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ComEd

October 9, 1996

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Licensee Event Report #96-005-00, Docket #050-374 is being submitted to your office in accordance with 10 CFR 50.73(a)(2)(i).

Respectfully,

D. J. Ray
Station Manager
LaSalle County Station

Enclosure

cc: A. B. Beach, NRC Region III Administrator
M. P.Huber, NRC Senior Resident Inspector - LaSalle
C. H. Mathews, IDNS Resident Inspector - LaSalle
F. Niziolek, IDNS Senior Reactor Analyst
INPO - Records Center

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NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION
(5-92)

APPROVED BY OMB NO. 3150-0104
EXPIRES 05/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1):	DOCKET NUMBER (2)	PAGE (3)
LaSalle County Station Unit Two	05000374	1 of 11

TITLE (4) Failure to Follow Procedures Results in Technical Specification Violation of the Core Standby Cooling System Pond Surveillance

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									LaSalle County Station - Unit One	05000373
09	09	96	96	005	00	10	09	96	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1
POWER LEVEL (10)	082

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(iii)	☐ 73.71(b)
☐ 20.2203(a)(1)	☐ 20.2003(a)(3)(ii)	☐ 50.73(a)(2)(iv)	☐ 73.71(c)
☐ 20.2203(a)(2)(i)	☐ 20.2003(a)(4)	☐ 50.73(a)(2)(v)	☐ OTHER
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)	☐ 50.73(a)(2)(vii)	
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
☐ 20.2203(a)(2)(iv)	☒ 50.73(a)(2)(i)	☐ 50.73(a)(2)(viii)(B)	
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(ii)	☐ 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Eugene O'Connell, System Engineer	(815) 357-6761 Extension 2915

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
☐ YES (If yes, complete EXPECTED SUBMISSION DATE)	☒ NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines 16)

On September 9, 1996, while performing a review of surveillances, the System Engineer for the lake system identified that Unit 2 had made a Mode change on February 8, 1996, from Operating Condition 3, Cold Shutdown, to Operating Condition 2, Startup, while the Core Standby Cooling System (CSCS) Pond (Ultimate Heat Sink) was inoperable. The inoperability was due to sedimentation levels greater than the Technical Specification surveillance value in the three Unit 1 Circulating Water pump bays. The Unit 2 Mode change occurred while in a Limiting Condition for Operation. This action violated Technical Specification 3.0.4. The root cause for the failure to promptly declare the CSCS pond inoperable is that the System Engineer failed to follow procedures in the performance of a Technical Specification surveillance. The System Engineer supervising the work did not adequately communicate in the pre-job briefing the acceptance criteria to the contractors and their actions to be taken if the acceptance criteria are not met. The corrective actions included counseling which addressed Engineering Management's expectations, reviewing procedures for the control of work performed by contractors, and conduct of surveillances, emphasizing the importance of clearly communicating expectations to workers, and conservative decision making.

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

A. CONDITION PRIOR TO EVENT

Unit(s): 1/2 Event Date: 09/09/96 Event Time: 1515 Hours
Reactor Mode(s): 1/1 Mode(s) Name: Run/Run Power Level(s): 100%/82%

B. DESCRIPTION OF EVENT

There are 6 36-inch pipes supplying the Core Standby Cooling System (CSCS) [VF] tunnel, one from each of the 6 Circulating Water (CW) [KE] pump bays, located inside the bar grills and Traveling Screens. There is also a 54 inch CSCS inlet bypass pipe that can supply the CSCS tunnel from the Unit 1 CW Pump bay area located inside the bar grills and outside the Traveling Screens to provide a suction for the CSCS pumps in the unlikely event that the Traveling Screens would become completely blocked. (See Attachments A and B). Technical Specification 3.7.1.3 states the surveillance requirement that the sediment deposition anywhere within the Lake Screen House behind the bar racks is not greater than one foot in thickness. The basis of the one foot limit is to ensure that any sediment buildup would be below the bottom of the 7 CSCS tunnel inlet pipes. These pipes are 18 inches above the CW pump bay floor.

