

April 2, 2003

Mr. Anthony Pietrangelo
Risk and Performance Based Regulation
Nuclear Energy Institute
Suite 400
1776 I Street, N.W.
Washington, DC 20006-3708

Dear Mr. Pietrangelo:

The Nuclear Regulatory Commission (NRC) has completed its review of the Nuclear Energy Institute Technical Specification Change Traveler, TSTF-418, Rev. 2, "RPS and ESFAS Test Times and Completion Times (WCAP-14333)" proposed changes to NUREG-1431, Rev. 2, "Standard Technical Specifications Westinghouse Plants." The staff finds the proposed changes acceptable without modification. Accordingly, enclosed is the staff safety evaluation approving TSTF-418, Rev. 2 for plant-specific license amendment requests and for incorporation into NUREG-1431, Rev. 2, "Standard Technical Specifications Westinghouse Plants."

Please contact me at (301) 415-1161 or e-mail wdb@nrc.gov if you have any questions or need further information on these proposed changes.

Sincerely,

/RA/

William D. Beckner, Program Director
Operating Reactor Improvements Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Enclosure: As stated

cc: T. Silko, BWROG
D. Bice, CEOG
P. Infanger, BWOOG
S. Wideman, WOG
D. Hoffman, EXCEL
B. Mann, Excel
M. Schopman, NEI

April 2, 2003

Mr. Anthony Pietrangelo
Risk and Performance Based Regulation
Nuclear Energy Institute
Suite 400
1776 I Street, N.W.
Washington, DC 20006-3708

Dear Mr. Pietrangelo:

The Nuclear Regulatory Commission (NRC) has completed its review of the Nuclear Energy Institute Technical Specification Change Traveler, TSTF-418, Rev. 2, "RPS and ESFAS Test Times and Completion Times (WCAP-14333)" proposed changes to NUREG-1431, Rev. 2, "Standard Technical Specifications Westinghouse Plants." The staff finds the proposed changes acceptable without modification. Accordingly, enclosed is the staff safety evaluation approving TSTF-418, Rev. 2 for plant-specific license amendment requests and for incorporation into NUREG-1431, Rev. 2, "Standard Technical Specifications Westinghouse Plants."

Please contact me at (301) 415-1161 or e-mail wdb@nrc.gov if you have any questions or need further information on these proposed changes.

Sincerely,

/RA/

William D. Beckner, Program Director
Operating Reactor Improvements Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Enclosure: As stated

cc: T. Silko, BWROG
D. Bice, CEOG
P. Infanger, BWOOG
S. Wideman, WOG
D. Hoffman, EXCEL
B. Mann, Excel
M. Schopman, NEI

DISTRIBUTION:

PUBLIC	DBMatthews/FPGillespie	WDBeckner
TSS R/F	RLDennig	ECMarinos
CSSchulten	TSTF-418, Rev. 2 (LAHill)	HGarg

ADAMS ACCESSION NUMBER: ML030920633

*See previous concurrence

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML030920633.wpd

OFFICE	SRE:TSS:RORP:DRIP	EEIB:DE	IMA:TSS:RORP:DRIP	SC:TSS:RORP:DRIP	PD:RORP:DRIP
NAME	CSSchulten	HGarg*	LAHill*	RLDennig	WDBeckner
DATE	04/01/2003	03/26/2003	04/02/2003	04/02/2003	04/02/2003

