LICENSEE EVENT REPORT (LER)

FACILITY NAME	DOCKET NUMBER	PAGE
ZION NUCLEAR POWER STATION UNIT 1	0 5 0 0 0 2 9 5	1 OF 1 8

TITLE: CONTAINMENT ISOLATION VALVES NOT TESTED PRIOR TO LEAVING COLD SHUTDOWN. THIS WAS CAUSED BY MANAGEMENT DEFICIENCIES IN THE TECHNICAL SPECIFICATION IMPLEMENTATION PROCESS. THIS EVENT RESULTED IN MINIMAL SAFETY IMPACT

EVENT DATE			LER NUMBER			REPORT DATE			OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQ.	REV.	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 1	1 7	9 7	9 7	- 0 0 2 -	0 0	0 2	1 8	9 7	ZION UNIT 2	0 5 0 0 0 3 0 4

OPERATING MODE	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (CHECK ONE OR MORE OF THE FOLLOWING)					
1	20.402(b)	20.405(e)	50.73(a)(2)(iv)	73.71(b)		
POWER LEVEL: 1 0 0	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

NAME	TELEPHONE NUMBER
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED		EXPECTED SUBMISSION DATE	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).

In January 1997 it was identified that in previous outages some PTs which contain containment isolation valves (CIV) were scheduled for performance after entering Mode 4. Zion Technical Specification (TS) 3.9.3.A/4.0.5 requires that CIVs be operable prior to entering Mode 4. Amendment 129/118 and Amendment 136/125 implemented TS 4.0.5 which changed the required mode of testing for CIVs. The components in question, which are required during accident conditions, are in systems which fulfill multiple functions (e.g. ECCS and Containment Isolation).

The cause of this event was inadequate review and implementation of procedures associated with Amendment 129/118 and Amendment 136/125 . The process that controls License Amendment changes does not provide for independent review. As a result a single error or erroneous conclusion caused the implementation process to fail.

Although the following valves were not tested prior to entry into Mode 4 in previous outages, they were tested satisfactorily prior to entry into Mode 1. Therefore, the satisfactory testing prior to Mode 1 gave assurance these valves were operable during operation, and gives reasonable assurance these valves were operable prior to entering Mode 4. Thus, the safety impact was minimal.

The corrective actions are: 1) Unit 2 containment isolation valves will be verified tested prior to Unit 2 entering Mode 4 from Z2R14. 2) The Operations Procedures Group will modify associated procedures or create new procedures to ensure that CIVs are tested prior to entering the required mode of applicability. 3) Zion Station IST Group is continuing a review of the IST program to ensure all requirements are met. 4) Zion Station will modify the Technical Specification Amendment implementation process to include a required independent verification. (NUREG 1022 cause: E)

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

A. PLANT CONDITIONS PRIOR TO EVENT

Unit 1 MODE - 1 Rx Power 100% RCS [AB]Temperature/Pressure 560°F/2235 psig
Unit 2 MODE - 5 Rx Power 0% RCS [AB]Temperature/Pressure 185°F/383 psig

B. DESCRIPTION OF EVENT

ISSUE

It was determined that some of the Zion Station Periodic Tests (PTs), which contain Containment Isolation Valves [BD](CIVs), were scheduled for performance after entering Mode 4. Zion Technical Specification (TS) 3.9.3.A/4.0.5 requires that CIVs be operable prior to entering Mode 4. In previous outages the PTs were performed prior to entering mode of applicability based on the operability requirements of the individual system's mode of applicability rather than the more restrictive mode of applicability of the CIVs.

