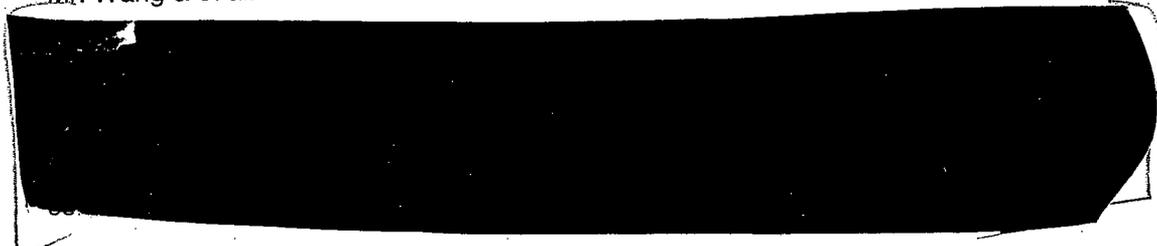


From: Michael S. Peck *MS*
To: Alan Wang; Robert Gramm
Date: 1/3/05 10:04AM
Subject: ACT: CWY MSIV Operability Question

Mr. Wang & et al:



EX-5

Release

Thank you,
Michael Peck, SRI

The Callaway Plant has one MSIV on each main steam line. Each MSIV has two independent trains of closing solenoids. Technical Specification 3.7.2 provide the Callaway Plant with an 8 hour action to restore an inoperable MSIV. Surveillance Requirement SR 3.7.2 requires each MSIV to close in less than 5 seconds. The bases for Surveillance Requirement 4.7.2 stated that each actuator train was required to close each MSIV in less than 5 seconds.

FSAR Section 10.3.1.1, Safety Design Bases stated:

SAFETY DESIGN BASIS THREE - Component redundancy is provided so that (MSIV) safety functions can be performed, assuming a single active component failure coincident with the loss of offsite power (GDC-34).

MAIN STEAM ISOLATION VALVES AND BYPASS ISOLATION VALVES - One MSIV and associated bypass isolation valve (BIV) is installed in each of the four main steam lines outside the containment and downstream of the safety valves. The MSIVs are installed to prevent uncontrolled blowdown from more than one steam generator. The valves isolate the nonsafety-related portions from the safety-related portions of the system. The valves are bidirectional, double disc, parallel slide gate valves. Stored energy for closing is supplied by accumulators which contain a fixed mass of high pressure nitrogen and a variable mass of high pressure hydraulic fluid. For emergency closure, a solenoid is energized which causes the high pressure hydraulic fluid to be admitted to the top of the valve stem driving piston and also causes the fluid stored below the piston to be dumped to the fluid reservoir. Two separate pneumatic/hydraulic power trains are provided. Electrical solenoids for the separate pneumatic/hydraulic power trains are energized from separate Class IE sources. If both trains of control power are lost, the MSIVs will fail as is. The valves are designed to close between 1.5 to 5 seconds against the flows associated with line breaks on either side of the valve, assuming the most limiting normal operating conditions prior to occurrence of the break. Valve closure capability is tested in the manufacturer's facility by pressurizing the valve body and closing the valve twice, each time with a different set of actuator controls. Preservice and inservice tests are also performed as discussed in Sections 10.3.4.2 and

FSAR Section 10.3.3, SAFETY EVALUATION, stated:

