NRC PDR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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MEMORANDUM FOR: Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

FROM: G. Lainas, Chief
Plant Systems Branch
Division of Operating Reactors

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - CONTAINMENT PURGE SYSTEM - CALVERT CLIFFS UNITS 1 AND 2 (TAC 10218)

Plant Name: Calvert Cliffs Units 1 and 2
Docket Nos.: 50-317/318
Project Manager: E. Conner
Review Status: Awaiting Information

The Plant Systems Branch has identified the enclosed additional information as being required within 30 days in order that we can complete our evaluation of the electrical override/bypass aspects of the containment purge matter on schedule.

G. Lainas, Chief
Plant Systems Branch
Division of Operating Reactors

Contact:
R. Scholl, X27162

Enclosure:
Request for Additional
Information

ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION FOR BYPASS AND RESETTING OF CONTAINMENT PURGE AND OTHER ESF AT CALVERT CLIFFS UNITS 1 AND 2 DOCKET NOS. 50-317 & 318

The following guidelines are being used to evaluate the adequacy of your plant design with regard to the bypassing and/or resetting of Engineered Safety Features such as Containment Ventilation Isolation.

1 - The overriding* of one type of safety actuation signal (e.g., radiation) should not cause the blocking of any other type of safety actuation signal (e.g., pressure) to the isolation valves.

2 - Sufficient physical features (e.g., key lock switches) should be provided to facilitate adequate administrative controls.

3 - The system-level annunciation of the overridden status should be provided for every safety system impacted when an override is active.

4 - Diverse signals should be provided to initiate isolation of the containment ventilation system. Specifically, containment high radiation, safety injection actuation, and containment high pressure should automatically initiate Containment Ventilation Isolation (CVI).

5 - The instrumentation and control systems provided to initiate CVI should be designed and qualified as safety-grade equipment.

6 - The overriding or resetting* of the isolation actuation signal should not cause the automatic reopening of any engineered safety feature valve or damper.

*The following definitions are given for clarity of use in this issue: Override - the signal is still present, and it is blocked in order to perform a function contrary to the signal; Reset - the signal has come and gone, and the circuit is being cleared to return to the normal condition.

Because the information immediately available to the staff is not sufficient to permit an independent review of the extent to which you satisfy the above guidelines, you are requested to provide the following additional information:

1. Provide the schematic drawings of your purge and vent system, and all other engineered safety features valves and dampers (including initiating logic).

2. Describe any manual override features that are provided for CVI (including post-DBA) operations.

3. Describe all differences between the control of CVI valves and the valves and dampers of all other engineered safety features (ESF).

4. If the system design of any ESF system contains an override, will the overriding of one type of safety actuation signal cause the blocking of any other type of safety actuation signal?

5. Describe the features that are provided for bypassed and inoperable status indication.

6. Identify each type of override and describe the physical features that are provided to facilitate administrative controls.

7. Identify all portions of the containment isolation system, including sensors, that do not satisfy the requirements for reactor protection equipment.

8. It is the staff's understanding that your plants only provide radiation trip of CVI during Mode 6 (refueling) and therefore your design does not satisfy the staff's guidelines. Accordingly, describe (including suitable electrical schematics) those design changes that you will make to satisfy the staff's requirements and justify each exception.