# APPENDIX

## U.S. NUCLEAR REGULATORY COMMISSION
## REGION IV

NRC Inspection Report: 50-445/90-38
50-446/90-38

Operating License: NPF-87
Construction Permit: CPPR-127

Dockets: 50-445
50-446

Licensee: TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Facility Name: Comanche Peak Steam Electric Station (CPSES)

Inspection At: CPSES, Glen Rose, Texas

Inspection Conducted: September 6 and 10-14, 1990

Inspectors: J. Barnes 9-25-90
for L. E. Ellershaw, Reactor Inspector, Materials and Quality Programs Section, Division of Reactor Safety — Date

J. Barnes 9-25-90
for L. D. Gilbert, Reactor Inspector, Materials and Quality Programs Section, Division of Reactor Safety — Date

Approved: J. Barnes 9-25-90
Ian Barnes, Chief, Materials and Quality Programs Section, Division of Reactor Safety — Date

Inspection Summary

Inspection Conducted September 6 and 10-14, 1990 (Report 50-445/90-38)

Areas Inspected: Nonroutine, announced inspection to evaluate the fouling of the Train A component cooling water heat exchanger and implementation of commitments made in response to Generic Letter 89-13.

Results: Within the areas inspected, no violations or deviations were identified. The licensee's program for inspection, testing, and maintenance of the service water (SW) system was found to be comprehensive in nature and consistent with the requirements of the Technical Specifications and commitments made in response to Generic Letter 89-13. The effectiveness of current SW treatment practices in minimizing fouling could not be fully assessed, as a result of the very recent placing into service of a permanent bromination treatment system.

Inspection Conducted September 6 and 10-14, 1990 (Report 50-446/90-38)

Areas Inspected: No inspection of Unit 2 was conducted.

Results: Not applicable.

## DETAILS

### 1. PERSONS CONTACTED

TU ELECTRIC

*O. Bhatty, Issue Interface Coordinator
*M. R. Blevins, Manager, Nuclear Operations Support
*B. B. Brixey, Systems Engineer
*W. J. Cahill, Jr., Executive Vice President
*T. Eckert, Principal Engineer
*N. Garbarino, Senior Nuclear Chemist
*W. G. Guldemond, Manager, Site Licensing
*C. B. Hogg, Chief Engineer
*T. A. Hope, Site Licensing
T. Howard, Supervisor, Maintenance Service Department
*T. Jenkins, Manager, Mechanical Engineering
*D. M. McAfee, Manager, QA
*D. L. Moore, Chemist
*E. L. Morales, Project Engineer
C. A. Navas, Project Engineer
P. Olson, Operations Coordinator
*M. C. Patel, Dallas Licensing
*A. B. Scott, Vice President, Nuclear Operations
*P. B. Stevens, Manager, Technical Support
*R. L. Theimer, Chemistry Supervisor
*R. D. Walker, Manager, Nuclear Licensing

CASE

*O. L. Thero, Consultant

NRC

*W. D. Johnson, Senior Resident Inspector
*A. Howell, Resident Inspector

The NRC inspectors also interviewed other licensee employees during the inspection.

*Denotes those attending the exit interview conducted on September 14, 1990.

### 2. STATION SERVICE WATER (92701)

#### 2.1 Background

Train A of the component cooling water (CCW) system was taken out-of-service on September 6, 1990, to clean the service water (SW) side of the CCW heat exchanger because the fouling factor was rapidly approaching the allowable fouling

factor. Since the heat exchanger had just been cleaned on August 14, 1990, for the same reason, this inspection was conducted to assess the circumstances regarding the rapid fouling which necessitated removing the heat exchanger from service. The inspectors witnessed the opening and cleaning of the Train A CCW heat exchanger on September 6, 1990. The inspectors noted that the heat exchanger appeared to be relatively clean. However, closer examination at the outlet side revealed a slime buildup on the inside diameter of the tubes and on the tube sheet. The inlet side, while appearing to be more clean, did have a block of wood measuring approximately 2-inches long by 1 1/2-inches wide by 3/4-inches thick lodged against the opening of the tubes. The cleaning of the heat exchanger consisted of hydrolyzing the end bells, tube sheets, and tubes. It was also noted that certain tubes appeared to be plugged with debris, even after hydrolyzing at 8,000 PSI water pressure. Subsequent to the completion of the cleaning operation, the inspectors discussed the results with the supervisor of maintenance services. The supervisor informed the inspectors that those tubes which appeared to be plugged were subsequently hydrolyzed at a water pressure of 10,000 PSI. This pressure was sufficient to clear the tube passages. It was also determined that it would be difficult to establish what the debris consisted of, in that the water pressure virtually pulverized the debris. The debris was routed to the CCW heat exchanger sump No. 3. The inspectors asked if the sump could be cleaned so that the contents could be examined. The supervisor responded by stating that the sump had last been cleaned on June 20, 1990, so that the contents would also include the debris from the previous cleaning of the Train A and B CCW heat exchangers which had been performed after that date.

