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PR

July 10, 1997

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Technical Specification Change Request NPF-38-200

Gentlemen:

Entergy Operations, Inc. proposes to amend Facility Operating License NPF-38 for the Waterford 3 SES by incorporating the attached proposed amendment to Technical Specification (TS) 3/4.8.1 "Electrical Power Systems - AC Sources."

On July 8, 1997, Waterford 3 determined that Surveillance Requirement (SR) 4.8.1.1.2h.2 was missed and as such both Emergency Diesel Generators had to be declared inoperable in accordance with TS 3.8.1.2.

Waterford 3 is submitting this amendment request as an emergency change pursuant to 10CFR50.91(a)(5). The basis for this emergency request is as follows.

<u>DISCUSSION OF CIRCUMSTANCES SURROUNDING THE SITUATION AND A DETERMINATION OF WHY THE NEED FOR PROMPT ACTION COULD NOT HAVE BEEN AVOIDED</u>

On November 7, 1995, a Technical Specification Change Request, NPF-38-172, was submitted to amend TS 3.8.1. Among the changes requested in NPF-38-172 was a request to delete Surveillance Requirement (SR) 4.8.1.1.2h.2. At the request of Waterford 3, NRC focused on the changes identified as being needed for the refuel 8 outage.

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These higher priority changes included line item changes for separating the 24 hour endurance test from the Loss of Offsite Power test, and removal of accelerated testing.

At that time, Waterford 3 believed that an adequate grace period existed such that delaying the request to delete SR 4.8.1.1.2h.2 was an acceptable compromise to ensure the higher priority changes were made prior to the refuel 8 outage. The request to delete SR 4.8.1.1.2h.2 and lower priority items was withdrawn on March 14, 1997.

On July 7, 1997, preparations were started to resubmit the change to delete SR 4.8.1.1.2h.2. On July 8, 1997, while trying to determine the end date for the 25% grace period allowed by Specification 4.0.2, questions were asked to determine when the interval started and how the start of the interval was justified.

Waterford 3 personnel had considered this SR to be the same as the pressure testing requirements of Section XI of the ASME Code as invoked by TS 4.0.5 and implemented by the Inservice Inspection Program. Based on this, it had previously been determined that the start of the interval for this SR was the same as the start of the interval for the Inservice Inspection Program which began at Commercial Operations on September 24, 1985, as provided for by ASME Code Section XI, Subsection IWA-2420, 1980 Edition through 1981 Addenda. This interval start date would have had a 10 year end date of September 24, 1995, and a 10 year plus 25% end date of March 24, 1998. (Note: This requirement was being tracked in the Inservice Inspection Programs group and the Waterford 3 Commitment Management System - Reference Commitment No. A-22737.) It is this erroneously determined start and associated end date that had led Waterford 3 personnel to believe that withdrawal of the deletion request would not impact the ability to comply with the TS. Almost a year would have been available to perform the testing required by the SR (which was assumed to be the requirements of ASME Code Section XI) or to resubmit the deletion request.

At 1600 hours on July 8, 1997, it was determined that the actual interval should have started at receipt of the operating license on December 18, 1984, and that Waterford 3 had, therefore, exceeded the specified interval of 10 years plus the 25% allowed by Specification 4.0.2. The 10 year interval plus the 25% allowance of Specification 4.0.2 was exceeded on June 18, 1997.

At the time that the Waterford 3 TS were approved, the testing required by SR 4.8.1.1.2h.2 was consistent with the Combustion Engineering Standard Technical Specifications (CE STS), NUREG-0212, Rev. 3. The Waterford 3 SR remains unchanged. The SR states:

> At least once per 10 years by:
>
> > Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, Subsection ND of the ASME Code at a test pressure equal to 110% of the system design pressure.

The Bases for TS 3.8.1 states:

> The Surveillance Requirements for demonstrating OPERABILITY of the diesel generators are consistent with the recommendations of ..... Regulatory Guide [RG] 1.137, "Fuel Oil Systems for Standby Diesel Generators."

Section 9.5.4.1 of the FSAR commits Waterford 3 to ANSI Standard N195, "Fuel Oil Systems for Standby Diesel Generators". ANSI N195 is endorsed by RG 1.137.