At about 0800 hours Tuesday, February 6, 1996, the System Engineer met with the Construction Supervisor in charge of the contractor divers. The System Engineer provided the divers with a map and instructions for performing a survey of the sediment levels in the Unit 1 Circulating Water Pump bays between the bar racks and the Circulating Water Pumps for LTS-1000-4, CSCS Pond Surveillance. The Construction Supervisor and divers were not provided with acceptance criteria for sediment levels or any instructions on what to do if sediment levels were in excess of the acceptance criteria. The divers were requested to return the marked up survey map to the System Engineer as soon as possible.

At about 1100 hours Tuesday, February 6, 1996, divers made the initial entry into the Unit 1 Circulating Water (CW) Bays to begin mapping the sediment deposit levels in the Unit 1 Circulating Water Bays between the bar racks and the Circulating Water Pumps for LTS-1000-4, CSCS Pond Surveillance.

At 2214 hours Tuesday, February 6, 1996, Unit 2 entered Operational Condition 2, Startup.

On Wednesday, February 7, 1996, the divers completed their inspection of the Circulating Water bays at about 1000 hours.

On Wednesday afternoon, February 7, 1996, at about 1230 hours, the diver informed the System Engineer that the actual inspection was complete, and that the sedimentation levels in the Unit 1 Circulating Water Bays between the bar racks and the Circulating Water Pumps ranged from 0 to a maximum of 16 inches. The sediment consisted primarily of Corbicula shells. The System Engineer did not have the surveillance procedure with him and did not know that the acceptance criteria was equal to or less than 12 inches. The System Engineer did know about an 18 inch limit on sediment in the CSCS Pond and assumed that this limit applied to the area in the Lake Screen House between the bar racks and the Circulating Water Pumps. The System Engineer initiated an Action Request, to have the sedimentation removed, but took no further action. The System Engineer erred in that he made a decision that the sedimentation deposit levels were acceptable with no basis for that decision. The System Engineer did not confirm the reported sediment deposition in either Technical Specifications or in LTS-1000-4. This human performance error resulted in a delay in declaring the CSCS Pond (Ultimate Heat Sink) inoperable.

At 0930 hours Wednesday, February 7, 1996, Unit 2 entered Operational Condition 3, Hot Shutdown when Unit 2 was manually scrammed to address unrelated problems with a Main Turbine Control Valve.

At 0538 hours Thursday, February 8, 1996, Unit 2 entered Operational Condition 2, Startup. This was a violation of LaSalle County Technical Specification 3.7.1.3 because the CSCS Pond (Ultimate Heat Sink) should have been declared inoperable on Wednesday afternoon, February 7, 1996, when the sediment level data were available. Unit 2 should have been on the 90 day time clock for Technical Specification 3.7.1.3.a Limiting Condition for Operation (LCO). If this LCO had been identified, Technical Specification 3.0.4 would apply and a mode change from 3 to 2 would not be permitted.

At 0900 hours Friday, February 9. 1996, the System Engineer received the written report and survey maps resulting from the inspection in the Unit 1 Circulating Water Bays between the bar racks and the Circulating Water Pumps performed by the divers. The System Engineer obtained a copy of LTS-1000-4, CSCS Pond Surveillance and performed an evaluation of the inspection data. The System Engineer realized that the sediment levels were in excess of Technical Specification 4.7.1.3.c limit "Sediment deposition anywhere within the Lake Screen House behind the Bar Grill is not greater than one foot in thickness." The Lake System Engineer performed the following immediate actions:

1. Conferred with divers to confirm results of report.

2. Called Unit 1 Operating Engineer and Unit 1 Shift Supervisor to notify them that the results of the Unit 1 Circulating Water Bay inspection indicated that the Technical Specification limit had been exceeded and that the CSCS Pond (Ultimate Heat Sink) was inoperable for both Unit 1 and Unit 2 because the Unit 1 and Unit 2 Technical Specification 3.7.1.3's both state that sediment levels cannot exceed 1 foot anywhere in the Lake Screen House past the bar racks. The basis for this is that the CSCS tunnel is common for both units. Unit 1 was defueled and no Technical Specification actions applied. Since Unit 2 was in Operational Condition 2, Startup, Technical Specification 3.7.1.3.a applied. A 90 day time clock to restore the CSCS Pond to operable status or be in hot shutdown within the next 12 hours and in cold shutdown within the following 24 hours was in effect. Degraded Equipment Log (DEL) entries for Unit 1 and for Unit 2 were made. Operations informed the System Engineer that Unit 2 was in startup and preparing for mode change to Operational Condition 1, Run mode. Operations stated that this inoperable condition would prevent this mode change as Technical Specification 3.0.4 would be violated.