EVENT

The On-site review and implementation of Amendment 129/118 placed specification 4.0.5 into the TS on August 28, 1991. The NRC issued, at the request of Zion Station, Amendment 129/118 incorporating the 4.0.5 specification only into the pressurizer safety valve technical specification. The NRC stated in their correspondence that the remaining parts of section 4.0.5 would be approved and added at a later time. The On-site review and implementation of Amendment 129/118 was based on the narrow scope of 4.0.5 effects on the pressurizer safety valve technical specification. However, as part of Amendment 129/118 the entire wording of the Westinghouse Standard Technical Specification 4.0.5 was added to the Zion Technical Specification. This standard wording included Section 4.0.5.d which states the following: "Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements." Previously only CIVs which were required to close during accident conditions (TS surveillance 4.9.3.A.2.d) were required to be surveillance tested prior to entry into mode 4. 10CFR50.55 required IST testing of these valves, but the TS did not explicitly tie Inservice Test (IST) to mode 4. The NRC approved Amendment 136/125 on May 12, 1992, which incorporated all requirements of TS 4.0.5 as requested in 1991. Amendment 136/125 also added statements in specific sections referencing section 4.0.5. Documents state that the review of Amendment 136/125 was considered as a reference change only that did not affect operational or operability issues because specification 4.0.5 had existed in the TS for a year.

B. DESCRIPTION OF EVENT (Continued)

During 1995 a review by offsite personnel was conducted at Zion Station into TS compliance. The scope of their review stated, in part, that they independently perform the surveillance testing review, which included examination of the source documents. In addition, the review effort extended beyond surveillance testing into other portions of the TS and several other document types in an effort to find all errors or omissions which could lead to occurrences of noncompliance. Also, all reference documents invoked by the TS were reviewed, including the Inservice Testing (IST) Program. However, the review failed to identify that the CIVs contained within some PTs were not being tested prior to entering the appropriate mode of applicability. The review relative to IST compliance was performed by personnel who possessed experience in IST, but not necessarily knowledgeable in Zion Station design. Therefore where components fulfilled multiple functions (e.g. ECCS and Containment Isolation), these interrelationships were not understood and were not identified.

In January 1997, pursuant to a Site Quality Verification (SQV) audit (CAR 22-96-043), a group was tasked to develop a new mode change checklist prior to the conclusion of Zion refueling outage Z2R14. During the development of the check list it was determined that some of the Zion Station PTs, which contain CIVs, were scheduled for performance after entering Mode 4. Zion TS 3.9.3.A requires that CIVs be operable prior to entering Mode 4. In conjunction with TS 3.9.3, specification 4.0.5 "IST tests" is required in addition to other specified surveillance, as a result these tests are required prior to entry into Mode 4. The components in question are required during accident conditions, and are in systems which fulfill multiple functions (e.g. ECCS and Containment Isolation). In previous outages the PTs were not performed until after entering Mode 4 based on the operability requirements of the individual system's mode of applicability rather than the more restrictive mode of applicability of the CIVs.

C. CAUSE OF EVENT

The cause of this event was inadequate review and implementation of procedures associated with Amendment 129/118 and Amendment 136/125. The process that controls License Amendment changes does not provide for independent review. As a result a single error or erroneous conclusion caused the implementation process to fail.

D. SAFETY ANALYSIS

An evaluation of the safety significance of this event has been performed. Although the following valves were not tested prior to entry into Mode 4, they were tested satisfactorily prior to entry into Mode 1 (normal power operations). Therefore, the satisfactory testing prior to Mode 1 gave assurance these valves were operable during operation, and gives reasonable assurance these valves were operable prior to entering Mode 4. A review of stroke time testing since 1993 for the valves which are required to close on a containment isolation signal has revealed that at no time were UFSAR limits exceeded. The following discussion demonstrates that this event does not create an unsafe condition nor was the safety of the public jeopardized by this event.

1. 1(2) AOV-SI8880[BQ]

