

Duke Power Company
Catawba Nuclear Station
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DUKE POWER

March 27, 1992

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Washington, D.C. 20555

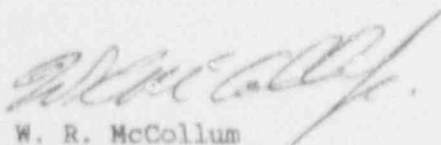
Subject: Catawba Nuclear Station
Docket No. 50-414
LER 414/92-004

Gentlemen:

Attached is Licensee Event Report 414/92-004 concerning SURVEILLANCE
REQUIREMENT MISSED DUE TO FAILURE TO PERFORM A PERIODIC TEST.

This event was considered to be of no significance with respect to the health
and safety of the public.

Very truly yours,


W. R. McCollum
Station Manager

/lhc

Attachment

cc: Mr. S. D. Ebner
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marixtta Street, NW, Suite 2900
Atlanta, GA 30323

M & M Nuclear Insurers
1221 Avenues of the Americas
New York, NY 10020

R. E. Martin
U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D.C. 20555

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, GA 30339

Mr. W. T. Orders
NRC Resident Inspector
Catawba Nuclear Station

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2025 Release under E.O. 14176

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bxc:	B. W. Bline	-	PB02L
	A. V. Carr	-	PB05E
	B. J. Horsley	-	WC18C
	M. E. Patrick	-	ONS-Compliance
	T. E. Mooney	-	WC26C
	G. H. Savage	-	CH03C
	R. O. Sharpe	-	MNS-Compliance
	T. Lynch	-	EC12A-NSRP
	M. S. Tuckman	-	CNS-Vice-President
	E. G. LaCasse	-	CNS-Planning
	NC MPA-1		
	NCEMC		
	PMFA		
	JREC		
	J. W. Glenn	-	CNS-SRG (with Enclosures)
	S. T. Rose	-	CWS-SRG (with Enclosures)
	Master File	-	CN-815.04 (with Enclosures)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (R&M), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (1010-0181), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) CATAWBA NUCLEAR STATION, UNIT 2										DOCKET NUMBER (2) 0 5 0 0 0 4 1 4 1 OF 0 1 6										PAGE (3) 1 OF 0 1 6																							
TITLE (4) TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENT WAS MISSED DUE TO FAILURE TO PERFORM A PERIODIC TEST																																											
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 (3)																			
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0 3		0 2		9 2		9 2		0 0 4		0 0		0 3		2 7		9 2								0 5 0 0 0 0 1 1																			
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)																																									
		20.402(b)										20.405(a)										50.73(a)(2)(ii)										78.71(b)											
		20.405(a)(1)(i)										50.36(a)(1)										50.73(a)(2)(i)										78.71(b)											
POWER LEVEL (10)		1 0 0										20.405(a)(1)(ii)										50.36(a)(2)										50.73(a)(2)(iii)										OTHER (Specify in Abstract Below and on NRC Form 308A)	
		20.405(a)(1)(iii)										X 50.73(a)(2)(ii)										50.73(a)(2)(iv)																					
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		20.405(a)(1)(v)										50.73(a)(2)(ii)										50.73(a)(2)(vi)																					
LICENSEE CONTACT FOR THIS LER (12)																																											
NAME ROBERT FUTRELL, COMPLIANCE MANAGER										TELEPHONE NUMBER AREA CODE 8 0 3 8 3 1 - 3 6 6 5																																	
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC																			
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SUPPLEMENTAL REPORT EXPECTED (14)																																											
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO																																	
EXPECTED SUBMISSION DATE (15)										MONTH DAY YEAR 1 1 1																																	

ABSTRACT (Limit to 1400 words. Use approximately fifteen single space typewritten lines) (16)

ABSTRACT

On March 2, 1992, at 2230 hours, Unit 2 was operating in Mode 1, Power Operation, at 100% power. Operations personnel discovered that the day shift on 3/2/92 had not performed a periodic test to meet the semi-daily surveillance requirements for Technical Specification (T/S) 3.4.6.2. Item 11 in the periodic test for Mode 1 Surveillance Items (PT/2/A/4600/02A), specifies that the requirement for T/S surveillance 4.4.6.2.1.B are met when computer point D-4554 (unidentified leakage greater than 1 GPM in containment) is not in alarm. PT/2/A/4600/02A also has a qualifying condition (#13) for item 11 that states PT/2/B/4150/29 (Containment Floor and Equipment Drain Sump Increase Test) should be performed when computer point D-4554 is inoperable. Computer point D-4554 was declared inoperable on 3/1/92, at 2253 hours. Operations personnel performing PT/2/A/4600/02A overlooked the qualifying conditions for performing PT/2/B/4150/29 when computer point D-4554 was inoperable. Upon further investigation the night shift on 3/1/92 also overlooked the qualifying conditions to perform PT/2/B/4150/29, this resulting in two semi-daily surveillance requirements not being properly performed for Technical Specification 3.4.6.2. This incident is attributable to Inappropriate Action due to lack of attention to detail. Corrective action included performance of PT/2/B/4150/29 and training for personnel involved.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-330) U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555. ANC TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