The inspectors also discussed the fouling of the heat exchangers with the SW system engineer and chemistry personnel responsible for controlling the water treatment. The system engineer stated that the CCW heat exchanger fouling factor was currently being monitored daily as required by Procedure STA-734. The procedure specifies daily monitoring whenever there is less than 0.001 units of margin between the fouling factor test data and the unacceptable curve for the allowable fouling factor. The trending data showed that the fouling factor from the test data was rapidly increasing while the allowable fouling factor was decreasing because of the ultimate heat sink (UHS) water temperature rise from the summer heat. The chemistry supervisor attributed the fouling of the CCW heat exchangers to a bacteria generated slime which sticks to the inside of the tubes of the heat exchangers. The SW treatment process was upgraded on September 6, 1990, as a result of the placing into service of a permanent bromination treatment system. The bromination treatment was gradually increased from a 30 minute injection at 1.6 GPH twice per day to a 30 minute injection at 5 GPH three times per day for the next 4 days with no apparent effect on the fouling factor. On September 11, a shock treatment was used consisting of five 30 minute injections ranging from 5 GPH to 12 GPH. The shock treatment was effective in stabilizing the fouling as indicated by the test data resulting in a constant fouling factor. Following the shock treatment, the bromination treatment was reduced to three 5-9 GPH injections per day. The analysis of the residual chemicals in the SW system water that is returned to the UHS and the heat exchanger fouling factor are used by the chemistry supervisor to determine the next bromination treatment for the water of the SW system.

## 2.2 Technical Specification

The Unit 1 Technical Specifications (TS) have a surveillance requirement that the UHS shall be determined operable at least once per 24 hours by verifying the SW intake temperature and UHS water level to be within the limits specified in TS 3.7.5 as a limiting condition for operation. The inspectors requested the surveillance records that documented the verification of the water temperature and level on September 11 and 12, 1990. The verification of the water temperature and level for September 11 was documented on Form OPT-102A-03 which is used when Unit 1 is operating in Mode 3. The verification of the water temperature and level for September 12 was documented on Form OPT-102A-01 which is used when Unit 1 is operating in Mode 1 or 2. The water temperature and level recorded for both days were within the TS limits of water temperature less than or equal to 102°F and water level greater than or equal to 770 feet above sea level.

## 2.3 Generic Letter 89-13

By letter dated July 18, 1989, "Service Water System Problems Affecting Safety-Related Equipment (Generic Letter 89-13)," NRC requested all nuclear power plant licensees to commit to certain tests and evaluations of SW systems and to respond to this requirement for information within 180 days of receipt of the generic letter (GL). In addition, each licensee was required to confirm that all of the recommended actions or their justified alternatives had been implemented within 30 days of such implementation. TU Electric, in response to the five recommended actions contained in GL 89-13, addressed their SW program for CPSES by letter dated January 26, 1990. NRC acceptance of the TU Electric response was provided in Supplemental Safety Evaluation Report No. 24 of NUREG 0797 dated April 19, 1990. TU Electric, by letter dated May 21, 1990, provided the required confirmation that they had completed implementation of the requirements of GL 89-13 for Unit 1. During this inspection, the inspectors reviewed the actions taken by TU Electric to fulfill the commitments made to the NRC and observed the following.

### 2.3.1 Biofouling Control

Recommendation I of GL 89-13 addressed the need to implement and maintain an ongoing program of surveillance and control to reduce significantly the incidence of flow blockage problems resulting from biofouling. Enclosure 1 to GL 89-13 described a program acceptable to the NRC for meeting the objectives of Recommendation I and consisted of four items.

Item A addressed the need for visually inspecting the SW intake structure for microbiologically fouling organisms once per refueling cycle. TU Electric responded by stating that they had implemented a preventive maintenance activity which calls for inspection of the SW intake structure by a SCUBA diver at least once per fuel cycle and that any significant accumulation of silt and debris, including clams, would be removed. The inspectors noted that this requirement had been incorporated into Station Administration Procedure STA-734, "Service Water System Monitoring Program." It was also noted that TU Electric had inspected and cleaned the SW intake structure in February 1990.