This valve is the Nitrogen Supply to the Safety Injection (SI) Accumulators and is a containment isolation valve (CIV) located in penetration P-76. This penetration is classified in UFSAR Table 6.2-4 as Class 5. UFSAR Section 6.2.4.2.1.5 states Class 5 penetrations as: "lines which penetrate the Containment and can be opened to containment atmosphere, but which are normally closed during reactor operation, are provided with two isolation valves in series either inside or outside the containment. In certain cases a blind flange or closed system outside the Containment is utilized as the second barrier in lieu of an isolation valve." This valve is normally aligned in the closed position and is only opened to increase Accumulator Tank pressure during normal power operations. Operability of this valve includes free movement of the valve stem, response to an automatic actuation signal, manual control switch actuation, full open and close stroke capability, leakage rate testing, control room indication, and stroke time testing. The procedures that test this valve that potentially are of concern with regards to this event include: PT-2B-ST, PT-2C-B-ST, PT-2C-D-ST, and PT-2C-F-ST. In all of these procedures, 1(2) AOV-SI8880 is stroke time tested in the closed direction and position indication tested in PT-40-2B. A review of all the stroke time tests for 1(2) AOV-SI8880 since 2/92 reveals that in all cases, except one, the IST stroke times were acceptable. On 1/16/96 1AOV-SI8880 had a closure stroke time that exceeded the IST Action Range, but was below the containment isolation maximum stroke time. This stroke test, however, was performed during normal operations, not during a startup. Therefore, although the stroke time and position indication testing of the valve was not performed prior to Mode 4, there is reasonable assurance that the valves were, in fact, in an OPERABLE condition when entering Mode 4. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

2. 1(2) MOV-SI8809A [BQ] and 1(2) MOV-SI8809B [BQ]

These valves are the low head safety injection (Residual Heat Removal-RHR) isolation valves and are containment isolation valves (CIV) located in penetrations P-108 and P-110. These penetrations are classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." These valves are also designated as Spurious Valve Acuation Group (SVAG) valves. They are positioned in their Emergency Core Cooling System (ECCS) position (open) and de-energized during normal power operations. Operability of this valve for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. These valves do not receive a containment isolation closure signal and do not have a containment isolation required maximum stroke time. The procedures that test these valves that were identified by this event include: PT-2B-ST, PT-2C-B-ST, PT-2C-D-ST, and PT-2C-F-ST. Control room position indication testing is performed in PT-40-2C. Therefore, although the stroke time and position indication testing of these valves was not performed prior to Mode 4, there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

3. 1(2) MOV-SI9011A [BQ] and 1(2) MOV-SI9011B [BQ]

These valves are the Safety Injection (SI) Hot Leg Injection isolation valves and are containment isolation valves (CIV) located in penetrations P-24 and P-126. These penetrations are classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." These valves are also designated as SVAG valves. They are positioned in their Emergency Core Cooling System (ECCS) position (closed) and de-energized during normal power operations. Operability of this valve for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. These valves do not receive a containment isolation closure signal and do not have a containment isolation required maximum stroke time. The procedures that test these valves that were identified by this event include: PT-2B-ST, PT-2C-B-ST, PT-2C-D-ST, and PT-2C-F-ST. Control room position indication testing is performed in PT-40-2A. Although these valves were not tested per these procedures prior to Mode 4, the valves were positioned in their closed position and tested in PT-2A-RT. Therefore, there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

4. 1(2) MOV-SI8811A [BQ] and 1(2) MOV-SI8811B [BQ]

These valves are the Recirculation Sump to Residual Heat Removal Pump Suction Isolation Valves and are located in penetrations P-123 and P-124. These penetrations are classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." Operability of these valves for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. These valves are normally closed valves that are only opened when aligning for cold leg recirculation. They are verified closed during refueling outages. These valves do not receive a containment isolation closure signal, but do have a containment isolation maximum stroke time. The procedures that test these valves that were identified by this event include: PT-2B-ST, PT-2C-B-ST, PT-2C-D-ST, and PT-2C-F-ST. Control room position indication testing is performed in PT-40-2V. A review of all the stroke time tests for these valves since 2/92 reveals that in all cases the IST closure stroke times were acceptable. Although these valves were not tested per these procedures prior to Mode 4, the valves were positioned in their closed position and there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

5. 1(2) MOV-RH8701 [BQ]

