Nebraska Public Power District

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NLS970225
December 22, 1997

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Gentlemen:

Subject: Request for Additional Information Regarding the Improved Technical Specifications
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Reference:
1. Letter from G. R. Horn (Nebraska Public Power District) to US Nuclear Regulatory Commission dated March 27, 1997, "Proposed Change to CNS Technical Specifications, Conversion to Improved Standard Technical Specifications"

2. US Nuclear Regulatory Commission Letter from J. R. Hall to G. R. Horn dated November 6, 1997, "Request for Additional Information Regarding the Improved Technical Specifications (TAC No. M98317)"

By Reference 1, the Nebraska Public Power District (District) submitted to the Nuclear Regulatory Commission (NRC) Proposed Change to CNS Technical Specifications, Conversion to Improved Standard Technical Specifications. In Reference 2, the NRC forwarded a request for additional information (RAI) regarding this proposed change. In response to the RAI, the District is providing, as an Attachment, its response to each of the individual NRC questions.

Should you have any questions concerning this matter, please contact me.

Sincerely,

P D Graham

P. D. Graham
Vice President of Nuclear Energy

A001
1/1

/nr
Attachment

cc: Regional Administrator w/o attachment
USNRC - Region IV

Senior Project Manager w/attachment
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/o attachment
USNRC

NPG Distribution w/o attachment

Correspondence No: NLS970225

The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
NPPD will revise the ITS submittal in accordance with the responses to each of the individual questions.	N/A

Cooper Nuclear Station Improved TS Review Comments
ITS Section 2.0, Safety Limits

2.0	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L.2		CTS 1.1.D ITS 2.1.1.3 The current Safety Limit (CTS 1.1.D) for the reactor vessel water level is that level shall be maintained not less than 18 inches above the top of the normal active fuel zone. This proposed Safety Limit (ITS 2.1.1.3) requires that level be greater than the top of the active irradiated fuel. This represents a less restrictive change because the top of the irradiated fuel at CNS is less than 18 inches above the top of the normal active fuel zone. The change still ensures adequate margin for effective action in the event of a level drop.	CTS bases refers to safety limit of 18 inches above TAF to ensure adequate decay heat removal and does not refer to "normal active fuel zone." Define differences between top of active fuel (TAF), top of irradiated fuel and top of "normal active fuel zone." How is "margin for effective action" still maintained? Explain.	

NPPD Response: NPPD provides the following explanation to this question and will update DOC L.2 of ITS 2.0 with supporting details: CTS 1.1.D indicates the "top of the normal active fuel zone" and the "top of active fuel (TAF)" are one and the same. Once the reactor has been operated at core $k_{eff} \geq 1.0$, all "active" fuel becomes irradiated to some degree. Thus, proposed ITS 2.1.1.3 speaks of TAF as the "top of active irradiated fuel." As the proposed ITS 2.1.1.3 Bases says, below 2/3 core height (TAF minus 50 inches) is where elevated cladding temperatures and clad perforation would occur from decay heat without adequate cooling capability. The proposed ITS lowest actuation levels of the emergency coolant systems are 95.19 inches above 2/3 core height in all Modes. In the event of a loss of water level, this value provides sufficient time, in all Modes, to take effective action for maintaining or restoring the proposed ITS SL water level greater than the "top of active irradiated fuel" by using other water injection methods and sources.

Cooper Nuclear Station Improved TS Review Comments
Section 3.0, LCO and SR Applicability

3.0	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.2		CTS 1.0.J STS LCO 3.0.1 ITS LCO 3.0.1 DOC A.2 states that the information contained in the first paragraph of CTS 1.0.J related to the definition of LCO is duplicative to that provided in ***10 CFR 50.36a***. 10 CFR 50.36a is the rule containing requirements for technical specification on effluents from nuclear power plants. It appears that this is a typo. The correct reference is ***10 CFR 50.36***.	Revise DOC A.2 to reflect the correct reference to 10 CFR.	
NPPD Response: NPPD will revise DOC A.2 for ITS 3.0 to show 10 CFR 50.36, not 10 CFR 50.36a.					
2	A.8		STS LCO 3.0.6 ITS LCO 3.0.6 DOC A.8 describes the addition of LCO 3.0.6 which provides guidance regarding the appropriate actions to be taken when a single support system inoperability also results in the inoperability of one or more supported systems. No comparable guidance is provided in the CTS. DOC A.8 states that the CTS and various NRC guidance documents have not provided a consistent approach to the combined support/supported inoperability, but concludes that LCO 3.0.6 was included in the STS to "clarify existing ambiguities and maintain actions within the realm of previous interpretations. Therefore, the change is classified as Administrative. Staff does not agree that this is an Administrative change. Under the CTS, any time a support system inoperability also made a supported system inoperable, actions would have to be taken under the specifications for both system, unless otherwise stated. Therefore, staff believes that this is a Less Restrictive change.	Reclassify this change as less restrictive and revise DOC accordingly.	
NPPD RESPONSE: CNS does not "cascade" in every case under the current licensing basis, unless directed by Technical Specifications. Therefore, since current plant practice is to not always "cascade," adding LCO 3.0.6 to the Technical Specifications is Administrative. DOC A.8 justifies this change.					

