Docket No. 50-245

Attachment 1

Millstone Nuclear Power Station Unit No. 1 Proposed Revisions to Technical Specifications

October, 1985



The system may be manually initiated at any time. The system is automatically initiated on high reactor pressure in excess of 1085 psig sustained for 15 seconds. The time delay is provided to prevent unnecessary actuation of the system during turbine trips. Automatic initiation is provided to minimize the coolant loss following isolation from the main condenser. Make-up water to the shell side of the isolation condenser can be provided by the condensate transfer pumps from the condensate storage tank. The condensate transfer pumps are operable from on-site power. The fire protection system is also available as make-up water . An alternate method of cooling the core upon isolation from the main condenser is by using the relief valves and FWCI subsystem in a feed and bleed manner. The minimum shell side water volume in the isolation condenser is 15,500 gallons.

The function of the Isolation Condenser during a small break accident is to assist the automatic pressure relief system in depressurizing the reactor as a backup to the FWCI system. The two effects of isolation condenser depressurization are: (1) the minimization of the reactor inventory loss which normally occurs during APR blowdown; this reduces the time of core uncovery prior to reflooding; and (2) earlier onset of low pressure core spray cooling.

Analysis performed by General Electric in March 1976, in support of extended operation of Millstone while the isolation condenser was being retubed indicated that from 40% rated power, over 30 minutes is available to initiate operator action to mitigate the consequences of a loss of all feedwater. This is based upon manual depressurization with APR and coolant supplied by all LPCI and core spray subsystems. The FWCI was assumed lost as part of the non-mechanistic assumption of loss of feedwater. The successful mitigation of this postulated event was no uncovering of the fuel. Operators are instructed regarding special procedures to be utilized during this mode of plant operation.

## F. Emergency Cooling Availability

The purpose of Specification F is to assure a minimum of core cooling equipment is available at all times. If, for example, one core spray were out of service and the emergency power source which powered the opposite core spray were out of service, only two LPCI pumps would be available. Likewise, if two LPCI pumps were out of service and two emergency service water pumps on the opposite side were also out of service, no containment cooling would be available. It is during refueling outages that major maintenance is performed and during such time that the low pressure core cooling system may be out of service depending on the activities being performed. Specification F allows removal of one CRD mechanism or fuel removal and replacement while the torus is in a drained condition without compromising core cooling capability. The pecification establishes the minimum operable low pressure core cooling system, water inventories, electrical power supplies and other additional requirements that must exist to allow such activities as CRD mechanism maintenance or fuel removal and replacement, to be performed in parallel which other major activities. The available core cooling capability for a potential draining of the reactor vessel while this work is performed is based on an estimated drain rate and the maintained minimum water level, in the refueling cavity to be supplied to the reactor

	L	IMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
6.	Except as specified in 3.5.F.7 when irradiated fuel is in the vessel and the reactor is in the cold shutdown condition, all low pressure core and containment cooling subsystems may be inoperable provided that no work is being done which has the potential for draining the reactor vessel.		
7.	When read with and foll	irradiated fuel is in the reactor vessel and the ctor is in the refuel condition, control rod adrawal and mechanism replacement or fuel removal replacement may be conducted provided that the owing conditions are satisfied.	
	(a)	The reactor wessl head is removed.	
	(b)	The cavity is flooded.	
	(c)	The spent fuel pool gates are removed.	
	(d)	Water level is maintained within the limits of specification 3.10.C.	
	(e)	Either (i) both core spray system, (ii) both low pressure coolant injection system, or (iii) one core spray and low pressure coolant injection system supplied by independent electrical power shall be operable or available for operation with the respective 4160 volt supply breaker(s) racked out.	
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(f) With the torus drained (i) the BCCS configuration required in 3.5.F.7(e) shall be aligned with the condensate storage tank and the condensate storage tank suction valve V7-58 locked open, (ii) the condensate storage tank shall contain at least 414,000 gallons of usable water.	
(g) The minimum electrical power source requirement shall be the same as specified in paragraph 3.7.B.4.	
(h) No work will be performed in the reactor vessel other than fuel sipping while a control rod drive housing is open.	
(i) Fuel removal and replacement will not be done without a full complement of control rods.	
(j) During fuel movement no work being done which has the potential for draining the vessel.	

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