This valve is the Safety Injection (SI) Hot Leg Injection isolation valve and is a containment isolation valve (CIV) located in penetration P-17. This penetration is classified in UFSAR Table 6.2-4 as Class 5. UFSAR Section 6.2.4.2.1.5 states Class 5 penetrations as: "lines which penetrate the Containment and can be opened to containment atmosphere, but which are normally closed during reactor operation, are provided with two isolation valves in series either inside or outside the containment. In certain cases a blind flange or closed system outside the Containment is utilized as the second barrier in lieu of an isolation valve." This valve is also designated as a SVAG valve. It is positioned in its Emergency Core Cooling System (ECCS) position (closed) and de-energized during normal power operations. Operability of this valve for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. This valve does not receive a containment isolation closure signal and does not have a containment isolation required maximum stroke time. The procedures that test this valve that were identified by this event include: PT-2B-ST, PT-2C-B-ST, PT-2C-D-ST, and PT-2C-F-ST. Control room position indication testing is performed in PT-40-2C. Although this valve was not tested per these procedures prior to Mode 4, the valve was positioned in its closed position and there is reasonable assurance that the valve was capable of performing its containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

6. 1(2) MOV-RH9000 [BQ]

This valve is the Residual Heat Removal (RHR) to RCS Hot Legs isolation valve and is a containment isolation valve (CIV) located in penetration P-22. This penetration is classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." This valve is also designated as a SVAG valve. It is positioned in its Emergency Core Cooling System (ECCS) position (closed) and de-energized during normal power operations. Operability of this valve for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. This valve does not receive a containment isolation closure signal and does not have a containment isolation required maximum stroke time. The procedures that test this valve that were identified by this event include: PT-2B-ST, PT-2C-B-ST, PT-2C-D-ST, and PT-2C-F-ST. Control room position indication testing is performed in PT-40-2C. Although this valve was not tested per these procedures prior to Mode 4, the valve was positioned in its closed position and there is reasonable assurance that the valve was capable of performing its containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

7. 1(2) MOV-CS0049 and 1(2) MOV-CS0050 [BQ]

These valves are the Residual Heat Removal Supply to Spray Header Stop Valves and are located in penetrations P-31 and P-39. These penetrations are classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." These valves are both normally closed valves that are only opened during the containment recirculation phase following a Loss of Coolant Accident (LOCA) to allow recirculation spray flow to the containment from the Residual Heat Removal System. Operability of these valves for containment isolation purposes involves the capability of the valves to be stroked closed and give proper control room position indication. They are verified closed during refueling outages and are left closed. These valves do not receive a containment isolation closure signal, but do have a containment isolation maximum stroke time limit. The procedures that test these valves that were identified by this event include: PT-2B-ST, PT-2C-B-ST, PT-2C-D-ST, and PT-2C-F-ST. Control room position indication testing is performed in PT-40-2C. A review of all the stroke time tests for these valves since 2/92 reveals that in all cases the IST closure stroke times were acceptable. Although these valves were not tested per these procedures prior to Mode 4, the valves were positioned in their closed position and there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

8. 1(2) MOV-CS0002[BQ], 1(2) MOV-CS0004[BQ], and 1(2) MOV-CS0006[BQ]

These valves are the Containment Spray Pump Discharge Stop Valves and are located in penetrations P-31, P-38, and P-39. These penetrations are classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." Operability of these valves for containment isolation purposes involves the capability of the valves to be stroked closed and give proper control room position indication. These valves are normally closed valves that are only opened on a Containment Spray Actuation signal to provide flow from the pumps to the spray rings. These valves do not receive a containment isolation closure signal and do not have a containment isolation required maximum stroke time. The procedures that tests these valves that were identified by this event are: PT-6A-ST, PT-6B-ST, and PT-6C-ST. Control room position indication testing is performed in PT-40-6. Although these valves were not tested per these procedures prior to Mode 4, the valves were positioned in their closed position (in PT-10-2) and there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

9. 1(2) MOV-FW0050[JB], 1(2) MOV-FW0051[JB], 1(2) MOV-FW0052[JB], 1(2) MOV-FW003[JB], 1(2) MOV-FW0054[JB], 1(2) MOV-FW0055[JB], 1(2) MOV-FW0056[JB], 1(2) MOV-FW0057[JB]

These valves are the Steam Generator (S/G) Auxiliary Feedwater (AFW) isolation valves and are located in penetrations P-13, P-68, P-69 and P-74. These penetrations are classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." Operability of these valves for containment isolation purposes involves the capability of the valves to be stroked closed and give proper control room position indication. These valves are normally maintained in a throttled position. These valves do not receive a containment isolation closure signal and do not have a containment isolation required maximum stroke time. The procedures that tests these valves that were identified by this event are: PT-7A-ST, PT-7B1-ST, and PT-7B2-ST. Control room position indication testing is performed in PT-40-7. Although these valves were not tested per these procedures prior to Mode 4, there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

