



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

JUL 31 1979

MEMORANDUM FOR: B. Grimes, Assistant Director for Systems Engineering,
Division of Operating Reactors

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

SUBJECT: FLOODING OF SERVICE WATER VALVES IN VALVE PIT IN
TURBINE AREA AT SURRY

The problem you forwarded to us last month by "bucksip" (enclosed) which involves the flooding of four service water supply valves located in a common valve pit on the lower level of the turbine building of each unit at Surry will be reviewed during the flooding review (TAC 7964) for this plant scheduled to be completed February 1980.

The flooding reviews for operating reactors is a generic issue which was initiated in September 1972. The review entails determining which safety equipment is vulnerable from flooding from failure of non-seismic piping in the plant such as the circulating water piping, fire main, etc. These flooding reviews have been conducted intermittently over the past several years. In most cases, the reviews were made by the project managers of operating reactors assigned to the plants. Last year when the generic issues were scheduled for review only seven plants remained to be completed. They were assigned to the LLL under the Technical Assistance Contract.

The measures to correct the problem of the valve pits at Surry, as outlined in Karl Seyfrit's letter of January 17, 1978 (enclosed), have been completed and accepted by IE. The modifications involved raising a two foot high steel dike above the turbine floor, installation of steel bulkhead in the valve pits to separate the two trains, and installing water level sensors in each half of the pit to initiate an alarm in the control room. This issue and corrective measures will be included in our forthcoming flooding review. Similar situations, if they existed at other plants should have been picked up in the flooding reviews of these plants. Therefore, it is our suggestion that it will not be necessary to prepare a memo to IE suggesting a Circular or Bulletin. If you do not agree and want the original suggested action taken, please advise.

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

Contact:
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Enclosures:
As stated

cc w/enclosures:
D. Eisenhower
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D. Verrelli
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D. Tondi
J. Burdoin



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JAN 17 1978

MEMORANDUM FOR: R. S. Boyd, Director
Division of Project Management, NRR
✓ V. Stello, Director
Division of Operating Reactors, NRR

FROM: K. V. Seyfrit, Assistant Director
for Technical Programs, TE

SUBJECT: RECIRCULATION SPRAY SYSTEMS

Common mode failure mechanisms for containment recirculation spray systems have been identified at Surry. These are the result of locating service water supply valves for the recirculation spray heat exchangers in common valve pits on the lower level of the turbine building for each unit. Flooding of the Unit-2 valve pit has incapacitated the motor operators on two occasions. Further, the valves are designed to Seismic Class I criteria whereas the turbine buildings are not designed to seismic criteria. In the event of earthquake, loss of the valves might result from failure of the buildings. The enclosed memorandum provides background information which may be useful to you in future plant reviews and for review of existing plant designs.


Karl V. Seyfrit, Assistant Director
for Technical Programs
Division of Reactor Operations Inspection

Enclosure: Memo K. V. Seyfrit
to F. J. Long, RII dated JAN 17 1978

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