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PR

July 18, 2001

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

Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Technical Specification Change Request NPF-38-235
ESFAS/RPS Sensor Response Time Testing

Gentlemen:

In accordance with 10CFR50.90, Entergy Operations, Inc. (Entergy) is hereby proposing to amend Operating License NPF-38 for Waterford 3 by requesting the attached changes to the Technical Specifications. This submittal requests a change to Technical Specification Definitions 1.12 and 1.25. The effect of the proposed change will be to allow either an allocated or a measured response time to be utilized for the sensors in the Reactor Protective System and Engineered Safety Features Actuation System instrument loops. This change is based on the NRC-approved Technical Specification Task Force Traveler TSTF 368, Revision 0, which has now been incorporated into NUREG-1432, Revision 2. This traveler is based on Combustion Engineering Topical Report NPSD-1167, Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements. "

The proposed change has been evaluated in accordance with 10CFR50.91(a)(1) using criteria in 10CFR50.92(c), and it has been determined that this change involves no significant hazards considerations. The bases for these determinations are included in the attached submittal.

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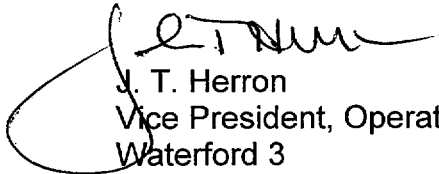
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Entergy requests the effective date for this Technical Specification change be within 60 days of approval. Although this request is neither exigent nor emergency, your prompt review is requested. Waterford 3 has identified this change as supporting activities during the upcoming outage and on that basis requests approval of this proposed change by January 22, 2002.

The proposed change includes new commitments as summarized in Attachment 4. Should you have any questions or comments concerning this request, please contact Jerry Burford at (601) 368-5755.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 18, 2001.

Very truly yours,



J. T. Herron
Vice President, Operations
Waterford 3

JTH/FGB/rtk
Attachments

cc: E.W. Merschoff, NRC Region IV
N. Kalyanam, NRC-NRR
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N.S. Reynolds
NRC Resident Inspectors Office
Louisiana DEQ/Surveillance Division
American Nuclear Insurers

ATTACHMENT 1

TO

W3F1-2001-0064

PROPOSED TECHNICAL SPECIFICATION

AND

RESPECTIVE SAFETY ANALYSES

IN THE MATTER OF AMENDING

NPF-38

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-382

DESCRIPTION OF PROPOSED CHANGES

The proposed amendment to the Waterford 3 Technical Specifications Definitions, Sections 1.12 and 1.25, would revise the definition of response time testing (RTT) as it is applied to the Engineered Safety Features Actuation System (ESFAS) RTT and the Reactor Protective System (RPS) RTT. As an alternative to the current method of determining response time, in which a measured sensor response time is obtained, the proposed amendment of the definition would allow substitution of an allocated sensor response time. The sensor response time (measured or allocated) is used in determining that the overall system response time is within Technical Specification limits. The allocated sensor response time would be obtained from the sensor manufacturer or derived from plant data obtained from previous RTT.

This change is based on the approved Technical Specification Task Force Traveler TSTF 368, Revision 0, "Incorporate Combustion Engineering Owners Group (CEOG) Topical Report to Eliminate Pressure Sensor Response Time Testing." This TSTF implements the conclusions of Combustion Engineering topical report NPSD-1167, Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements." TSTF 368 was recently incorporated into Revision 2 of NUREG-1432.

The TS Bases for TS 3.3.1, Reactor Protective Instrumentation, and TS 3.3.2, Engineered Safety Features Actuation System Instrumentation, will be revised to clarify the provision to verify response times in lieu of measuring them. The CEOG Topical Report will also be explicitly referenced in the revised section of the TS Bases. Proposed Technical Specification Bases changes, using NUREG-1432 as guidance, are included in this submittal for information only.

(NOTE – TS page 1-6, affected by the change proposed here, is also affected by another proposed change that is being reviewed by the NRC concurrently. That change relates to a request for approval of the TS changes to reflect the removal of the part-length control element assemblies from the Waterford 3 configuration. This note is for information only – Waterford 3 is tracking both changes and will provide the appropriate clean pages for inclusion in the NRC Safety Evaluation Report based on the order of approval.)