OFFICIAL RECORD COPY

SAFETY EVALUATION ON
PROPOSED CHANGES TO NUREG-1431, REV. 2,
STANDARD TECHNICAL SPECIFICATIONS WESTINGHOUSE PLANTS

1.0 INTRODUCTION

By letter dated March 3, 2003 the Nuclear Energy Institute (NEI) submitted technical specification change traveler, TSTF-418, Rev. 2, "RPS and ESFAS Test Times and Completion Times (WCAP-14333)." TSTF-418, Rev. 2 proposes changes to NUREG-1431, Rev. 2, "Standard Technical Specifications (STS) Westinghouse Plants" based on technical specifications relaxations approved in Westinghouse Owners Group (WOG) topical report WCAP-14333-P-A (Proprietary) Revision 1 and WCAP-14334-NP (Non-Proprietary) Revision 1 (WCAP-14333), both entitled, "Probabilistic Risk Analysis of the RPS and ESFAS Test Times and Completion Times." WCAP-14333 justifies incremental increases in the bypass times for testing and the completion times for Reactor Trip System Instrumentation, and Engineered Safety Features Actuation System Instrumentation. WCAP-14333 was submitted to the staff on June 20, 1995. On July 15, 1998, the staff issued a Safety Evaluation Report (SER) approving WCAP-14333 for reference in license applications based on stated acceptance criteria.

Specifically, Technical specification (TS) change traveler TSTF-418, Rev. 2 uses approved WCAP-14333 relaxations to revise NUREG-1431, Rev. 2, Specification 3.3.1, "Reactor Trip System (RTS) Instrumentation," Specification 3.3.2, "Engineered Safety Features Actuation System (ESFAS) Instrumentation" and Specification 3.3.5, "Loss of Power Diesel Generator Start Instrumentation." TS completion times for placing inoperable instrument channels in trip are extended to 72 hours, completion times for bypassing inoperable instrument channels for surveillance testing and setpoint adjustment for other channels are extended to 12 hours and completion times for restoring inoperable logic cabinet or master and slave relays are extended to 24 hours. In addition to these changes, TSTF-418, Rev. 2 clarifies that when applying TS relaxations justified in WCAP-14333 consideration must be given to the TS assumptions and limitations of approved topical report WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System." In this regard, reviewers notes in Specifications 3.3.1, 3.3.2 and 3.3.5 Bases specify that plant-specific evaluations must be performed for certain NUREG-1431, Rev. 2 instrument functions and any additional plant-specific functions not listed in NUREG-1431, Rev. 2 but contained in the plant-specific safety system protection system or reactor protection system design.

2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include TSs as part of the license. In Section 50.36 of Title 10 of the Code of Federal Regulations (10 CFR 50.36), the Commission establishes the regulatory requirements related to the content of TSs. In doing so, the Commission emphasized those matters related to preventing accidents and mitigating accident consequences. The Commission noted that applicants were expected to incorporate into their TS " those items that are directly related to maintaining the integrity of the physical barriers designed to contain radioactivity" (see Statement of Consideration, "Technical Specifications for Facility Licenses; Safety Analysis Reports," of December 17, 1968 (33 FR 18610)).

Enclosure

10 CFR 50.36 requires that TS include items in the following five specific categories:

- (1) safety limits, limiting safety system settings and limiting control settings
- (2) limiting conditions for operation (LCOs)
- (3) surveillance requirements (SRs)
- (4) design features
- (5) administrative controls

However, the rule does not specify particular TS requirements.

TECHNICAL SPECIFICATIONS IMPROVEMENTS PROJECT

Since 1983, NRC and industry representatives have worked to develop guidelines for improving nuclear power plant TS content and quality. In August 1983 an NRC task group was formed to investigate problems with surveillance testing required by TSs and to recommend approaches to make improvements. NUREG-1024, "Technical Specifications – Enhancing Safety Impact," resulted, and it contained recommendations to review the basis for test frequencies; to ensure that the tests promote safety and do not degrade equipment; and to review surveillance tests so that they do not unnecessarily burden personnel.

In December 1984, the Technical Specifications Improvement Project (TSIP) was established to provide a framework for rewriting and improving STS. The NRC developed criteria, as described in the "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" (58 FR 39132), to determine which of the design conditions and associated surveillances should be located in the TSs as limiting conditions for operation. In September 1992, NUREG-1431, Rev.0 STS for Westinghouse plants were issued using the criteria for defining the scope of technical specification. Four criteria were subsequently incorporated into the regulations by an amendment to 10 CFR 50.36 (60 FR 36953).

