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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Technical Specification Change Request NPF-38-111 (TAC 79116)

Gentlemen:

By letter W3P90-1182 dated November 9, 1990, Entergy Operations, Inc. proposed a license amendment to remove the Movable Incore Detection System from the Technical Specifications for Waterford Steam Electric Station, Unit 3. The proposal also removed requirements for over-current protective devices for containment penetrations associated with the movable incore detectors. On December 7, 1990, the Commission requested additional information verifying that the disconnection of the drive machines, the springing of the breaker and fuse for each electrical penetration and the alterations necessary for the elimination of the Movable Incore Detection System will not compromise plant safety. At the time of the original amendment request, these modifications were in the developmental stage and permanent changes were still under consideration. Now that the details are being finalized, the requested information can be supplied. The attached information supplements the original submittal and supports the existing safety analysis which certifies that these issues do not represent a significant hazard.

If there are any questions, please direct them to David Rothrock on (504) 739-6693.

Very truly yours,

R.F. Burski
Director, Nuclear Safety

RFB/DAR/ssf
Attachment: Supplement to NPF-38-111

cc: Messrs. R.D. Martin (NRC Region IV), D.L. Wigginton (NRC-NRR),
E.L. Blake, R.B. McGehee
NRC Resident Inspectors Office, Administrator Nuclear Energy Division
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SUPPLEMENTAL INFORMATION
TO PROPOSED CHANGE NPF-38-111

This information is supplemental to that accompanying the request to remove the movable incore detectors from the Waterford 3 Technical Specifications as documented in W3P90-1182. This information does not change the conclusion of the original safety analysis that there is no significant hazard associated with the submittal.

Discussion

By letter W3P90-1182 dated November 9, 1990, Entergy Operations, Inc. proposed an amendment removing both the movable incore detectors and the requirements for the associated containment penetration devices from the Waterford 3 Technical Specifications. In their preliminary review, the Commission identified certain aspects of the requested change and related modification that were not addressed in the original submittal. This supplemental information responds to these concerns.

A modification, scheduled for the upcoming refueling outage, will permanently disable the Movable Incore Detection System. As part of this effort, power will be disconnected from the detector drive machines, and the associated breakers and fuses will be spared. At the power supplies, the cables will be disconnected from the load side of the fuses. These cables will then be relabelled as "spare", coiled, and secured in the Motor Control Center cable trough. These cables will not be disturbed at the penetration. Inside containment, a length of each cable will be removed to isolate the drive machines from the penetrations. With the power source removed, over-current incidents will not occur. Plant configuration control (i.e., the design change process) ensures that any modifications to existing design and/or equipment receive the appropriate reviews and approvals. This will include any future modifications to the cable penetrations that require an amendment to this technical specification. Therefore, the electrical penetrations for these cables will remain protected and controlled.

As stated in W3P90-1182, a temporary alteration that removed a section of each guide tube and capped each calibration tube was performed to eliminate a potential leakage path. These calibration tubes provide a path for the movable incore detectors to relocate throughout the core. The tubes are contained in the housing for the fixed incore detectors. During the upcoming refueling outage, new fixed incore detectors are to be installed. The calibration tubes of the new fixed detectors are seal-welded within the instrument heads. There are no external projections from the instrument head for the calibration tubes; therefore, no external leak path exists. Since this will eliminate the potential leakage path, the correction to the original problem becomes permanent. This correction, evaluated under the station modification process and independent of the temporary alteration, will assure long-term integrity to the Reactor Coolant System.

As stated in the previous safety analysis, incore detector operability is not required for any accident. Therefore, all accidents remain unaffected by the proposed change to the technical specifications. The modification associated with the change will not reduce the protection of the containment penetrations or the long-term integrity of the Reactor Coolant System. Power sources will be removed from the cables preventing over-current incidents at the penetrations, and potential Reactor Coolant System leakage paths (via the calibration tubes) will be eliminated. As determined in the original safety analysis, the disconnection of the drive machines, the sparing of the breaker and fuse for each penetration, and the elimination of the calibration tubes will not increase the probability or consequence of any accidents previously evaluated.

As pointed out in the original safety analysis, the deletion of the Movable Incore Detection System from the definition for "operable incore detector" requires any mapping to be performed by the Fixed Incore Detector System. This provides the same information and satisfies the existing technical specification. As such, the protection afforded by the limiting condition for operation remains unchanged. Over-current protection to the cable containment penetration remains assured. Outside of containment, the cables will be disconnected at the load side of the fuses, removing the power source. The cables will be relabelled as "spare", coiled and secured in the Motor Control Center cable trough. The cables will not be disturbed at the penetration. Inside containment, a length of each cable will be removed to isolate the drive machines from the penetrations. Future alterations to this equipment arrangement are regulated by the design control process. Therefore, the electrical penetrations for these cables will remain protected and controlled. The modification replacing the fixed incore detectors eliminates a potential Reactor Coolant System leakage path. These changes do not represent any new failure path. As determined in the original safety analysis, the requested amendment and the related modification will not create the possibility of a new or different kind of accident from any accident previously evaluated.

As discussed above, the modifications necessary to disable the Movable Incore Detection System will not reduce any protection from over-current incidents at the containment penetration. Reactor vessel integrity will not be jeopardized but enhanced by the elimination of a potential leakage path. As determined in the safety analysis documented in W3P90-1182, these aspects of the modification and the amended technical specifications do not:

- a) affect any of the assumptions or results of the safety analyses,
- b) diminish the protection provided by the limiting condition for operation in the technical specifications, nor
- c) change the bases.

Consequently, the conclusion that there will be no reduction in the margin of safety is still valid.

The above information does not change the original conclusion that: (1) the proposed changes do not constitute a significant hazards consideration as defined by 10CFR50.92; (2) there is a reasonable assurance that the health and safety of the public will not be endangered by the proposed changes; and (3) this action will not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement.