

# CONTROLLED COPY

## REACTOR COOLANT SYSTEM

### 3/4.4.2 SAFETY/RELIEF VALVES

#### LIMITING CONDITION FOR OPERATION

##### ACTION: (Continued)

valve(s) within 2 minutes or if suppression pool average water temperature is 110°F or greater, place the reactor mode switch in the Shut-down position.

- both the acoustic monitor and valve stem position indicator for*
- c. With one or more safety/relief valve<sup>(s)</sup> acoustic monitors inoperable, restore ~~the inoperable monitor(s)~~ to OPERABLE status within 7 days or be in ~~at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.\*\*\*~~

*either the acoustic monitor or valve stem position indicator*

#### SURVEILLANCE REQUIREMENTS

*position indicators*

4.4.2 The ~~acoustic monitor~~ for each safety/relief valve shall be demonstrated OPERABLE by performance of a:

- a. CHANNEL CHECK at least once per 31 days, and a
- b. CHANNEL CALIBRATION at least once per 18 months.\*\*

\*\*The provisions of Specification 4.0.4 are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the test.

~~\*\*\*The acoustic monitor for MS-RV-4D may be inoperable until the seventh Refueling Outage, scheduled for no later than May 15, 1992, or until the first forced outage of sufficient duration to effect repair/replacement prior to that date, without applying the shutdown requirement.~~

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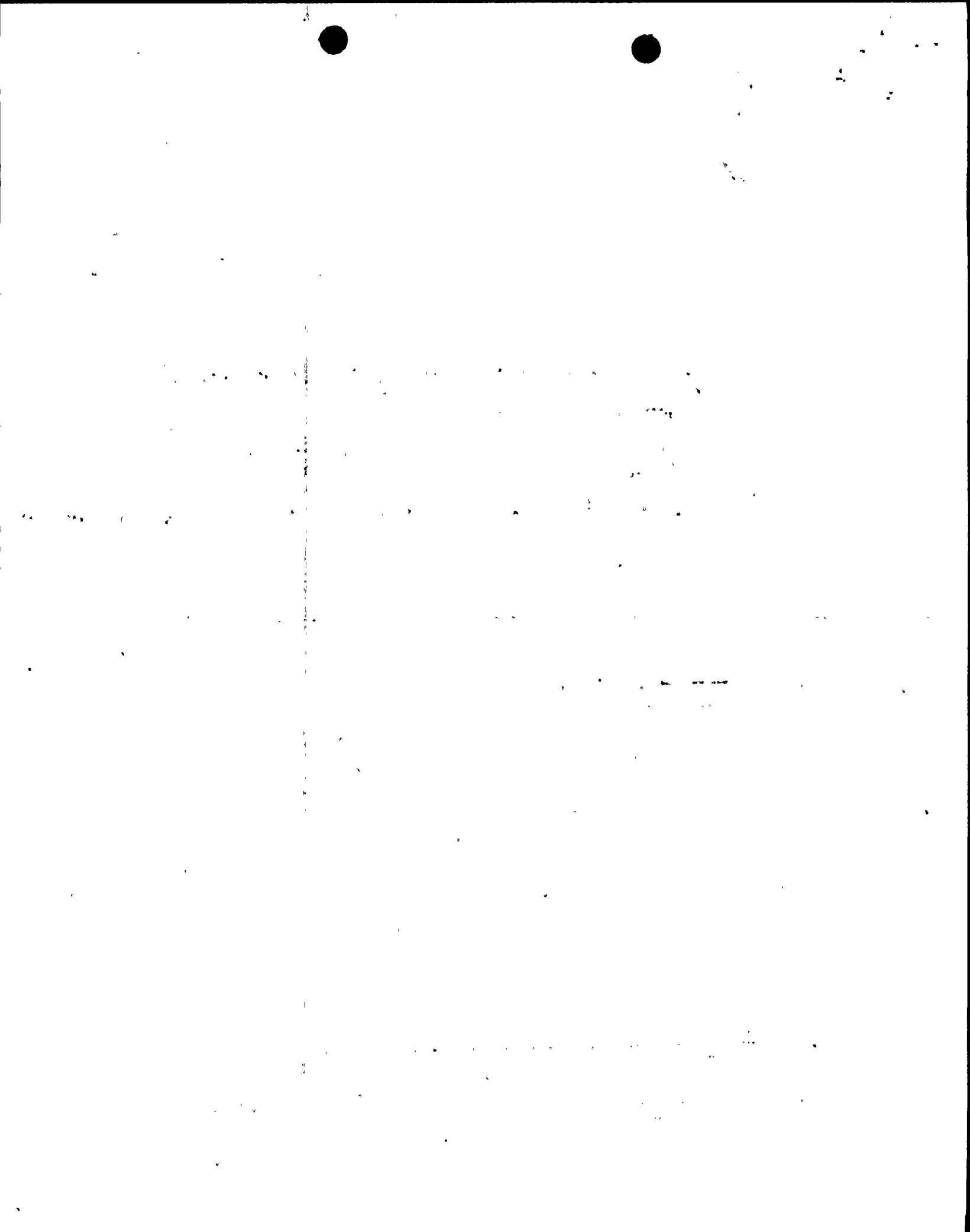


