NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: ① (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | LICENSEE CODE: S C H B R 2 ② | LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 ③ | LICENSE TYPE: 4 1 1 1 1 ④ | CAT ⑤

CON'T

0 1 | REPORT SOURCE: L ⑥ | DOCKET NUMBER: 0 5 0 0 0 2 6 1 ⑦ | EVENT DATE: 0 7 1 5 8 2 ⑧ | REPORT DATE: 0 8 1 3 8 2 ⑨

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES ⑩

0 2 On July 15, 1982 and on July 27, 1982, with plant heatup from a refueling outage in
0 3 progress on both occasions, motor operated valve RHR-759A, "A" Residual Heat Removal
0 4 Heat Exchanger Discharge Valve, failed to open. This event resulted in operation in
0 5 a degraded mode permitted by a limiting condition for operation as defined by Tech.
0 6 Spec. 3.3.1.3 which is reportable pursuant to 6.9.2.b.2. The redundant RHR loop
0 7 was operable, and the plant conditions were within the limits permitted by the limit-
0 8 ing conditions for operation. There was no threat to the public health and safety.

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	C F ⑪	D ⑫	Z ⑬	V A L V O P ⑭	A ⑮	Z ⑯

⑰ LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 2	—	0 0 9	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS ㉒	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
E ⑱	H ⑲	Z ⑳	Z ㉑	0 0 0 0	Y ㉓	N ㉔	A ㉕	L 2 0 0 ㉖

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS ㉗

1 0 The cause of failure was improper setting of the motor operator torque switch with
1 1 insufficient lubrication of the valve stem and packing as a contributing factor.
1 2 The valve stem and packing were lubricated, the torque switch was set at the proper
1 3 value, and RHR-759A was declared operable at 1900 hours on July 28, 1982. Maintenance instructions, which include torque settings, are being developed for each
1 4 safety-related motor operated valve and will be completed by February 28, 1983.

	FACILITY STATUS	% POWER	OTHER STATUS ㉚	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION ㉜
1 5	H ㉘	0 0 0 ㉙	N/A	A ㉛	OPERATOR OBSERVATION

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY ㉟	LOCATION OF RELEASE ㊱
1 6	Z ㉝	Z ㉞	N/A	N/A

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION ㊴
1 7	0 0 0 ㊲	Z ㊳	N/A

PERSONNEL INJURIES

	NUMBER	DESCRIPTION ㊶
1 8	0 0 0 ㊵	N/A

8208200123 820813
PDR ADOCK 05000261
S PDR

LOSS OF OR DAMAGE TO FACILITY ㊸

	TYPE	DESCRIPTION
1 9	Z ㊷	N/A

PUBLICITY

	ISSUED	DESCRIPTION ㊺	NRC USE ONLY
2 0	N ㊹	N/A	

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GPO 917-926

SUPPLEMENTAL INFORMATION
LER-82-009

I. CAUSE DESCRIPTION AND ANALYSIS

On July 15, 1982, at 0440 hours with plant heat-up from a refueling outage in progress, motor operated valve RHR-759A, "A" Residual Heat Removal Heat Exchanger Discharge Valve, failed to open. On July 27, 1982, RHR-759A again failed to open. In both cases, the thermal overload on the motor operator breaker was reset, and the valve was fully opened.

During the first failure of RHR-759A to open, the valve was cycled several times. Each time, the valve would close fully but required the thermal overload to be reset before it could be opened fully. However, before maintenance efforts could be performed, other operational problems (LER-82-07) required the plant to cool down on July 17, 1982. After examination of the valve on July 24, 1982, the plant staff believed the cause of failure to be insufficient lubrication on the valve stem and valve packing. The necessary maintenance was completed on RHR-759A, and the valve was tested satisfactorily per Periodic Test (PT) 2.8A on July 26, 1982.

On July 27, 1982, during the evening shift, the second failure of RHR-759A occurred, again during plant heat-up from cold shutdown conditions. As before, the thermal overload for the motor operator was reset, and the valve was fully opened and left in the normally open position (required for safeguards operation). On July 28, 1982 at 1016 hours, RHR-759A was removed from service for maintenance. Examination of the valve revealed that the valve operator was seating the valve too tightly, resulting in the valve operator thermal overload tripping upon initial opening of the valve. However, prior to tripping, the valve operator was able to partially unseat the valve. Subsequently, when the thermal overload was reset, the valve would open fully without any problems. The failure of RHR-759A was determined to be the result of improper setting of the motor operator torque switch with insufficient lubrication of the valve stem and packing as a contributing factor.

The failure of RHR-759A resulted in operation in a degraded mode permitted by a limiting condition for operation as defined by Technical Specification 3.3.1.3 which is reportable pursuant to 6.9.2.b.2. Throughout these events, the redundant RHR loop was operable, and the plant conditions were within the limits (hot shutdown) permitted by the limiting condition for operation. Thus, there was no threat to the public health and safety.

II. CORRECTIVE ACTION

Following the first failure, RHR-759A was test operated twice without failure on July 24, 1982. The valve stem was thoroughly lubricated, the valve was cycled to lubricate the valve packing, and RHR-759A was believed to be in operating condition. RHR-759A was tested satisfactorily per PT-2.8A on July 26, 1982.

Following the second failure, the torque switch was properly adjusted, the valve was test operated, and RHR-759A was declared operable at 1900 hours on July 28, 1982.

III. CORRECTIVE ACTION TO PREVENT RECURRENCE

As a result of this event and a previous occurrence (LER-81-31) of a similar nature, a special training class was held for the appropriate Maintenance personnel on August 10, 1982. This class was conducted by a representative of the valve motor operator vendor and consisted of the proper maintenance techniques and adjustment procedures to be used on these motor operators. Additionally, specific maintenance procedures, including the proper torque switch setting, are being developed for each safety-related motor operated valve. Efforts have been initiated to conduct an inspection of all motor operators in safety-related systems (to the extent which they can be inspected during operation) to determine the general condition of the operator and check the "as found" torque switch setting to be correct. This inspection will be performed with guidance and assistance of the motor operator vendor. It is believed that this inspection can be completed within the next two months. In any event, the above maintenance procedures and the above inspection will be complete by February 28, 1983.