



Kewaunee Nuclear Power Plant  
N490, State Highway 42  
Kewaunee, WI 54216-9511  
920-388-2560  
*Operated by Nuclear  
Management Company, LLC*



August 18, 2000

10 CFR 50.73

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

Ladies/Gentlemen:

Docket 50-305  
Operating License DPR-43  
Kewaunee Nuclear Power Plant  
Reportable Occurrence 2000-013-00

In accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System," the attached Licensee Event Report (LER) for reportable occurrence 2000-013-00 is being submitted. This report does not contain any new commitments.

Sincerely,

Kenneth H. Weinbauer  
General Manager-Kewaunee

GOR

Attach.

cc - INPO Records Center  
US NRC Senior Resident Inspector  
US NRC, Region III

IE22

## LICENSEE EVENT REPORT (LER)

(See reverse for required number of  
digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1)

Kewaunee Nuclear Power Plant

DOCKET NUMBER (2)

05000305

PAGE (3)

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TITLE (4)

Condition Prohibited By Technical Specifications Inadvertently Entered Due To Inoperable Containment Isolation Valve.

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
07	21	2000	2000	-- 013	-- 00	08	18	2000	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)				
POWER LEVEL (10)	094	20.2201(b)	20.2203(a)(2)(v)	X	50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)		50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)		50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)			

## LICENSEE CONTACT FOR THIS LER (12)

NAME

Gerald Riste - Licensing Leader

TELEPHONE NUMBER (Include Area Code)

(920)388-8424

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

## 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 15 single-spaced typewritten lines) (16)

On July 21, 2000, while operating at full power, contrary to Kewaunee Nuclear Power Plant's (KNPPs) Technical Specifications (TS), a containment penetration line had an automatic containment isolation valve declared out-of-service (OOS) without the penetration being isolated by a closed valve. The condition lasted for 23 minutes.

BT-32B, "Steam Generator "B" Blowdown Sample Isolation Valve," was declared OOS when air was isolated to the valve to repair an air leak on the air regulator. Following rebuild and bench setting of the air regulator in the Instrument and Control (I&C) shop, the regulator was re-installed in BT-32B's air supply line. The air isolation valve was then opened and BT-32B was opened from the control room, to allow the I&C technician to check for leaks. At this time the Control Room Supervisor questioned if BT-32B required a timing test to return the valve to service. This question caused the operating crew to identify that BT-32B Containment Isolation function and TS requirements were not satisfied due to the redundant penetration isolation valve, BT-31B, being open.

At no time, during the 23 minutes, was the physical ability to isolate containment compromised. This was confirmed by the satisfactory performance test of BT-32B.

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

**DESCRIPTION OF EVENT**

On 7/21/00, while the plant was at full power, a condition prohibited by the Technical Specifications (TS) was inadvertently entered. BT-32B, "Steam Generator B Sample [KN] [JM] Stop Valve," [SHV] was declared out-of-service (OOS) while maintenance was performed to rebuild its air supply regulator [RG] due to air leaks. This valve also serves a containment isolation function. While in the process of returning BT-32B to service, a condition existed where BT-32B was technically inoperable and activated without another valve [V] in the containment [NH] penetration [PEN] flow path closed.

BT-32B is an air operated containment isolation valve (CIV) that is located outside the containment boundary. Its purpose is to allow sampling of the Steam Generator "B's" blowdown for chemical and radioactivity analysis and to isolate the penetration on a containment isolation signal or high radiation in the steam generator blowdown or air ejector exhaust. It is remotely controlled from the control via an air-operated valve. BT-32B is exempted from 10 CFR 50 Appendix J testing requirement.

At 0954, the air isolation valve supplying BT-32B, IA-31271, was closed, consequently BT-32B closed. The air regulator for BT-32B was removed for repairs and brought to the Instrument and Control (I&C) shop. In the I&C shop, the regulator was rebuilt and bench set. The regulator was reinstalled and instrument air was supplied to BT-32B, thus activating BT-32B at 1046. BT-32B was opened from the control room to allow the I&C Technician to check for air leaks. At this time the Control Room Supervisor questioned the need for a timing test to verify the Containment Isolation (CI) function and return the valve to service. Because BT-32B was out-of-service and activated without a redundant valve isolating the penetration flowpath, a violation of TS occurred. A surveillance-timing test was performed satisfactorily at 1105 to verify BT-32B operability, and BT-32B was declared operable at 1109. The redundant Containment Isolation valve, BT-31B, remained open and operable throughout and subsequent to the work on BT-32B.

