

LICENSEE EVENT REPORT (LER)															Form Rev. 2.0																
Facility Name (1) Quad Cities Unit Two										Docket Number (2) 0 5 0 0 0 2 6 5					Page (3) 1 of 1 0																
Title (4) Shutdown Cooling (SDC) Was Not Available Due To MO 2-1001-29A Tripping Its Circuit Breaker And Mo 2-1001-5B Valve Being Out of Service																															
Event Date (5)			LER Number (5)			Report Date (7)			Other Facilities Involved (8)																						
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)																					
0	6	2	9	9	5	9	5	--	0	0	3	--	0	0	0	7	3	1	9	5	0 5 0 0 0										
OPERATING MODE (9)			2			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)																									
POWER LEVEL (10)			20.402(b)			20.405(c)			50.73(a)(2)(iv)			73.71(b)																			
			20.405(a)(1)(i)			50.36(c)(1)			<input checked="" type="checkbox"/> 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)																			
			20.405(a)(1)(iii)			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																					
Nick Chrissotimos, Regulatory Assurance, Ext. 3100										AREA CODE 3 0 9 6 5 4 - 2 2 4 1																					
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																						
D																															
SUPPLEMENTAL REPORT EXPECTED (14)																															
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO																					
										Expected Submission Date (15)																					
										Month Day Year																					
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																															

ABSTRACT

On June 29, 1995, the B Loop of Shutdown Cooling (SDC) [B0] was not available due to MO 2-1001-5B valve [FCV] being Out of Service (OOS). At 1630 hours, while performing QCOP1000-5, Shutdown Cooling Operation, in order to place shutdown cooling in operation on the A Loop of Residual Heat Removal (RHR) on Unit 2, the circuit breaker [52] for valve MO 2-1001-29A [INV] tripped as the valve reached the full open position. Operators were sent to manually initiate SDC by performing a Return to Service (RTS) on MO 2-1001-5B. At 2055 hours, the B Loop of RHR was successfully placed in the Shutdown Cooling Mode. During the entire evolution, Reactor Water Temperature was maintained at 120°F with the Reactor Water Cleanup System (RWCU) [CE]. It was determined that a constant close signal was being provided to valve MO 2-1001-29A. When the operator gave an open signal to this valve from its normal control switch, the valve stroked open and immediately reversed on reaching full open and attempted to close. The starting current for the MOV reversal is greater than the normal starting current and was sufficient to trip the circuit breaker.

The cause of this event is attributed to inadequate procedures to properly reset previous isolation signals.

Procedures are being modified to ensure that isolations to valves MO 1001-29A/B are properly reset.

LER265\95\003.WPF

9508090235 950731
PDR ADDCK 05000265
S PDR

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev. 2.0

FACILITY NAME (1) Quad Cities Unit Two	DOCKET NUMBER (2) 0 5 0 0 0 2 6 5	LER NUMBER (6)				PAGE (3) 2 OF 1 0
		Year		Sequential Number	Revision Number	
		9 5	-	0 0 3	-	

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

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2511 MWt rated core thermal power.

EVENT IDENTIFICATION: Shutdown Cooling (SDC) was not available due to MO 2-1001-29A tripping its circuit breaker and MO 2-1001-5B valve being out of service.

A. CONDITIONS PRIOR TO EVENT:

Unit: Two	Event Date: June 29, 1995	Event Time: 2028
Reactor Mode: 2	Mode Name: Refuel	Power Level: 0

This report was initiated by Licensee Event Report 265\95-003.

REFUEL (2) - In this position interlocks are established so that one control rod only may be withdrawn when flux amplifiers are set at the proper sensitivity level and the refueling crane is not over the reactor. Also, the trip from the turbine control valves, turbine stop valves, main steam isolation valves, and condenser vacuum are bypassed. If the refueling crane is over the reactor, all rods must be fully inserted and none can be withdrawn.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION														Form Rev. 2.0	
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)										PAGE (3)			
		Year		Sequential Number		Revision Number									
Quad Cities Unit Two	0 5 0 0 0 2 6 5	9 5	-	0 0 3	-	0 0	3	OF	1	0					

