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December 18, 1992

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-38-130

Gentlemen:

The attached description and safety analysis support a change to the Waterford 3 Technical Specifications. The proposed change will modify Technical Specification (TS) 3.1.3.1 and its associated Bases to allow continued operation for 72 hours with more than one full length or part length Control Element Assembly (CEA) inoperable due to electronic or electrical problems in the Control Element Drive Mechanism Control System (CEDMCS), provided that all affected CEAs remain trippable. This request is similar to Technical Specification change requests approved by the NRC for Arkansas Nuclear One, Unit 2 and Braidwood Station, Units 1 and 2.

This proposed TS change is driven by the events described in Waterford 3 submittal dated December 11, 1992 which concerned problems with CEA #38.

Specifically, the CEDM Load Transfer coil (which receives signals from the CEDMCS) for CEA #38 has an open circuit. The function of the CEDM Load Transfer coil is to assist in the inserting and withdrawing of the CEAs. The function of the CEDMCS is to control this CEA motion.

As discussed in the December 11, 1992 submittal Waterford 3 and Combustion Engineering evaluated this situation and concluded that CEA #38 remained trippable, although there would be some increased risk of dropping the CEA if it had to be moved.

With CEA #38 located in a shutdown bank, the only anticipated movement is that associated with monthly testing (TS 4.1.3.1.2), which inserts and withdraws CEAs approximately 5 inches.

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Due to the increased risk of dropping CEA #38 during the surveillance testing conducted on December 12, 1992 Waterford 3 declared CEA #38 inoperable and entered TS ACTION statement 3.1.3.1(f). ACTION (f) allows continued operation in Modes 1 and 2 with one CEA inoperable if it remains trippable. However, should Waterford 3 experience electronic or electrical failures with another CEA the existing TS requires the plant to be in HOT STANDBY within 6 hours.

The proposed TS change is intended to reduce the potential for requiring Waterford 3 to go through an unnecessary shutdown due to an electronic failure in CEAs that does not affect the trip capability. The proposed change distinguishes between failures which render a CEA untrippable and failures which have no effect on the CEAs capability to trip. As such the proposed change will continue to preserve the CEA's primary safety function of shutting down the reactor upon initiation of a reactor trip signal.

The proposed change has been evaluated in accordance with 10 CFR 50.91 (a)(1), using the criteria in 10CFR 50.92(c) and it has been determined that this request involves no significant hazards consideration.

Given the circumstances described above Waterford 3 respectfully requests a timely review.

Should you have any questions or comments please contact Paul Caropino at (504) 739-6692.

Very truly yours,

R.P. Barkhurst
Vice President, Operations

RPB/PLC/dc
Attachment: Affidavit
NPF-38-130

cc: J.L. Milhoan (NRC Region IV)
D.L. Wigginton (NRC-NRR)
R.B. McGehee
N.S. Reynolds
NRC Resident Inspectors Office
Administrator Radiation Protection Division
(State of Louisiana)
American Nuclear Insurers

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of	)	
	)	
Entergy Operations, Incorporated	)	Docket No. 50-382
Waterford 3 Steam Electric Station	)	

AFFIDAVIT

R.P. Barkhurst, being duly sworn, hereby deposes and says that he is Vice President Operations - Waterford 3 of Entergy Operations, Incorporated; that he is duly authorized to sign and file with the Nuclear Regulatory Commission the attached Technical Specification Change Request NPF-38-130; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.

R.P. Barkhurst
Vice President Operations - Waterford 3

STATE OF LOUISIANA)
) ss
PARISH OF ST. CHARLES)

Subscribed and sworn to before me, a Notary Public in and for the Parish and State above named this 18TH day of DECEMBER, 1992.

Notary Public

My Commission expires WITH LIFE.

This proposed change modifies Technical Specification (TS) 3.1.3.1 and its associated bases to allow continued plant operation for 72 hours with more than one full length or part length Control Element Assembly (CEA) inoperable due to and electronic or electrical problem in the Control Element Drive Mechanism Control System (CEDMCS) provided that all affected CEAs remain trippable.

