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 VARGA, S.A. Operating Reactors Branch 1

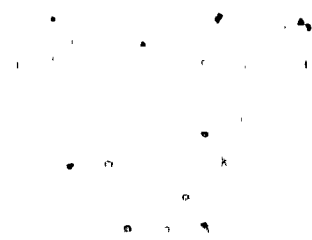
SUBJECT: Requests review of encl evaluation supporting position that
 RHR sys Pump Suction Isolation Valves MOV-750 & MOV-751 no
 longer require Type C testing per 10CFR50 App J. Review of
 840330 inservice test program rev also requested by 850524.

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L-85-204

MAY 20 1985

Office of Nuclear Reactor Regulation
Attention: Mr. S. A. Varga, Chief
Operating Reactors Branch #1
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Varga:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 and 50-251
Revision to Inservice Test Program
for Pumps and Valves

Florida Power and Light Company submitted a revision to the Inservice Test (IST) Program for Pumps and Valves to Turkey Point Units 3 and 4 on March 30, 1984. That program specifies that MOV-750 and MOV-751 (residual heat removal system pump suction isolation valves) be tested to 10 CFR Part 50, Appendix J requirements. FPL has reevaluated the requirements for MOV-750 and MOV-751 and has determined that those valves no longer require "Type C" testing in accordance with 10 CFR Part 50 Appendix J. The valves will now be tested as pressure isolation valves. The evaluation supporting that determination is attached.

FPL requests your review of this revision of the Turkey Point IST Program by May 24, 1985 to preclude impacting the Unit 3 refueling outage critical path schedule by unnecessary testing of these valves. We will submit revised IST program pages reflecting these changes.

If you have any questions, please call us.

Very truly yours,

J. W. Williams, Jr.
Group Vice President
Nuclear Energy

Attachment

JWW/TCG/cab

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PDR ADDCK 05000250
P PDR

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MOV 750 and 751 "Type C" Test Evaluation

Background:

The FPL ILRT test procedure currently tests valves MOV 750 and 751 to 10 CFR Part 50, Appendix J, which requires that Type C testing be performed for containment isolation valves that:

1. Provide a direct connection between the inside and outside atmospheres of the primary reactor containment under normal operation, such as purge and ventilation, vacuum relief, and instrument valves;
2. Are required to close automatically upon receipt of a containment isolation signal in response to controls intended to effect containment isolation;
3. Are required to operate intermittently under post-accident conditions;
4. Are in main steam and feedwater piping and other systems which penetrate containment of direct-cycle boiling water power reactors.

In a letter dated May 21, 1975 (L-75-247), FPL committed to provide an alternate Hot Leg injection Path. This alternate path was a backup to a passive failure in the normal, redundantly valved hot leg injection path. Because the operators for the valves on this flow path (Penetration #1, normal RHR suction, valves 750 and 751), were not qualified for long term post-loca environment, opening of these valves was required prior to 2 hours post-loca. With these valves in an open position, containment isolation became dependent on the suction line's closed system outside containment, with a water seal, to contain leakage.

Recently, qualified operators have been installed on valves 750 and 751. This removes the requirement for these valves to be operated post-loca, therefore, the valves would remain closed. The flow path, would be available as a backup to a passive failure of the hot leg injection, (at $T > 18$ hours), following appropriate operator action. Passive failure of the normal hot leg injection is not a design basis requirement. In the remote possibility that these valves are subsequently used (as the backup should the passive failure occur), then alignment would be to a closed system (outside containment), with operating pressure (P_{sys}) greater than maximum calculated peak containment pressure (P_a).

Description of Operation:

The following discussions of the Residual Heat Removal System suction line describe the containment isolation "barriers" present during various modes of operation. This review reflects the use of environmentally qualified valves MOV 750 and 751.

A. Normal Plant Operation

Plant operation, valves locked closed, breaker for 75I racked out. Isolation barriers:

- 1) Valves 750 and 75I locked closed. Both valves are seat leakage tested as Reactor Coolant System pressure boundary isolation valves.
- 2) Closed system outside containment.
- 3) Water filled supply, water seal in attached pipe.

B. Post LOCA, early into accident

Post LOCA, MOV 750 and 75I locked closed, RHR pumps in operation.

Barriers:

- 1) MOV 750 and 75I closed.
- 2) Closed system outside containment.
- 3) Water seal in pipe outside containment, approximately 15 feet in vertical direction (down).

C. Post LOCA, after switchover to sump recirculation

MOV 750, 75I locked closed, RHR pumps in operation.

Barriers:

- 1) Same as Post LOCA Mode above, except additional valving to reduce the boundary of Penetration #1 as "closed System" (862 A&B closed).
- 2) $P_{sys} > P_a$.

D. Alternate hot leg injection path

NOTE: This is an alternate flow path to be used only in case of passive failure of normal hot leg injection. This is not a required mode of operation.

$t > 18$ hrs. Post LOCA, MOV 750 and 75I open, RHR mini-recirculation aligned open.

Barriers:

- 1) Closed system outside containment. Piping isolated from pump suction, aligned to RHR discharge.

- 2) Water seal still present (line filled with water).
- 3) $P_{sys} > P_a$

Evaluation:

Based on the information presented in the preceding sections, MOV 750 and 751 are not subject to "type C" leakage testing requirements pursuant to App. J, Section II H 1, 2, 3, 4 for the following reasons:

- 1) The penetration valve(s) do not provide a direct connection between the containment atmosphere and the outside environment.
- 2) The valves are not required to close automatically to affect containment isolation.
- 3) The valves are not required to operate intermittently under post-accident conditions.
- 4) Turkey Point is not a direct-cycle boiling water power reactor.

Conclusion:

Pursuant to the requirements of Appendix J, Turkey Point is not required to "Type C" test the valve(s) (MOV 750 and 751) contained in penetration #1.

Additionally, multiple containment isolation barriers exist in this RHR suction path during all modes of operation.

Finally, this change in our Pump & Valve Test program is commensurate with Turkey Point's Sister plants' Pump & Valve Testing Program. H. B. Robinson and Ginna Power plants have similar piping configurations and bases for "Type C" test exemptions. Review of other NSSS plants (e.g. St. Lucie 1 and 2) shows similar bases for test exemptions.