WOG TECHNICAL SPECIFICATIONS OPTIMIZATION PROGRAM

The TSIP study formed the basis for the WOG Technical Specifications Optimization Program (TOPS) requested TS relaxations. In February 1983, the Westinghouse Owners Group submitted WCAP-10271. The report proposed TSs changes in operability test intervals and allowable-out-of-service and test times for RTS analog channels, actuation logic and reactor trip breakers. In February 1985, the staff issued an SER approving WCAP-10271 for reference in license applications based on stated acceptance criteria. This action was part of the implementation of the recommendations for review of surveillance test requirements made in NUREG-1024. TSs approved in WCAP-10271 were incorporated into NUREG-1431, Rev. 0 (September 1992) STS.

In June 1995, the WOG submitted Topical Report WCAP-14333 including draft TS based on NUREG-1431, Rev. 1. The report proposed further relaxing WCAP-10271 approved TSs requirements by increasing the test bypass times and the CTs for both the solid state protection system (SSPS) and relay protection system RTS and ESFAS designs. The report indicated a small increase in core damage frequency of approximately 3.1 percent from internal events based on the proposed TSs changes. On July 15, 1998, the staff issued an SER approving

WCAP-14333 for reference in license applications based on stated acceptance criteria. The staff's SER included approval of draft TS for Specifications 3.3.1, and 3.3.2; however, TS for WCAP-14333 were not incorporated into NUREG-1431, Rev. 2.

TECHNICAL SPECIFICATION TASK FORCE CHANGES

The review of a proposed generic change to the STS is a multi-staged process designed to ensure that each STS remains internally consistent, maintains coherence among the various vendors' STS, and incorporates the knowledge and operating experience of the industry and the NRC. Changes to STS NUREGs which are potentially applicable to multiple plants are proposed to the NRC by the NEI sponsored TSTF through publically available submittals.

The NRC staff reviews the changes to the STS proposed by the TSTF (referred to as TSTF changes) and will accept, modify, or reject them. The TSTF change process facilitates licensees' adopting of NRC-accepted changes to the STS for their specific plant TS. This process is intended to streamline the license amendment review process involving NRC-accepted STS changes in order to increase NRC efficiency and reduce unnecessary regulatory burden. The NRC role in maintaining plant safety is achieved by the technical review of proposed changes to the STS as well as plant-specific applications to adopt NRC-accepted changes to the STS.

The requested changes proposed by TSTF-418, Rev. 2 apply to NUREG-1431, Rev. 2, Specifications 3.3.1, 3.3.2, and 3.3.5. Based on the evaluation below, the staff concludes TS proposed in TSTF-418, Rev. 2 for NUREG-1431, Rev. 2 that: (1) increase the test bypass times to 12 hours and the required action CT to 72 hours for both the solid state protection system and relay protection system RTS and ESFAS designs, (2) increase the logic cabinets, master relays and slave relays required action CTs to 24 hours, and (3) revise the reactor trip breaker and logic cabinet bypass required action CTs to be equivalent to the 4 hour bypass time for the logic cabinets (for the case where logic cabinets and trip breakers both cause their train to be inoperable when in test or maintenance) provided both are tested at the same time are consistent with the approved allowances accepted by the staff based on WCAP-14333. In addition, proposed TSs Bases provide an adequate basis or reason for the approved STS changes and editorial guidelines of the STS "Writer's Guide" were followed for preparing STS changes. The staff also concludes that proposed TSTF-418, Rev. 2 Bases Reviewers Notes provide sufficient clarification to ensure that a plant specific evaluation for instrument functions not evaluated generically in WCAP-14333 or not listed in NUREG-1431, Rev. 2 but which are contained in the plant specific safety system protection system or reactor protection system design will be performed.

Vogtle Electric Generating Plant Unit 1 and 2, Amendments 116 and 94 respectfully, establish a precedent for implementing approved WCAP-14333 relaxations to TSs requirements.