Item B discussed continuous chlorination, or equally effective biocide treatment, of the SW system whenever the potential for macroscopic biological fouling exists and that it is also useful in helping to prevent microbiologically induced corrosion. TU Electric responded and stated that they currently were using a biocide injection and a bromine based chemistry to control adverse biological growth in the SW system. The inspectors noted that the SW system has been in operation since 1981 and that various chemical treatments have been employed. Initially, gaseous chlorine was used and supplemented, when necessary, with sodium hypochlorite. In October 1988, the use of gaseous chlorine was discontinued and sodium hypochlorite alone was used. In May 1989, the use of sodium hypochlorite was discontinued and replaced with a self-activating bromine compound. On September 6, 1990, a permanent bromination system was placed into service using sodium bromide activated by sodium hypochlorite. In addition, clamicides and corrosion inhibitors have been used since April 1987 and October 1988, respectively. Chemistry/Radiochemistry Procedure CHM-530, "Chemistry Control Of The Service Water System," provides instructions regarding clamicide injection, operation of the bromination system, and corrosion inhibitor treatment. The inspectors noted that the procedure provides for frequency of clamicide injection and operation of the bromination system; however, the amounts are not addressed. The parameters for the injection of the corrosion inhibitors are a function of the concentrations measured in the treated water. The concentrations are provided for two of the three chemicals being used. In general, where the procedure appears to lack specificity, the chemistry supervisor is allowed to establish and/or alter feed rates, frequencies, and other pertinent information. The procedure does address monitoring the SW system with respect to sampling (i.e., sample methods, sample frequencies, and sample locations) and documentation. While the inspectors did not observe any samples being taken, a limited review of the data sheets used to document monitoring activities performed since January 1, 1990, to date, was undertaken. The required information was being recorded and all data sheets were routed to the chemistry supervisor for review and approval. It was also noted that the procedure allowed the chemistry supervisor to determine any recommendations or changes resulting from his review.

Item C addressed the need for flushing, flow testing, and testing of infrequently used cooling loops and other system components to ensure that they are not fouled or clogged. Further, prior to layup, the SW cooling loops should be filled with chlorinated or equivalently treated water. TU Electric responded by stating that, with the exception of the auxiliary feedwater connection, the SW system sees continuous flow in order to maintain a good mix of the aforementioned chemical injections, and that the plant operating procedure provides for chemical treatment of the SW system prior to layup. It was further stated that the auxiliary feedwater connection could not be flow tested due to the potential for transporting "raw" water to the steam generators. Therefore, at the time inservice testing (IST) is performed on the check valves located in the vicinity of the auxiliary feedwater connection, a visual examination will be performed to ensure that the connection is not fouled or clogged. The inspectors noted that Procedure ST/-734 requires that flow rates through each component within the SW system be measured on a weekly basis. The procedure referenced Operations Department Procedure ODA-301, which established the operating logs to be maintained

and the requirements for their proper maintenance and content. Weekly equipment log ODA-301-28 has been established as the form to record the SW system flow rates required to be documented on a weekly basis. The inspectors verified by review of the weekly equipment logs that this activity was being performed. It was also noted that System Operating Procedure SOP-501A addressed the requirement regarding treatment of water prior to layup of the SW system. It requires notification be made to the chemistry department of intent to shutdown the SW system so that a biocide injection can be made. The procedure also states that if the system is required to be shut down for a period or 7 days or more, than the shutdown train shall be drained. With respect to TU Electric's commitment regarding visual inspection of the auxiliary feedwater connection, the inspectors requested the SW system engineer to provide the necessary information which would show that this commitment had been incorporated into the system. The SW system engineer provided a copy of CPSES PM (Preventive Maintenance) Data Base Update Request (DBUR) 90-0342 which was originated on April 23, 1990. This is the mechanism used to request changes or inclusions and is then reviewed and approved by the appropriate departments. DBUR 90-0342 requested a visual inspection of the SW to auxiliary feedwater connection for corrosion/microbiological attack at the time check valves ISW 388 and ISW 389 undergo IST. It also requested that the requirement for the inspection be added to the Managed Maintenance System Computer Program Data Base (maintenance data base) from which Maintenance Work Orders are initiated. The DBUR received final approval on April 25, 1990. The inspectors requested and received a copy of the maintenance data base, which had been revised on May 29, 1990, to include a complete description of the visual inspection requirements for the auxiliary feedwater to SW connection at the time the check valves are disassembled for IST.