TABLE 3.3.7.5-1

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>REQUIRED NUMBER OF CHANNELS</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
1. Reactor Vessel Pressure	2	1	1, 2	80
2. Reactor Vessel Water Level	2	1	1, 2	80
3. Suppression Chamber Water Level	2	1	1, 2	80
4. Suppression Chamber Water Temperature	2/sector	1/sector	1, 2	80
5. Suppression Chamber Air Temperature	2	1	1, 2	80
6. Drywell Pressure	2	1	1, 2	80
7. Drywell Air Temperature	2	1	1, 2	80
8. Drywell Oxygen Concentration	2	1	1, 2	80
9. Drywell Hydrogen Concentration	2	1	1, 2	80
10. Safety/Relief Valve Position Indicators *	1/ <del>2</del> valve	1/valve	1, 2	80
11. Suppression Chamber Pressure	2	1	1, 2	80
12. Condensate Storage Tank Level	2	1	1, 2	80
13. Main Steam Line Isolation Valve Leakage Control System Pressure	2	1	1, 2	80

~~\*NOTE - The acoustic monitor for MS RV 4D may be inoperable until the seventh Refueling Outage, scheduled for no later than May 15, 1992, or until the first forced outage of sufficient duration to effect repair/replacement prior to that date, without applying the shutdown requirement of Action 80.a.~~

\* NOTE - Either the acoustic monitor or valve stem position indicator satisfies these requirements.

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80

82

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Table 3.3.7.5-1 (Continued)

## ACCIDENT MONITORING INSTRUMENTATION

### ACTION STATEMENTS

#### ACTION 80 -

- a. With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels shown in Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.
- b. With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels OPERABLE requirements of Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

#### ACTION 81 -

- With the number of OPERABLE accident monitoring instrumentation channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to OPERABLE status within 72 hours, or:
- a. Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
  - b. In lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

Insert ACTION 82

Table 3.3.7.5-1 (Continued)  
ACCIDENT MONITORING INSTRUMENTATION  
ACTION STATEMENTS

ACTION 82 - With the number of OPERABLE Safety/Relief Valve Position Indicator instrumentation channels less than the Minimum Channels OPERABLE requirement of Table 3.3.7.5-1,

- a. restore an inoperable channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours, and
- b. verify operability and perform daily surveillance of the Tailpipe Temperature Monitoring instrument for the affected SRV until the Minimum Channels OPERABLE requirement is satisfied. Absent an OPERABLE Tailpipe Temperature monitor for the affected SRV restore the inoperable Tailpipe Temperature Monitor to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