3.0 EVALUATION

TSTF-418, Rev. 2 revises NUREG-1431, Rev. 2, Specifications 3.3.1, 3.3.2, and 3.3.5 to incorporate staff approved WCAP-14333 TSs limits, including various TSs relaxations justified in WCAP-14333 and WCAP-10271 for plant specific functions not evaluated generically.

TECHNICAL BACKGROUND

WCAP-14333 justifies changing STS limits established by the WOG TOPS:

- “Evaluation of Surveillance Frequencies and Out-of-Service Times for the Reactor Protection Instrumentation System,” WCAP-10271-P-A, May 1986;
- “Evaluation of Surveillance Frequencies and Out-of-Service Times for the Reactor Protection Instrumentation System, Supplement 1” WCAP-10271-P-A, Supplement 1, May 1986; and
- “Evaluation of Surveillance Frequencies and Out-of-Service Times for the Engineered Safety Features Actuation System,” WCAP-10271-P-A, Supplement 2, Revision 1.

WCAP-14333 changes address relaxing TSs limits for three specific allowances in STS as follows:

Increased Bypass and Required Action CTs for Instrumentation Channels

TSs changes of this type increase the test bypass times and the required action CTs for both the SSPS and relay protection system RTS and ESFAS designs. For analog channels, this increases the required action CTs from 6 hours to 72 hours, and the test bypass time from 4 hours to 12 hours.

Increased Required Action CTs for Logic Cabinets, Master Relays and Slave Relays

TSs changes of this type increase the required action CT from 6 hours to 24 hours for maintenance plus 6 additional hours for a plant mode change.

Revised Reactor Trip Breaker and Logic Cabinet Bypass Required Action CTs

TSs changes of this type specify that reactor trip breakers can be bypassed during test or maintenance for a period of time equivalent to the bypass time for the logic cabinets provided both are tested at the same time and provided the plant design is such that both the reactor trip breaker and the logic cabinet cause their associated electrical trains (buses) to be inoperable during test or maintenance.

TECHNICAL EVALUATION

To evaluate WCAP-14333 changes noted above, the NRC used a three-tier approach to assess risk associated with the relaxation of test bypass times and required action CTs. The staff's evaluation considered the following:

- Tier 1 - Evaluation of Probabilistic Risk Assessment Model and Results.
- Tier 2 - Address the need to preclude potentially high risk configurations, should additional equipment outages occur during the required action CT period.

- Tier 3 - Confirm configuration risk management program (CAMP) insights are incorporated into the decision-making process before taking equipment out-of-service prior to or during the required action CT.

In the Safety Evaluation Report approving WCAP-14333 the staff stipulated that each licensee referencing WCAP-14333 in plant-specific amendment requests must confirm applicability of WCAP-14333 analysis for their plant and address Tier 2 and Tier 3 analysis.

TSTF-418, REVISION 2 NUREG-1431, REV. 2 CHANGES

TSTF-418, Rev. 2 revises NUREG-1431, Rev. 2 to permit relaxation of test bypass times and required action CTs for Specification 3.3.1, Specification 3.3.2 and Specification 3.3.5. The TSs changes that result from incorporating TSTF-418, Rev. 2 will include the specific WCAP-14333 allowances for relaxing TSs limits in STS as discussed above.

Functions Not Evaluated Generically

Both WCAP-14333 and WCAP-10271 include technical justification for relaxing various RTS and ESFAS instrumentation bypass test times and required action CTs, and for WCAP-10271 only specific surveillance frequencies that are generic to all SSPS and Relay Protection System instrumentation designs. In consideration of NUREG-1431, Rev. 2, the specific instrument functions not evaluated in WCAP-14333 for proposed changes include:

- Reactor Coolant Pump Breaker Position (Single Loop and Two Loops)
- Automatic Switchover to Containment Sump (RWST Level- Low Low Coincident with Safety Injection and Coincident with Containment Sump Level-High)
- Loss of Power Emergency Diesel Start

In order to apply the various relaxations justified in WCAP-10271 and WCAP-14333 to plant-specific instrumentation functions not evaluated generically, a plant-specific evaluation of these functions and any other functions not listed in NUREG-1431, Rev. 2 but contained in the plant specific SSPS or RPS design must be performed based on the methodology used in WCAP-14333.