Regulatory Guide 1.137, section C.1.e states:

> Section 7.3 of ANSI N195-1975 states that the arrangement of the fuel-oil system "shall provide for inservice inspection and testing in accordance with ASME Boiler and Pressure Vessel Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components." For those portions of the fuel-oil system for standby diesel generators that are designed to Section III, Subsection ND of the Code, an acceptable method of meeting the requirements of Section 7.3 is to ensure that the system arrangement would allow:
>
> (1) Pressure testing of the fuel-oil system to a pressure 1.10 times the system design pressure at 10-year intervals. In the case of storage tanks, recommendations of the tank vendor should be taken into account when establishing the test pressure.

(2) A visual examination to be conducted during the pressure test for evidence of component leakages, structural distress, or corrosion. In the case of buried components, a loss of system pressure during the test constitutes evidence of component leakage.

Based on the statements in the TS Bases and RG 1.137, Waterford 3 personnel believed that testing to ASME Code, Section XI, requirements met the intent of SR 4.8.1.1.2h.2. As such, the testing that has been performed to date on the diesel fuel oil system has been performed to Section XI requirements.

Hydrostatic testing to 110% of design pressure was completed for the following portions of the diesel fuel oil system during refuel outage 4 in 1991.

- Diesel Fuel Oil Storage Tank A to Diesel Fuel Oil Feed Tank A
- Diesel Fuel Oil Storage Tank B to Diesel Fuel Oil Feed Tank B
- Diesel Fuel Oil Feed Tank A to Emergency Diesel Generator A
- Diesel Fuel Oil Feed Tank B to Emergency Diesel Generator B

The balance of the system components have not been hydrostatically tested to 110% of the design pressure. However, they have been tested as discussed in the following paragraph.

Subsequent to the testing in 1991, Code Case N-498-1 was approved for use at Waterford 3. By NRC letter dated March 29, 1995, Waterford 3 was notified that the staff had completed its review of the use of alternative rules. Use of Code Case N-498-1 was authorized pursuant to 10CFR50.55a(a)(3)(ii) as compliance with the specified requirements of Section XI would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Code Case N-498-1 was authorized until such time as the code case is published in a future revision of RG 1.147, at which time Waterford is to follow all provisions in RG 1.147 for Code Case N-498-1, if any. The associated Safety Evaluation Report identifies the components as Class 1, 2, and 3 systems subject to hydrostatic testing and does not contain any exclusions that would prohibit use of Code Case N-498-1 on the diesel fuel oil system.

As required by 10CFR50.55a(g), the Waterford 3 Inservice Inspection Program directs that ASME Code Class 1, 2, and 3 components be tested in accordance with ASME Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components. The approved ASME Code Case N-498-1 allows Nominal Operating Pressure (NOP) tests in lieu of Code required hydrostatic testing. VT-2 visual examinations are performed while the system is maintained at NOP.

This testing has been performed on the diesel fuel oil system, and this testing is current per the Inservice Inspection Program. The diesel fuel oil system has been tested to the ASME Code Section XI testing requirements which was what Waterford 3 personnel believed SR 4.8.1.1.2h.2 was intended to accomplish.

INTERIM COMPENSATORY MEASURES IMPOSED

A Corrective Action Document was written on July 8, 1997, documenting the missed SR and both Emergency Diesel Generators (EDGs) were declared inoperable. Both EDGs remain inoperable with the plant in mode 5. Neither EDG can be declared operable until the required testing for literal compliance is complete or the requested change is granted.

No interim compensatory actions are required. In mode 5, TS 3.8.1.2 requires that one EDG be operable. If the Limiting Condition for Operation is not met, then the following Action applies:

> With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

Waterford 3 is in full compliance with the Action of TS 3.8.1.2. All operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool were either not in progress or have been suspended.

The unit is in mode 5 with the loops filled. No action will be taken contrary to the Action Statement until at least one EDG is restored to operable status.