BACKGROUND

The Reactor Protective System (RPS) functions to protect the core and Reactor Coolant System pressure boundary. The Engineered Safety Features Actuation System (ESFAS) controls equipment that protects the public and plant personnel from the accidental release of radioactive fission products in the unlikely event of a loss-of-coolant accident, main steam line break, or loss of feedwater incident. The safety features function to localize, control, mitigate, and terminate such incidents in order to minimize radiation exposure levels for the general public. Both systems are required to sense process events (pressure, level, etc.), perform signal processing (bistable functions), and actuate control elements via relays in order to accomplish their safety functions. The accident analysis credits these safety functions, and it assumes a certain total response time for each process event.

The Technical Specifications (TS) require demonstration that protective functions will occur within the time required by the plant accident analysis. This protective function time requirement starts when the process variable, such as pressure or level exceeds the setpoint for that variable and continues until the protective function is accomplished. For example, response time could be from when a parameter exceeds its setpoint until a required pump is turned on, achieves rated speed, and delivers the required flow. Currently, Waterford 3 performs an in-field measurement of the various response times by testing the entire circuit using a series of sequential steps, overlapping steps, or total steps.

CEOG Topical Report CE NPSD 1167, Revision 2, was submitted as a final report to the NRC in May 2000. The NRC staff issued a safety evaluation (SE) for Revision 2 of the topical report on July 24, 2000. The topical report justifies the substitution of an allocated sensor response time for ESFAS and RPS pressure sensors. To incorporate this change, the definition of ESF RESPONSE TIME and the definition of REACTOR TRIP SYSTEM RESPONSE TIME need to be revised. This will apply only to selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC. Table 1 contains a list of transmitters covered by this request to utilize Allocated Response Times. The use of allocated response times in these applications is considered to be acceptable as long as the components and methodology for verification have been previously reviewed and approved by the NRC. Waterford 3 will modify plant procedures based on the recommendation in TSTF 368 to allow the use of allocated response times for the sensors and measurement of the remainder of the ESFAS or RPS loops associated with these transmitters.

TABLE 1

**Waterford 3 ESF and RPS Pressure Transmitters
with Allocated Response Times**

Description	Loop Number	Manufacturer	Model
RCS Low Flow (SG Differential pressure)	SG IDPT9116 SG IDPT9126	Barton	764
Refueling Water Tank Level	SI ILT0305	Rosemount	1152DP5
Containment Pressure – narrow range	CB IPT6701	Rosemount	1153AD6
Containment Pressure – wide range	CB IPT6702	Rosemount	1153AD6
Pressurizer Pressure – narrow range	RC IPT0101	Rosemount	1154SH9
Pressurizer Pressure – wide range	RC IPT0102	Rosemount	1154SH9
Steam Generator 1 Level	SG ILT1113	Rosemount	1154DP4
Steam Generator 2 Level	SG ILT1123	Rosemount	1154DP4
Steam Generator 1 Pressure	SG IPT1013	Rosemount	1154SH9
Steam Generator 2 Pressure	SG IPT1023	Rosemount	1154SH9

BASIS FOR PROPOSED CHANGE

The basis for the elimination of response time testing (RTT) is contained in IEEE 338-1977, Section 6.3.4, paragraph 3 (page 11). This section states: "Response time testing of all safety-related equipment, per se, is not required if, in lieu of response time testing, the response time of the safety equipment is verified by functional testing, calibration checks or other tests, or both. This is acceptable if it can be demonstrated that changes in response time beyond acceptable limits are accompanied by changes in performance characteristics which are detectable during routine periodic tests." This IEEE standard was endorsed by Regulatory Guide 1.118, "Periodic Testing of Electric Power and Protection Systems."

In 1991, an Electric Power Research Institute (EPRI) Report, NP-7243, "Investigation of Response Time Testing Requirements," was issued. This report included a failure mode and effects analysis of certain sensors as well as an evaluation of response time test data. The report determined that for the selected sensors, any failure that would affect the response time characteristics of the sensors would also affect the calibration and other routine surveillances. Therefore, a separate response time test need not be required to demonstrate response time assumptions used in the Final Safety Analysis Report (FSAR).