3. The System Engineer informed his supervisor of the unsatisfactory surveillance results.

4. The System Engineer conferred with the divers and the Construction Supervisor to determine what immediate actions could be taken to remove sediment deposits.

The System Engineer was informed that the equipment to remove the sediment could not be made available until the following week. However, the divers noted that the sediment only exceeded the 12 inch limit in local areas and that they could immediately redistribute the sediment such that sediment deposition anywhere within the Lake Screen House behind the Bar Grill is not greater than one foot in thickness. The System Engineer conferred with an Operating Department SRO and Construction Supervisor in charge of the divers and determined that this was acceptable based on the Unit 1 Circulating Water pumps being out of service for maintenance on the Unit 1 Traveling Screens and the sedimentation would be removed prior to the pumps being returned to service.

Between 0900 and 1200 hours on Friday February 9, 1996, the System Engineer worked with the divers to redistribute the sediment and perform LTS-1000-4, CSCS Pond Surveillance, for the Unit 1 Circulating Water Bays between the bar racks and the Circulating Water Pumps.

At 1200 hours on Friday February 9, 1996, LTS-1000-4, CSCS Pond Surveillance, for the Unit 1 Circulating Water Bays between the bar racks and the Circulating Water Pumps was completed as satisfactory with sediment deposition levels ranging from 0 to a maximum of 11 inches. The System Engineer informed the Unit 1 Shift Supervisor that the CSCS Pond was operable but degraded based on the latest surveillance data. The surveillance for the Unit 2 Circulating Water Bays had been satisfactorily performed during L2R06 with levels from 0 up to small pockets of 2 inches in depth, and was still current.

Between 1200 and 1600 hours Friday February 9, 1996, the Lake System Engineer:

1. Revised the Action Request (AR) to have the sedimentation removed prior to return to service of the Unit 1 Circulating Water Pumps.

2. Initiated a Problem Identification Form (PIF) and delivered it to the Work Control Center SRO.

3. The Work Control Center SRO indicated on the PIF that; no safety related systems, structures, or component were inoperable, the effected equipment was safety related, and the condition was not reportable. The PIF was forwarded to the Shift Engineer for this review.

4. Discussed the AR with the Work Control Center personnel and had it converted into a Work Request.

On February 12, 1996, the Shift Engineer reviewed the PIF, determined that the system was operable and was not a reportable condition.

On February 25, 1996, the divers completed the removal of the sediment deposits from the Unit 1 Circulating Water bays.

On September 9, 1996, while performing a review of surveillances, the System Engineer for the circulating water system identified that Unit 2 had made a Mode change on February 8, 1996, from Operating Condition 3, Cold Shutdown, to Operating Condition 2, Startup, while the Core Standby Cooling System (CSCS) Pond (Ultimate Heat Sink) was inoperable. The inoperability was due to sedimentation levels greater than the Technical Specification surveillance value in the three Unit 1 Circulating Water pump bays. The Unit 2 Mode change occurred while in a Limiting Condition for Operation. This action violated Technical Specification 3.0.4

On September 19, 1996, while performing an audit, NRC inspectors noted that Technical Specification surveillance LTS-1000-4, CSCS Pond Surveillance, requires that if only two quadrants of a CW pump inlet bay are inspected during an inspection period, then the other two quadrants are to be inspected during the next inspection period. During L2R05 (September 1993), the Unit 2 A and B CW pump inlet bays Northeast and Southwest quadrants were inspected. Contrary to this procedural requirement, during L2R06 (March 1995), the Unit 2 A and B CW pump inlet bays Northeast and Southwest quadrants were inspected again instead of the Unit 2 A and B CW pump inlet bays Northwest and Southeast quadrants. This is considered to be a human performance procedural adherence error. During L2R07 (August 26, 1996) all four quadrants were inspected and found to be satisfactory. Surveillance data from the Unit 1 CW pump bays were reviewed and no procedural adherence problems were identified. During L1R07 (February 1996) all Unit 1 CW pump inlet bay quadrants were inspected.