SCHEDULED DATE FOR RETURNING INOPERABLE COMPONENTS/SYSTEMS TO AN OPERABLE CONDITION OR FOR ACCOMPLISHING THE REQUIRED SURVEILLANCE

Waterford 3 is in a condition with neither EDG operable. Neither EDG can be declared operable until the required testing is completed or the requested change is granted. SR 4.8.1.1.2h.2 requires performance of a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code at a test pressure equal to 110% of the system design pressure.

Literal compliance with this SR is not practical. The SR does not recognize the impracticability to test atmospheric tanks and non-isolable piping at the required SR test pressure. In order to perform the required testing, the diesel fuel oil system, for each of the fully functional EDGs, will have to be disabled to allow pressure testing equipment and adapters (caps, plugs, etc.) to be installed to allow pressurization of the system components to 110% of their design pressure.

The ASME Class 3 piping of the fuel oil system has a design pressure of 150 psi. The day tanks have a design pressure of 15 psi, and the fuel oil storage tanks are designed for atmospheric pressure.

The configuration of the tanks, piping, and associated valves is such that it is impractical to establish the necessary test boundaries. No provisions exist to isolate the tanks (lower pressure rating) from the piping segments (higher pressure rating) which would have to be tested at 165 psi (110% of design pressure). Isolation of the tanks from the piping would require extreme measures such as cutting numerous piping connections at the tanks to allow for the installation of caps, plugs, or blind flange connections. Termination points at the tanks would also have to be suitably plugged to allow for testing of the tanks. Diesel fuel oil contained in the tanks would have to be removed from the tanks before breaching the tank boundary, and the tanks would have to be cleaned and inspected before refilling them with diesel fuel oil to support plant operations.

The extreme measures described in the previous paragraph would entail considerable effort in planning, work package preparation, test plan approval, equipment/system preparation, and restoration. During this time period, the affected EDG train would be seriously impaired and unavailable for service. It is anticipated that testing both EDGs for literal compliance with the SR would take approximately 34 days to complete. The first EDG to be tested would take approximately 23 days including field and administrative tasks. The second EDG would be completed approximately 11 days afterwards.

As stated previously, testing of the applicable portions of the EDG fuel oil system piping has been performed at Waterford 3 in accordance with Section XI of the ASME Code and Code Case N-498-1. Code Case N-498-1 has been approved for use at Waterford 3 and has been employed for portions of the testing. Therefore, the system has been tested in accordance with the presently approved ASME Code requirements and is thus satisfactory per the Code. This would appear to be an acceptable condition as evidenced by the fact that the subject testing requirement has been deleted from NUREG 1432, "Standard Technical Specifications Combustion Engineering Plants".

The River Bend Nuclear Station and the Grand Gulf Nuclear Station, other plants in the Entergy System, do not have this requirement in their TS. Rather each has a requirement in the Technical Requirements Manual that requires:

> Perform a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section XI, Article IWD-5000.

As all Entergy plants have been granted approval for use of Code Case N-498-1 by the NRC, River Bend and Grand Gulf have incorporated it into their ASME Section XI pressure testing programs.

The San Onofre Nuclear Generating Station, the only Combustion Engineering plant that has implemented the Restructured Technical Specifications, does not have this requirement in either the TS or the Licensee Controlled Specifications.

Each of the above mentioned Nuclear Stations have converted to the Improved Technical Specifications. Waterford 3 has committed to full conversion and is in the process of converting.

Waterford 3 has satisfactorily completed testing in accordance with ASME Section XI and approved Code Case N-498-1. Considering this and the NRC staff's conclusions in the Safety Evaluation Report attached to NRC letter dated March 29, 1995, approving the use of Code Case N-498-1, performing hydrostatic testing at 110% of design pressure would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. In contrast, performing the testing required by the SR would result in each EDG being unavailable for the duration of its fuel oil system testing.

The diesel fuel oil system has been tested in compliance with ASME Code Section XI and approved Code Case N-498-1. The testing required by the requested change has been completed. Therefore, no additional testing of the diesel fuel oil system will be required for the EDGs to be operable if the proposed change is approved.

NO SIGNIFICANT HAZARDS DETERMINATION/REVISED TECHNICAL SPECIFICATION PAGES

The description and Safety Analysis of the proposed emergency Technical Specification change, including the revised TS page, are attached.

