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ATTACHMENT

#### EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (CONT'D)

On April 15, 1982 while Unit No. 1 was in Mode 1, it was determined during a flow verification test on the hydrogen sample lines to hydrogen analyzer cabinet IJ220 that the test air pressure would not bleed off into the containment. This analyzer cabinet was already inoperable due to modifications performed to satisfy TMI Action Plan Item I.F.1.6 requirements. A flow verification test on the hydrogen sample lines to hydrogen analyzer cabinet IJ220 was performed at 1810 with the same result. Since no flow could pass from the containment to the hydrogen analyzer cabinet, the analyzer was incapable of performing its design function and was declared inoperable (T.S. 3.6.5.1). Personnel entered the containment and at 1830 discovered that the three hydrogen sample line manual stop valves supplying hydrogen analyzer cabinet IJ220 were shut. Subsequent to this event, it was discovered that the three manual stop valves for hydrogen analyzer cabinet IJ222 were also closed.

A flow verification test, similar to that performed on Unit No. 1 was subsequently performed on the Unit No. 2 hydrogen sample lines and this test was successful.

The emergency operating procedure for a Loss of Coolant Accident (LOCA) stipulates that the hydrogen recombiners be activated within 24 hours of the event, regardless of hydrogen sampling operability. The safety analysis presented in Section 14.19 of the FSAR, concludes that the recombiner would be started when hydrogen concentration reaches 3% or approximately 9.55 days after the start of the LOCA. Therefore, since the emergency procedure requires hydrogen recombiners to be activated well before any flammable concentration of hydrogen is accumulated in the containment, regardless of hydrogen analyzer capability, we conclude that the ability to mitigate a hydrogen buildup in the containment was not compromised by the event. There are no similar events.

#### CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (CONT'D)

The last known time that these valves were in the correct position was during the Unit No. 1 Local Leak Rate Test (LLRT) which was conducted for these valves between November 21, 1980 and November 28, 1980. As no known work was performed on the portion of this system inside containment after the LLRT was completed, we have concluded that the valves were not reopened after the LLRT was performed. The principle causes for the valves not being reopened were:

1. The valves were not numbered, therefore they did not appear in the NSSS Sampling Operating Instructions' valve list and consequently no verification of the valves' position prior to entering Mode 4 on January 8, 1981 was performed.

2. The tagging procedure used at the time of this event did not provide for returning valves to a specified position when tags are cleared nor did it provide for a second individual verifying that the valve is returned to its proper position after a tagout.

Corrective action relating to both of these causes has already been initiated.

A task force reporting directly to the Plant Superintendent had been established in February, 1982 to walk down all piping systems within Calvert Cliffs with the following objectives:

1. Verify the correct arrangement of valves on the piping and instrument diagrams (P&IDs) and to add or delete valves from the P&IDs and the operating instructions' valve lists to reflect as-built conditions.
2. Ensure that the numbering, descriptions, and operating positions of all valves listed in the operating instructions' valve lists are correct.
3. Attach metal identification tags to each valve.

The fulfillment of these objectives will enhance our capability to maintain valves in their correct operating positions at all times. Every process system valve in the plant will have been physically checked regarding its location, function and operating position at the conclusion of this effort. The operating instructions' valve list for each system will be checked to ensure that all valves are included along with their correct number, description, location, and operating positions after each system is walked down to ensure completeness and accuracy of the valve lists. All valves in the facility will have metal identification tags attached for facilitating valve line-up checks, restoration of equipment to service and to minimize system transients due to misoperation of valves.

Currently the above described effort is being concentrated on all piping inside the Unit No 1 containment. All systems important to safety in containment will be walked down and valves labeled, and identified in appropriate operating instructions. The revised valve lists will be used to conduct valve lineups performed prior to startup. All walkdowns and updated valve lists will be complete for all safety-related systems for both units by December 31, 1982.

Secondly, the Calvert Cliffs Instruction describing the procedure for tagging equipment out of service was revised in June, 1981 to incorporate a system by which two operators are used to return equipment to service and to verify that the equipment is returned to service correctly. The revised procedure also provides for documentation of this verification and documentation of the repositioning of valves and other components after maintenance or testing. If the Senior Control Room Operator directs valves to be repositioned differently from the normal operating position after testing due to operating conditions, this is also documented. With the revision of this instruction, additional verification is being performed by qualified operators of the position of equipment restored to operability after testing or maintenance consequently minimizing the possibility of a recurrence of this event. Thus, this corrective action is complete.