10. 1(2) MOV-VC8105[CB] and 1(2) MOV-VC8106[CB]

These valves are the Charging Header Isolation Valves and are located in penetration P-75. This penetration is classified in UFSAR Table 6.2-4 as Class 3B. UFSAR Section 6.2.4.2.1.3 states Class 3B penetrations as: "incoming lines connected to closed systems outside the containment, which are not missile protected or which can otherwise communicate with the containment atmosphere, are provided, at a minimum, with one check valve or normally closed isolation valve located either inside or outside the containment. The closed piping system outside the containment provides the necessary isolation redundancy. Most lines in this category are provided with additional isolation valves which satisfy particular systems or ESF requirements. Seal water injection is provided for certain lines in this category." Operability of these valves includes free movement of the valve stem, response to an automatic actuation signal, manual control switch actuation, full open and close stroke capability, leakage rate testing, control room position indication, and stroke time testing. These valves do receive a containment isolation closure signal and do have a maximum containment isolation closure stroke time. The procedure that tests these valves that was identified by this event is PT-20-ST. In this procedure these valves are stroke time tested in the closed direction. Control room position indication testing is performed in PT-40A-20. A review of all the stroke time tests for these valves since 3/92 reveals that in all cases the IST closure stroke times were acceptable. Therefore, although the stroke time and position indication testing of these valves was not performed prior to Mode 4, there is reasonable assurance that the valves were, in fact, in an OPERABLE condition when entering Mode 4. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

11. 1(2) AOV-VC8152[CB] and 1(2) AOV-VC8153[CB]

These valves are the Letdown Containment Isolation Valves and are located in penetration P-72. This penetration is classified in UFSAR Table 6.2-4 as Class 1. UFSAR Section 6.2.4.2.1.1 states Class 1 penetrations as: "normally operating outgoing lines connecting to the Reactor Coolant System (RCS) are provided with at least two automatic trip valves in series located outside the Containment. Automatic seal water injection is provided for lines in this classification." Operability of these valves includes free movement of the valve stem, response to an automatic actuation signal, manual control switch actuation, full open and close stroke capability, leakage rate testing, control room position indication, and stroke time testing. These valves do receive a containment isolation closure signal and do have a maximum containment isolation closure stroke time. The procedure that tests these valves that was identified by this event is PT-20-ST. In this procedure these valves are stroke time tested in the closed direction. Control room position indication testing is performed in PT-40A-20. A review of all the stroke time tests for these valves since 3/92 reveals that in all cases the IST closure stroke times were acceptable. Therefore, although the stroke time and position indication testing of these valves was not performed prior to Mode 4, there is reasonable assurance that the valves were, in fact, in an OPERABLE condition when entering Mode 4. In all cases, the valves were satisfactorily tested prior to Mode 1.

12. 1(2) MOV-SI8803A[BQ] and 1(2) MOV-SI8803B[BQ]

These valves are the High Header Safety Injection (VC) stop valves and are containment isolation valves (CIV) located in penetrations P-4. This penetration is classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." Operability of these valves for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. These valves do not receive a containment isolation closure signal and do not have a containment isolation required maximum stroke time. The procedure that tests these valves that was identified by this event is PT-20-ST. Control room position indication testing is performed in PT-40A-20. Although these valves were not tested per these procedures prior to Mode 4, there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

13. 1(2) AOV-SI8870A[BQ]

This valve is the High Head Safety Injection (VC) Header leak-off valve and is a containment isolation valve (CIV) located in penetrations P-4. This penetration is classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." Operability of this valve for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. This valve does receive a safety injection closure signal and does have a maximum containment isolation closure stroke time. The procedure that tests this valve that was identified by this event is PT-20-ST. In this procedure this valve is stroke time tested in the closed direction. Control room position indication testing is performed in PT-40A-20. A review of all the stroke time tests for this valve since 2/93 reveals that in all cases the IST closure stroke times were acceptable. Therefore, although the stroke time and position indication testing of the valve was not performed prior to Mode 4, there is reasonable assurance that the valve was, in fact, in an OPERABLE condition when entering Mode 4. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