3.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	LA.1		CTS 3.3.A.2.b and 3.3.B.1 ITS 3.1.3 Details of the methods for disarming control rod drives (CRDs) in CTS 3.3.A.2.b and 3.3.B.1 are proposed to be relocated to the Bases. These details are not necessary to ensure the associated CRDs of inoperable control rods are disarmed. ITS 3.1.3 Required Actions A.2 and C.2, which require disarming the associated CRDs of inoperable control rods, are adequate for ensuring associated CRDs and inoperable control rods are disarmed. As such, these details are not required to be in the ITS to provide adequate protection of the public health and safety. Changes to the Bases will be controlled by the provisions of the proposed Bases Control Program described in Chapter 5 of the Technical Specifications.	CTS 3.3.A and bases states to disarm CRD electrically while ITS bases states to disarm hydraulically. Explain.	
NPPD Response: The Bases for proposed ITS 3.1.3 Required Action A.2 gives the direction to only hydraulically disarm a stuck control rod. NPPD will revise DOC L.1 for ITS 3.1.3 to include this change to CTS 3.3.A.2.b. The Bases for Required Action C.2 directs to electrically or hydraulically disarm nonstuck inoperable control rods. NPPD will mark up CTS 3.3.A.2.b to show the applicability of the revised DOC L.1, as well as CTS 3.3.B.1 with new DOC L.10 and associated NSHC, which will justify the allowance of disarming inoperable control rods hydraulically.				
2	M.8		CTS 4.3.2.a ITS SRs 3.1.3.2 and 3.1.3.3 The Surveillance condition described in CTS 4.3.2.a as "above 30% rated thermal power" is proposed to be changed to "Thermal Power is greater than the LPSP of the RWM," and shown in the form of a Note to proposed SRs 3.1.3.2 and 3.1.3.3. The LPSP is set at 22%, making this a more restrictive change. This change is necessary to ensure that control rod insertion capability is verified at the earliest opportunity in the applicable conditions.	Change is not more restrictive because 30% RTP > 22% RTP. Surveillance could be performed at or above 30%: therefore, it is noted that this is an administrative change.	
NPPD Response: CTS 4.3.2.a requires the control rod notch-insertion surveillances at power levels "above 30% power." ITS SRs 3.1.3.2 and 3.1.3.3 require these tests at greater than LPSP of the RWM (22% of RTP). Since the required range of applicable power levels for the control rod exercise tests is expanded (requiring more testing) in the ITS, the change is More Restrictive.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.1.3, Control Rod Operability

3.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	A.2		CTS 3.3.C.3 Maximum scram insertion time ITS SR 3.1.3.4 Scram time verification CTS 3.3.C.3 requires that the maximum scram insertion time for 90% insertion of any OPERABLE control rod not exceed 7.0 seconds. 90% rod insertion is equivalent to notch position 4.8 or less. ITS SR 3.1.3.4 allows a maximum insertion time of 7.0 seconds to reach notch position 6 which is only 87.5% insertion. This is a less restrictive change to the maximum control rod insertion time.	Since control rod position is only readable at even number increments, ITS SR 3.1.3.4 must be adjusted to account for allowable maximum scram insertion times that meet the criteria of CTS 3.3.C.3. See comment 3.1.4-1 (DOC M.2).	
NPPD Response: Since 90% insertion does not correspond to notch position 6, but corresponds to a position between notches 4 and 5, NPPD will prepare DOC L.11 and NSHC for using notch position 6.					