CATAWBA NUCLEAR STATION, UNIT 2

0 5 0 0 0 4 1 4 9 2 - 0 0 4 - 0 0 0 2 OF 0 6

TEXT (If more space is required, use additional NRC Form 366A (5-89))

BACKGROUND

One of the purposes of the Liquid Waste [EII:WD] (WL) System is to collect liquids from the floor drains in the Reactor Building [EII:NG] and radiation areas in the Auxiliary Building [EII:NH] that are potentially radioactive, but generally suited for plant discharge without treatment. These liquids are collected in the Floor Drain Tank, either directly or via Floor Drain Sumps A and B, and the Containment [EII:NH] Floor and Equipment Sumps A and B.

Containment Floor and Equipment Sumps are two stainless steel lined sumps in each Reactor Building, located diametrically opposite from each other, serving to collect both piped up equipment drains and leakage that runs into the sump off the floor, where sump pumps [EII:P] return it to the floor drain tank. A drain header leads to each sump from equipment drain connections inside the crane wall. Piping from each component inside the crane wall leads to the centralized connections which drain under the crane wall to the containment floor and equipment drain sump. Each sump holds approximately 400 gallons and has two 50 gpm sump pumps, which alternate starting on high level signal and stop on low sump level.

The Containment Floor and Equipment Sump Pumps input to a plant computer program designed to detect one gpm of unidentified leakage inside containment in less than one hour as required by Nuclear Regulatory Commission Regulatory Guide 1.45. Since all reactor coolant [EII:AB] pump seal leakoffs, as well as other normally discharging fluids, are routed to the Reactor Coolant Drain Tank, all liquid entering the floor sumps during normal station operation is unidentified leakage. In conjunction with the operator aid computer, sump level instrumentation monitors water level between the low and high setpoints and calculates a rate of change. These values for both sumps are totaled and yield a computer alarm if the sum is greater than 1 gpm. While any of the sump pumps are running, leak rate is determined as a function of run time. The computer accumulates this time and provides an alarm if the leak rate is greater than 1 gpm. Sumps A and B both have a level transmitter (WLLT-6870 for Sump 'A' and WLLT-6880 for Sump 'B') that performs the leakage detection required by Technical Specification. During preoperational testing these instruments were calibrated to the requirements of Regulatory Guide 1.45. These transmitters are also calibrated during an eighteen month channel calibration per T/S 4.4.6.1.b. The output of this transmitter supplies a computer alarm (computer point D-4554) for Unidentified Leakage >1 GPM in Containment. The requirement for T/S 3.4.6.1.b and surveillance requirements for T/S 4.4.6.2.1.b are met when computer point D-4554 is not in alarm.

Procedure PT/2/A/4C00/C2A (Mode 1 Surveillance Item) is performed to verify compliance with technical specifications surveillance items which have a frequency of once per twelve hours (semi-daily) to once per seven days (weekly).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
CATAWBA NUCLEAR STATION, UNIT 2	0 5 0 0 0 4 1 4	9 2	0 0 4	0	0 0 3	OF 0 6	

TEXT (if more space is required, use additional NRC Form 366A (1-77))

Procedure PT/2/B/4150/29 (Containment Floor and Equipment Drain Sumps Increase Test) is performed to determine the rate of increase in volume for the Containment Floor and Equipment Sumps. This procedure is required to be performed when computer point D-4554 is inoperable to verify that the Reactor Coolant System Unidentified Leakage is not greater than 1 GPM.

Technical Specification 3.4.6.1 states that the Containment Floor and Equipment Sump Level and Flow Monitoring Subsystem shall be operable in Modes 1-4.

Technical Specification 3.4.6.2 states that the Reactor Coolant System Leakage shall be limited to 1 GPM Unidentified Leakage during Modes 1-4.

Action requirements for T/S 3.4.6.2 states that with Reactor Coolant System Unidentified Leakage greater than 1 GPM, reduce the leakage rate to within limits within 4 hours or be in at least Hot Standby within the next 6 hours, and in Cold Shutdown within the following 30 hours.