NOTIFICATION OF LOUISIANA STATE PERSONNEL AND INFORMATION FOR ENVIRONMENTAL IMPACT APPRAISAL

The State of Louisiana is being notified by being placed on distribution for this correspondence.

This request involves the use of facility components located within the restricted area, as defined in 10 CFR part 20, and changes a surveillance requirement. Entergy Operations Incorporated, has determined that this request does not involve:

(1) A significant hazard consideration, as described in the attachment;

(2) A significant change in the types or significant increase in the amounts of any effluents that may be released offsite; and

(3) A significant increase in individual or cumulative occupational radiation exposure.

Accordingly, this request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with this request.

<u>CONCLUSION THAT THE REQUIREMENTS OF 10CFR50.91(a)(5) HAVE BEEN MET</u>

Based on the above, Waterford 3 believes that the requirements, as specified in 10CFR50.91(a)(5), have been met. 10CFR50.91(a)(5) requires that four criteria are met.

1) An emergency situation exists.

Waterford 3 demonstrates this as follows:

The emergency was created when the error was identified with the determination of the appropriate start date of the interval applicable to SR 4.8.1.1.2h.2. Although both EDGs are fully functional, application of the correct interval has resulted in Waterford 3 having no EDGs technically operable at this time. This situation results in the inability to resume power operations.

2) Failure to act in a timely way would result in
   - derating or shutdown, or
   - prevention in resumption of power operations, or
   - prevention in power output up to the plant's licensed power level.

Waterford 3 is preparing to restart following refuel outage 8. Requiring literal compliance testing will preclude resumption of power operations until literal compliance with the SR is met.

3) Determination of No Significant Hazards.

A No Significant Hazards Determination is provided in the attachment.

4) The licensee must not have failed to make timely application for the amendment, and thus, itself created the emergency.

Waterford 3 has shown that timely application for an amendment was made but withdrawn based on adjusted priorities to support NRC approval of other refuel 8 required changes and the belief that sufficient time was available to resubmit an amendment to make this change.

Full literal compliance not only renders the EDGs technically inoperable, but also would require that this safety related equipment be made non-functional without a proportional increase in the reliability or performance of the equipment since the testing already accomplished is fully adequate. The most expeditious method to return the EDGs to operable status is to grant the amendment as requested.

Should you have any questions or comments concerning this request, please contact Early Ewing at (504) 739-6242 or Tim Gaudet at (504) 739-6666.

Very truly yours,

Charles M. Dugger
Vice President, Operations
Waterford 3

CMD/WMW/ssf

Attachment: Affidavit
NPF-38-200

cc: E.W. Merschoff (NRC Region IV), C.P. Patel (NRC-NRR), J. Smith, 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

Charles Marshall Dugger, 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-38-200; 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.

Charles Marshall Dugger

Charles Marshall Dugger
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 [illegible] day of July, 1997.

[illegible]
Notary Public

My Commission expires at death.

DESCRIPTION AND SAFETY ANALYSIS
OF PROPOSED CHANGE NPF-38-200

This proposed emergency TS amendment will implement an improvement consistent with NUREG-1432. This change will delete the requirements of SR 4.8.1.1.2h.2 for the diesel fuel oil system. This change will not affect EDG reliability and availability, thereby providing continual assurance that the EDGs will be capable of performing their safety function. This change will result in testing of the diesel fuel oil system in accordance with ASME Code Section XI and will avoid unnecessary out of service time.

Existing Specification

See Attachment A

Proposed Specification

See Attachment B

Background

In November 1995, a Technical Specification Change Request was submitted to amend TS 3.8.1. Among the changes requested in that submittal was a request to delete SR 4.8.1.1.2h.2. Following subsequent discussions with NRC, the request to delete SR 4.8.1.1.2h.2 was withdrawn on March 14, 1997.

On July 8, 1997, while preparing the submittal, it was determined that SR 4.8.1.1.2h.2 had exceeded the specified interval of 10 years plus the 25% allowed by Specification 4.0.2. An error had been made when determining the start of the interval for the SR. It was assumed that the interval started at the same time that the Inservice Inspection Program interval had started at commercial operation on September 24, 1985. It has now been determined that the correct start time for the interval was upon receipt of the operating license on December 18, 1984. The 10 year interval plus the 25% allowance of Specification 4.0.2 was exceeded on June 18, 1997.

