

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION

OFFICE OF SPECIAL PROJECTS

NRC Inspection Report: 50-445/88-36
50-446/88-31

Permits: CPPR-126
CPPR-127

Dockets: 50-445
50-446

Category: A2

Construction Permit
Expiration Dates:
Unit 1: August 1, 1988
Unit 2: Extension request
submitted.

Applicant: TU Electric
Skyway Tower
400 North Olive Street
Lock Box 81
Dallas, Texas 75201

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

Inspection At: Comanche Peak Site, Glen Rose, Texas

Inspection Conducted: May 4 through June 7, 1988

Inspector:

H. Livermore

for M. F. Runyan, Resident Inspector,
Civil Structural
(paragraphs 2, 3.a, 3.b, 4, 5.)

6-17-8
Date

Consultant: W. Richins, Parameter (paragraphs 3.c, 4, 5.)

Reviewed by:

H. Livermore

H. H. Livermore, Lead Senior Inspector

6-17-8
Date

Inspection Summary:

Inspection Conducted: May 4 through June 7, 1988 (Report 50-445/88-36; 50-446/88-31)

Areas Inspected: Unannounced, resident safety inspection of applicant's actions on previous inspection findings, Comanche Peak Response Team (CPRT) issue-specific action plans (ISAPs), assessment of allegations, and general plant areas (tours).

Results: Within the areas inspected, a weakness was identified in procedural changeovers (paragraph 3.b), a weakness was identified in the documentation of Hilti bolt embedment for conduit supports (paragraph 4), one violation was identified for inadequate Hilti bolt embedment (paragraph 4), and one unresolved item was identified for abandoned Hilti bolt hole repair methods (paragraph 4).

DETAILS1. Persons Contacted

J. Arros, Tenera (TERA)
 G. S. Braun, TERA
 *W. G. Council, Executive Vice President, TU Electric
 *M. D. Gaden, CPRT, IT Corporation
 N. D. Hammett, Engineering Assurance, Brown & Root
 *T. L. Heatherly, Licensing Compliance Engineer,
 TU Electric
 C. R. Hooten, Civil Engineering Manager, TU Electric
 M. G. Krisher, QC Surveillance Construction, Ebasco
 J. C. Miller, TERA
 *J. W. Muffett, Manager of Civil Engineering, TU Electric
 *L. D. Nace, Vice President, Engineering & Construction,
 TU Electric
 *D. M. Reynerson, Director of Construction, TU Electric
 *A. B. Scott, Vice President, Nuclear Operations, TU Electric
 *M. R. Steelman, CPRT, TU Electric
 C. E. Trout, CPRT, Southwest Research Institute
 T. Vears, Engineer, SWEC
 F. Webster, Jack Benjamin and Associates

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

*Denotes personnel present at the June 7, 1988, exit meeting.

2. Applicant Action on Previous Inspection Findings (92701)

(Closed) Open Item (445/8828-0-01; 446/8824-0-01): This item addressed potential methodological inconsistencies in Schmidt Hammer testing performed for ISAP II.b. One of the issues concerned the discarding of test readings which deviated significantly from other readings. The Schmidt Hammer test manual defined a significant deviation as being five units from the mean whereas the procedure (X-FE-108-1) used during the testing defined this threshold at seven units. The NRC inspector reviewed ASTM C805-79, "Rebound Number of Hardened Concrete," which states that readings differing from the average by more than seven units should be discarded, in agreement with the test procedure. The NRC inspector considered the correspondence between the ASTM standard and the test procedure to satisfactorily resolve this issue, since this is primarily a statistical issue for which the ASTM standard (in lieu of the equipment manual) takes precedence.

Another issue presented in the open item concerned temperature compensation of the test readings. The NRC inspector raised this concern in response to the presence of recorded temperatures on the data sheets and the absence of any use of

these readings. Further research of test procedures and ASTM C805-79 by the NRC inspector revealed that no methods for temperature compensation were presented. The ASTM standard stated that rebound hammers at 0° F may exhibit rebound numbers reduced by as much as two or three units. Since most recorded readings were in the range of 40-60 units and all readings were taken in the range of 65° to 90° F, it is evident that temperature effects were statistically negligible with respect to the findings of ISAP II.b.