3.1 REACTOR TRIP SYSTEM INSTRUMENTATION (LCO 3.3.1) CHANGES

All RTS instrumentation Functions discussed in Evaluation Section 3.1 reference NUREG-1431, Rev. 2, Table 3.3.1-1.

3.1.1 The NUREG-1431, Rev. 2 TSs changes related to increasing the required action CTs from 6 hours to 72 hours for the SSPS and relay protection system RTS designs are listed below.

- The Required Action D.1.1 and D.2.1 Completion Time for placing an inoperable Power Range Neutron Flux - High (Function 2.a) channel in trip.
- The Required Action E.1 Completion Time for placing an inoperable Power

Range Neutron Flux - Low (Function 2.b), Power Range Neutron Flux Rate- High Positive Rate (Function 3.a), Power Range Neutron Flux Rate- High Negative Rate (Function 3.b), Overtemperature ΔT (Function 6), Overpower ΔT (Function 7), Pressurizer Pressure - High (Function 8.b), Steam Generator Water Level - Low Low (Function 14), Steam Generator Water Level Low, and Steam Generator Water Level Low coincident with Steam Flow/Feedwater Flow Mismatch (Function 15) channel in trip.

- The Required Action K.1 Completion Time for placing an inoperable Pressurizer Pressure - Low (Function 8.a), Pressurizer Water Level - High (Function 9), Reactor Coolant Flow - Low (Function 10), Undervoltage Reactor Coolant Pumps (Function 12), and Underfrequency Reactor Coolant Pumps (Function 13) channel in trip.
- The Required Action N.1 (re-lettered from M.1) Completion Time for placing an inoperable Turbine Trip Low Fluid Oil Pressure (Function 16.a), and Turbine Trip-Turbine Stop Valve Closure (Function 16.b) channel in trip.

- 3.1.1.1 Administrative TSs changes are made to NUREG-1431, Rev. 2 that are based on revised required action CTs. TSs changes based on revising required action CTs to 72 hours plus 6 hours for plant conditions to effect a mode change include Required Actions D.1.2, D.3, E.2, and K.2. TSs changes based on revising the required action CTs to 72 hours plus 4 hours for plant condition to effect a mode change include Required Action N.2 (re-lettered from M.2).
- 3.1.2 The NUREG-1431, Rev. 2 TSs changes related to increasing the test bypass times from 4 hours to 12 hours for the SSPS and relay protection system RTS designs without installed bypass capability include revising the Note to Required Actions D.1.1, E.1, K.1 and N.1 (re-lettered from M.1) for Table 3.3.1-1 Functions 2.a, 2.b, 3.a, 3.b, 6, 7, 8.a, 8.b, 9, 10, 12, 13, 14, 15, 16.a, and 16.b.
- 3.1.3 NUREG-1431, Rev. 2 TSs changes related to increasing the required action CTs from 6 hours to 24 hours for restoring an inoperable SSPS or relay protection system RTS logic train to operable status during operation in Mode 1 and Mode 2 revise Required Action O.1 (re-lettered from N.1) for the Safety Injection Input from ESFAS (Function 17) and for Automatic Trip Logic (Function 21).
- 3.1.3.1 Administrative TSs changes based on revising the required action CTs to 24 hours plus 6 hours for plant conditions to change to Mode 3 revises Required Action O.2 (re-lettered from N.2).
- 3.1.4 NUREG-1431, Rev. 2 TSs changes related to increasing the time that reactor trip breakers can be bypassed for the SSPS and relay protection system RTS designs revises Required Action P.1 (re-lettered from O) for restoring one train to operable status. Required action P.1 is revised with the addition of Note 3 to allow the 4 hour test time for logic to be used for breaker testing when logic and breakers are tested concurrently. This allowance is for the case where logic cabinets and trip breakers both cause their train to be inoperable when in test or maintenance.