CEOG Topical Report CE NPSD-1167 only allows substitution of an allocated response time for the sensor and leaves intact the requirement to measure the response time of the rest of the system performing the protective function. Since the time required by the accident analysis is the summation of all response times of components within the protective function, some value for the sensor response time must be used in lieu of an actual measured value to determine the overall protective system response time. This value is that time allocated to the response of the sensor. CE NPSD-1167 indicates that these values are derived from two sources: either from the original equipment manufacturer or from a statistical analysis of the results of previous RTTs. If a statistical analysis is performed, it must be sufficiently conservative to ensure that the allocated response time assigned to the sensor will be valid for 95 percent of the population of sensors, with a 95 percent confidence level. An acceptable methodology for this determination is contained in NUREG-1475, "Applying Statistics," April 1994.

EPRI Topical Report NP-7243, Revision 1, is the report upon which the CEOG based its Topical Report NPSD-1167 for elimination of RTT. This EPRI topical report includes several recommendations for actions to ensure sensors are operating correctly and that calibration or other surveillances will provide an accurate indication that the dynamic characteristics of the instrument will be accurately reflected in a static calibration. The CEOG has included these four recommendations in its topical report and has suggested that utilities pursuing elimination of sensor RTT incorporate the recommended actions into their revised RTT program. These recommendations and the Waterford 3 position are as follows:

1. Perform a hydraulic RTT prior to installation of a new transmitter/switch or following refurbishment of the transmitter/switch (e.g., sensor cell or variable damping components) to determine an initial sensor-specific response time value. The power interrupt test is an alternate method to use on force-balance transmitters; the purpose of this test is to verify sensor response time is within the limits of the allocated value for the transmitter function.

Entergy 3 Position:

Entergy performs pre-installation RTT. This testing is performed under procedure MI-013-520, "Pressure Sensor Pre-Installation Response Time Test." The test utilizes a hydraulic ramp generator and a Teledyne reference transducer. A ramp test is performed in the direction of use (i.e., from high to low pressure for a low trip and low to high for a high trip.)

2. For transmitters and switches that use capillary tubes, RTT should be performed after initial installation and after any maintenance or modification activity that could damage the capillary tubes.

Entergy Position:

The Entergy configuration does not include any Rosemount transmitters with capillary tubes in these RPS or ESFAS applications. All of the pressure transmitters in these applications are connected to the process piping using 1/2 in OD SS316 tubing.

3. Perform periodic drift monitoring on all Rosemount pressure and differential pressure transmitters, models 1151, 1152, 1153 and 1154. Guidance on drift monitoring can be found in EPRI NP-7121 and Rosemount Technical Bulletins. Drift monitoring intervals should be based on utility response to NRC Bulletin 90-01.

Entergy Position:

On March 9, 1990 the NRC issued NRC Bulletin 90-01, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount", and on December 22, 1992 issued Supplement 1 to this bulletin. Entergy provided responses to the NRC detailing the actions being taken in response to the bulletin in letters W3P90-1153, dated July 17, 1990 and W3F193-0004, dated February 25, 1993, respectively. In the responses, it was noted that Waterford 3 does not include any of the Rosemount transmitters manufactured before July 11, 1989 in these RPS/ESFAS applications.

Entergy concluded then that the bulletin requirement for an enhanced surveillance program was not applicable to its facility. Instead, it was noted that the existing program of calibration every 18 months was sufficient to detect symptoms of transmitter degradation.

4. If variable damping is used, implement a method to ensure that the potentiometer is at the required setting and cannot be inadvertently changed. This approach should eliminate the need for RTT to detect a variable damping failure mode. Otherwise,

RTT each transmitter by hydraulic or electronic white noise analysis methods, at a minimum, following each transmitter calibration.

Entergy Position:

The Waterford 3 configuration does not include any RPS/ESFAS transmitters with the variable damping feature.

This proposed amendment is based on the identified CEOG, EPRI, and NUREG documents associated with Technical Specification Task Force Traveler TSTF 368, Revision 0, "Incorporate Combustion Engineering Owners Group (CEOG) Topical Report to Eliminate Pressure Sensor Response Time Testing." These documents provide adequate justification and guidance for determining allocated sensor response time as well as adequate justification that failed sensors will be identified by other surveillance testing that is not affected by this amendment request.