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

B. EVENT DESCRIPTION:

On June 29, 1995, the B Loop of Shutdown Cooling (SDC) was not available due to MO2-1001-5B valve being Out of Service (OOS). At 1630 hours, while performing QCOP 1000-5, Shutdown Cooling Operation, in order to place shutdown cooling in operation on the A Loop of Residual Heat Removal (RHR) on Unit 2, the breaker for valve MO 2-1001-29A tripped as the valve reached the full open position. The breaker was reset with Electrical Maintenance personnel present. A re-attempt to open the valve was made and the breaker tripped again after indicating dual position. While investigating, it was determined that valve MO 2-1001-29A was inoperable and that the A Loop of SDC would be prevented from being initiated. At 2028 hours, it was determined that this event was reportable under 10CFR50.72.(b)(2)(iii)(B). Operators were sent to manually initiate SDC by performing a Return to Service (RTS) on MO 2-1001-5B. At 2055 hours, the B Loop of RHR was successfully placed in the Shutdown Cooling Mode. During the entire evolution, Reactor Water Temperature was maintained at 120°F with the Reactor Water Cleanup System (RWCU). At 2105 hours, the required Emergency Notification System (ENS) call was completed. The Electrical Maintenance Department performed a megger and milli-ohm check of the motor for the Motor Operated Valve (MOV) and these results indicated no electrical grounds in the system. A walkdown was performed and it was determined that relay 10A-K63A [RLY] was energized. This relay indicated that a constant close signal was being provided to valve MO 2-1001-29A. The close signal is removed when the valve reaches its close seat by the torque switch. However, when the torque into the seat is removed, the close signal is re-applied to the valve. It was determined that when the operator gave an open signal to this valve from its normal control switch, the valve stroked open and immediately reversed on reaching full open and attempted to close. The starting current for the MOV reversal is greater than the normal starting current and was sufficient to trip the circuit breaker.

C. APPARENT CAUSE OF THE EVENT:

This License Event Report (LER) is being submitted due to the requirements of 10CFR50.73.(a)(2)(v)(B).

CHANGE MANAGEMENT and WRITTEN COMMUNICATION

The cause of this event is attributed to inadequate procedures to properly reset previous isolation signals.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev. 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)																					
		Year		Sequential Number		Revision Number		Quad Cities Unit Two	0	5	0	0	2	6	5	9	5	-	0	0	3	-	0	0	TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]	4	OF	1	0

MOV feed circuit breakers are set in accordance with procedure QCEMS 250-11, General Electric Model 7700 Motor Control Center EQ Maintenance and Surveillance. The methodology of this procedure is based on the calculation that rapid reversal currents are approximately 2 times locked rotor current. The motor nameplate for MO 2-1001-29A indicates the full load current to be approximately 25.7 amps and locked rotor at 195 amps. The circuit breaker for this MOV was at a setting of 5 which corresponds to a trip setpoint of approximately 380 amps. When an MOV is in motion and a signal is applied that halts continued movement in that direction and immediately energizes the MOV for movement in the opposite direction, the MOV does not come to a complete stop prior to reenergization. As the motor is coasting down, following deenergization, a back Electro-Motive Force (EMF) (voltage) is generated due to the electrical characteristics of the motor. This back EMF is still present upon reenergization and results in a higher voltage being applied to the motor windings, which results in a higher starting current. In this case the higher starting current experienced during MOV reversal was sufficient to trip the circuit breaker. The current draw during reversal may be as high as 2 times locked rotor current or 390 amps. Since the circuit breaker setpoint was approximately 380 amps, if full reversal conditions are seen, a circuit breaker trip will occur.

On May 29, 1995, QCOP 1600-13, Refueling Outage PCI Groups 2 and 3 Isolation Test, was performed under Procedure Field Change (PFC) 1453. This procedure contained an error that was inserted when the procedure was upgraded from its QOP version. This new version included steps to verify MO 2-1001-29A and MO 2-1001-29B went closed and to verify that they could not be opened with their respective control switch. The valves indeed did go open and immediately reclosed. The problem was investigated and it was determined that the valves were performing per their design. The valves did not trip during that test. The breaker nominal trip setpoint was determined to be approximately 10 amps below the calculated current of a rapid reversal starting current. It is estimated that the actual setpoint is plus or minus 10% when setting a breaker trip setpoint to its nominal setting. Another variable in the rapid reversal current is the phase angle in the sinusoidal wave of the current that motor is drawing when the reversal takes place. This makes the trip highly variable and explains why a trip did not occur on May 29 but did occur on June 29.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev. 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)			
		Year		Sequential Number		Revision Number			
Quad Cities Unit Two	0 5 0 0 0 2 6 5	9 5	-	0 0 3	-	0 0		5 OF 1 0	

