

INSTRUMENTATION

BASES

REACTOR TRIP SYSTEM AND ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION (Continued)

The verification of response time at the specified frequencies provides assurance that the reactor trip and ESF actuation associated with each channel is completed within the time limit assumed in the accident analyses. Response time limits for the Reactor Trip System and Engineered Safety Features Actuation System are maintained in Tables 7.2-5 and 7.3-16 of the Farley FSAR, respectively. No credit was taken in the analyses for those channels with response times indicated as not applicable.

Response time may be verified by actual tests in any series of sequential, overlapping or total channel measurements, or by summation of allocated sensor response times with actual tests on the remainder of the channel in any series of sequential or overlapping measurements. Allocations for specific pressure and differential pressure sensor response times may be obtained from: (1) historical records based on acceptable response time tests (hydraulic, noise, or power interrupt tests), (2) in place, onsite, or offsite (e.g. vendor) test measurements, or (3) utilizing vendor engineering specifications. WCAP-13632, Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," provides the basis and methodology for using allocated sensor response times in the overall verification of the channel response time for specific sensors identified in the WCAP. The allocations for these sensor response times must be verified prior to placing the sensor in operational service and re-verified following maintenance that may adversely affect response time. In general, electrical repair work does not impact response time provided the parts used for repair are of the same type and value. One example where time response could be affected is replacing the sensing assembly of a transmitter. Response time verification for other sensor types must be demonstrated by test.

3/4.3.3 MONITORING INSTRUMENTATION

3/4.3.3.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring channels ensures that 1) the radiation levels are continually measured in the areas served by the individual channels and 2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded.

Alarm/trip setpoints for the containment purge have been established for a purge rate of 5,000 scfm in all MODES and for purge rates of 25,000 scfm and 50,000 scfm in MODES 4, 5, and 6. The containment purge setpoints are based on a release in which Xe-133 and Kr-85 are the predominant isotopes, on concentration values equal to or less than the effluent concentration limits stated in 10 CFR 20, Appendix B (to paragraphs 20.1001 - 20.2401), Table 2, Column 1 for these isotopes, and on a X/Q of 5.6×10^{-6} sec/m³ at the site boundary.

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