

## LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY  
WITH THIS INFORMATION COLLECTION REQUEST:  
50.0 HRS. FORWARD COMMENTS REGARDING  
BURDEN ESTIMATE TO THE INFORMATION AND  
RECORDS MANAGEMENT BRANCH (MNBB 7714), 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.FACILITY NAME (1)  
WOLF CREEK GENERATING STATIONDOCKET NUMBER (2)  
05000482PAGE (3)  
1 OF 5

TITLE (4)

Required 10-Year ISI VT-3 Examinations Not Performed on Pressurizer Safety Valves

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
08	19	97	97	15	01	12	11	97	FACILITY NAME	DOCKET NUMBER
OPERATING		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 51 (Check one or more) (11)								
MODE (9)	MODE 1	20 402(b)		20 405(c)		50 73(a)(2)(iv)		73 71(b)		
POWER	100 percent	20 405(a)(1)(i)		50 36(c)(1)		50 73(a)(2)(v)		73 71(c)		
LEVEL (10)	100 percent	20 405(a)(1)(ii)		50 36(c)(2)		50 73(a)(2)(vii)		OTHER		
		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  
Michael J. Angus  
Manager Licensing and Corrective ActionTELEPHONE NUMBER (Include Area Code)  
316-364-8831 X-4077

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
		N/A							

SUPPLEMENTAL REPORT EXPECTED (14)

YES

X NO

EXPECTED  
SUBMISSION  
DATE (15)

MONTH

DAY

YEAR

ABSTRACT (16)

On August 19, 1997, at 1731 hours, WCNOE Engineering personnel determined that a 10-year Inservice Inspection (ISI) requirement for a VT-3 visual examination of the internal surfaces of a Pressurizer Safety Valve had not been performed during the first 10-year interval. As a result, the requirements of Technical Specifications 4.0.5 and 4.4.2.2 were not met and the pressurizer safety valves were declared inoperable. Technical Specification 4.0.3 was entered, allowing 24 hours to complete the required surveillance prior to taking the required actions of Specification 3.4.2.2. The required ISI VT-3 visual examination was completed satisfactorily, and the pressurizer safety valves were returned to OPERABLE status on August 19, 1997 at 2346 hours. The cause of this event was inadequate program-program interface between the ISI program and Maintenance work planning with respect to work activities which fall outside the scope of the WCNOE ASME Section XI Repair/Replacement program. Until necessary procedure revisions are complete, interim corrective actions ensure ISI engineer review of work activities on Code components which would be outside of the WCNOE Repair/Replacement Program. Revisions of the Pressurizer Code Safety Valve Operability procedure and the work package task planning procedure will be completed by February 3, 1998.

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**Plant Conditions Prior to the Event:**

MODE = 1

Reactor Coolant Pressure = 2233 psig

Reactor Power = 100 percent

**Basic for Reportability:**

Technical Specification (TS) Limiting Condition for Operation 3.4.2.2 requires that the pressurizer Code safety valves be OPERABLE during Modes 1, 2, and 3. Surveillance Requirement 4.4.2.2 indicates that there are no required surveillances for the pressurizer safety valves except for those required by TS 4.0.5. Technical Specification 4.0.5 requires that Inservice Inspection of ASME Class 1, 2, and 3 components be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda, as required by 10 CFR 50.55a. ASME Section XI contains specific requirements for Class 1 pressure retaining components. These requirements pertain to Pressurizer Safety Valves BB-8010A/B/C. ASME Section XI, 1980 Edition through Winter 1981 Addenda, Examination Category B-M-2, Valve Bodies, specifies for valves with a body greater than 4 inches NPS that a VT-3 examination be performed on the valve's internal surface once within each 10-year inspection interval.

WCNOC received approval of Relief Request IIR-40 on October 5, 1995, which allowed for not performing the VT-3 internal examination unless the valves were disassembled. On August 19, 1997, WCNOC personnel determined that past lift testing of the pressurizer safety valves entailed disassembly to accommodate lapping of the valve seat. However, a VT-3 examination was not requested or performed during any lift testing throughout the first 10-year interval.

Not performing the required VT-3 examination within the required time frame constitutes a failure to meet Technical Specification 4.0.5 Surveillance Requirements for the pressurizer safety valves, which, in accordance with the guidance of NUREG-1022, is an operation prohibited by Technical Specifications; therefore, this event is reportable per 10 CFR 50.73(a)(2)(i)(B).

**Description of Event:**

On August 19, 1997, at 1731 hours, WCNOC Engineering personnel determined that a 10-year Inservice Inspection (ISI) requirement for a VT-3 visual examination of the internal surfaces of one Pressurizer Safety Valve had not been performed during the first 10-year interval. As a result, the pressurizer safety valves were declared inoperable. Technical Specification 4.0.3 was entered, allowing 24 hours to complete the surveillance prior to taking the required actions of Specification 3.4.2.2.