Item D addressed the annual collection of water and substrate samples to determine if Asiatic clams had populated the water supply. Once detected, the licensees could discontinue the sampling activity and incorporate a chlorination or equally effective treatment program to be in agreement with Item B above. The inspectors verified that TU Electric had monitored for Asiatic clams since May 1981 and discontinued this activity upon detection of clams in 1984. The water treatment program is discussed above and is in agreement with the requirements of Item B.

2.3.2 System Testing

Recommendation II of GL 89-13 required a test program to be established to verify the heat transfer capability of all safety-related heat exchangers cooled by SW. The recommendation also included alternative methods that would be considered acceptable. TU Electric responded and identified the safety-related heat exchangers and the method by which each heat exchanger's design capacity would be verified. They stated that the CCW heat exchangers and the diesel generator jacket water (DGJW) heat exchangers will be tested in accordance with EPRI Interim Report "Heat Exchanger Performance Monitoring Guidelines For Service Water Systems," dated July 1989. The lube oil coolers of the centrifugal charging pumps (CCPs), containment spray pumps (CSPs), and the safety injection

pumps (SIPs) will not be tested; however, the lube oil temperatures would be recorded during monthly surveillance runs of the pumps and the trends analyzed quarterly. Further, the heat exchangers will be visually inspected at least once every 3 years and the SW flow rates will be monitored on a weekly basis to verify that the flow rates meet design requirements.

The inspectors verified that these commitments had been incorporated into Procedure STA-734 and implemented by reviewing applicable records. Each of the heat exchangers and lube oil coolers were extensively addressed in terms of the design basis, the testing and analysis method to be used, test frequency, trending, cleaning, and tube, tube bundle, or cooler replacement. The inspectors verified by review of monthly pump operability logs and quarterly IST pump records that the lube oil temperatures are being recorded. The SW system engineer collects this data and analyzes any developing trends on a quarterly basis. As discussed in Item C of Recommendation I above, SW flow rates are being monitored on a weekly basis. While the lube oil coolers have not yet been visually inspected with respect to TU Electric's once every 3 years commitment, the inspectors were provided a copy of DBUR 90-0341, which was initiated on April 23, 1990, for the purpose of adding this requirement. Final approval was obtained on April 25, 1990, for incorporating the visual inspection requirement into the maintenance data base. The data input date was indicated as being May 18, 1990. The inspectors were provided copies of the maintenance data base for the CCPs, CSPs, and SIPs. Detailed visual inspection requirements were incorporated into the maintenance data base for the respective lube oil coolers on May 18, 1990, showing a 3 year frequency. With respect to the DG/W heat exchangers, TU Electric has established two different monitoring techniques until enough experience has been obtained to determine which method is more appropriate: the heat transfer method and the operational data trending method. The frequency for performing the heat transfer method has been established as once each refueling outage when the diesel generators receive their 24 hour 100 percent load test. There has been no refueling outage to date at CPSES, therefore this method has not yet been used. The operational data trending method is based on the Transamerica Delaval (the diesel generator manufacturer) Owner's Group Maintenance and Surveillance Matrix. Operational data of the diesel generators, including the heat exchangers, are taken and trended in accordance with Results Engineering Instruction REI-503, "Emergency Diesel Generator Reliability Program," which references the use of Procedure ODA-301 and the applicable operations logs for each of the diesel generators. The inspectors reviewed the logs (Forms ODA-301-10 and ODA-301-11) for each diesel generator since January 1990, which are completed on a monthly basis. The data relating to the heat exchangers (i.e., the inlet and outlet temperatures of both the jacket water and the service water) was collected and formatted such that an analysis of any developing trends can be made. Regarding the CCW heat exchangers, the overall CCW heat exchanger fouling factor, which was based on the heat transfer method, was established by analysis in Calculation No. ME-CA-0229-2188. The inspectors verified that the fouling factor test data was being collected and submitted to engineering to calculate the fouling factor required for determining the operability of the CCW heat exchangers using the acceptance criteria established by Procedure STA-734.

2.3.3 System Inspections and Evaluations

Recommendation III of GL 89-13 required the establishment of a routine inspection and maintenance program for open-cycle service water system piping and components to ensure that corrosion, erosion, silting, and biofouling cannot degrade the performance of the safety-related systems served by service water. TU Electric responded by stating that the "Corrosion Monitoring Program, Service Water Subsection" has been developed to provide a means by which samples of SW system piping wall thickness will be periodically measured and trended to identify and correct any detrimental thinning. In addition, periodic preventive maintenance activities have been established for cleaning of the CCW heat exchangers and the system.

The inspectors reviewed Procedure STA-734 which established a section dealing with preventive maintenance. The section requires inspection of the strainers at the SW pumps, CCPs, SIPs, and containment spray lube oil coolers every 3 months and general cleaning or strainer basket changeout. In addition, this section also requires inspection of each CCWHX waterbox for clams, debris and degradation of coating once every refueling cycle. The inspectors reviewed Station Administration Procedure STA-730 "Corrosion Monitoring Program," which includes a section titled "Service Water Piping Corrosion Subsection." The corrosion monitoring program established the administrative controls and instructions for the development of the program, and the selection, inspection, and evaluation of the examination sites specified in the "CPSES Corrosion Monitoring Program Plan." The program plan consists of a number of subsections, one of which is titled "Corrosion Monitoring Plan, Service Water Subsection." This document provides for establishing the population, site selection, nondestructive examination guidelines, examination data evaluation and acceptance criteria. The inspectors requested the data and evaluations associated with the SW system baseline examination and were informed that it had not yet been performed. The inspectors initially questioned this status, in that the TU Electric letter dated May 21, 1990, had indicated that implementation of the requirements of GL 89-13 for Unit 1 were complete. Licensee personnel informed the inspectors that the intent of this letter was to confirm that the requested actions (i.e., for Recommendation III, the establishment of an inspection and maintenance program for erosion/corrosion control) had been completed, and it was not meant to signify that collection of initial baseline data was also completed. To clarify this matter, licensee personnel committed to provide an update to the May 21, 1990, letter which included the anticipated schedule for completion of the baseline examinations.

2.3.4 As-Built Verification

Recommendation IV of GL 89-13 required confirmation that the SW system will perform its intended function in accordance with the licensing basis for the plant. The confirmation should include recent system walkdown inspections to ensure that the as-built system is in accordance with the appropriate licensing basis documentation. TU Electric responded by stating that the functional requirements of the SW system are established in the project design basis document and have been reviewed in detail within the past 2 years. The review

confirmed that the SW system will perform its intended function in accordance with the licensing basis for the plant. It was further stated that the as-built information, generated within the past 2 years, was consistent with the design basis and is documented in stress analysis problem boundary packages.

The inspectors reviewed Revision 2 of the design basis document (DBD) "Station Service Water System, DBD-ME-233." This was a complete revision of the document to reflect results of the design validation program by Stone & Webster Engineering Corporation, and was approved on August 26, 1988. Since that time there have been three Design Change Notices (DCNs) and one Design Change Authorization (DCA), each of which had an engineering impact assessment and a change verification checklist showing the appropriate reviews and approvals. The inspectors selected a sample of stress analysis problem boundary packages to verify that as-built information had been generated and incorporated into the isometric drawings within the past 2 years. The drawings were updated by means of DCAs which captured the data generated during system walkdowns. The inspectors verified that the computer generated list of DCAs had been incorporated into the drawings.

2.3.5 Procedures and Maintenance

Recommendation V of GL 89-13 required a confirmation that maintenance practices, operating and emergency procedures, and training that involves the SW system are adequate to ensure that safety-related equipment cooled by the SW system will function as intended and that operators of this equipment will perform effectively. The confirmation was to include recent reviews of practices, procedures, and training. TU Electric responded by stating that administrative procedures require that quality related procedures (including maintenance, operating and emergency, and training) that involve the SW system be reviewed by individuals knowledgeable in the affected areas. It was further stated that their operator requalification program provides for retraining of operators to ensure that they are cognizant of any system or procedure changes affecting the SW system.

The inspectors verified that these requirements were included in administrative and operator requalification procedures. Procedures STA-202, "Administration Control of Nuclear Operations Procedures" and STA-203, "Control of Nuclear Operations Procedures/Form Manuals" both address the mechanisms used for review and approvals of procedures and forms by individuals knowledgeable in the affected areas. The inspectors verified that the changes to SW related procedures and the SW DCNs and DCA had been reviewed and approved by the appropriate engineering and quality department personnel. Training Procedure TRA-204, "Licensed Operator Requalification Training Program," addresses the requirements for operator training due to changes in operating and emergency procedures and changes to systems they are responsible for. The inspectors verified that the cognizant operators had been trained with respect to the permanent bromination system that had been activated on September 6, 1990, and the procedures related to that system.