Technical Specification Surveillance Requirement 4.4.6.2.1b states that the Containment Floor and Equipment Sump inventory and discharge shall be monitored at least once every 12 hours.

EVENT DESCRIPTION

On March 1, 1992, at 2000 hours, Operations night shift personnel began performing Mode 1 Surveillance Item Periodic Test (PT/2/A/4600/02A). At 2015 hours, item 11 (Reactor Coolant System Containment Sump Leakage) on enclosure 13.1 in Procedure PT/2/A/4600/02A was completed. This item is performed to meet the surveillance requirements for Technical Specification (T/S) 4.4.6.2.1.b (Monitor the Containment Floor and equipment sump inventory and discharge at least once every 12 hours). The acceptance criteria for item 11 is to verify computer point D-4554 (Unidentified leakage greater than 1 GPM in Containment) is not in alarm. Item 11 also has a qualifying condition (#10) if computer point D-4554 is inoperable. The qualifying condition states to perform PT/2/B/4150/29 (Containment Floor and Equipment Drain Sump Increase Test) if computer point D-4554 is inoperable. At 2015 hours, computer point D-4554 was not in alarm so operator A signed off item 11. Before PT/2/A/4600/02A was completed, computer point D-4554 started alarming every fifteen minutes. Operations personnel decided the computer point was giving false alarms and decided to originate work request 60460 OPS to investigate and repair the computer point. Computer point D-4554 was declared inoperable and placed in Technical Specification Action Item logbook (TSAIL) under item 421, at 2253 hours, on 3/1/92. At this time, operator A voided his signature for item 11. After voiding his signature, operator A entered discrepancy item #5 beside the voided signature. Operator A overlooked the qualifying condition for item 11 when he voided his signature. Discrepancy item #5 was

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
CATAWBA NUCLEAR STATION, UNIT 2	0 5 9 0 0 4 1 4	9 2	0 0 4	0 0	0 4	OF 0 6	

TEXT (if more space is required, use additional NRC Form 366A a) (17)

entered on the discrepancy sheet for PT/2/A/4600/02A, along with the Corrective Action to be taken. The Corrective Action listed for discrepancy item #5 was "complying with T/S". The reason this corrective action was listed is because when computer point D-4554 is inoperable, this puts Unit 2 in an action statement for T/S 3.4.6.1. This action statement says that with one of the three subparts in the Limiting Condition For Operation inoperable, the unit can continue operation for up to 30 days. The Operators had entered the inoperable computer point under T/S 3.4.6.1 for TSAIL entry 421. The operators were complying with action statement for T/S 3.4.6.1. The Corrective Action taken was reviewed and approved by the Unit Supervisor A. Operator A and Unit Supervisor A overlooked the qualifying condition for item 11, thus resulting in T/S surveillance item (4.4.6.2.1.b) not being performed properly as intended by the procedure.

On March 2, 1992, at 0800 hours, Operations day shift personnel began performing PT/2/A/4600/02A. During the night shift on 3/1/92, computer point D-4554 stopped alarming. Operator B signed off item 11 since computer point D-4554 was not in alarm. During Unit Supervisor B's review of PT/2/A/4600/02A, it was discovered that computer point D-4554 was inoperable because of the previous shift entry into TSAIL. Operator B went back and voided his signature for item 11. After voiding his signature, Operator B entered discrepancy item #1 beside the voided signature. Operator B overlooked the qualifying condition for item 11 when he voided his signature. Discrepancy item #1 was entered on the discrepancy sheet for PT/2/A/4600/02A along with the Corrective Action to be taken. The Corrective Action listed for item #1 on the discrepancy sheet was "complying with T/S". Operator B and the Unit Supervisor B overlooked the qualifying condition for item 11, thus resulting in the second time the T/S surveillance requirement was not performed properly.

On March 2, 1992, at 2000 hours, Operations night shift personnel began performing PT/2/A/4600/02A. Operator C signed off item 11 since computer point D-4554 was not in alarm. During Unit Supervisor C's review of the test, it was discovered that computer point D-4554 was inoperable because of TSAIL entry #421. Operator C went back and voided his signature for item 11. After voiding his signature, Operator C entered discrepancy item #4 beside the voided signature. Operator C noticed the qualifying condition for item 11 and entered "perform PT/2/B/4150/29" under Corrective Action for discrepancy item #4. PT/2/B/4150/29 was completed at 2357 hours, on 3/2/92. The results of the test concluded that sump 2A and sump 2B had 0 gallon increase per minute over the 60 minute test. PT/2/B/4150/29 was completed outside the time frame required in PT/2/A/4600/02A (2000-2300 hours), but within the extended time frame as outlined in T/S.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-680), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