A corrective action document was written documenting the missed surveillance and both EDGs were declared inoperable. Both EDGs remain inoperable with the plant in mode 5.

Description

It is requested that TS 3/4.8.1 "Electrical Power Systems - A.C. Sources" be revised for Waterford 3 SES. The proposed change to the Waterford 3 TSs deletes SR 4.8.1.1.2h.2 which states "Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code at a test pressure equal to 110% of the system design pressure."

Discussion

The changes requested are consistent with a) the guidance provided in NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants", b) industry and Waterford 3 plant operating experience, and c) the licensing basis for Waterford 3.

SR 4.8.1.1.2h.2 requires the performance of a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code at a test pressure equal to 110% of the system design pressure at least once every 10 years. The proposed change deletes this requirement.

The appropriate testing for the diesel fuel oil system will be controlled by the ASME Code Section XI and approved ASME Code Case N-498-1 as provided for in the Waterford 3 Inservice Inspection Program.

As required by 10CFR50.55a(g), the Waterford 3 Inservice Inspection Program directs that ASME Code Class 1, 2, and 3 components be tested in accordance with ASME Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components". The approved ASME Code Case N-498-1, allows Nominal Operating Pressure (NOP) tests in lieu of Code required hydrostatic testing. VT-2 visual examinations are performed while the system is maintained at NOP.

Testing of the EDG fuel oil system components has been performed at Waterford 3 in accordance with Section XI of the ASME Code. Code Case N-498-1 has been approved for use at Waterford 3 and has been employed for portions of the testing. Therefore, the system has been tested in accordance with the ASME Code requirements.

Based on the conduct of approved testing in accordance with the Waterford 3 Inservice Inspection Program and ASME Section XI, there is no added safety benefit by performing hydrostatic testing at 110% of design pressure.

Safety Analysis

The proposed changes 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 an accident previously evaluated?

   Response: No

   The EDGs and the EDG Fuel Oil System do not initiate any accidents, therefore the proposed change does not increase the probability or consequences of an accident previously evaluated. The ASME Code, Section XI, including applicable ASME Code Cases as authorized by the NRC, provides alternate test methods to use in lieu of a 110% hydrostatic pressure test that is not practical to perform on the EDG fuel oil system as currently designed. With the proposed deletion of SR 4.8.1.1.2h.2, the provisions of SR 4.0.5 and the ASME Code, along with NRC-authorized Code Cases, would be utilized as an equivalent testing requirement to ensure the continued integrity of the EDG fuel oil system. Therefore, since the reliability of the EDG fuel oil system will not be reduced, the probability and consequences of any accident previously evaluated is not increased. The proposed change has no effect on the ability of the EDGs to perform their design function. The proposed change does not affect the availability or the testing requirements of the offsite circuits.

   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 type of accident from any accident previously evaluated?

   Response: No.

   The proposed change to TS 3/4.8.1 does not introduce any new modes of plant operation or new accident precursors, involve any physical alterations to plant configurations, or make any changes to system setpoints which could initiate a new or different kind of accident. The proposed change does not affect the design or performance characteristics of any EDG or its ability to perform its design function. No new failure modes have been defined and no new system interactions have been introduced for any plant system or component. In addition, there have not been any new limiting failures identified as a result of the proposed change.

Accidents concerning loss of offsite power and a single failure (e.g., loss of an EDG) have previously been evaluated. This change will result in testing of the diesel fuel oil system in accordance with ASME Code Section XI and will avoid unnecessary out of service time.

Therefore, the proposed change will not create the possibility of a new or different kind of accident from any 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

   Under the proposed change to TS 3/4.8.1, the EDGs will remain capable of performing their safety function. The change does not affect the design or performance of the EDGs. The ability of the EDGs to perform their safety function will not be degraded. The change affects the manner in which the diesel fuel oil system is tested. The testing will be performed in full compliance with the ASME Code, Section XI and approved Code Case N-498-1. This testing has previously been approved by the NRC for Waterford 3 for other ASME Code systems.

   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.

NPF-38-200

ATTACHMENT A