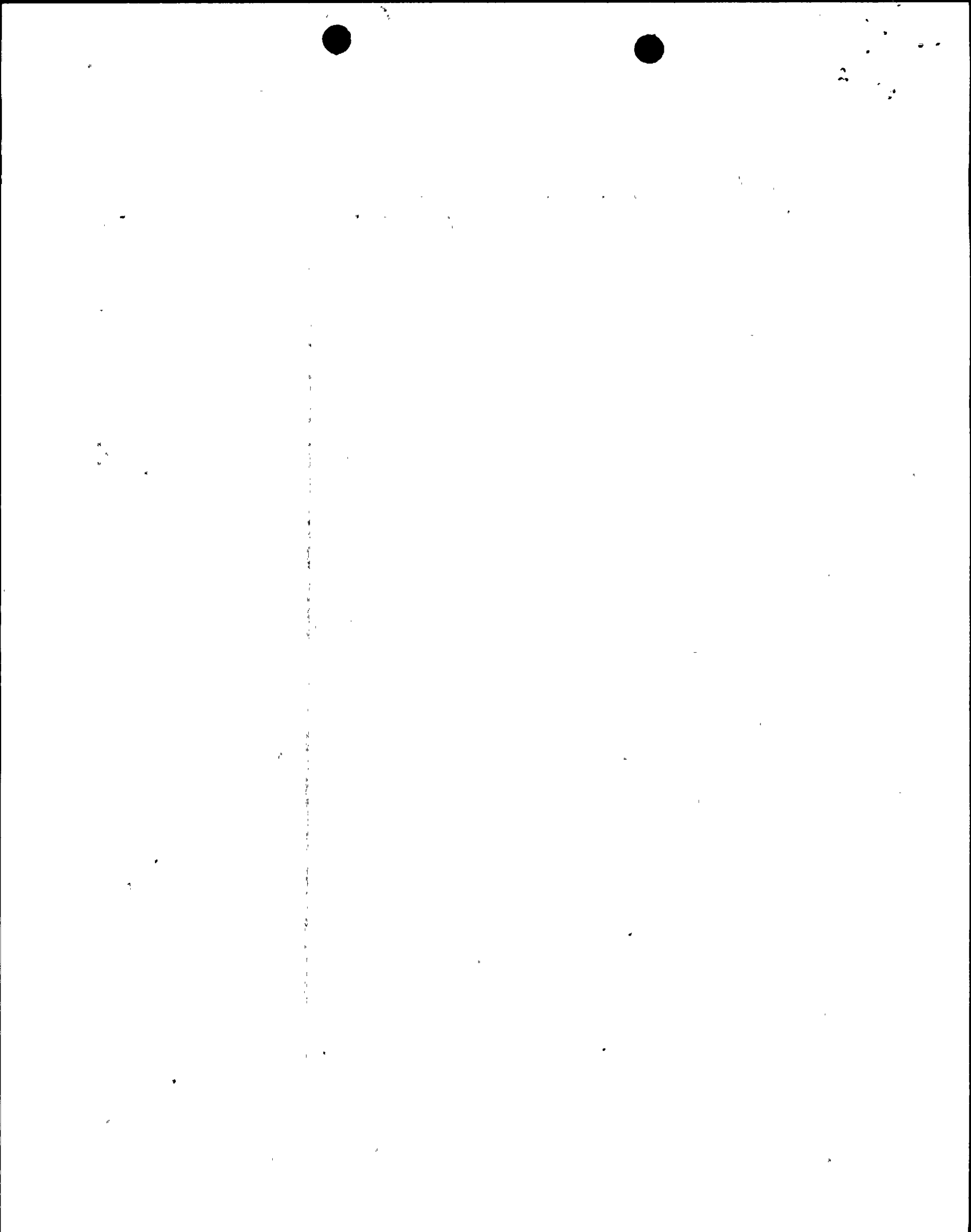


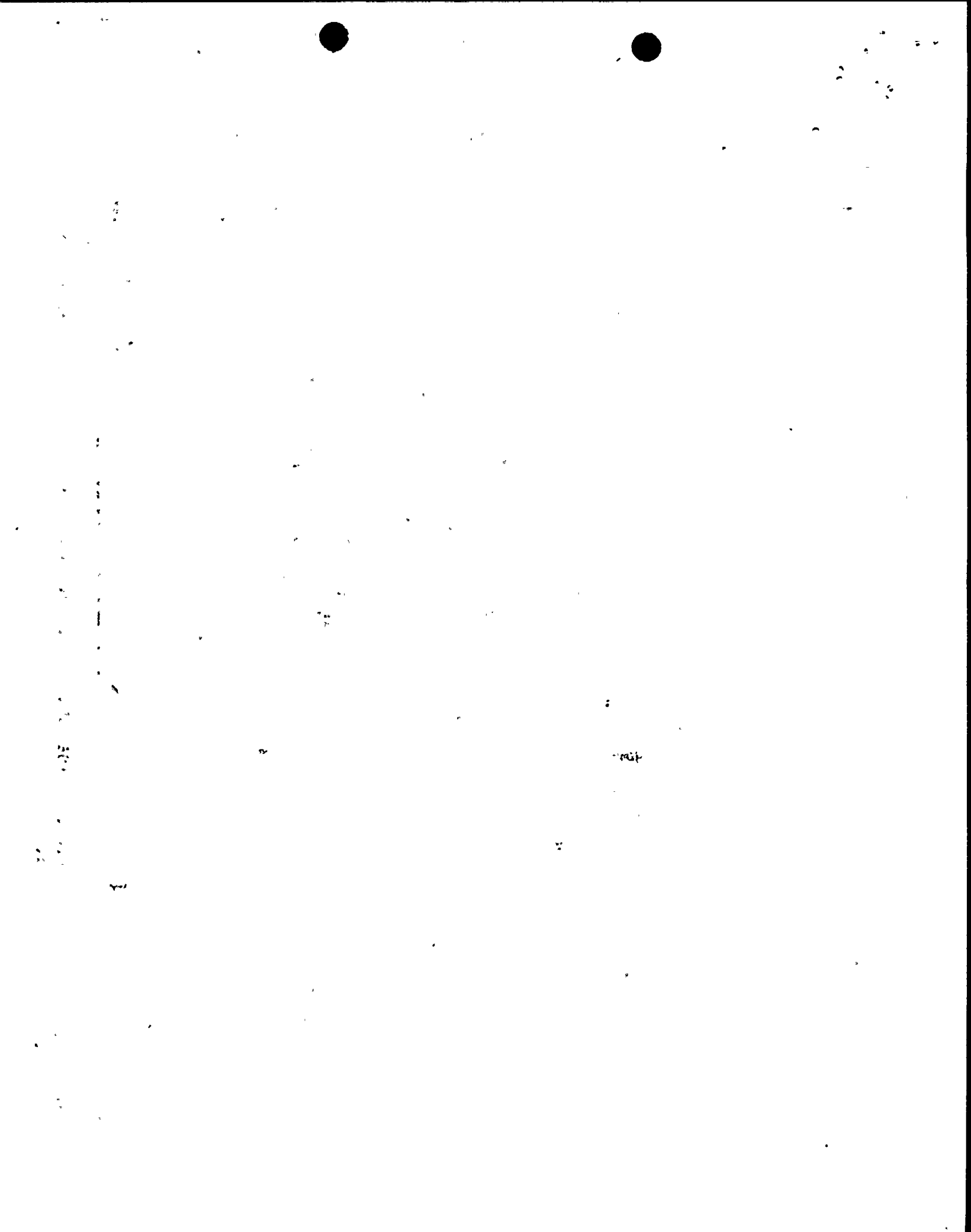
TABLE 4.3.7.5-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>
1. Reactor Vessel Pressure	M	R	1, 2
2. Reactor Vessel Water Level	M	R	1, 2
3. Suppression Chamber Water Level	M	R	1, 2
4. Suppression Chamber Water Temperature	M	R	1, 2
5. Suppression Chamber Air Temperature	M	R	1, 2
6. Primary Containment Pressure	M	R	1, 2
7. Drywell Air Temperature	M	R	1, 2
8. Drywell Oxygen Concentration	M	R	1, 2
9. Drywell Hydrogen Concentration	M	Q	1, 2
10. Safety/Relief Valve Position Indicators*	M*	R	1, 2
11. Suppression Chamber Pressure	M	R	1, 2
12. Condensate Storage Tank Level	M	R	1, 2
13. Main Steam Line Isolation Valve Leakage Control System Pressure	M	R	1, 2
14. Neutron Flux:			
APRM	M	R	1, 2
IRM	M	R	1, 2
SRM	M	R	1, 2
15. RCIC Flow	M	R	1, 2
16. HPCS Flow	M	R	1, 2
17. LPCS Flow	M	R	1, 2