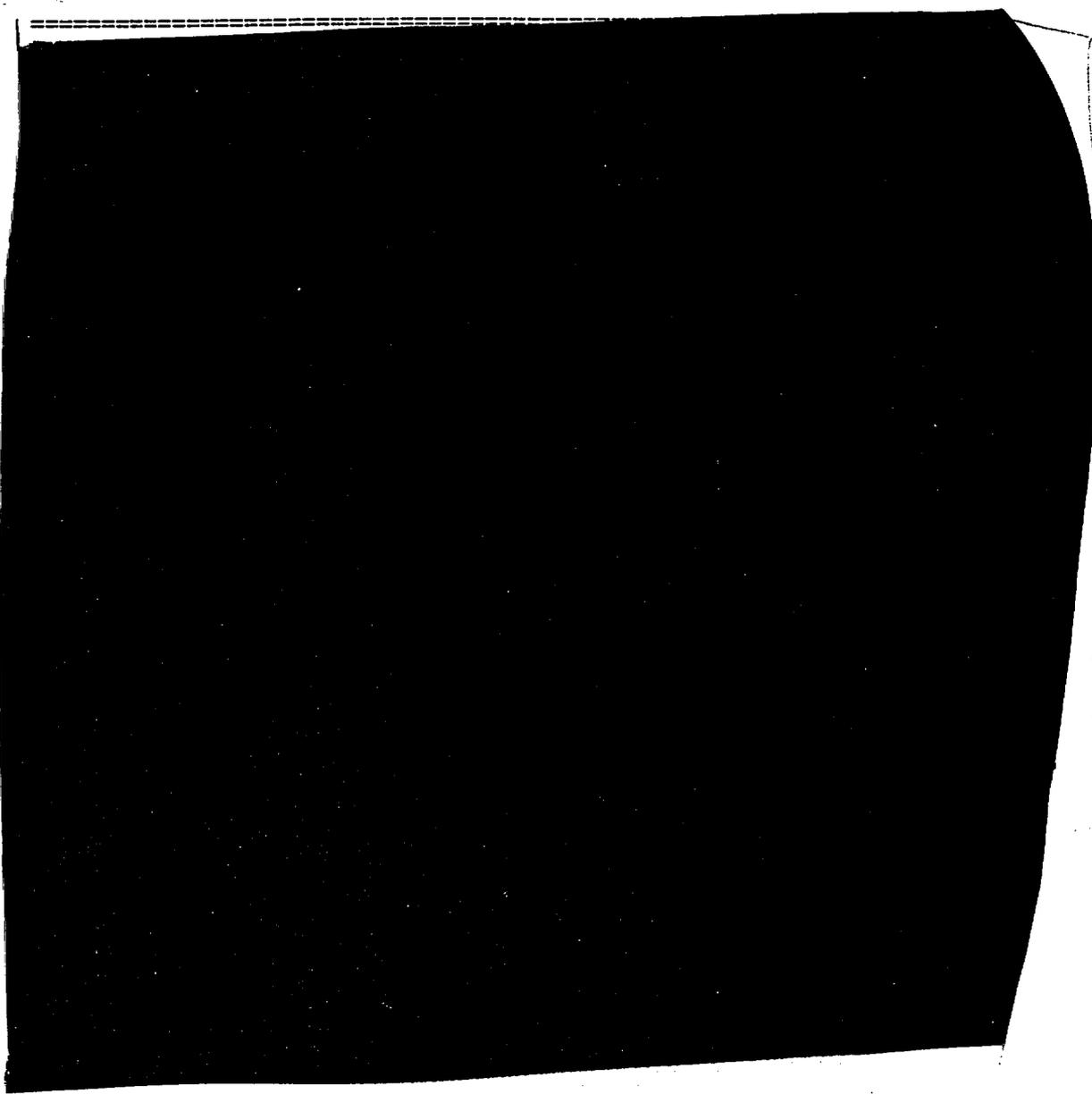
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SAFETY EVALUATION THREE - As indicated by Table 10.3-3, no single failure will compromise the (MSIV) system's safety functions. All vital power can be supplied from either onsite or offsite power systems, as described in Chapter 8.0.

FSAR Section 7.3.7.1.2, Design Bases, stated:

The design bases for the main steam and feedwater isolation actuation system are provided in Section 7.3.8. The design bases for the remainder of the main steam and feedwater isolation system are that the system isolates the main steam and feedwater when required, and that no single failure can prevent any valve from performing its required function. See Section 7.3.8 for additional discussion.



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