

The Emergency Feedwater System is provided with two channels of flow instrumentation on each of the two discharge lines. Local flow indication is also available for the emergency feedwater system.

Although the pressurizer has multiple level indications, the separate indications are selectable via a switch for display on a single display. Pressurizer level, however, can also be determined via the patch panel and the computer log. In addition, a second channel of pressurizer level indication is available independent of the NNI.

Although the instruments identified in Table 3.5-2 are significant in diagnosing situations which could lead to inadequate core cooling, loss of any one of the instruments in Table 3.5-2 would not prevent continued, safe, reactor operation. Therefore, operation is justified for up to 7 days (48 hours for pressurizer level). Alternate indications are available for Saturation Margin Monitors using hand calculations, the PORV/Safety Valve position monitors using discharge line thermocouple and Reactor Coolant Drain Tank indications, and for EFW flow using Steam Generator level and EFW pump discharge pressure. Pressurizer level has two channels, one channel from NNI (3 D/P instrument strings through a single indicator) and one channel independent of the NNI. Operation with the above pressurizer level channels out of service is permitted for up to 48 hours. Alternate indication would be available through the plant computer.

The operability of design basis accident monitoring instrumentation as identified in Table 3.5-3, ensures that sufficient information is available on selected plant parameters to monitor and assess the variables following an accident. (This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," Rev. 3, May 1983.) These instruments will be maintained for that purpose.

Those same instruments along with the containment hydrogen concentration monitor are useful to evaluate and predict the course of accidents which go beyond the plant design basis. This capability is consistent with the recommendations of NUREG 0737, II.F.1 and the containment hydrogen concentration monitor should be maintained for that purpose.

TABLE 4.1-1 (Continued)

<u>CHANNEL DESCRIPTION</u>	<u>CHECK</u>	<u>TEST</u>	<u>CALIBRATE</u>	<u>REMARKS</u>
28. Radiation Monitoring Systems*	W(1)(3)	M(3)	Q(2)	<p>(1) Using the installed check source when background is less than twice the expected increase in cpm which would result from the check source alone. Background readings greater than this value are sufficient in themselves to show that the monitor is functioning.</p> <p>(2) Except area gamma radiation monitors RM-G5, RM-G6, and RM-G7 which are located in the Reactor Building. When purging is permitted per T.S. 3.6, RM-G5 will be calibrated quarterly. If purging is not permitted per T.S. 3.6, RM-G5 shall be calibrated at the next scheduled reactor shutdown following the quarter in which calibration would normally be due. RM-G6 and RM-G7, which are in high radiation areas shall be calibrated at the next scheduled reactor shutdown following the quarter in which calibration is due, if a shutdown during the quarter does not occur.</p> <p>(3) Surveillances are required to be performed only when containment integrity is required. This applies to monitors which initiate containment isolation only.</p>
29. High and Low Pressure Injection Systems: Flow Channels	N/A	N/A	R	

\*Does not include the monitors covered under Specification 3.5.5.2 and 4.1.3.

TABLE 4.22-2 (Continued)

TABLE NOTATION

- d. Charcoal cartridges and particulate filters shall be changed at least once per 7 days and analyses shall be completed within 48 hours after changing (or after removal from sampler).
- e. Tritium grab samples shall be taken weekly from the spent fuel pool area whenever spent fuel is in the spent fuel pool.
- f. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Specifications 3.22.2.1, 3.22.2.2, and 3.22.2.3.
- g. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135 and Xe-138 for gaseous emissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be considered. Other gamma peaks that are identifiable, together with those of the above nuclides, shall also be analyzed and reported in the Semi-Annual Radioactive Effluent Release Report pursuant to TS 5.9.4.
- h. Applicable only when condenser vacuum is established. Sampling and analysis shall also be performed following shutdown, startup, or a THERMAL POWER change exceeding 15 percent of RATED THERMAL POWER within one hour unless (1) analysis shows that the DOSE EQUIVALENT I-131 concentration in the primary coolant has not increased more than a factor of 3; and (2) the noble gas activity monitor shows that effluent activity has not increased by more than a factor of 3.
- i. Gross Alpha, Sr-89, and Sr-90 analyses do not apply to the Fuel Handling Building ESF Air Treatment System.
- j. If the Condenser Vent Stack Continuous Iodine Sampler is unavailable, alternate sampling equipment will be placed in service within 48 hours or a report will be prepared and submitted within 30 days from the time the sampler is found or made inoperable which identifies (a) the cause of the inoperability, (b) the action taken to restore representative sampling capability, (c) the action taken to prevent recurrence, and (d) quantification of the release via the pathway during the period and comparison to the limits prescribed by TS 3.22.2.1.b.
- k. Applicable only when condenser vacuum is established.