14. 1(2) MOV-MS0017[SB], 1(2) MOV-MS0018[SB], 1(2) MOV-MS0019[SB], and 1(2) MOV-MS0020[SB]

These valves are the Steam Generator Atmospheric Relief Valves and are located in penetrations P-5, P-6, P-7 and P-8. These penetrations are classified in UFSAR Table 6.2-4 as Class 4. UFSAR Section 6.2.4.2.1.4 states Class 4 penetrations as: "incoming and outgoing lines which penetrate the Containment are connected to closed systems inside the Containment, are protected from missiles throughout their length and are provided with at least one manual isolation valve located outside the Containment. The closed piping system inside the Containment provides the necessary isolation redundancy. Seal water injection is not used for this class of penetration." The closed loop is comprised of the steam line from the penetration inside containment up to and including the steam filled portion of the secondary side of the steam generator. These valves are both normally closed valves that are only opened when testing or during normal plant cooldown. They are verified closed during refueling outages and are left closed. Operability of these valves for containment isolation purposes involves the capability of the valve to be stroked closed and give proper control room position indication. These valves do not receive a containment isolation closure signal and do not have a containment isolation required maximum stroke time. The procedure that tests these valves that was identified by this event is PT-20-ST. Control room position indication testing is performed in PT-40-27G. Although these valves were not tested per this procedure prior to Mode 4, there is reasonable assurance that the valves were capable of performing their containment isolation function to close, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

D. SAFETY ANALYSIS (Continued)

15. 1(2) MOV-MS0005[SB], 1(2) MOV-MS006[SB], 1(2) MOV-MS0011[SB]

These valves are the Auxiliary Feedwater Pump Steam Supply Stop valves and are located in penetrations P-104, P-127, and P-128. These penetrations are classified in UFSAR Table 6.2-4 as Class 7. UFSAR Section 6.2.4.2.1.7 states Class 7 penetrations as: "lines which are required for post accident service have power-operated valves which are either normally open and must remain open during an accident or are normally closed and must be opened should an accident occur. For such lines, a minimum of one valve outside the containment is provided for containment isolation when the system is no longer required." Operability of these valves for containment isolation purposes involves the capability of the valves to be stroked closed and give proper control room position indication. These valves do not receive a containment isolation closure signal and do not have a containment isolation required maximum stroke time. The procedure that tests these valves that were identified by this event is PT-7A-ST. Control room position indication testing is performed in PT-40-7. Although these valves were not tested per these procedures prior to Mode 4, there is reasonable assurance that the valves were capable of performing their containment isolation functions, if required. In all cases, the valves were satisfactorily tested prior to Mode 1.

E. CORRECTIVE ACTIONS

1. Unit 2 containment isolation valves will be verified tested prior to Unit 2 entering Mode 4 from Z2R14. (29518097025701)

2. The Operations Procedures Group will modify associated procedures or create new procedures to ensure that containment isolation valves are tested prior to entering the required mode of applicability. (29518097025702)

3. Zion Station IST Group is continuing a review of the IST program to ensure all requirements are met. This review is expected to be completed by March 31, 1997. (29518097025703)

4. Zion Station will modify the Technical Specification Amendment implementation process to include required independent verification. (29518097025704)

F. PREVIOUS EVENTS SEARCH AND ANALYSIS

In addition to this Licensee Event Report (LER), the Station has experienced non-compliance with Technical Specifications due to poorly implemented Technical Specifications on 6 previous occasions. Zion Station Unit 1 LERs 95-002, 95-003, 95-005, 95-007, 97-003 and Unit 2 LER 96-011 have causes involving weaknesses in document review and document preparation practices of individuals. The corrective action to implement additional appropriate corrective actions after examining the Technical Specification Amendment implementation process, with particular emphasis on document review and preparation practices, is expected to address the common cause of these events.

G. COMPONENT FAILURE DATA

None