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

This rapid reversal phenomenon was recognized on November 2, 1993, at Quad Cities. Problem Identification Report (PIF) 93-0520 was written to document the potential problem. The analysis of this PIF resulted in the current QCEMS procedure that is used to set trip settings to prevent spurious trips even when rapid reversal occurs. As part of the on-going preventative maintenance program, circuit breaker settings are inspected, trip checked, and new settings placed in accordance with the QCEMS procedure. One third of the circuit breakers on each unit are adjusted each refueling outage so that all will be completed within three refueling cycles. The circuit breaker for MO 2-1001-29A had not yet been set to these standards. The previous PIF evaluation determined that the immediate setpoint change of all susceptible circuit breakers was not warranted due to a Probabilistic Risk Assessment (PRA) which determined that the frequency of an accident in conjunction with operation of an MOV trip would be less than 1 E-5 occurrences/year. This is less than 1/10th of the overall MOV failure rate that was assumed in the Quad Cities Individual Plant Evaluation (IPE). This is also based on evolutions during normal full power plant operation. This event does not negate the previous assessment as the evolutions that were in progress were refuel outage related and the need for full Low Pressure Coolant Injection (LPCI) is much less at this time. In addition, it was concluded that the rapid reversal phenomena does not prevent the operation of any system, structures, or components during Station transients. Since MOVs are assumed to be in their standby mode during a transient as part of the original design basis, rapid reversal does not affect the Update Final Safety Analysis Report (UFSAR). Equipment will meet the required UFSAR design requirements because the original Design Basis assumed the MOVs to be in their standby position.

Valve MO 2-1001-29A experienced a rapid reversal because the operator attempted to open the valve when it had a close signal present. This signal was present because relay 10A-K63A was energized and had sealed itself in this state. This relay will energize when four conditions are met simultaneously: A group 2 primary containment isolation signal occurs, MO 2-1001-47 is not full closed, MO 2-1001-50 is not full closed, and reactor pressure is less than 100 psig. This valve is not a group 2 primary containment isolation valve as listed in Technical Specification Table 3.7-1. Table 6.2-7 in the UFSAR states the valve stays closed upon a PCIS signal but contains a note that the valve is interlocked closed until reactor pressure decreases below the permissive pressure. The valve can be opened after a containment isolation signal or is opened automatically on certain containment signals to permit operation of various core and containment cooling systems. The valve can be opened once valves MO 1001-47 and MO 1001-50 are closed regardless of the group 2 signal still being present and in fact must open for a LPCI injection signal.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION												Form Rev. 2.0											
FACILITY NAME (1)			DOCKET NUMBER (2)					LER NUMBER (6)					PAGE (3)										
								Year		Sequential Number		Revision Number											
Quad Cities Unit Two			0	5	0	0	0	2	6	5	9	5	-	0	0	3	-	0	0	6	OF	1	0

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

In order to determine the cause of the close signal to MO 2-1001-29A the Significant Events Recorder (SER) for the annunciator system was used. The specific relay that is used in the logic for closing MO 2-1001-29A is relay 10A-K127. This relay senses the group 2 isolation signal and has an input to the SER system. The period of time from June 15 to June 29 was scanned for any deenergization of relay 10A-K127. There were three occasions in which this relay deenergized in that time period. On June 15 between 2040 hours and 2110 hours this relay was deenergized while performing QCOS 1600-13, Refueling Outage PCI Groups 2 and 3 Isolation Test. This procedure was modified under Procedure Field Change (PFC) 1539 in order to test certain valves. During this test the other requirements needed in order to send a close signal to MO 2-1001-29A were present, namely MO 2-1001-47 and MO 2-1001-50 were open and reactor pressure was less than 100 psig. This procedure was inadequate in that the steps to reset the isolation signal to MO 2-1001-29A and B are performed but other isolation signals are sent again later in the procedure. Therefore, when the procedure is completed, an isolation signal is still present to these valves. The procedure does contain steps to reset the isolation to other group 2 isolation valves by resetting the switch on the 902-5 panel, however, the procedure does not contain steps to reset the signals to valves MO 2-1001-29A and B by pushing the reset pushbuttons on panel 902-3. This was true in the PFC and in the permanent procedure.

On June 25 between 1235 hours and 1239 hours, relay 10A-K127 was deenergized during an RPS bus transfer, however, valve MO 2-1001-47 and MO 2-1001-50 were closed prior to the evolution. This, therefore, did not send an isolation signal to MO 2-1001-29A.

On June 28 between 1001 hours and 1011 hours, relay 10A-K127 was deenergized during testing of the Station Blackout (SBO) modification, again however, valve MO 2-1001-47 and MO 2-1001-50 were closed prior to the evolution. Again, this did not send an isolation signal to MO 2-1001-29A.