WCNOC has a total of six Pressurizer Safety Valves, three of which are installed in the plant. All three installed valves are changed out each outage. The removed valves are then refurbished for replacement in the subsequent outage. The internal surface inspection



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requirements for the Pressurizer Safety Valves are contained in ASME Section XI, 1990 Edition through Winter 1981 Addenda, Table IWB-2500-1, Category B-M-2, Valve Bodies. The Footnotes for that section indicate that examination is limited to one valve within each group of valves that provide the same function and are designed, manufactured, etc., similarly. The WCNOG Pressurizer Safety Valves constitute a single group. Since only one VT-3 visual examination is required on a group of similar valves, satisfactory performance of a VT-3 visual examination on any of the 6 Pressurizer Safety Valves would constitute satisfactory performance of the required surveillance.

Following identification of the missed VT-3 examination August 19, 1997, at 1731 hours, an ISI VT-3 visual examination was completed on one of the 3 Pressurizer Safety Valves that had been removed from the plant during the last refuel outage (Refuel 8). The examination was satisfactory, and the pressurizer safety valves were returned to OPERABLE status on August 19, 1997 at 2346 hours.

**Root Cause:**

An investigation was conducted to determine the root cause and appropriate corrective actions for this event. The investigation determined that differences exist between the Pressurizer Safety Valves and other valves in the ISI Program which require VT-3 internals examinations. The majority of valves which require VT-3 internals examinations are not of the type that can readily be removed from the system and shipped off-site or to another location for the work.

The investigation also determined that the Pressurizer Safety Valve lift testing activities were not required to be performed under the ASME Section XI Repair/Replacement program. Therefore, the work did not receive the same type of reviews that would be performed on activities which are governed by this program. The Repair/Replacement program requires pre-work review of the repair/replacement plans by the ISI Engineer. This pre-work review has been effective in identifying the need to perform required examinations prior to implementation of the work package.

Based on the results of the investigation, the root cause of this issue was determined to be program to program interface deficiencies between the ISI program and Maintenance work planning with respect to work activities which fall outside of the scope of the WCNOG ASME Section XI Repair/Replacement Program.

During this investigation it was also determined that, in addition to the Pressurizer Safety Valves BB-8010A/B/C, RHR suction gate valves BB-PV8702A/B and EJ-HV8701A/B had not received an internals inspection. However, the RHR suction gate valves were not disassembled during the first 10-year interval. Therefore, Relief Request IIR-40 remains valid for the RHR suction gate valves during the first 10-year interval and no noncompliance existed for these valves.

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**Immediate Corrective Actions:**

The required VT-3 visual examination on the internals of a pressurizer safety valve was completed on August 19, 1997 at 2346 hours.

**Additional Corrective Actions:**

Based on the investigation into this event, no additional deficiencies were identified with respect to the implementation of the first 10-year ISI requirements at WCNO. Due to the nature of the deficiencies which led to this event, an interim corrective action is being taken with respect to work activities performed on primary system valves and other ASME Class 1 components that fall outside the Repair/Replacement Program. These interim actions ensure ISI engineer review of work activities on Code components which would be outside of the WCNO Repair/Replacement Program and will remain in place until the procedure revisions are completed.

The 2<sup>nd</sup> 10-Year inspection interval for WCNO began September 3, 1995, with the first period in this interval ending May, 1999, concluding with Refuel Outage 10 (this date includes the allowable extension). Prior to Refueling Outage 9, reviews of planned mechanical maintenance activities were performed to ensure that required inservice inspections were properly identified and scheduled for performance.

Procedure STS MT-005, Pressurizer Code Safety Valve Operability, will be revised to direct the planner to notify the ISI engineer for a determination of whether a VT-3 examination is required following valve disassembly, and to provide a copy of the results to the ISI engineer when a required examination is performed. This revision will be completed by February 3, 1998.

Two primary work activities outside of the Repair/Replacement program were identified which could require inservice inspection: disassembly of an ASME Class 1 component, and identification of a damaged support, which requires a surface examination of any corresponding integrally welded attachments. Procedure AP 16C-003, Work Package Task Planning, will be revised to direct the planner to notify the ISI engineer when these work activities are being planned. This revision will be completed by February 3, 1998.

**Safety Significance:**

The potential safety significance of this issue is minimal. VT-3 examinations are intended to detect structural degradation of the valve internal surfaces. Structural degradation of the Pressurizer Safety Valves, such as a decrease in wall thickness of the valve body, could result from conditions such as valve leakage. Each outage, the three installed Pressurizer Safety Valves are removed and the alternate valves installed. The removed valves are then lift tested in preparation for re-installation during the next outage. Recent lift testing of these valves has been performed by a National Board of Boiler and Pressure Vessel Inspectors (National Board) VR/NR qualified vendor at their off-site facility. The vendor performed examinations of the valve internal surfaces during



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these lift testing activities under their National Board VR/NR Program. These examinations were performed by a National Board VR/NR qualified individual; however, the individual was not qualified as an ASME VT-3 examiner. The results of these examinations did not indicate valve degradation.

As indicated earlier, the VT-3 examination which was performed on August 19, 1997 to comply with the Technical Specification ISI requirements was completed satisfactory, with no indication of valve degradation.

Based on the results of the vendor examinations and the satisfactory performance of the VT-3 examination on August 19, 1997, there is no indication that degradation of the Pressurizer Safety Valves has occurred which would impact their ability to perform their functions.

Other Previous Occurrences:

There have been no similar events at WCNOG involving a failure to recognize 10-year ISI requirements.