- 3.1.5 NUREG-1431, Rev. 2 TSs changes add an alternate version of the required actions Note for test bypass times discussed in paragraph 3.1.2 above. The current version of NUREG-1431, Rev. 2 contains a Required Actions Note (applied to plants without installed bypass capability) for specified RTS Functions that provides a 4 hour CT to bypass an inoperable channel for surveillance testing of other channels. This limit is changed to 12 hours as noted in paragraph 3.1.2 above. A Reviewers Note is added (which applies to plants with installed bypass test capability) to Required Action D.1.1 with a 12 hour CT to bypass one channel during surveillance testing and setpoint adjustment for the SSPS and relay protection system RTS designs. A similar Reviewers Note is added (which also applies to plants with installed bypass test capability) to Required Actions E.1, K.1 and N.1 with a 12 hour CT to bypass one channel during surveillance testing for the SSPS and relay protection system RTS designs.
- 3.1.6 The NUREG-1431, Rev. 2 changes related to Functions not evaluated generically in WCAP-14333 revise the TSs to add a new Condition M for Function 11.b, Reactor Coolant Pump Breaker Position (Two Loops) and revise Condition L to apply only to Function 11.a, Reactor Coolant Pump Breaker Position (Single Loop). The subsequent Conditions are re-lettered and Table 3.3.1-1 is revised to reflect the re-lettering of the Conditions. These changes are needed because Function 11.b was not evaluated generically in WCAP-14333 and current Condition K is not appropriate because it has been modified by TSTF-418, Rev. 2 to adopt the generic changes based on approved WCAP-14333 for Functions 8.a, 9, 10, 12, and 13. Additionally, the 4 hour test bypass time and the 6 hour required action CT are maintained for Conditions L and M and brackets are added since these Functions were not generically evaluated in WCAP-14333 but are evaluated in WCAP-10271. A Reviewers Note indicating that certain Functions may require plant specific evaluation is added to the Bases.

The staff concludes that the proposed TSTF-418, Rev. 2 change which (1) increases in the test bypass times to 12 hours and the required action CT to 72 hours for both the solid SSPS and relay protection system RTS designs, (2) increases in the logic cabinets required action CT to 24 hours, and (3) revises the reactor trip breaker and logic cabinet bypass required action CTs to be equivalent to the 4 hour bypass time for the logic cabinets (for the case where logic cabinets and trip breakers both cause their train to be inoperable when in test or maintenance) provided both are tested at the same time are consistent with the approved allowances accepted by the staff based on WCAP-14333. In addition, proposed TSs Bases provide an adequate basis or reason for the approved STS changes and editorial guidelines of the STS "Writer's Guide" were followed for preparing STS changes. The staff also concludes that proposed TSTF-418, Rev. 2 Bases Reviewers Notes provide sufficient clarification to ensure that a plant specific evaluation for Functions not evaluated generically in WCAP-14333 or not listed in NUREG-1431, Rev. 2 but which are contained in the plant specific SSPS or RPS design will be performed.

3.2 ESFAS INSTRUMENTATION (LCO 3.3.2) CHANGES

All ESFAS instrumentation Functions discussed in Evaluation Section 3.2 reference NUREG-1431, Rev. 2, Table 3.3.2-1.

3.2.1 The NUREG-1431, Rev. 2 TSs changes related to increasing the required action CTs from 6 hours to 72 hours for the SSPS and relay protection system ESFAS designs are listed below.