It is therefore, concluded, that the isolation signal to MO 2-1001-29A occurred during the June 15 PCI Group 2 testing. On June 16, SDC was initiated on B Loop. The operator performing this evolution stated that he reset the isolation signal to MO 2-1001-29B by depressing its pushbutton on 902-3. This was done in accordance with a Limitations and Actions statement in QCOP 1000-5, Shutdown Cooling Operation. The statement is worded, IF MO 1(2)-1001-29A/B, INBD LPCI INJ VLV isolated from a Group II isolation while in the SDC mode AND is required to be reset, THEN depress RESET FOR GRP 2 ISOL VLV pushbutton located on 901(2)-3. An operator cannot determine from the control room if an isolation signal is present to these valves as there is no indication for this. The other group 2 isolation valves do have annunciator indication if a full group 2 is present or if one channel is tripped.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION													Form Rev. 2.0										
FACILITY NAME (1)			DOCKET NUMBER (2)					LER NUMBER (6)					PAGE (3)										
								Year		Sequential Number		Revision Number											
Quad Cities Unit Two			0	5	0	0	0	2	6	5	9	5	-	0	0	3	-	0	0	7	OF	1	0

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

The operator also stated that he depressed the pushbutton for the A Loop. It is believed that the operator's recollection of this is in error due to the two weeks that had passed between the time that he performed this evolution and when he was asked this detail. The A Loop of SDC was not used during the ensuing two weeks. Therefore, if a close signal was present to this valve, it would not be detected until the valve was opened. It was verified that the reset pushbutton was operating properly. The button was tested several times and it was observed that the contact in the button circuit breaks when the button is pushed only approximately 1/4 of the stroke of the pushbutton.

Therefore, the cause of this event is that the procedures for performing the group 2 isolation tests did not contain the step to reset the close signal to MO 2-1001-29A and B at the proper time. In addition, the Shutdown Cooling procedure, QCOP 1000-5, does not contain an actual step just prior to operating valve MO 2-1001-29A or B to reset the isolation signal to the valves.

D. SAFETY ANALYSIS OF THE EVENT:

The safety significance of this event was minimal. The Reactor Water Cleanup (RWC) system was in service and maintained reactor water temperature prior to and during the event. Many additional options were available to remove decay heat from the core. The A Loop of SDC could have been placed into operation immediately, if needed, since MO 2-1001-29A was open when the breaker trip occurred. An operator could have been dispatched to operate the valve locally to support SDC operation. The B Loop of SDC was intact and could be returned to service quickly. The operator had the ability to manually control valve MO 2-1001-29A for the A Loop of SDC, return to service MO 2-1001-5B for the B Loop of SDC operation, and it would have been several shifts before the temperature would have increased to 212°F. Operations returned the B Loop of SDC to service within 4 hours and 25 minutes of initiation of the event.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)			
		Year		Sequential Number		Revision Number					
Quad Cities Unit Two	0 5 0 0 0 2 6 5	9	5	-	0	0	3	-	0	0	8 OF 1 0

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

The evaluation performed for PIF 93-0520 determined that the immediate setpoint change of all susceptible circuit breakers was not warranted due to a Probabilistic Risk Assessment (PRA) which determined that the frequency of an accident in conjunction with operation of an MOV trip would be less than 1 E-5 occurrences/year. This is less than 1/10th of the overall MOV failure rate that was assumed in the Quad Cities Individual Plant Evaluation (IPE). This is also based on evolutions during normal full power plant operation. This event does not negate the previous assessment as the evolutions that were in progress were refuel outage related, not power operation. During refueling and shutdown operation full LPCI flow is not required for maintaining adequate core cooling. A recovery from an inadvertent trip by resetting the breaker could easily be accomplished much sooner than when LPCI and SDC operation would be required. In addition, it was concluded that the rapid reversal phenomena does not prevent the operation of any system, structures, or components during Station transients. Since MOV's are assumed to be in their standby mode during a transient as part of the original design basis, rapid reversal does not affect the Update Final Safety Analysis Report (UFSAR). Equipment will meet the required UFSAR design requirements because the original Design Basis assumed the MOVs to be in their standby position.

E. CORRECTIVE ACTIONS:

Corrective Actions Completed:

When it was determined that MO 2-1001-29A was not available for SDC operation, actions were initiated to return to service MO 2-1001-5B to allow operation of the B Loop of RHR Service Water (RHRSW). This allowed the B Loop of SDC to be placed in operation at 2055 hours. Shutdown Cooling was unavailable for 4 hours, 25 minutes. During this time the RWCU system was able to maintain temperature at 120°F.