The final issue presented in the open item concerned compensation of the test hammer readings for the daily checks using the test anvil. Procedure QI-QP-13.0-5, Revision 1, dated October 16, 1984, presented a formula for compensating test hammer readings for test anvil checks. However, compensation for the test anvil was never performed during the ISAP effort. The NRC inspector was informed by the responsible CPRT engineer that Procedure QI-QP-13.0-5 was not used during concrete testing. Used instead was Procedure X-FE-108-1, the test procedure developed by the consulting firm which performed the testing, Southwest Research Institute. This procedure, in addition to ASTM C805-79, does not address compensation of hammer readings for the test anvil. The NRC inspector determined that had the compensation been performed, the changes to the readings would have been random and would not have had a significant statistical effect on the comparison of the two concrete populations.

This item is closed.

3. Applicant's Actions on CPRT Issue-Specific Action Plans (ISAP)

The following CPRT ISAP activities were inspected during the report period:

a. Concrete Compression Strength (ISAP II.b) (46055)

The following activities for ISAP II.b were reviewed by the NRC inspector during this report period:

(1) Concrete Testing (NRC References 02.b.01.04 and 02.b.02.04)

As presented in NRC Inspection Report (IR) 50-445/88-28; 50-446/88-24, all issues involving this ISAP reference were resolved with the exception of Open Item 445/8828-0-01; 446/8824-0-01. This open item was closed during this report period and is documented in paragraph 2 of this report. The original concern regarding Schmidt Hammer test methods was not substantiated. As a result,

inspection activity for this ISAP reference is complete. No violations or deviations were identified.

(2) Hammer Calibration (NRC Reference 02.b.03.00)

CPRT's decision to not calibrate the Schmidt Hammer to concrete of known strength (via cylinder compression tests) was based on the position that the concrete-at-issue (CAI) Schmidt Hammer test readings were not significantly lower than the readings obtained for the control concrete (CC). This position has some technical merit in that the test readings of the CAI at the 10th percentile were only about 2.5 percent lower than the CC and this differential correlated well with the cylinder test data generated at the time of the original placement. Nevertheless, the NRC inspector questioned the nonperformance of the calibration since it could have imparted additional credibility to the overall conclusion that the CAI is adequate.

At the time of the applicant's decision to not calibrate the Schmidt Hammer, a NRC consultant associated with the Technical Review Team was onsite and provided his concurrence that the calibration was not necessary. The applicant did not wish to take core samples from the Category I structures tested by the Schmidt Hammer due to expense and repair problems. The NRC consultant's position was that if core samples from the actual testing sites could not be used, then the hammer calibration should be deleted, since testing of other concrete samples would yield unreliable results. The NRC consultant concurred with the applicant that the calibration was not essential and agreed with its cancellation. In light of these facts and in regard to the technical merit of the test hammer analysis, the NRC inspector (during this report period) accepted the nonperformance of the test hammer calibration.

No violations or deviations were identified. This activity is complete and no further NRC inspection is planned for this reference item.

b. Rebar in the Fuel Handling Building (ISAP II.e) (46055)

The following activities for ISAP II.e were reviewed by the NRC inspector during this report period:

Review Controls Governing Rebar Cutting (NRC
Reference 02.e.02.00

The NRC inspector reviewed CPRT's analysis of the adequacy of procedural controls governing rebar cutting for Hilti bolt or core bore installations. CPRT reviewed procedures for the following aspects relevant to rebar cutting: (1) the requirements for engineering approvals for rebar cutting, (2) the method of drilling as it relates to the possibility of cutting rebar, (3) the requirements for QC inspection of the drilled holes to verify that rebar was cut in accordance with the design documents, and (4) the control of drilling equipment capable of cutting rebar. CPRT concluded that procedural controls governing drilling operations were adequate, but that requirements for QC inspections needed to be strengthened. Prior to the issuance of the Results Report, the relevant procedures were revised to provide additional QC overview of rebar cutting activities.

The NRC inspector identified during this report period that many of the procedures revised in response to the CPRT findings had been superseded by new procedures. Therefore, the focus of the NRC review was to verify that the new procedures were adequate to control rebar cutting activities and contained the same enhanced QC requirements as the superseded procedures. The procedural supersessions were as follows: (1) NQA 3.09-2.05 replaced QI-QP-11.2-1, (2) NQA 3.09-1.01 replaced QI-QP-11.0-6, and (3) CPM-108 replaced MCP-13. The NRC inspector verified that the new procedures retained the same requirements as the original procedures (before being revised in response to this ISAP) with respect to rebar cutting. On the other hand, the procedural revisions to the superseded procedures made to strengthen QC requirements were diluted in some cases in their translation to the new procedures. For example, MCP-13 had been revised to read:

"A QC hold point shall be established for QCI notification of pending core-drilling prior to work being performed. An additional QC inspection point shall be established for QCI verification that during coredrilling no rebar was cut without a prior engineer authorized design change document. A final QCI verification shall be established on the traveler that either no rebar was cut or rebar cutting was in accordance with an authorized design change document."