Existing Specification

See Attachment A

Proposed Specifications

See Attachment B

Description

Several ACTION statements associated with TS 3/4.1.3 MOVABLE CONTROL ASSEMBLIES have been changed to support a new action statement (3.1.3.1.h) which will apply when more than one control rod is trippable but inoperable. This TS modification is only applicable for control rods that are inoperable for reasons other than being untrippable. Therefore, ACTION statements 3.1.3.1 (b), (c), and (d) which address situations in which control rods are inoperable or misaligned (and assumed to be trippable) have been modified such that the trippable condition of the control rod is confirmed. The new Action Statement 3.1.3.1 (h), recognizes a condition when more than one full length or part length CEA is trippable but inoperable for reasons other than being untrippable. Under this condition continued plant operation for a period of 72 hours would be allowed to complete the necessary repairs and return the affected control rods to an operable state.

Specification 3.1.3.1 and associated actions ensure that (1) acceptable power distribution limits are maintained (2) the minimum SHUTDOWN MARGIN is maintained and (3) the potential effects of CEA misalignments are limited to acceptable levels. Mechanical or electrical failures may cause a CEA to become inoperable or misaligned from its group. The existing Technical Specifications requires the plant to be in hot standby in 6 hours with more than one CEA electrically inoperable (3.1.3.1.f). A CEA that is inoperable due to excessive friction, mechanical interference, or being untrippable is a more significant failure than a CEA that cannot be moved due to an electrical failure but is still trippable. The Change to TS 3.1.3.1 and its associated Bases distinguishes between these failures and requires the existing restrictive ACTION (i.e. be in at least HOT STANDBY within 6 hours) for an untrippable CEA while allowing more time to repair CEA(s) that cannot be moved because of an electrical failure, but are still capable of tripping.

Extending the diagnosis/repair time will allow sufficient time to evaluate the failure, and to develop a systematic work plan without the distraction of making shutdown preparations at the same time. In addition, it will reduce the potential for requiring the plant to go through an unnecessary shutdown due to electronic failures in CEA(s) that do not affect the trip capability.

The staff has previously reviewed and approved similar changes at other plants (e.g. application by Entergy Operations, Inc. ANO Unit 2 dated April 9, 1991, as revised August 30, 1991).

Safety Analysis

The proposed change described above shall be deemed to involve a significant hazards consideration if there is a positive finding in any of the following areas:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of any accident previously evaluated?

   Response: No.

   The proposed change will allow 72 hours for diagnosis and repair of electronic or electrical malfunctions associated with the CEDMCS. This is acceptable, since the extension of the allowable outage time only applies to CEAs which remain trippable, and assurance of the CEA's primary safety function of shutting down the reactor upon initiation of a reactor trip signal is maintained. The change does not alter the specified requirements of CEA position, insertion, or alignment limits and will have no affect on the power distribution limits or SHUTDOWN MARGIN as described in the safety analysis. This change will not affect the ability of the CEAs to perform their intended safety function when a safety system setting is reached. Therefore, the proposed change will not involve a significant increase in the probability or consequences of any accident previously evaluated.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No

   The proposed change will not alter operation of the plant or the manner in which it is operated. The change does not involve any modification to the operational limits or physical design of the affected systems or components. Thus no new failure modes are introduced or associated with the proposed change. Therefore, the proposed change will not create the possibility of a new or different kind of accident previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

   Response: No

   The proposed change will have no adverse impact on the protective boundaries, safety limits or margin of safety. The change will allow appropriate actions commensurate with one or more CEAs inoperable due to an electronic or electrical problem in the CEDMCS. Since the extension of the allowable outage time only applies to CEAs which remain trippable, assurance of the CEAs primary safety function of shutting down the reactor upon initiation of a reactor trip signal is maintained. Therefore, the proposed change will not involve a significant reduction in a margin of safety.

Safety and Significant Hazards Determination

Based on the above safety analysis, it is concluded that: (1) the proposed change does not constitute a significant hazards consideration as defined by 10 CFR 50.92; and (2) there is a reasonable assurance that the health and safety of the public will not be endangered by the proposed change; 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.