Electrical Maintenance initiated trouble-shooting on MO 2-1001-29A. A megger and milli-ohm check of the MOV motor was performed and no damage was detected. When it was discovered that a close signal was present to the valve logic, the signal was reset by depressing the isolation reset pushbutton on panel 902-3. This removed the close signal to the valve logic. The valve was then successfully stroked and a strip chart was obtained. This strip chart showed no abnormalities.

In order to verify that the SER was properly monitoring the status of whether a isolation signal was being sent to relay 10A-K63A (which would seal in and send the close signal to MO 2-1001-29A), the group 2 isolation relay 10A-K127 was visually inspected. One contact on this relay inputs to the SER and another contact inputs to the logic for MO 2-1001-29A. The relay was in good condition and each contact appeared to be in the proper position. No visible signs of arcing or sticking contacts was observed. The contact that inputs to the logic for MO 2-1001-29A is mechanically linked with the contact that inputs to the SER and the annunciator system. It is therefore concluded that the SER would detect all initiations of an isolation signal to MO 2-1001-29A.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION											Form Rev. 2.0	
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)				
		Year		Sequential Number		Revision Number						
Quad Cities Unit Two	0 5 0 0 0 2 6 5	9 5	-	0 0 3	-	0 0	9 OF 1 0					

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

The reset pushbutton for MO 2-1001-29A was tested for possible faulty operation. It was determined that this pushbutton operates as designed and did not contribute to this event.

Corrective Actions to Be Completed:

Procedure QCOP 1000-5, Shutdown Cooling Operation, will be changed to specifically require the depressing of the reset pushbutton for the MO 1001-29A(B) prior to operation of the valve. This will be completed by September 30, 1995. (OPERATIONS; NTS#2651809500302)

Procedure QCOS 1600-13, Refueling Outage PCI Groups 2 and 3 Isolation Test, will be changed to ensure that the proper reset of all isolations in the procedure are accomplished. In addition, a statement will be included in the procedure to ensure that the reset steps of the logic are included if performing a partial test. This will be completed by September 30, 1995. (OPERATIONS; NTS#2651809500303)

Procedures QOP 7000-1, Reactor Protection System MG Sets, and QOA 7000-1, 120 VAC Reactor Protection Bus Failure (One or Both Buses), will be changed to require the reset of MO 1001-29A and B by depressing the pushbutton. This will be completed by September 30, 1995. (OPERATIONS; NTS#2651809500304)

A review will be performed of all other procedures, that insert sealed in signals to valves that are susceptible to rapid reversal. The purpose of this review is to insure that the signal is properly reset prior to stroking these valves. This review will be completed by September 30, 1995 and any necessary procedure changes completed by November 30, 1995. (SUPPORT ENGINEERING, NTS# 2651809500301)

F. PREVIOUS OCCURRENCES:

The phenomenon of the possible tripping of circuit breakers due to the sudden reversal of Motor Operated Valves was discovered in the fall of 1993 at Quad Cities. PIF's 93-0148, 93-0828, 93-0842, and 93-0855 document occurrences in which the circuit breakers for MO 1001-28A(B) have tripped due to reversal of valve direction. These valves are throttle valves so that if the position of the valve is changed while the valve is still coasting, a high current will be drawn. In addition, PIF 93-0855 documents valves MO 1001-16A/B that tripped on rapid reversal. Again these valves are throttle MOV's. These valves and MO 1001-28A/B on both units had their circuit breaker setpoints set for twice locked rotor current.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev. 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
		Year		Sequential Number		Revision Number
Quad Cities Unit Two	0 5 0 0 0 2 6 5	9 5	-	0 0 3	-	0 0
TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]						

A Nuclear Plant Reliability Data System (NPRDS) search has been performed on the previous occurrences of circuit breakers tripping due to rapid reversal of MOV's. This searched indicated an event that occurred at Beaver Valley 2 on October 10, 1990, in which three Feedwater valves tripped due to valve reversal. In these cases, the breaker setpoint was increased.

G. COMPONENT FAILURE DATA:

There were no components failure during this event.

**Licensee Event Report
Reviewer Assignment Form**

Revised 12/01/94

LER # 2651809500300

Date: June 29, 1995

Subject: Shutdown Cooling (SDC) Was Not Available Due To MO 2-1001-29A
Tripping Its Circuit Breaker And MO 2-1001-5B Valve Being Out Of Service.

Signatures of reviewers indicating review and approval of item:

Systems Eng. Supv:

Q. B. 7/27/95
Date

/
Date

Operating Eng.:

Alex L. Misak 7/25/95
Date

/
Date

B. R. 7/31/95
Date

/
Date

/
Date

/
Date

Approved:

O. B. Cook
Station Manager/PORC Chairman

7-31-95
Date