This procedure was replaced by construction Procedure CPM-108, "Core Drilling and Rebar Cutting,"

effective May 2, 1988. The above requirement was changed in Procedure CPM-108 to read:

"QC shall be notified upon completion of core-drilling or rebar cutting prior to making the area inaccessible for inspection. QC shall be notified upon completion of any operation where the waver [sic] of the drill stop/grounding device has been granted prior to making the area inaccessible for inspection. QC shall be notified prior to commencing core drilling operation for Hilti bolt removal."

Therefore, requirements for QC hold points and documented verification were replaced with the mere notification of QC for rebar cutting.

Procedure QI-QP-11.0-6 had been revised to contain essentially the same requirements cited from MCP-13 above. This procedure was replaced by NQA 3.09-1.01, which refers to Specification 2323-SS-9 for rebar cutting. The only similar QC requirement in SS-9 is:

"Upon completion of chipping, core drilling or rebar cutting, verify that the requirements of Specification 2323-SS-10, Appendix A and or the Design Document has been met. If the area exposes reinforcing steel, verify that rebar damage (if any) meets the requirements of 2323-SS-10."

Specification 2323-SS-10, "Reinforcing Steel," is used in this case to assess damage to rebar incurred during drilling activities. Again missing from SS-9 is any direct reference to QC hold points or documented verification that rebar cutting is in conformance with design.

Within the new procedures, the only location which retains the intent of the original procedural enhancement is Specification 2323-SS-30, Section 4.1.c, which states:

"When embedded steel items are cut, QC shall verify that the embedded steel cut conforms to the design drawings."

Specification 2323-SS-30, "Structural Embedments," is referenced by NQA 3.09-2.05, which replaced QI-QP-11.2-1. Assuming this requirement is followed, the spirit of the strengthened QC involvement in rebar cutting will be met. It should also be noted that the strengthening of QC requirements resulted from a type 3, or non-mandatory, recommendation from CPRT. Nevertheless, the dilution of

procedural enhancements which occurred during the procedural changeovers is identified as a weakness.

c. Improper Shortening of Anchor Bolts in Steam Generator Upper Lateral Supports (ISAP V.b) (48055)

The following activities for ISAP V.b were reviewed by the NRC inspector during this report period:

Rework of Unit 1 for Acceptable Thread Engagement (NRC Reference 05.b.01.00) and Inspection of Unit 2 for Acceptable Thread Engagement (NRC Reference 05.b.02.00)

The NRC inspector witnessed final pretensioning (torquing) of bolts in the steam generator upper lateral supports in Compartments 1, 3, and 4; Unit 2. This activity was performed by Flexitallic Services, Inc. and documented on Travelers 8902-1E, 8902-3W, and 8902-4W. A preload specified by Westinghouse (see NRC IR 50-445/88-21; 50-446/88-18) was applied to each bolt using a hydraulic jack system. Bolt elongation was monitored using a Raymond Engineering PDX-934 ultrasonic bolt gauge.

Each support beam end uses eighteen 2 1/2 inch diameter A540 GR 23 bolts. The initial length of each bolt was determined using the ultrasonic testing (UT) equipment and recorded along with bolt temperature on the traveler. The 18 bolts were then torqued using an established torquing pattern until 50 percent, 75 percent, and then 100 percent of the required elongation was obtained. Temperatures were accurately measured and recorded at each stage and entered into the bolt gauge to allow for temperature compensation. Instrument calibration was performed at the beginning and end of each shift, at a minimum.

The NRC inspector reviewed the above travelers and the Raymond Engineering Inc. calibration document, "TUGCO Steam Generator Upper Lateral Bolt Calibration and Proof Test Report." The NRC inspector also attended an informal orientation meeting given by Flexitallic Services, Inc. which detailed the theory and methods used for determining bolt elongation.

No violations or deviation were identified. This activity is complete and no further NRC inspection is planned for this reference item.

4. Assessment of Allegations (99014)

(Closed) Allegation (OSP-88-A-0023): An allegation was received by the NRC that contained two concerns relating to: (1) inadequate Hilti bolt embedment when installed through grout and (2) poor quality repair of abandoned holes in concrete using dry pack grout. The first concern was substantiated resulting in Violation 445/8836-V-01 issued in this report. The second concern was not substantiated; however, Unresolved Item 445/8836-U-02 was issued in this report regarding this activity.

a. Concern No. 1

The allegor stated that grout topping on concrete pads supporting HVAC air handling units is not shown correctly on drawings. According to the allegor, the drawings show topping only under the equipment whereas the installed grout covers the entire concrete pad which is larger than the base of the air handling units. Hilti bolts installed through the grout into the concrete pad (exterior to the base of the air handling units) could have less than the minimum required embedment if details of the thickness or existence of the topping is not available. The thickness of the grout should be subtracted from the embedment measurement. The allegor indicated that this is a widespread problem and discussed specific examples of conduit supports located in Pooms 245 and 246 in the Auxiliary building, Unit 1.

Review

The NRC inspector toured Room 245 in the Auxiliary building and located the grout-topped pedestals identified by the allegor. The NRC inspector judged by visual inspection that the pedestals were topped with approximately two inches of grout. Several electrical conduits were attached to the pedestals using Hilti bolt supports. Each of the conduits were "train C" or non-Q, thus not safety related, and no further effort was made to determine bolt embedment.

In Room 246 of the Auxiliary building, the NRC inspector found an example of Q conduit (designator C02012055) attached to a grout-topped pedestal. The conduit was attached to an approximately 4-inch thick concrete pedestal between exhaust fans 07 and 09 near column lines 3A and KA and shown isometrically on Drawing 2323-S-0910, Sheet 12055-SK01. Grout had been placed over the entire surface of the pedestal to a depth of approximately two inches during the process of leveling the two large fan units. The grout thickness was estimated as a result of visual observations and discussions with the applicant. Drawings of the pedestal

showed the presence of grout but did not supply thickness dimensions. The conduit was anchored to the pedestal using two-bolt strap supports with 3/8 inch Hilti bolts.

The NRC inspector reviewed the Ebasco conduit support field walkdown package (dated August 8, 1987) for Conduit C02012055. This walkdown package recorded the bolt type and vertical projection for the 3/8 inch Hilti bolts used for each support. All of the reports had Hilti bolts recorded as type "H" with the exception of Support No. 07 which had type "E" bolts. The NRC inspector confirmed this information by reading the bolt head markings. No discrepancies for bolt projection were identified.

The NRC inspector also reviewed Ebasco Calculation 12055, Revision 1, for this conduit run and discussed required and actual Hilti bolt embedment with Ebasco engineers. Ebasco engineers use the bolt projections documented on walk-down records and the overall bolt lengths to calculate the actual Hilti bolt embedment. This process is not documented on the walk-down records or the Ebasco calculations and can only be verified by redoing the embedment calculation. The NRC inspector could not verify if grout topping thickness was considered by Ebasco in the calculation of as-built Hilti bolt embedment. The Ebasco engineers indicated that grout thickness was not considered for this conduit run. Calculation 12055 does not address the thickness of the grout topping and, therefore, incorrectly arrives at the conclusion that the support meets design specifications. The adequacy of the embedments were only addressed in the calculation by a table showing that the as-built embedments or the thickness of the grout topping could contribute to additional errors in the evaluation of the adequacy of Hilti bolts installed through grout topping and is a weakness in the Ebasco evaluation of conduit supports.

Ebasco requested on December 9, 1987 that Stone and Webster identify all areas where grout topping on floor slabs was used. This information was provided in DCAs 65035 and 65036 received by Ebasco in April 1988. These documents do not address grout topping on concrete pedestals.