3.1.4	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	M.4	2	ITS SRs 3.1.4.1 and 3.1.4.4 STS SRs 3.1.4.1 and 3.1.4.4 CTS 4.3.C.1 The wording of STS SR 3.1.4.1 could be interpreted to require testing all control rods following any fuel movement in the reactor pressure vessel (RPV) - even if only one bundle were moved in mid-cycle. The Bases for STS SR 3.1.4.1 make clear the intent is to only require testing of affected control rods following fuel movement in the RPV. To avoid misinterpretation of the intent, ITS SRs 3.1.4.1 and 3.1.4.4 only require testing of all rods following refueling and after shutdown ≥ 120 days. At other times, only affected rods are required to be tested. The proposed generic deviations from the STS appear consistent with the intent as expressed in the STS Bases.	Submit TSTF change request for this generic change. Add phrase to proposed words in SR 3.1.4.4 Bases establishing that individual rod testing occurs "at times other than after refueling."	
NPPD Response: A generic change has been submitted to the NEI TSTF for processing. It is slightly different than what NPPD proposed in the CNS ITS submittal. Once the TSTF is finalized, NPPD will evaluate and incorporate into the CNS ITS submittal any needed changes to conform to the TSTF traveler, including any changes made along the way.					
2	M.2		CTS 3.3.C.3, maximum scram insertion time ITS 3.1.4 Table 3.1.4-1, control rod scram times ITS SR 3.1.3.4, scram time verification Note 2 to ITS Table 3.1.4-1 refers to ITS LCO 3.1.3 to identify control rods with scram times greater than 7.0 seconds to notch position 06 as inoperable. This criteria is not consistent with CTS 3.3.C.3 which specifies the criteria as not greater than 7.0 seconds to reach 90% of insertion which is notch position 4.8 or less. Notch position 06 is only 87.5% of rod insertion travel. This requirement is also identified separately in ITS 3.1.3 as incorrect for ITS SR 3.1.3.4, scram time verification.	Note 2 to ITS Table 3.1.4-1 must be adjusted to account for the allowable maximum scram insertion times that meet the criteria of CTS 3.3.C.3.	
NPPD Response: Since 90% insertion does not correspond to notch position 6, but corresponds to a position between notches 4 and 5, NPPD will prepare DOC L.11 and NSHC in ITS: 3.1.3 for using notch position 6.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.1.8, SDV Vent and Drain Valves

3.1.8	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		1 Bases 4	ITS 3.1.8 Actions CTS contain no action requirements in the event one or more SDV vent or drain valves are both inoperable and open, except for a unit shutdown by the definition of operability. (CTS are based on a design with only one valve in each vent or drain line.) Assuming a design change to add a valve to each line, the ITS propose an action requirement for one valve inoperable in one or more lines (Action A) to isolate the associated line(s), instead of requiring the valve(s) to be restored to operable status, as required by the STS. The SDV vent and drain valve's primary function is to isolate the SDV during a scram to contain the reactor coolant discharge. Thus, JFD 1 justifies this difference by pointing out that the isolation function is satisfied if the line is isolated. In summary: ITS Required Action A.1 differs from the STS by requiring - in 7 days - isolation of the associated line, instead of requiring restoration of the SDV vent and drain valve to operable status. This action requirement is the same as STS Required Action B.1, in the event both valves are inoperable in one or more lines (except the allowed time is 8 hours). Because of this, the Note of STS Required Action B.1 precedes the Actions table in the ITS so that it applies to both ITS Actions A and B. JFD 1 justifies this placement of the note by pointing out that in both cases, it is necessary to unisolate the line under administrative controls to allow draining and venting of the SDV. This is done to prevent the scram on "Scram Discharge Volume Water Level - High." This difference to the STS has been approved by the NRC in the Safety Evaluations for Washington Nuclear Plant Unit 2 (WNP-2), Amendment 134 and LaSalle Units 1 and 2, Amendments 89 and 94, respectively. JFD 1 states the additional SDV vent and drain valves assumed by the ITS are being installed during refueling outage RE-17, Spring 1997 such that the CNS design will match the design assumed in the STS.	ITS Action A is less restrictive than STS Action A which requires a full return to operabiltiy in 7 days. With one valve inoperable in a line, the other valve can still perform the isolation function without the need to "permanently" isolate the line which requires periodic draining of the line. WNP-2 was granted this deviation from the STS based on their CLB. It is not an approved generic change. Revise the Actions and the note to adopt the STS wording and presentation.	