**CAUSE OF THE EVENT**

The cause of the event was lack of a questioning attitude by the operating crew. They limited the actions taken in response to the maintenance activity to those necessary to address steam generator sample concerns and did not

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recognize the containment TS implications. This is attributed to recent emphasis on primary to secondary leakage controls and monitoring sensitivity. The on duty shift focused on ensuring that all steam generator sample requirements and actions for taking the sample stream out of service were met. They failed to recognize that BT-32B maintenance may require an additional valve in the line be closed until the Control Room Supervisor questioned whether a timing test was required to return the valve to service.

**ANALYSIS OF THE EVENT**

This event is being reported under 10CFR50.73(a)(2)(i)(B), "an event or condition prohibited by the plant's Technical Specifications." Kewaunee TS requires that containment system integrity shall not be violated if there is fuel in the reactor which has been used for power operation, except whenever the reactor is in the Cold Shutdown condition with the reactor vessel head installed or the reactor is in the Refueling Shutdown condition. Containment system integrity is defined to exist when a number of conditions are satisfied, one of which is; "the required automatic Containment System isolation valves are OPERABLE or are deactivated in the closed position or at least one valve in each line having an inoperable valve is closed. Contrary to the above, BT-32B had been declared OOS without being deactivated in the closed position or having at least one valve in the line closed.

**SAFETY CONSEQUENCES**

There are no safety consequences associated with this event. This valve allows sampling of Steam Generator "B's" secondary water. It isolates the sampling flowpath upon initiation of a Containment Isolation signal and on high radiation in the secondary system. The air supplied to the valve serves to provide the motive force to open BT-32B. To close BT-32B the three-way solenoid valve is de-energized, positioning the solenoid valve to vent air from BT-32B allowing spring pressure to close the valve. During the maintenance performed on the air regulator, the valve, the solenoid valve, and the valve's control circuitry were not worked on. Therefore, no portion of the valve necessary to perform its TS required function were altered, thus the valve was capable of performing its TS function at all times. Additionally the redundant CIV, BT-31B, was operable during the entire 23 minutes that BT-32B was activated and/or open and not verified operable.

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Therefore, because the valve was always capable of closing and its redundant valve was always capable of closing there were no safety consequences as a result of this event.

**CORRECTIVE ACTIONS**

BT-32B was tested satisfactorily following the maintenance on the air regulator. The event was reviewed during a shift debrief. The shift supervisor stressed the need to remain cognizant of equipment that may have multiple operational requirements. This report will be placed in operations required reading to bring this issue to the attention of the operations department.

**ADDITIONAL INFORMATION**

None

**SIMILAR EVENTS**

LER 98-001, "Two component cooling water pumps were inoperable for approximately one minute."

During this event a condition prohibited by TS was also inadvertently entered. The condition occurred when two component cooling water pumps were out-of-service during the process of returning one of the component cooling pumps to service following maintenance. This was done when a historical practice of isolating the discharge of the operating pump prior to securing the pump was accepted without considering the impact on TS. The cause of the event was contributed to a lack of a questioning attitude by the plant staff.

LER 95-007, "Turbine Driven Auxiliary Feedwater (TDAFW) pump failed to start."

During this event a condition prohibited by TS was also inadvertently entered. The condition occurred when the Turbine Driven Auxiliary Feedwater Pump was rendered out-of-service for greater than its allowed outage time. During normal plant operation oil was drained from the pump to maintain the oil level within its normal level band. Recently new level indicators had been added to the pumps. This was done because the pump stopped oil level was higher than the current indicator's range. To allow the ability to detect cooling water leakage into the oil system new indicators were installed. One of the causes of the event also was contributed to a lack of a questioning attitude by the plant staff.