This event is reportable per 10 CFR 50.73(a)(2)(i) because Technical Specification 3.0.4 was violated.

C. CAUSE OF EVENT

The root cause of this event was a human performance error. The System Engineer failed to follow procedures in performance of a Technical Specification surveillance. The System Engineer's actions on February 9, 1996, show he knew the process that should be followed when reviewing Technical Specification surveillance results that are not satisfactory. Upon the initial notification by the contractor on February 7, 1996, the System Engineer relied upon inaccurate sediment limits from memory rather than verifying the procedure indicating a lack of rigor. A secondary cause is an inadequate pre-job briefing of the divers. The System Engineer did not provide clear information regarding the acceptance criteria for levels of sediment nor what immediate actions to take if unacceptable levels were encountered. The System Engineer was not aware of LAP-100-4, Control of Non-Station Personnel, or LAP-300-20, Contractor Retention and Control. This procedure describes the roles and responsibilities of overseeing the work of contractors.

Contributing causal factors to this event were inadequate verbal communication, work practices, organization and planning. The initial verbal communication of the diver informing the System Engineer the results of the sediment inspection was informal in nature. Because the System Engineer did not verify the sedimentation level data was within the LTS-1000-4 acceptance criteria in a timely manner after receiving the verbal information on sediment levels, the plant made a mode change and violated a Technical Specification. The System Engineer did not adequately follow the progress of the divers.

During L2R06, the previous System Engineer made a procedural adherence error when he failed to follow LTS-1000-4 requirements with respect to alternating the inspection of CW pump inlet bay quadrants.

D. ASSESSMENT OF SAFETY CONSEQUENCES

Unit 1 Technical Specification 3.0.4 did not apply because Unit 1 was defueled.

This event resulted in the violation of Unit 2 Technical Specification 3.0.4 because Unit 2 changed modes of operation from Operating Condition 3, Hot Shutdown, to Operating Condition 2, Startup, while Unit 2 was in the Limiting Condition for Operation (LCO) of Technical Specification 3.7.1.3.a with sediment anywhere in the Lake Screen House exceeding one foot.

The operability of the Ultimate Heat Sink ensures that sufficient cooling capacity is available for continued operation of the safety-related equipment during normal and accident conditions. There are 6 36-inch pipes supplying the Core Standby Cooling System (CSCS) tunnel, one from each of the 6 Circulating Water pump bays, which are inside the bar grills and the Traveling Screens. There is also a 54 inch CSCS inlet bypass pipe that can supply the CSCS tunnel from the Unit 1 CW Pump bay area located inside the bar grills and outside the Traveling Screens to provide a suction for the CSCS pumps in the unlikely event that the Traveling Screens would become completely blocked. The basis of the one foot maximum limit on sediment anywhere in the Lake Screen House inside the Bar Racks is to ensure that any sediment buildup would be below the bottom of the 7 CSCS tunnel inlet pipes. This one foot limit is conservative as the bottom of the 7 CSCS tunnel inlet pipes are 18 inches above the CW pump bay floor.

The Safety Significance of this event is minimal as the bottom of the each of the 7 pipes that supply a suction path to the CSCS pumps is 18 inches above the CW pump bay floor. The depth of sediment in the area after the bar grills and after the traveling screens for the three Unit 1 CW pump bays was measured from 2 to 16 inches. This is below the bottom of the three normal CSCS tunnel inlet pipes in these bays. The depth of the sediment in the area after the bar grills and before the traveling screens was 0 inches with some small, 1 to 3 inch piles of light gravel which is well below the CSCS inlet bypass pipe.