As a result, this proposed amendment does not change, degrade, or prevent actions described or assumed in any accident analysis. It will not alter any assumptions previously made in evaluating radiological consequences or affect any fission product barriers. It does not increase any challenges to safety systems. Therefore, this proposed amendment would not increase or have any impact on the consequences of events described and evaluated in Chapter 6 or Chapter 15 of the Waterford 3 UFSAR.

PRECEDENTS

Similar amendment requests have been approved for the following facilities:

Facility	Amendment #(s)	Approval Date	Accession #
Limerick 1,2	132, 93	December 14, 1998	9812230310
Sequoyah 1,2	251, 242	February 29, 2000	ML003687946
Summer	146	August 29, 2000	ML003746060
Millstone 3	187	November 03, 2000	ML003755285
Palo Verde 1,2,3	135	April 19, 2001	ML011130056

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

Energy Operations, Inc. (Entergy) is proposing that the Waterford 3 Operating License be amended to revise Technical Specification Definitions 1.12 and 1.25. The proposed change would revise the definition of response time testing (RTT) as it is applied to the Engineered Safety Features (ESF) RTT and the Reactor Protective System (RPS) RTT. In addition to the current method of determining response time, in which a sensor response time is measured, the proposed amendment would allow substitution of an allocated sensor response time. The sensor response time (measured or allocated) is used in determining that the overall system response time is within Technical Specification limits. The allocated sensor response time would be obtained from the sensor manufacturer or derived from plant data obtained from previous RTT. The proposed change is consistent with NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants", as amended by approved TSTF 368.

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. An evaluation of the proposed change has been performed in accordance with 10CFR50.91(a)(1) regarding no significant hazards considerations using the standards in 10CFR50.92(c). A discussion of these standards as they relate to this amendment request follows:

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?

The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed amendment to Technical Specification (TS) Definitions 1.12 and 1.25 allows substitution of an allocated sensor response time in lieu of measuring sensor response time. Response time testing is not an initiator of any accident previously evaluated. Further, overall system response time will continue to meet Technical Specification requirements. The allocated sensor response times allowed in lieu of measurement have been determined to adequately represent the response time of the components such that the safety systems utilizing those components will continue to perform their accident mitigation function as assumed in the safety analysis.

Therefore, this change does not involve a significant increase in the probability of 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?

The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed amendment to TS Definitions 1.12 and 1.25 allows the substitution of an allocated sensor response time in lieu of sensor response time testing for selected components. The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The use of allocated response times in lieu of measured response times result in no physical change to the plant.

Therefore, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

The proposed amendment does not involve a significant reduction in a margin of safety. The proposed amendment to TS 1.1, Definitions, allows the substitution of an allocated sensor response time in lieu of measured sensor response time for certain pressure sensors. The allocated pressure sensor response times allowed in lieu of measurement have been determined to adequately represent the response time of the components such that the safety systems utilizing those components will continue to perform their accident mitigation function as assumed in the safety analysis.

Therefore, this change does not involve a significant reduction in the margin of safety.

Therefore, based on the reasoning presented above, Entergy has determined that the requested change does not involve a significant hazards consideration.

ENVIRONMENTAL IMPACT EVALUATION

Pursuant to 10CFR51.22(b), an evaluation of the proposed amendment has been performed to determine whether or not it meets the criteria for categorical exclusion set forth in 10CFR 51.22 (c) (9) of the regulations. The proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). The basis for this determination is as follows:

1. The proposed license amendment does not involve a significant hazards consideration as described previously in the evaluation.
2. This change does not result in a significant change or significant increase in the radiological doses for any Design Basis Accident. The proposed license amendment does not result in a significant change in the types or a significant increase in the amounts of any effluents that may be released off-site.
3. The proposed license amendment does not result in a significant increase to the individual or cumulative occupational radiation exposure because this change does not modify the system or the manner in which the system is operated.

ATTACHMENT 2

TO

W3F1-2001-0064

MARKUP OF CURRENT TECHNICAL SPECIFICATIONS

IN THE MATTER OF AMENDING

NPF-38

ENERGY OPERATIONS, INC.