\*Surveillance of the OPERABLE Tailpipe Temperature instrument channels will be performed daily until the acoustic monitors are declared OPERABLE.

\* THIS INCLUDES ACOUSTIC MONITOR, VALVE STEM POSITION, AND TAIL PIPE TEMPERATURE INSTRUMENT CHANNELS.





REACTOR COOLANT SYSTEMBASES3/4.4.2 SAFETY/RELIEF VALVES (Continued)

the dual purpose safety/relief valves in their ASME Code qualified mode (spring lift) of safety operation.

The overpressure protection system must accommodate the most severe pressurization transient. There are two major transients that represent the most severe abnormal operational transient resulting in a nuclear system pressure rise. The evaluation of these events with the final plant configuration has shown that the MSIV closure is slightly more severe when credit is taken only for indirect derived scrams; i.e., a flux scram. Utilizing this worse case transient as the design basis event, a minimum of 12 safety/relief valves are required to assure peak reactor pressure remains within the Code limit of 110% of design pressure.

Testing of safety/relief valves is normally performed at lower power. It is desirable to allow an increased number of valves to be out of service during testing. Therefore, an evaluation of the MSIV closure without direct scram was performed at 25% of RATED THERMAL POWER assuming only 4 safety/relief valves were operable. The results of this evaluation demonstrate that any 4 safety/relief valves have sufficient flow capacity to assure that the peak reactor pressure remains well below the code limit of 110% of design pressure.

*insert* Demonstration of the safety/relief valve lift settings will be performed in accordance with the provisions of Specification 4.0.5.

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE3/4.4.3.1 LEAKAGE DETECTION SYSTEMS

The RCS leakage detection systems required by this specification are provided to monitor and detect leakage from the reactor coolant pressure boundary. These detection systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems," May 1973.

Insert to BASES 3/4.4.2 SAFETY RELIEF VALVES

TMI Action Plan Item II.D.3 "Direct Indication of Relief and Safety Valve Position," states that reactor coolant system relief and safety valves shall be provided with a positive indication in the control room derived from a reliable valve-position detection device or a reliable indication of flow in the discharge pipe. Each WNP-2 SRV has both a valve stem position indication device and an acoustic monitor flow detection device which independently meet the requirements of Item II.D.3. Hence failure of one device does not impact compliance to II.D.3 and entry into Limiting Condition for Operation action statement 3.4.2.c is required only for inoperability of both devices associated with a specific SRV.