NPPD Response: NPPD identified this change as a beyond-scope change in the CNS ITS submittal cover letter, dated March 27, 1997, in accordance with NRC guidance for ITS submittals. As such, the change should be processed through the appropriate NRC technical branch concurrent with the processing of the CNS ITS submittal.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.2.3, Linear Heat Generation Rate (LHGR)

3.2.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	LA.1	1	CTS 3/4.11.B Linear Heat Generation Rate (LHGR) STS 3.2.3 Linear Heat Generation Rate (LHGR) CTS 3/4.11.B in total is not contained in the ITS and its requirements are moved to the Technical Requirements Manual based upon a letter from A.C. Thadani (NRC) to J.S. Charnley (GE), "Acceptance for Referencing of Amendment 19 to General Electric Topical Report NEDE-24011-P-A (GESTAR-II), General Electric Standard Application for Reactor Fuel" dated April 7, 1987.	Acceptance of this change is contingent upon NRC determiniation of CNS applicability to the General Electric Topical Report NEDE-24011-P-A (GESTAR-II), General Electric Standard Application for Reactor Fuel" dated April 7, 1987, as justification for moving CTS 3/4.11.B requirements to the TRM. NRC reviewing.	
NPPD Response: No response required. NPPD considers this comment to be for NRC internal tracking purposes.					

3.5.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L14		CTS 4.5.A.1.e CTS 4.5.G.2 The CTS requires daily checks and a quarterly calibration of the core spray header delta P instrumentation. The ITS does not include these requirements. CTS 4.5.G.2 requires functionally testing and calibrating the pressure switches which monitor the LPCI, Core Spray, HPCI and RCIC systems to ensure they are full, on a quarterly bases. ITS 3.5.1 does not include this requirement. Justification for omitting the CTS requirements is based on duplicate requirements in 10 CFR 50, Appendix B, Section XII. This section of the CFR deals with calibration of instruments and test equipment but not installed plant equipment.	There is inadequate justification for deleting the CTS Surveillance Requirements. Retain the requirements to check and calibrate the delta P instrumentation and pressure switches in the ITS or provide justification for the omission.	
NPPD Response: NPPD will revise the ITS submittal to show the application of new DOC LA.6, to justify relocating this information to the USAR and to replace the L.14 application.					
2			CTS 4.5.A.3.f CTS 4.5.A.3.f requires performing an air test on the drywell and torus headers and nozzles once every 5 years. These requirements are not included in the ITS. There is no justification for deleting this CTS requirement.	Revise the submittal to include the CTS requirement or to justify deletion of the requirement.	
NPPD Response: The CNS ITS submittal markup for CTS 4.5.A.3.f says "See CTS: 4.5.A.3.f." As this surveillance requirement deals with containment structures and components, ITS Section 3.6 provides CTS: 4.5.A.3.f with the markup and DOC. The DOC R.1 for CTS: 4.5.A.3.f justifies the relocation of this requirement from the Technical Specifications to the USAR.					

3.5.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	L2		CTS 4.5.A.1.b and c CTS 4.5 A.3.b and c CTS 4.5.C.1.b and c The Frequency of the CTS testing requirements for Containment Spray pump and valve operability, Low Pressure Coolant Injection pump and valve operability, and High Pressure Coolant Injection pump and valve operability, is monthly (31 days). ITS 3.5.1 does not include this testing requirement. The CTS requirement is included in the Inservice Testing Programs on a quarterly basis (once every 92 days). This decreases the Frequency of the CTS test requirements from 31 days to 92 days. There is no specific documentation included or referenced to support this test Frequency.	Revise DOC L2 with additional information such as plant-specific operating history or analysis to justify relaxing the Frequency for testing the pumps and motor operated valves associated with CS, LPCI, and HPCI.	
NPPD Response: NPPD will update DOC L.2 for ITS 3.5.1 and the associated NSHC, as needed, with the results of the plant test history review and evaluation of the subject pump and valve tests.					
4	L18	8	CTS 3.5.A.2 CTS 3.5.A.5 ITS 3.5.1, Required Actions B.1 and B.2 CTS 3.5.C.2 CTS 3.5.E.2 ITS 3.5.1, Required Actions H.1 and H.2 ITS 3.5.1 Required Actions B.1, and B.2, allow continued operation for 72 hours when one LPCI subsystem and one CS subsystem are inoperable. CTS 3.5.A.2, and 3.5.A.5, require entering an immediate shutdown track for the same condition. ITS 3.5.1, Required Actions H.1 and H.2 allow continued operation for 72 hours when one ADS valve and one HPCI system are inoperable. CTS 3.5.C.2 and 3.5.E.2 require entering an immediate shutdown track for the same condition. This change extends the CTS Completion Time for both situations from immediate to 72 hours.	ITS 3.5.1 Actions B and H are beyond-scope issues and are referred to the Reactor Systems Branch.	
NPPD Response: No response required. NPPD considers this comment to be for NRC internal tracking purposes.					

