

PLANT SYSTEMS

BASES

3/4.7.1.4 ACTIVITY

The limitations on secondary system specific activity ensure that the resultant offsite radiation dose will be limited to a small fraction of 10 CFR Part 100 limits in the event of a steam line rupture. This dose also includes the effects of a coincident 1.0 GPM primary to secondary tube leak in the steam generator of the affected steam line and a concurrent loss of offsite electrical power. These values are consistent with the assumptions used in the accident analyses.

3/4.7.1.5 MAIN STEAM LINE ISOLATION VALVE

The OPERABILITY of the main steam line isolation valves ensures that no more than one steam generator will blowdown in the event of a steam line rupture. This restriction is required to 1) minimize the positive reactivity effects of the Reactor Coolant System cooldown associated with the blowdown, and 2) limit the pressure rise within containment in the event the steam line rupture occurs within containment. The OPERABILITY of the main steam isolation valves within the closure times of the surveillance requirements are consistent with the assumptions used in the accident analyses.

3/4.7.1.6 ATMOSPHERIC DUMP VALVES

The Atmospheric Dump Valves (ADV) provide a safety grade method for cooling the plant to the shutdown cooling entry conditions should the preferred heat sink via the Steam Bypass System to the condenser not be available. This is done in conjunction with the Auxiliary Feedwater System providing a safety grade source of cooling water from the condensate storage tanks. The ADVs are equipped with pneumatic controllers to permit control of the cooldown rate. The controllers provide both automatic and manual ADV operating modes.

The ADVs are used during normal plant startups and cooldowns when either a vacuum in the condenser or the Steam Bypass Control System is not available. The ADVs are capable of being operated remotely from either the Control Room or the Remote Shutdown Panel (L-042), and locally with manual handwheels. However, controlling the ADVs from the Remote Shutdown Panel is not credited in the Safety Analyses. Operating the ADVs during design bases events from the Remote Shutdown Panel is not a criteria for determining ADV operability.

Two ADVs are provided to meet single failure assumptions following an event rendering one steam generator unavailable for Reactor Coolant System (RCS) heat removal. In the safety analysis, the ADVs are not assumed to be used until the operator takes action to cool down the plant. The analysis conservatively assumes that the ADVs are operated, after 30 minutes following initiation of an event, using either the Control Room remote, or the local manual operating capability. The limiting events for RCS heat removal are those which render one steam generator unavailable with a coincident loss of offsite power. Typical initiating events falling into this category are a main steam line break (MSLB) upstream of the main steam isolation valves, a feedwater line break (FWLB), and a steam generator tube rupture (SGTR) event.

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