DOCKET NO. 50-382

DEFINITIONS

CORE ALTERATION

1.9 CORE ALTERATION shall be the movement or manipulation of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

COLR - CORE OPERATING LIMITS REPORT

1.9a The CORE OPERATING LIMITS REPORT is the Waterford 3 specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Technical Specification 6.9.1.11. Plant operation within these operating limits is addressed in individual specifications.

DOSE EQUIVALENT I-131

1.10 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

Q - AVERAGE DISINTEGRATION ENERGY

1.11 Q shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half-lives greater than 15 minutes, making up at least 95% of the total noniodine activity in the coolant.

ENGINEERED SAFETY FEATURES RESPONSE TIME

1.12 The ENGINEERED SAFETY FEATURES RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ESF actuation setpoint at the channel sensor until the ESF equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays where applicable. The response time may be measured by any series of sequential, overlapping, or total steps so that the entire response time is measured. In lieu of measurement, response time may be verified for selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC.

FREQUENCY NOTATION

1.13 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.1.

IDENTIFIED LEAKAGE

1.14 IDENTIFIED LEAKAGE shall be:

- a. Leakage (except CONTROLLED LEAKAGE) into closed systems, such as pump seal or valve packing leaks that are captured, and conducted to a sump or collecting tank, or

DEFINITIONS

RATED THERMAL POWER

1.24 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 3390 MWt.

REACTOR TRIP SYSTEM RESPONSE TIME

1.25 The REACTOR TRIP SYSTEM RESPONSE TIME shall be the time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until electrical power is interrupted to the CEA drive mechanism. The response time may be measured by any series of sequential, overlapping, or total steps so that the entire response time is measured. In lieu of measurement, response time may be verified for selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC.

REPORTABLE EVENT

1.26 A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10 CFR Part 50.

SHIELD BUILDING INTEGRITY

1.27 SHIELD BUILDING INTEGRITY shall exist when:

- a. Each door in each access opening is closed except when the access opening is being used for normal transit entry and exit, then at least one door shall be closed,
- b. The shield building filtration system is in compliance with the requirements of Specification 3.6.6.1, and
- c. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

SHUTDOWN MARGIN

1.28 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming:

- a. No change in part-length control element assembly position, and
- b. All full-length control element assemblies (shutdown and regulating) are fully inserted except for the single assembly of highest reactivity worth which is assumed to be fully withdrawn.

ATTACHMENT 3
TO
W3F1-2001-0064
MARKUP OF TECHNICAL SPECIFICATION BASES
FOR INFORMATION ONLY
IN THE MATTER OF AMENDING
NPF-38
ENTERGY OPERATIONS, INC.
DOCKET NO. 50-382

(Note – There are no changes proposed here for page B 3/4 3-1b; it has been included here for convenience in understanding the context of the change proposed to page B 3/4 3-1c.)

3/4.3 INSTRUMENTATION

BASES (cont'd)

3/4.3.1 and 3/4.3.2 REACTOR PROTECTIVE AND ENGINEERED SAFETY FEATURE SAFETY ACTUATION SYSTEMS INSTRUMENTATION (Continued)

Because of the interaction between process measurement circuits and associated functional units as listed in the ACTIONS 19 and 20, placement of an inoperable channel of Steam Generator Level in the bypass or trip condition results in corresponding placements of Steam Generator □P (EFAS) instrumentation. Depending on the number of applicable inoperable channels, the provisions of ACTIONS 19 and 20 and the aforesaid scenarios for Steam Generator □P (EFAS) would govern.

The Surveillance Requirements specified for these systems ensure that the overall system functional capability is maintained comparable to the original design standards. The periodic surveillance tests performed at the minimum frequencies are sufficient to demonstrate this capability. The quarterly frequency for the channel functional tests for these systems comes from the analyses presented in topical report CEN-327: RPS/ESFAS Extended Test Interval Evaluation, as supplemented.

Testing frequency for the Reactor Trip Breakers (RTBs) is described and analyzed in CEN NPSD-951. The quarterly RTB channel functional test and RPS logic channel functional test are scheduled and performed such that RTBs are verified OPERABLE at least every 6 weeks to accommodate the appropriate vendor recommended interval for cycling of each RTB.

