NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Catawba Nuclear Station, Unit 1	0 5 0 0 0 4 1 3	1 OF 0 3

TITLE (4)

Control Rod Drive Assemblies Removed Improperly

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 NAMES	DOCKET NUMBER(S)
0 7	2 9	8 4	8 4	0 0 3	0 0	0 8	2 8	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	6	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Roger W. Ouellette, Assistant Engineer - Licensing	7 0 4 3 7 3 - 7 5 3 0

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)	X NO				

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

While latching the Control Rod Drive Assemblies (CRDA) to the Rod Control Cluster (RCC), two CRDA's failed to lock after being placed in the latched position. Unit 1 was in Mode 6, initial fueling, at the time of this incident. Several unsuccessful attempts were made in locking these CRDA's to the RCC. It was determined that these two CRDA's were defective and must be replaced.

On July 29, 1984, between 1500 and 1545 hours, the Reactor Building 25 ton Crane was used to remove two inoperable CRDA's (Core location D-2 and J-3) from the Reactor Vessel. This was in violation of Technical Specification (Tech Spec) 3.9.6, which states in part that any movement of Drive Rods or Fuel Assemblies within the Reactor Vessel shall be performed with the manipulator crane and auxiliary hoist. It also states that a load indicator will be used to prevent lifting loads in excess of 600 pounds.

The cause of this incident is classified as Personnel Error.

Once Tech Spec 3.9.6 was identified as possibly being violated, the job was halted and a procedure was written to complete the task of installing two new CRDA's.

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

After fuel has been loaded in the Reactor Vessel and the upper internals installed, a latching process takes place to connect the 53 Control Rod Drive Assemblies (CRDA's) to the Rod Control Cluster (RCC). This task is done with a special tool suspended over the Reactor Vessel by the Manipulator Crane's Auxiliary Hoist. With the use of this tool, a Technician can latch and then lock the CRDA to the RCC.

During the latching and locking process, two CRDA's (Core location D-2 and J-3) would not lock after being latched into place. Attempts were made repeatedly to lock CRDA's D-2 and J-3 into the RCC with no success. These two CRDA's were determined to be defective and a Work Request was initiated to replace them.

Two procedures were referenced initially on the Work Request:
MP/0/A/7150/74, Reactor Vessel Drive Rod Assembly Installation and
MP/0/A/7150/67, Control Rod Drive Latching and Unlatching.

The first procedure, MP/0/A/7150/74 (Reactor Vessel Drive Rod Assembly Installation) was referenced for the purpose of installing new CRDA's into the Reactor Vessel after the defective ones were removed. However, this procedure did not apply to this job and should have been deleted. The statement of purpose for this procedure is "To provide a method of installing the Drive Rods into the Reactor Vessel". This statement is misleading, since Procedure MP/0/A/7150/74 is only used for installing Drive Rods in the upper internals while in storage, not after the internals are placed in the Reactor Vessel.

The second procedure, MP/0/A/7150/67 (Control Rod Drive Latching and Unlatching) was referenced for the purpose of removing the defective CRDA's from the Reactor Vessel. This procedure does have a section in it (11.11 Drive Rod Assembly "Removal") that can be used to remove a CRDA from the Reactor Vessel. However, a storage rack for the CRDA's is required on the Reactor Cavity Wall and presently there is not a storage rack available. This procedure was deleted from the Work Request due to this discrepancy. The storage rack will be built in the near future.

The work that proceeded after both procedures were discounted was the lifting of two defected CRDA's out of the Reactor Cavity with the Reactor Building 25 ton crane.

Special precautions were taken during the removal of the defective CRDA's. The unlatching of both CRDA's was verified by two methods. First, the Manipulator Crane Hoist was used with a load indicator attached to assure no excessive load was on the CRDA once it had been unlatched. This test assures that the CRDA is totally separated from the RCC. The second verification was a visual check performed by Westinghouse Representatives. After CRDA's are unlatched from the RCC, they will rise several inches higher than latched CRDA's and are easily detected. Once it was certain that the defective CRDA's were unlatched from the RCC, a Westinghouse Representative assisted in the removal of the CRDA's while being located on top of the upper internals. This was possible since the Reactor Cavity was not full of water. Radiation levels were insignificant since this unit has not been

critical. The Westinghouse Representative was able to help guide the CRDA's out of the Reactor Vessel while assuring that binding did not take place. This special precaution was taken since the Reactor Building 25 ton crane was used without a load indicator.

While lifting these two Control Rod Drive Assemblies out of the Reactor Vessel, the Relief Fuel Handling SRO came on duty and questioned the possibility of violating Tech Spec 3.9.6. The Operating Duty Engineer was contacted and the job was halted. Both defective CRDA's had been completely removed from the Vessel before the job was stopped.

Procedure MP/0/A/7150/76, Drive Rod Assembly Installation, was written to install the CRDA's and complete the job.

CORRECTIVE ACTION

Immediate: A Fuel Handling SRO identified Tech Spec 3.9.6 violation and halted the work.

Subsequent: Procedure MP/0/A/7150/76, Drive Rod Assembly Installation, was written to complete the job.

Planned:

1) A CRDA Storage Rack will be constructed and mounted on the Reactor Cavity wall so that Procedure MP/0/A/7150/67 may be utilized in the future.

2) The purpose statement in Procedure MP/0/A/7150/74 will be revised to reflect the job it describes.

The verification for the CRDA Storage Rack will be a completed Work Request written to mount the storage rack on the Reactor Cavity wall. This will allow for the proper crane use.

The verification for the change of purpose statement on Procedure MP/0/A/7150/74 will be a completed Procedure Major Change Process Record.

SAFETY ANALYSIS

Because of the special precautions taken there was never a threat of damaging the Reactor Vessel, upper internals or CRDA's.

This event posed no threat to the health and safety of the general public.

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HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

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August 28, 1984

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Catawba Nuclear Station, Unit 1
Docket Nos. 50-413

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a) (1) and (d), attached is Licensee Event Report 413/84-03 concerning Control Rod Drive Assemblies Removed Improperly. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

RWO:slb

Attachment

cc: Mr. James P. O'Reilly, Regional Administrator
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Catawba Nuclear Station

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