Failure to inspect the alternating quadrants was a procedural adherence error. The safety significance of not inspecting the alternating quadrants of Unit 2 A and 2B CW pump inlet bays during L2R06 is minimal. A review of the data from the previous five surveillances of the CW bays indicate that the sediment levels deposited in the alternate quadrant is representative of the sediment levels deposited in the quadrant that was inspected.

E. CORRECTIVE ACTIONS

1. The System Engineer was counseled on procedural adherence and his responsibility to confirm as correct any information he receives that affects the safe operation of the plant. He has recently attended a training session (Oct. 1,1996) where Senior Engineering Management emphasized the use of quality, rigor, and safety focus in the performance of daily work. Also, the importance of clearly communicating expectations to personnel performing surveillances under his cognizance, maintaining adequate follow-up of activities under his responsibility, and the operating philosophy of conservative decision making were emphasized by his supervisor. The decision to level the sediment in the bays to meet the acceptance criteria did not demonstrate conservative decision making. The System Engineer reviewed procedures LAP-100-29 Conduct and Review of Station Surveillance's, LAP-100-4, Control of Non-Station Personnel, and LAP-300-20, Contractor Retention and Control.

2. The Operations Manager discussed with the Shift Managers the expectation of conservative decision making. The decision to level the sediment instead of having the sediment removed prior to changing operational conditions was not a conservative decision.

3. The sediment cleaning from the Unit 1 CW inlet bays was completed on February 25, 1996. In a subsequent inspection on August 25, 1996, the Unit 1 CW inlet bays were verified to be clean.

4. LTS-1000-4 will be revised by July 1, 1997 to require inspection of all quadrants of a CW pump inlet bay. This revision will be completed prior to the next time it is used to inspect the CW Pump inlet bays (L1R08).

5. The training department will incorporate the lessons learned regarding supervision of contractors during the initial and annual general employee training requalification. This will be completed by January 1, 1997.

6. To address the issue of rigor in meeting Technical Specifications, the following action plan will be completed before the restart of Unit 1:

   a. Develop and promulgate expectations and Roles/Responsibilities Guidelines for the conduct of surveillances.

   b. Develop plan for management observation of selected Technical Specifications surveillances.

   c. Develop plan for Site Quality Verification to perform independent observation of selected Technical Specifications surveillances.

