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Technical Requirements Manual

Volume I

Detroit
Edison

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Emergency Core Cooling System Instrumentation

| FUNCTION | TRIP SETPOINT | RESPONSE TIME (seconds) |
|---|--|----------------------------|
| 3. High Pressure Coolant Injection (HPCI) System | | |
| a. Reactor Vessel Water Level - Low Low, Level 2 | ≥ 110.8 inches ^(c) | ≤ 60 ^(a) |
| b. Drywell Pressure - High | ≤ 1.68 psig | NA |
| c. Reactor Vessel Water Level - High, Level 8 | ≤ 214 inches ^(c) | NA |
| d. Condensate Storage Tank Level - Low | > 3 inches (27 inches above tank bottom) | NA |
| e. Suppression Pool Water Level - High | ≤ 2 inches ^(d) | NA |
| f. Manual Initiation | NA | NA |
| 4. Automatic Depressurization System Initiation System (ADS) Trip System A | | |
| a. Reactor Vessel Water Level - Low Low Low, Level 1 | ≥ 31.8 inches ^(c) | NA |
| b. Drywell Pressure - High | ≤ 1.68 psig | NA |
| c. Automatic Depressurization System Initiation Timer | ≤ 105 seconds | NA |
| d. Reactor Vessel Water Level - Low, Level 3 (Confirmatory) | ≥ 173.4 inches ^(c) | NA |
| e. Core Spray Pump Discharge Pressure - High | > 145 psig, increasing | NA |
| f. Low Pressure Coolant Injection Pump Discharge Pressure - High | > 125 psig, increasing | NA |
| g. Drywell Pressure - High Bypass | ≤ 420 seconds | NA |
| h. Manual Inhibit | NA | NA |
| i. Manual Initiation | NA | NA |

(continued)

(a) Instrument response time need not be measured and may be assumed to be the design instrumentation response time. Prior to return to service of a new transmitter or following refurbishment of a transmitter (e.g., sensor cell or variable damping components), a hydraulic response time test will be performed to determine an initial sensor-specific response time value. This value is the maximum analyzed, combined instrument and system hydraulic response time. The system hydraulic response time test criterion is maintained by the Fermi 2 IST program to ensure the integrated system response time remains well within the analyzed limit.

(c) As referenced to instrument zero Top of Active Fuel (TAF).

(d) Suppression Pool Water Level instrument zero is 14 ft 6 inches above bottom of Torus at elevation 557 ft 0 inches.