The required embedment for 3/8 inch bolts is 2 inches prior to Hilti bolt setting as specified on Drawing 2323-S-0910, Sheet G-2, Note 5. Note 46 of the same drawing states that minimum embedment lengths of Hilti bolts pertain strictly to structural concrete. Specification 2323-SS-30, Revision 3, Appendix A,

Section 4.3 states that Hilti bolts shall be installed into structural concrete. Grout topping is nominally considered to be 2 inches thick and must be subtracted from the overall embedment. The type "H" bolts are 5 inches long and, based on the bolt projection heights of 1 to 1 3/8 inches, are adequate in this application. The NRC inspector measured the bolt projections for the two type "E" Hilti bolts used for Support 07 as approximately 1 1/2 inches, which was consistent with the Ebasco field walkdown measurements of 1 1/2 and 1 5/8 inches for the two bolts. Type "E" Hilti bolts are nominally 3 1/2 inches long; therefore, only approximately 2 inches of the bolts were embedded in cementitious material. Since the required bolt embedment is 2 inches, the presence of any grout would render the support out of specification with Drawing 2323-S-0910. Assuming 2 inches of grout, the two type "E" bolts are embedded only in grout. The applicant agreed that this condition exists for Support No. 07.

Conclusion

The NRC inspector substantiated the alleger's concern.

In response to the NRC finding, the applicant issued NCR 88-9714 through which further assessment and corrective action will be tracked. The applicant stated that both safety and nonsafety conduit will be considered in their response. The lack of documentation of the as-built embedment lengths or the thickness of the grout topping could contribute to additional errors in the evaluation of the adequacy of Hilti bolts installed through grout topping. This condition may not be limited to conduit supports. The nonconformance of Hilti bolt embedment and failure of the walkdown to identify this situation are considered a violation (445/8836-V-01).

b. Concern No. 2

The alleger stated that repair of abandoned holes in concrete next to Hilti bolts using dry-pack grout is poorly done. According to the alleger: (1) the holes in the concrete were often quickly wetted and not saturated as not enough time was allowed for the water to absorb into the concrete, (2) the holes were not adequately cleaned, prior to grouting, (3) tamping of dry-pack grout into the holes was inadequate, (4) no curing compound was used, (5) no strength testing of the dry-pack grout was done, (6) dry-pack grout was retempered (water was added to unused grout after initial mixing, and (7) the craft personnel often were not cognizant of grouting

procedures. The allegor also stated that he had observed poor quality dry-packing on numerous occasions.

Review

The NRC inspector reviewed Brown & Root Construction Procedures CCP-12, "Concrete Patching," Revision 5 (effective October 26, 1986, to August 17, 1987); CCP-11, "Concrete and Grout," Revision 3 (effective August 18, 1987, to April 29, 1988); and CCI-102, "Concrete and Grout," Revision 0 (effective April 30, 1988, to present) which controlled dry-pack grout placement during the time the allegor was employed at CPSES. These procedures clearly require cleaning of the abandoned holes, thorough drenching with water until saturated, removal of any standing water, and placement of grout in small workable layers compacted over the entire surface using a wooden stick. Retempering of dry-pack grout is not allowed and any unused grout that has achieved initial set is to be discarded. Curing and strength testing of grout used to repair abandoned holes is not required by these procedures.

The NRC inspector reviewed historical Brown and Root procedures governing the repair of abandoned Hilti bolt holes using dry-pack grout. Prior to September 1986, the procedures only required that the abandoned drill holes be cleaned, thoroughly dampened, and filled solid with mortar or nonshrink commercial grout. The procedures do not contain details on dampening, cleaning, tamping, curing, etc. It appears that the quality of dry-pack repair of abandoned drill holes prior to about September 1986 was dependent on the skill of the craft personnel performing the work.

The NRC inspector reviewed the requirements for concrete repair of abandoned holes and minimum spacing of Hilti bolts outlined in TU Electric Specification 2323-SS-30, Revision 3, August 3, 1987, "Structural Embedments." This specification requires that abandoned holes, which are located closer than four times the larger diameter of the hole or the bolt, be grouted and allowed to cure four days prior to setting the bolts. All abandoned holes that will be covered by a base plate are required to be patched. TU Electric Specification 2323-SS-30 also states, in part, "Hilti bolts shall not be spaced closer than 2 times the larger diameter of anchor bolts from an abandoned Hilti bolt, unused Richmond insert, and unused anchor bolt."

Specification 2323-SS-30 does not limit the number of abandoned Hilti bolt holes or the proximity of abandoned

holes to an operational Hilti bolt provided the holes are grouted. The NRC inspector observed numerous locations in the Unit 1 Reactor and Auxiliary buildings where base plate installations using Hilti bolts were in process. In many locations, abandoned holes nearly surround the good holes where Hilti bolts will be installed, with spacings to the good holes of less than two bolt diameters. Occasionally, the abandoned holes were drilled with 1/4 inch pilot drills but, as a general rule, the abandoned holes were the same diameter as the Hilti bolts.

