

TABLE 3.2-B (Continued)

INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Minimum No. of Operable Instrument Channels Per Trip System (1)	Trip Function	Trip Level Setting	Number of Instrument Channels Provided by Design	Remarks
1	Auto Blowdown Timer	120 sec <u>+5</u> sec	2 timers	In conjunction with Low Reactor Water Level and LPCI or Core Spray Pump running interlock, initiates Auto Blowdown
2	RHR (LPCI) Pump Discharge Pressure Interlock	125 <u>+25</u> psig	4 channels	Defers ADS actuation pending confirmation of Low Pressure core cooling system operation (LPCI or Core Spray Pump running interlock)
2	Core Spray Pump Discharge Pressure Interlock	145 <u>+20</u> psig	4 channels	" "
1	RHR (LPCI) Trip System bus power monitor	Not applicable (6)	2 Inst. Channels	Relay which continuously monitors availability of power to logic systems and annunciates upon loss of power
1	Core Spray Trip System bus power monitor	Not applicable (6)		" "

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LIMITING CONDITIONS FOR OPERATION

- F. Automatic Depressurization System (ADS)
1. The Automatic Depressurization Subsystem shall be operable whenever there is irradiated fuel in the reactor vessel and the reactor pressure is greater than 100 psig and prior to a startup from a Cold Condition, except as specified in 3.5.F.2 below.
 2. From and after the date that one valve in the automatic depressurization subsystem is made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding thirty days unless such valve is sooner made operable, provided that during such thirty days the HPCI subsystem is operable.
 3. If the requirements of 3.5.F cannot be met, an orderly shutdown shall be initiated and the reactor pressure shall be reduced to at least 100 psig within 24 hours.
- G. Minimum Low Pressure Cooling and Diesel Generator Availability
1. During any period when one diesel generator is inoperable, continued reactor operation is permissible only during the succeeding seven days unless such diesel generator is sooner made operable, provided

SURVEILLANCE REQUIREMENT

- F. Automatic Depressurization System (ADS)
1. During each operating cycle the following tests shall be performed on the ADS:
 - a. A simulated automatic actuation test shall be performed prior to startup after each refueling outage.
 - b. During each refueling outage the ADS Nitrogen Accumulator check valves will be leak tested for a maximum acceptable system leakage rate of 25 scc/minute.
 2. When it is determined that one valve of the ADS is inoperable, the ADS subsystem actuation logic for the other ADS valves and the HPCI subsystem shall be demonstrated to be operable immediately and at least daily thereafter.
- G. Minimum Low Pressure Cooling and Diesel Generator Availability
1. When it is determined that one diesel generator is inoperable, all low pressure core cooling and containment cooling subsystems shall be demonstrated to be operable immediately and daily thereafter. In

Because the Automatic Depressurization System does not provide makeup to the reactor primary vessel, no credit is taken for the steam cooling of the core caused by the system actuation to provide further conservatism to the CSCS. Performance analysis of the Automatic Depressurization System is considered only with respect to its depressurizing effect in conjunction with LPCI and Core Spray and is based on 3 valves. There are four valves in the ADS and each has a capacity of approximately 810,000 lb/hr at a set pressure of 1125 psig.

The allowable out-of-service time for one ADS valve is determined as thirty days because of the redundancy and because the HPCIS is demonstrated to be operable during this period. Therefore, redundant protection for the core with a small break in the nuclear system is still available.

The ADS test circuit permits continued surveillance on the operable relief valves to assure that they will be available if required.

The Nitrogen Supply to the ADS utilizes accumulators and inlet check valves to ensure the operability of the ADS in the event that a break occurs in the nonseismic portion of the nitrogen supply piping. The accumulators are sized to allow the ADS to operate at least 5 times after a period of 100 days post accident with a maximum system leakage rate of 30 scc/minute. To provide an additional margin of safety, the leakage test allows for a maximum acceptable leakage rate of 25 scc/minute.

PROPOSED CHANGE RTS-184 TO THE
DUANE ARNOLD ENERGY CENTER
TECHNICAL SPECIFICATIONS

The holders of license DPR-49 for the Duane Arnold Energy Center propose to amend Appendix A (Technical Specifications) to said license by deleting the current pages and replacing them with the attached, new pages. A List of Affected Pages is given below.

To meet the requirements of NUREG-0737, Item II.K.3.28, Qualification of Automatic Depressurization System (ADS) Accumulators, the Duane Arnold Energy Center (DAEC) is replacing the existing hard seated check valves in the nitrogen supply line to the ADS accumulators with soft seated check valves. These new check valves will ensure that the Automatic Depressurization System is capable of 5 actuations 100 days post LOCA.

The changes made to DAEC Technical Specifications are the inclusion of a description of the ADS Nitrogen Supply System in Bases 3.5 and the addition of a surveillance testing requirement for the leak testing of the ADS Nitrogen Accumulator Check Valves.

This proposed change will also correct an error found in Table 3.2-B. Currently, the Auto Blowdown Timer Trip Level Setting is listed as 120 sec + sec; this should read 120 sec +5sec. The 5 had been inadvertently deleted in a previous submittal.

LIST OF AFFECTED PAGES

3.2-11
3.5-9
3.5-22