- The Required Action D.1 Completion Time for placing an inoperable Safety Injection channel in trip on Containment Pressure - High 1 (Function 1.c), Pressurizer Pressure-Low (Function 1.d), Steam Line Pressure (Functions 1.e.(1) and 1.e.(2)), High Steam Flow in Two Steam Lines Coincident with Tavg-Low, Low (Function 1.f), and High Steam Flow in Two Steam Lines Coincident with Steam Line Pressure -Low (Function 1.g).
- The Required Action D.1 Completion Time for placing an inoperable Steam Line Isolation channel in trip on Containment Pressure-High 2 (Function 4.c), Steam Line Pressure (Functions 4.d(1) and 4.d (2)), High Steam Flow in Two Steam Lines coincident with Tavg- Low Low (Function 4.e), High Steam Line Flow in Two Steam Lines coincident with Steam Line Pressure - Low (Function 4.f), High Steam Flow Coincident with Safety Injection and Tavg - Low Low (Function 4.g), and High High Steam Flow Coincident with Safety Injection (Function 4.h).
- The Required Action D.1 Completion Time for placing an inoperable Turbine Trip and Feedwater Isolation channel in trip on SG Water Level - High High (P-14) (Function 5.b).
- The Required Action D.1 Completion Time for placing an inoperable Auxiliary Feedwater Actuation channel in trip on SG Water Level - Low Low (Function 6.c).
- The Required Action E.1 Completion Time for placing an inoperable Containment Spray Actuation channel in bypass on Containment Pressure High - 3 (High High) (Function 2.c).
- The Required Action E.1 Completion Time for placing an inoperable Containment Isolation, Phase B channel in bypass on Containment Pressure High - 3 (Function 3.b(3)).
- The Required Action I.1 Completion Time for placing an inoperable Turbine Trip and Feedwater Isolation channel in trip on SG Water Level - High High (P-14) (Function 5.b).
- The Required Action I.1 Completion Time for placing an inoperable Auxiliary Feedwater channel in trip on Undervoltage Reactor Coolant Pump (Function 6.f).

3.2.2 The NUREG-1431, Rev. 2 TSs changes related to increasing the test bypass time from 4 hours to 12 hours for the SSPS and relay protection system ESFAS designs includes revising the Note to Required Actions D.1, E.1, and I.1 for Functions 1.c, 1.d, 1.e.(1), 1.e.(2), 1.f, 1.g, 2.c, 3.b(3), 4.c, 4.d(1), 4.d (2), 4.e, 4.f, 4.g, 4.h, 5.b, 6.c, and 6.f.

- 3.2.3 The NUREG-1431, Rev. 2 TSs changes related to increasing the required action CTs from 6 hours to 24 hours for restoring an inoperable SSPS or relay protection system ESFAS logic train to operable status revise Required Action C.1, G.1 and H.1 for Safety Injection Automatic Actuation Logic and Actuation Relays (Function 1.b), Containment Spray Automatic Actuation Logic and Actuation Relays (Function 2.b), Containment Isolation Automatic Actuation Logic and Actuation Relays - Phase A (Functions 3.a (2)), Containment Isolation Automatic Actuation Logic and Actuation Relays - Phase B (Functions 3.b(2)), Steam Line Isolation Automatic Actuation Logic and Actuation Relays (Function 4.b), Turbine Trip and Feedwater Isolation Automatic Actuation Logic and Actuation Relays (Function 5.a), Auxiliary Feedwater Automatic Actuation Logic and Actuation Relays - Solid State Protection System (Function 6.a), Auxiliary Feedwater Automatic Actuation Logic and Actuation Relays - Balance of Plant ESFAS (Function 6.b), Automatic Switch-over to Containment Sump Automatic Actuation Logic and Actuation Relays (Function 7.a).
- 3.2.3.1 Administrative TSs changes are made to NUREG-1431, Rev. 2 that are based on revised required action CTs. TSs changes based on revising required action CTs to 72 hours plus 6 hours for plant conditions to be in Mode 3 include Required Actions D.2.1, E.2.1 and I.2; and for changes to 72 hours plus 12 hours to be in Mode 4 includes Required Actions D.2.2 and E.2.2. TSs changes related to revising required action CTs to 24 hours plus 6 hours for plant conditions to be in Mode 3 include Required Action C.2.1, G.2.1 and H.2; for changes to 24 hours plus 36 hours to be in Mode 5 include Required Action C.2.2; and for changes to 24 hours plus 12 hours to be in Mode 4 includes Required Action G.2.2.
- 3.2.4 NUREG-1431, Rev. 2 TSs changes add an alternate version of the required actions Note for test bypass times discussed in paragraph 3.2.2 above. The current version of NUREG-1431, Rev. 2 contains a Required Actions Note (applied to plants without installed bypass capability) for specified ESFAS Functions that provides a 4 hour CT to bypass an inoperable channel for surveillance testing of other channels. This limit is changed to 12 hours as noted in paragraph 3.2.2 above. A Reviewers Note is added (which applies to plants with installed bypass test capability) to Required Actions D.1, E.1, I.1 and K.1 with a 12 hour CT to bypass one channel during surveillance testing for the SSPS and relay protection system ESFAS designs.
- 3.2.5 The NUREG-1431, Rev. 2 TSs changes related to Functions not evaluated generically in WCAP-14333 revise Condition K which is applicable to Automatic Switchover to Containment Sump on Reactor Water Storage Tank Level Low Low, Functions 7.b and 7.c. The 4 hour test bypass time and the 6 hour required action CT are maintained and brackets added since these Functions were not generically evaluated in WCAP-14333 but are evaluated in WCAP-10271. A Reviewers Note indicating that certain Functions may require plant specific evaluation is added to the Bases.

