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Waterford 3

W3F1-2001-0099

A4.05

PR

November 9, 2001

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
Appendix R Deviation Request

Gentlemen:

Entergy is hereby submitting a request for NRC Staff review and approval of recently identified deviations from the Waterford 3 Fire Protection Program associated with safe shutdown circuit separation. The deviations were discovered during analysis of results from a recent Waterford 3 safe shutdown analysis revalidation review effort. The condition involves three plant power cables that are not in verbatim compliance with Appendix R safe shutdown circuit separation criteria. The configurations in no way impact the ability of the plant to achieve and maintain safe shutdown, assuming a fire in the affected area (Fire Area RAB31). The attached summary supports this request for approval. The Engineering evaluation is contained in ER-W3-01-1099-00-00. The requirements of Appendix R apply to Waterford 3 through commitment (letter W3P81-2344 dated November 10, 1981).

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There are no new commitments contained in this submittal. If you have any questions, please contact Oscar Pipkins at (504) 739-6707.

Very truly yours,



A.J. Harris
Director
Nuclear Safety Assurance

AJH/OPP/cbh

cc: E.W. Merschoff, NRC Region IV
N. Kalyanam, NRC-NRR
J. Smith
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DEVIATION REQUEST EVALUATION SUMMARY

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REQUIREMENT:

10CFR50 Appendix R requires that separation be maintained between redundant safe shutdown train control and power circuits. The pre-approved methods for achieving that separation, prescribed in Appendix R are:

- By a three hour rated fire barrier,
- By a one hour rated fire barrier with fire detection and automatic sprinkler protection or
- By a 20 ft clear space with no intervening combustibles between the redundant trains plus fire detection and fire suppression.

PLANT CONFIGURATION:

Three essential plant cables, located in Fire Area RAB31 were discovered (Condition Report CR-WF3-2001-0509) to be in noncompliance with Appendix R separation criteria. The cable configurations do not meet the above-described pre-approved methods of achieving adequate separation. However, as will be shown below, the configuration in no way adversely impacts safe shutdown of the plant, assuming a fire event occurs in the area.

The 125-volt DC power cables involved are 32562B (Train 'B'), 32562F (Train 'B') and 32561D (Train 'AB'). These cables are among the cables in the area credited during a fire. Cable 32562B provides a 125 volt DC power tie between 125 volt DC Battery Charger 3B1-S and 125 volt DC Power Distribution Panel 3B-DC-S (Equipment ID# DC-EPDP-B-DC) Circuit #34. Cable 32562F provides a 125-volt DC power tie between 125-volt DC Battery Charger 3B2-S and 125 volt DC Power Distribution Panel 3B-DC-S (Equipment ID# DC-EPDP-B-DC) Circuit #36. Cable 32561D provides a tie between 125 volt DC power distribution panel 3AB-DC-S and a manual disconnect to 125 volt DC Battery 3AB-S.

The three cables traverse above the water level in the Refueling Water Storage Pool (RWSP). The cables are not protected by one-hour fire wrap nor by a rated fire barrier. The cables are not separated from redundant, 'A' train cables by at least 20 feet with no intervening combustibles. There is no, nor is there need for, fire detection at the ceiling of the RWSP. There is no, nor is there need for, suppression at the ceiling of the RWSP (negligible combustibles).

BASIS FOR ACCEPTABILITY OF THE DEVIATION:

The subject cables are not susceptible to fire damage in the existing configuration. They are routed in dedicated conduit approximately 5 feet above the normal water level in the RWSP and within 3 feet of the RWSP ceiling. The combustible loading near the ceiling of the RWSP is negligible. No transient combustibles can be brought into the area during normal operation. The RWSP is inaccessible during normal operations. Technical Specifications require that a minimum of 475,500 gallons of borated water (83% indicated level) be maintained in the RWSP during modes 1, 2, 3, and 4. The cables are separated from redundant cables by a non-fire rated 3-foot thick concrete wall, which provides a level of protection. Also, adjacent accessible areas have a low combustible loading and are covered by smoke detection and automatic suppression systems. The intent of Appendix R is satisfied by the existing configuration. At least one train will remain free of fire damage in the unlikely event of a fire in the area. No safety issue exists. The configuration in no way adversely impacts the ability of the plant to achieve and maintain safe shutdown.

References:

- Engineering Request ER-W3-2001-1099-00-00
- Calculation EC-F00-026 Appendix C, Rev. 0, Attachment AK Compliance Assessment Summary for Fire Area RAB31
- Calculation EC-F00-026 Appendix C, Rev. 0, Attachment AK, Compliance assessment Table for Fire Area RAB31
- Condition Report CR-WF3-2001-0509
- Drawing LOU-1564-B-424-Sheet 2562s
- Drawing LOU-1564-B-424-Sheet 2561s
- Drawing LOU-1564 G-554 Sheet 02
- Drawing LOU-1564 G-317 Sheets 01 & 02
- Drawing LOU-1564 G-1358
- Drawing LOU-1564 G-1364
- FSAR Section 9.5.1