2.4 Conclusion

Based on the results of this inspection, it appears that the licensee has established a program for the inspection, testing, and maintenance of the SW

system which is comprehensive in nature and consistent with the requirements of the TSs and commitments made in response to GL 89-13. No violations or deviations were identified during this inspection.

3. EXIT INTERVIEW

An exit interview was conducted on September 14, 1990, with those personnel denoted in paragraph 1 in which the inspection findings were summarized. The inspectors identified that a question remained regarding the implementation schedule for the erosion/corrosion monitoring program. The licensee confirmed that an update to the May 21, 1990, letter would be provided which included the anticipated schedule for implementation of this activity. TU Electric letter TXX-90347 was subsequently submitted on September 21, 1990, showing an anticipated completion date of December 31, 1990, for this activity. No information was presented to the inspectors that was identified by the licensee as proprietary.

ATTACHMENT

DOCUMENTS REVIEWED

Technical Specification 4.7.5

Procedure STA-734, "Service Water System Fouling Monitoring Program," Revision 0

Instruction No. REI-503, "Emergency Diesel Generator Reliability Program," Revision 1 and Procedure Change Notices 1 and 2

Procedure No. CHM-109, "Chemistry Action Guidelines for Out-of-Specification Results," Revision 2

System Operating Procedure No. SOP-501A, "System Service water System," Revision 6 and Procedure Change Notices 1 and 2

Procedure CHM0530, "Chemistry Control of Service Water System," Revision 2

EPRI Interim Report, "Heat Exhanger Performance Monitoring Guidelines for Service Water Systems," dated July 1990

Technical Evaluation No. SE-90-2498 documents the fouling factor evaluation for the Unit 1 Component Cooling Water Heat Exchangers using data obtained from the monitoring system during the period August 31-September 6, 1990

Technical Evaluation No. SE-90-2497 documents the fouling factor evaluation for the Unit 1 Component Cooling Water Heat Exchangers using data obtained from the monitoring system during the period September 7-12, 1990

Work Order C90005392, "CCW Heat Exchanger," Revision 0

Work Order C90005728, "CCW Heat Exchanger," Revision 0

Procedure STA-730, "Corrosion Monitoring Program," Revision

Corrosion Monitoring Plan Service Water Subsection, Revision 0

Work Order C90005055, "Corrosion Monitoring," Revision 0

Corrosion Monitoring Program Status Report for August dated September 10, 1990

Drawing No. M1-0233, "Flow Diagram Station Service Water System Sheet 1 of 3," Revision CP-20

Drawing No. M1-0233, "Flow Diagram Station Service Water System Sheet 2 of 3," Revision CP-9

Drawing No. M1-0234, "Flow Diagram Station Service Water System Sheet 3 of 3," Revision CP-17

Drawing No. M1-2229, "Instrumentation & Control Diagram Component Cooling Water System," Revision CP-1

Drawing No. 1074006-3246703, "Details for Component Cooling Water Exchangers," Revision 7

Design Change Notice No. M000187, "Incorporate Chemical Treatment Temporary Modification 880025 on to the design basis Document DBD-ME-233 R/2," Revision 0

Drawing No. M1-0240, "Flow Diagram Chlorination System," Revision CP-1

Calculation No. ME-CA-0229-2188, "CCW H/X Fouling Factor Analysis," Revision 1

Design Basis Document DBD-ME-229, "Component Cooling Water System," Revision 5

Design Basis Document DBD-ME-233, "Station Service Water System," Revision 2

Procedure STA-202, "Administration Control of Nuclear Operations Procedures," Revision 20

Procedure STA-203, "Control of Nuclear Operations Procedures/Forms," Revision 14

Procedure TRA-204, "Licensed Operator Requalification Training," Revision 6

Operations Department Administration Procedure No. ODA-301, "Operating Logs," Revision 8

Diesel Generator 1-01 Operating Log from January through July 1990

Diesel Generator 1-02 Operating Log from January through August 1990

Predictive Maintenance Data Base Update Request DBUR-90-0341 inspect the lube oil coolers for the containment spray, safety injection, and centrifugal charging pumps every three years

Predictive Maintenance Data Base Update Request DBUR-90-0342 to visually inspect SW to auxiliary feedwater connection