RPS\ESFAS Trip Setpoints values are determined by means of an explicit setpoint calculation analysis. A Total Loop Uncertainty (TLU) is calculated for each RPS/ESFAS instrument channel. The Trip Setpoint is then determined by adding or subtracting the TLU from the Analytical Limit (add TLU for decreasing process value; subtract TLU for increasing process value). The Allowable Value is determined by adding an allowance between the Trip Setpoint and the Analytical Limit to account for RPS/ESFAS cabinet Periodic Test Errors (PTE) which are present during a CHANNEL FUNCTIONAL TEST. PTE combines the RPS/ESFAS cabinet reference accuracy, calibration equipment errors (M&TE), and RPS/ESFAS cabinet bistable Drift. Periodic testing assures that actual setpoints are within their Allowable Values. A channel is inoperable if its actual setpoint is not within its Allowable Value and corrective action must be taken. Operation with a trip set less conservative than its setpoint, but within its specified ALLOWABLE VALUE is acceptable on the basis that the difference between each trip Setpoint and the ALLOWABLE VALUE is equal to or less than the Periodic Test Error allowance assumed for each trip in the safety analyses.

The measurement of response time at the specified frequencies provides assurance that the protective and ESF action function associated with each channel is completed within the time limit assumed in the safety analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable.

3/4 INSTRUMENTATION

BASES (cont'd)

3/4.3.1 and 3/4.3.2 REACTOR PROTECTIVE AND ENGINEERED SAFETY FEATURE
SAFETY ACTUATION SYSTEMS INSTRUMENTATION (Continued)

Response time may be verified by any series of sequential, overlapping, or total channel measurements, including allocated sensor response time, such that the response time is verified. Allocations for sensor response times may be obtained from records of test results, vendor test data, or vendor engineering specifications. Topical Report CE NPSD-1167-A, "Elimination of Pressure Sensor Response Time Testing Requirements," provides the basis and methodology for using allocated sensor response times in the overall verification of the channel response time for specific sensors identified in the topical report. Response time verification for other sensor types must be demonstrated by test. The allocation of sensor response times must be verified prior to placing a new component in operation and reverified after maintenance that may adversely affect the sensor response time.

TABLE 3.3-1, Functional Unit 13, Reactor Trip Breakers

~~Response time may be demonstrated by any series of sequential, overlapping, or total channel test measurements provided that such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by (1) in place, onsite, or offsite test measurements or (2) utilizing replacement sensors with certified response times.~~

The Reactor Trip Breakers Functional Unit in Table 3.3-1 refers to the reactor trip breaker channels. There are four reactor trip breaker channels. Two reactor trip breaker channels with a coincident trip logic of one-out-of-two taken twice (reactor trip breaker channels A or B, and C or D) are required to produce a trip. Each reactor trip breaker channel consists of two reactor trip breakers. For a reactor trip breaker channel to be considered OPERABLE, both of the reactor trip breakers of that reactor trip breaker channel must be capable of performing their safety function (disrupting the flow of power in its respective trip leg). The safety function is satisfied when the reactor trip breaker is capable of automatically opening, or otherwise opened or racked-out.

If a racked-in reactor trip breaker is not capable of automatically opening, the ACTION for an inoperable reactor trip breaker channel shall be entered. The ACTION shall not be exited unless the reactor trip breaker capability to automatically open is restored, or the reactor trip breaker is opened or racked-out.

COMMITMENT SUMMARY

COMMITMENT	TYPE*		SCHEDULED COMPLETION DATE (If Required)
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
Waterford 3 will modify plant procedures based on the recommendation in TSTF 368 to allow the use of allocated response times for the sensors and measurement of the remainder of the ESF or RPS loops associated with these transmitters.	X		within 60 days of amendment
The TS Bases for TS 3.3.1, Reactor Protective Instrumentation, and TS 3.3.2, Engineered Safety Features Actuation System Instrumentation, will be revised to clarify the provision to verify response times in lieu of measuring them. The CEOG Topical Report will also be explicitly referenced in the revised section of the TS Bases.	X		within 60 days of amendment