained the following:

Receiving check-list, drawings, DA check-list, and a documentation package with: drawings, order specification sheet, material traceability list, body mill test report (MTR), disc MTR, stem MTR, disc pin MTR, gasket retainer to Respect to retainer bolts certificate on the continuation of the package of the compliance, liquid penetrant TR, weld repair report, body radiographics TR, wall thickness measurement report, final TR, cleaning Cert, cycle TR, ASME data report assembly shop traveler.

No idiations or deviations were identified.

The Sun Day Spirit Region

observed selected records.

MAY-14. and MV I were incated using drawing number 2303-M2 0502. Posts on I and were injunction be projectly structurated and configured. These penetrations were properly protected and showed no damage.

b. Records reviewed - The inspector reviewed RIR package for penetration MIII-18 and found that the package contained the proper documentation.

the issue of any or deviations were identified.

10. Safety Related Pipe Supports and Restraint Systems

- The control of work activity The NRC inspects, into stepper 3 craftsmen who were installing an anchor support for confainment spray piping in the Sefeguards of Internal Fig. we dring of the support and to quine as seem jate anchor both were witnessed. Mret we are supply to be an anchor with the work parkages.

The NBC inspector inspected a total of 24 pape supports on the Safety I injection system piping. Of these, two were large here spring hangers, one small here sholber, one large bard shidting, two equipment shubbers, eleven small here restraints, and seven

large bore restraints. Several discrepancies were noted on the following supports: H-SI-2-SB-020-1-2, -3-2, 5-2, 6-2, 8-2, 10-2, 11-2, and 12-2; H-SI-2-5B-019-1-2, 3-2, 4-2, and 5-2; SI-2-039-401-S22R, SI-2-039-404-S22R; SI-2-309-406-S22R; SI-2-039-406-S22R; SI-2-309-406-S22R; SI-2-070-406-S22R. However, both inspection had not been performed on supports. Since installation was not considered complete, there are no NRC findings at this time. The discrepancies found were generally insufficient clearance or a departure from the decign drawing. The basic design of the support eighters examined appeared to be adequate.

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The character of the control of the control of the best interestance of the control of the contr

No violations or deviations were identified.

11. Observation of Electrical Work Activities

During this reporting period the NRC inspector observed two' safety-related cable termination activities. The first termination activity observed was a termination of a Train 4 (prange cable) in a junction box in containment; the second was the termination of two Train B (green cable) in a motor control center (MCC) in the green swill began room.

In process work observation was performed to verify that: the latest drawings and termination cards are being used; the cables are protected from damage from mearby construction activities: The triper a parafrict a members in segment on it private. is preserved; bending radius is maintained; cable entry point is secretable; cools requiring calibration err in good repair and properly calibrated: connection tightness is correct: terminations are of the correct type and properly incated: function howes, MCC's and swittinger are tree of mehries DC and suffers are performed at the temperature first no contornation are identified and resolved in orderdance with procedures; and netallation and inspection activities are being documented a during the in-process work activity. Terminations of two types were obserted. One required terminal logs, the other did not. The attributes specific to the termination type in addition to those attributes common to both were inspected. Cable numbers.

and termination points were; cable no. E02199710, termination point junction box (JB) 2C245 in containment and cable nos. E6213168, A6213254 termination point.

DRC CEMCEROUS in the green switchgear room. the CRC cospector verified that all pertinent requirements had been met.

No violations or deviations were identified.

12. Exit Interview

An emit interview man conductor densor. 1986, with the application of the product of the product of the product of the product of the state of the scape and finding on the inspection. The