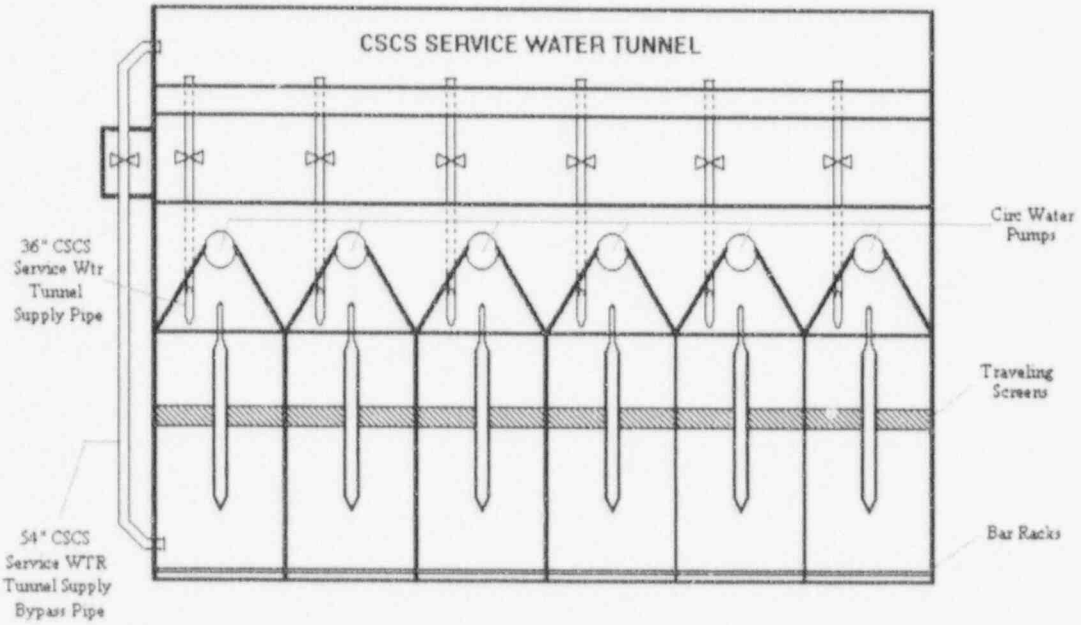
F. PREVIOUS OCCURRENCES

LER NUMBER	TITLE
None	

G. COMPONENT FAILURE DATA

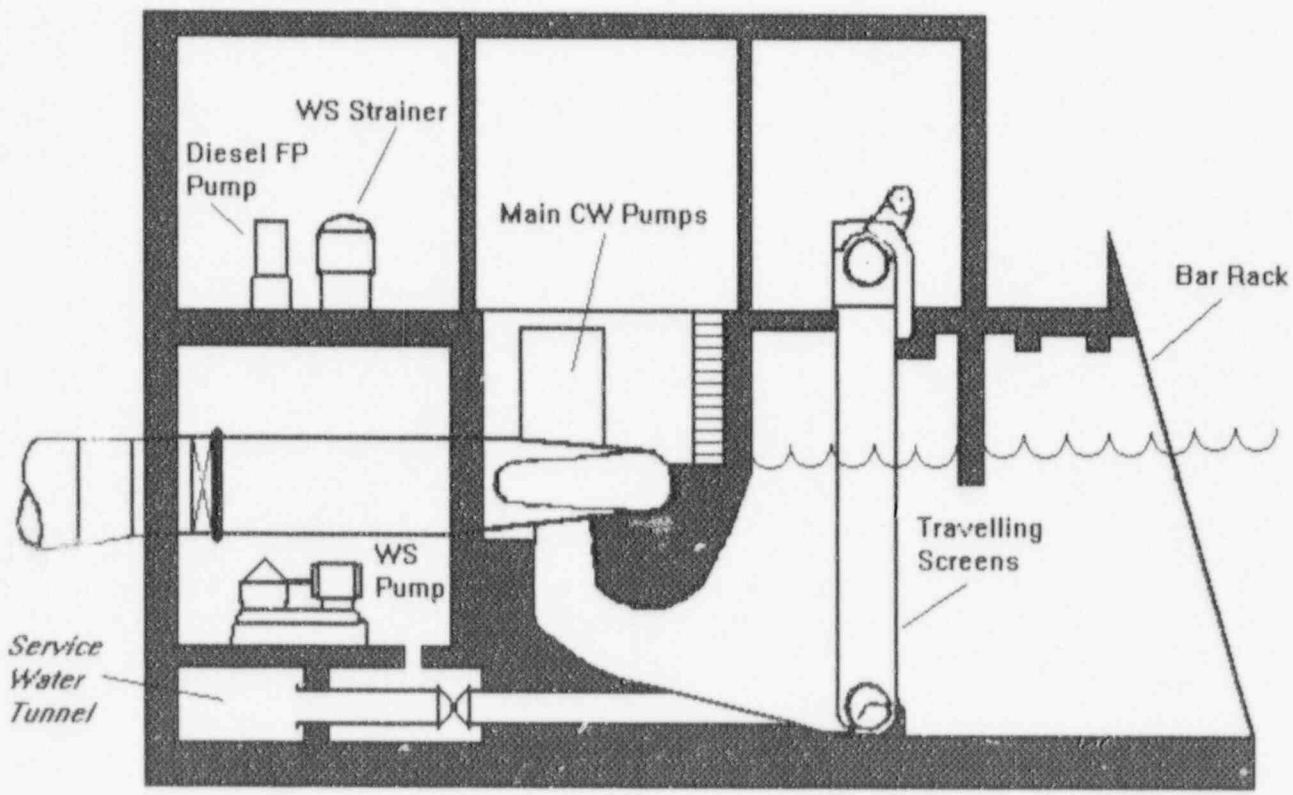
Since no component failure occurred, this section is not applicable.

ATTACHMENT A



LAKE SCREEN HOUSE

ATTACHMENT B



LAKE SCREEN HOUSE (Section)