CATAWBA NUCLEAR STATION, UNIT 2

0 5 0 0 0 4 1 4 9 2 - 0 0 4 - 0 0 0 5 OF 0 6

TEXT (if more space is required, use additional NRC Form 366A (5-89))

CONCLUSION

This incident is attributed to Inappropriate Action due to lack of attention to detail. The personnel performing and reviewing the periodic test failed to recognize the qualifying condition to perform PT/2/B/4150/29 when computer point D-4554 was inoperable, thus resulting in a T/S surveillance item not being performed properly, as required by T/S 4.4.6.2.1.b.

Operations is in the process of preparing an operator update to inform the operators that T/S 3.4.6.1 action items and T/S 3.4.6.2 surveillance requirements are affected when computer point D-4554 is inoperable. Training will also be conducted during Operator Proficiency training to explain the Technical Specifications that are involved when computer point D-4554 is inoperable.

A review of the Operating Experience Program database for the past 24 months prior to this event identified another incident involving a T/S surveillance item. LER 413/91-027 involved Vital Battery 1EBB being inoperable because an IAE technician and his supervisor did not recognize that the resistance reading had exceeded the T/S surveillance limits listed in the procedure. Since the root cause for both of these incidents were the same and involved T/S surveillance items, this incident is considered to be a recurring problem.

CORRECTIVE ACTIONSUBSEQUENT

- 1) Operations personnel verified Unidentified leakage was not greater than 1 GPM by performing PT/2/B/4150/29.

PLANNED

- 1) Issue Operator Update to inform the Operators that T/S 3.4.6.1 action items and 3.4.6.2 surveillance requirements are affected when computer point D-4554 is inoperable.
- 2) Training will be conducted during Operator Proficiency training to explain the Technical Specifications that are involved when computer point D-4554 is inoperable.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-630) U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20546 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104) OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

CATAWBA NUCLEAR STATION, UNIT 2

0 6 0 0 0 4 1 4 9 2 0 0 4 0 0 0 6 OF 0 6

TEXT (if more space is required, use additional NRC Form 366A's) (17)

SAFETY ANALYSIS

Procedure PT/2/B/4150/29 is performed to determine the rate of increase in volume for the Containment Floor and Equipment Sumps. This procedure is required to be performed when computer point D-4554 is inoperable to verify that the Reactor Coolant System Unidentified Leakage is not greater than 1 GPM. PT/2/B/4150/29 requires sump level for sumps 2A and 2B be monitored for a one hour period to determine the rate of increase for each sump. Sump level is measured by level transmitters 2WLLT6870 (Sump 2A) and 2WLLT6880 (Sump 2B). The level transmitter output goes to computer points A0460 (2WLLT6870) and A0466 (2WLLT6880). Computer points A0460 and A0466 are used in procedure PT/2/B/4150/29 to determine the rate of increase for each sump.

Procedure PT/2/B/4150/29 was performed at 0800 hours on 3/1/92 and 2357 hours on 3/2/92. The Reactor Coolant System Unidentified Leakage rate for both tests was 0 GPM. The time frame between these two tests is when the two Operations shift did not perform the semi-daily test (PT/2/B/4150/29). As part of this investigation, data was collected from computer points A0460 and A0466 in one hour increments for the period between 0800 on 3/1/92 and 2300 hours on 3/2/92. The largest increase in sump level occurred between 1400 - 1500 hours on 3/2/92. 2A sump level was 6.097 inches at 1400 hours and 6.174 inches at 1500 hours. This resulted in an increase of 0.077 inches over an hour period. PT/2/B/4150/29 says that a one inch change in sump level is equal to a 22 gallon increase. A level increase of 0.077 inches resulted in a 1.694 gallon increase over an hour period. A 1.694 gallon increase averaged over a 60 minute period is equal to 0.028 GPM increase in Sump 2A. 2B Sump level did not change within this time frame. The total leakage for both sumps between 1400 - 1500 hours on 3/2/92 was 0.028 GPM. Further review of the data indicated that sump level changed very little during the one hour intervals. The small magnitude of sump level changes, and the length of time evaluated (39 hours), lead to the conclusion that sump inputs during this period were negligible. Thus, it is concluded that the Reactor Coolant System Unidentified Leakage limit of 1GPM was not exceeded from 0800 on 3/1/92 to 2300 hours on 3/2/92.

The health and safety of the public were unaffected by this incident.