The NRC inspector requested a search for nonconformance reports (NCRs) issued during late 1987 through April 1988 concerning poor quality repair of abandoned holes using dry-pack grout. No NCRs meeting this description were identified by the applicant.

The NRC inspector interviewed two lead QC civil inspectors who were involved with recent inspection of structural embedment installations including Hilti bolts and grout placement. QC inspectors do not observe the patching and repair of abandoned Hilti bolt holes with dry-pack grout. Specification 2323-SS-30, Revision 3, "Structural Embedments," requires 100 percent QC verification that grouted holes within four bolt diameters of Hilti bolts are allowed to cure at least four days before the Hilti bolts are set and that abandoned holes are patched before base plates are installed that will cover the holes. Specification 2323-SS-30 does not, however, require QC verification of the quality of the patching of these holes.

The NRC inspector also interviewed two QA surveillance inspectors and examined surveillance records. Surveillance of dry-packing of abandoned holes (covered by Procedures CCP-12 and CCP-11, October 26, 1986, to April 29, 1988) was documented on the following QA surveillance reports:

CS-87-0074	November 16, 1987
CS-88-0188	March 2, 1988
CS-88-0253	March 22, 1988
CS-88-0292	April 5, 1988
CS-88-0314	April 12, 1988

Deficiency Report DR-C-88-01160 was issued by QA surveillance regarding activities observed during the inspection documented in CS-88-0188. DR-C-88-01160 states, in part, ". . . the concrete was wet down with 5 or 6 squirts of water from a water bottle. The concrete was neither drenched or saturated and there was no

standing water to remove" Routine QA surveillance of the patching and repair of abandoned holes with dry-pack grout on a monthly or twice monthly basis did not begin until March 1988. This timing coincides with the observations made by the allegor.

The NRC inspector observed the repair of two abandoned Hilti bolt holes located in the overhead slab of Room 207 in the Auxiliary building using dry-pack grout. No initial cleaning of the holes was done (note that the holes were located overhead where loose material is not expected to accumulate). The craft personnel showed the NRC inspector a rubber aspirator used to blow dust from the abandoned holes. Compressed air or vacuums were not used. The holes were thoroughly dampened using a mister and immediately packed with grout. The dry-pack grout appeared to be wetted to the proper consistency and packed firmly into the holes and finished with a blunt wooden dowel. A curing compound was applied over the finished surface. The person performing the repair was knowledgeable of the repair procedures.

Conclusion

The NRC inspector was unable to substantiate the allegor's concerns that dry-pack grout was retempered, tamping was inadequate, and that the craft personnel often were not cognizant of grouting procedures. The possibility exists that grout retempering and inadequate tamping occur when the craft personnel are not being observed. Strength testing and curing compound are not required by grouting procedures for repair of abandoned Hilti bolt holes.

The NRC inspector confirmed that the abandoned holes were quickly wetted and immediately packed with grout and that the holes were not thoroughly cleaned using compressed air or a vacuum. Procedure CCI-102 requires that cleaning of the holes prior to placement of the grout be done, ". . . by vacuuming, blowing with air and by any other practical means." While the craft personnel followed the requirements of the grouting procedures, the cleaning and soaking of the abandoned holes was observed to be minimal. The Specification 2323-SS-30 allows numerous (unlimited) patched abandoned holes in close proximity (no minimum spacing requirements are specified) to a Hilti bolt implying that the grouted repair has at least the strength of the parent concrete. This would not be the case if the dry-packing was poorly done. QA surveillance of this activity was minimal or nonexistent prior to the time frame specified by the allegor. The adequacy of the repair of abandoned Hilti bolt holes

using dry pack grout is an unresolved item (445/8836-U-02).

5. Plant Tours (92700)

The NRC inspectors made frequent tours of Unit 1, Unit 2, and common areas of the facility to observe items such as housekeeping, equipment protection, and in-process work activities. No violations or deviations were identified and no items of significance were observed.

6. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations, or deviations. One unresolved item disclosed during the inspection is discussed in paragraph 4.b.

7. Exit Meeting (30703)

An exit meeting was conducted June 7, 1988, with the applicant's representatives identified in paragraph 1 of this report. No written material was provided to the applicant by the inspectors during this reporting period. The applicant did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection. During this meeting, the NRC inspectors summarized the scope and findings of the inspection.

50-445/88-36; 50-446/88-31

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