The staff concludes that the proposed TSTF-418, Rev. 2 increases in the test bypass times to 12 hours and the required action CT to 72 hours for both the SSPS and relay protection system ESFAS designs, and the increases in the logic cabinets, master relays and slave relays required action CT to 24 hours are consistent with the approved allowances accepted by the staff based on WCAP-14333. In addition, proposed TSs Bases provide an adequate basis or reason for the approved STS changes and editorial guidelines of the STS "Writer's Guide" were

followed for preparing STS changes. The staff also concludes that proposed TSTF-418, Rev. 2 Bases Reviewers Notes provide sufficient clarification to ensure that a plant specific evaluation for Functions not evaluated generically in WCAP-14333 or not listed in NUREG-1431, Rev. 2 but which are contained in the plant specific SSPS or RPS design will be performed.

3.3 LOSS OF POWER DG START INSTRUMENTATION (LCO 3.3.5) CHANGES

3.3.1 The NUREG-1431, Rev. 2 changes related to Loss of Power Diesel Generator Start Instrumentation Functions were not evaluated generically in WCAP-14333. A Reviewers Note indicating that certain Functions may require plant specific evaluation is added to the Bases for Specification 3.3.5 Actions.

The staff concludes that in order to apply the various relaxations justified in WCAP-10271 and WCAP-14333 to plant specific Functions not evaluated generically, a plant specific evaluation of those Functions and any additional plant specific Functions not listed in NUREG-1431, Rev. 2 but contained in the plant specific SSPS or RPS design must be performed.

4.0 CONCLUSION

In summary, the Staff concludes that TSTF-418, Rev. 2 proposed generic TS changes that (1) increase in the test bypass times to 12 hours and the required action CT to 72 hours for both the SSPS and relay protection system RTS and ESFAS designs, (2) increase in the logic cabinets, master relays and slave relays required action CT to 24 hours, and (3) revise the reactor trip breaker and logic cabinet bypass required action CTs to be equivalent to the 4 hour bypass time for the logic cabinets (for the case where logic cabinets and trip breakers both cause their train to be inoperable when in test or maintenance) provided both are tested at the same time are consistent with the approved allowances accepted by the staff based on WCAP-14333. In addition, proposed TSs Bases provide an adequate basis or reason for the approved STS changes and editorial guidelines of the STS "Writer's Guide" were followed for preparing STS changes. The staff also concludes that proposed TSTF-418, Rev. 2 Bases Reviewers Notes provide sufficient clarification to ensure that a plant specific evaluation for Functions not evaluated generically in WCAP-14333 or not listed in NUREG-1431, Rev. 2 but which are contained in the plant specific SSPS or RPS design will be performed. Thus, TSTF-418, Rev. 2 preserves the human factors principles used throughout the development of NUREG-1431, Rev. 2 and can be appropriately applied to licensee-specific TSs changes.

Contact: C. Schulten