3.5.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5		2	CTS 3.5.C.2 ITS3.5.1 Required Action D.1 STS 3.5.1 Required Action C.1 CTS 3.5.C.2 allows continued operation for a maximum of 7 days after HPCI is discovered Inoperable - providing that during such 7 days all active components that affect operability of the ADS, the RCIC system, both LPCI subsystems ans both core spray subsystems are operable. Corresponding STS 3.5.1 Action C allows continued operation for a maximum of 14 days for the same condition provided the RCIC system is verified operable within 1 hour - by administrative means. (Apparently, the STS does not consider it necessary to specify verifying the operable status of the other systems - ADS, LPCI, and core spray - because it is expected that the operators are continuously aware of changes in the status of these systems.) Corresponding ITS 3.5.1 Action D replaces the 1 hour Completion Time with **Immediately**.	The reasons for specifying a Completion Time of immediately are not plant specific. In addition, staff disagrees that the 1-hour time could be confusing. Should RCIC become inoperable during the 14-day Completion Time for restoring HPCI operability, the unit would have to be in Mode 3 within the next 12 hours per ITS Action I (STS Action G). Revise the submittal to adopt the STS 1-hour Completion Time for verifying operability of the RCIC system.	

NPPD Response: NPPD will revise the submittal to adopt the STS 1-hour Completion Time for verifying OPERABILITY of the RCIC system, "by administrative means."

3.5.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
6	L13		CTS 3.5.E.3 CTS 4.6.D.5 ITS SR 3.5.1.11 and Note STS SR 3.5.1.12 and Note CTS 4.6.D.5 requires performing the ADS manual operation test once per operating cycle with reactor pressure ≥ 100 psig. In the event this test is not performed during the required interval, CTS 3.5.E.3 requires performing this test within 12 hours after achieving 113 psig reactor steam pressure. ITS SR 3.5.1.11 requires the same test, with an equivalent Frequency of 18 months. The Note to this surveillance modifies to Frequency by only requiring the test be performed within a 12-hour limit same time, but not after achieving 113 psig, but when adequate steam pressure and flow are achieved. Adequate steam pressure is defined in the Bases as 920 psig. Thus, the time limit for performing the test is increased by the amount of time it takes to increase pressure from 113 psig to 920 psig. In addition, the 920 psig value is bracketed in the STS Bases. This means the ITS should use a plant-specific value. DOC L.13 does not explain why the 920 psig value is applicable to CNS and why increasing the time to complete the test after achieving 113 psig reactor pressure is an acceptable relaxation.	Provide additional documentation and justification for changing the CTS required pressure for performing the ADS manual operation test, from 113 psig to 920 psig, and the additional time permitted to perform this test after achieving 113 psig reactor pressure.	

NPPD Response: NPPD bases the 920-psig test pressure on the valve manufacturers' recommended test pressures, as the Bases indicates. In order to justify the additional time to perform the test, NPPD provides a time line of required testing and operations that must occur at startup and the duration required for the test or operation, including the time it takes to achieve the necessary test conditions for each of the tests. The current TS requirements and plant-specific implementations are the bases for this time line. The best-estimate time line shows that CTS requirements take 13 hours (minus the present ADS testing at 300 psig) after reaching 113 psig (150 psig on the time line) to get to 920 psig (1000 psig on the time line). The present plant-specific implementation of "within 12 hours of achieving 113 psig" to get better testing results is at 300 psig after about 8 hours. NPPD will update DOC L.13 for ITS 3.5.1 to provide these results.

REQUEST:

Provide a time line of required testing that must occur at startup and the duration required for each test, including time it takes to achieve test conditions for each test.

See attached RE 18 outage startup and power ascension plan. This is based on past experience of required testing and duration of each test.

Explanation of terms.

ITEM: is I.D. number of a specific item used by the scheduling program.

OD:"Original Duration", this is the expected duration of tne task based on experience.

Early Start: Early start time of task.

Early Finish: Expected finish time if item is started at the Early Start time.

Red items are critical to the schedule, and can be tied by early finish of one item to early start of the next.

Below is a synopsis of the attached schedule based on testing from achieving 113# through reaching normal operating pressure with bypass valves at 50% open.

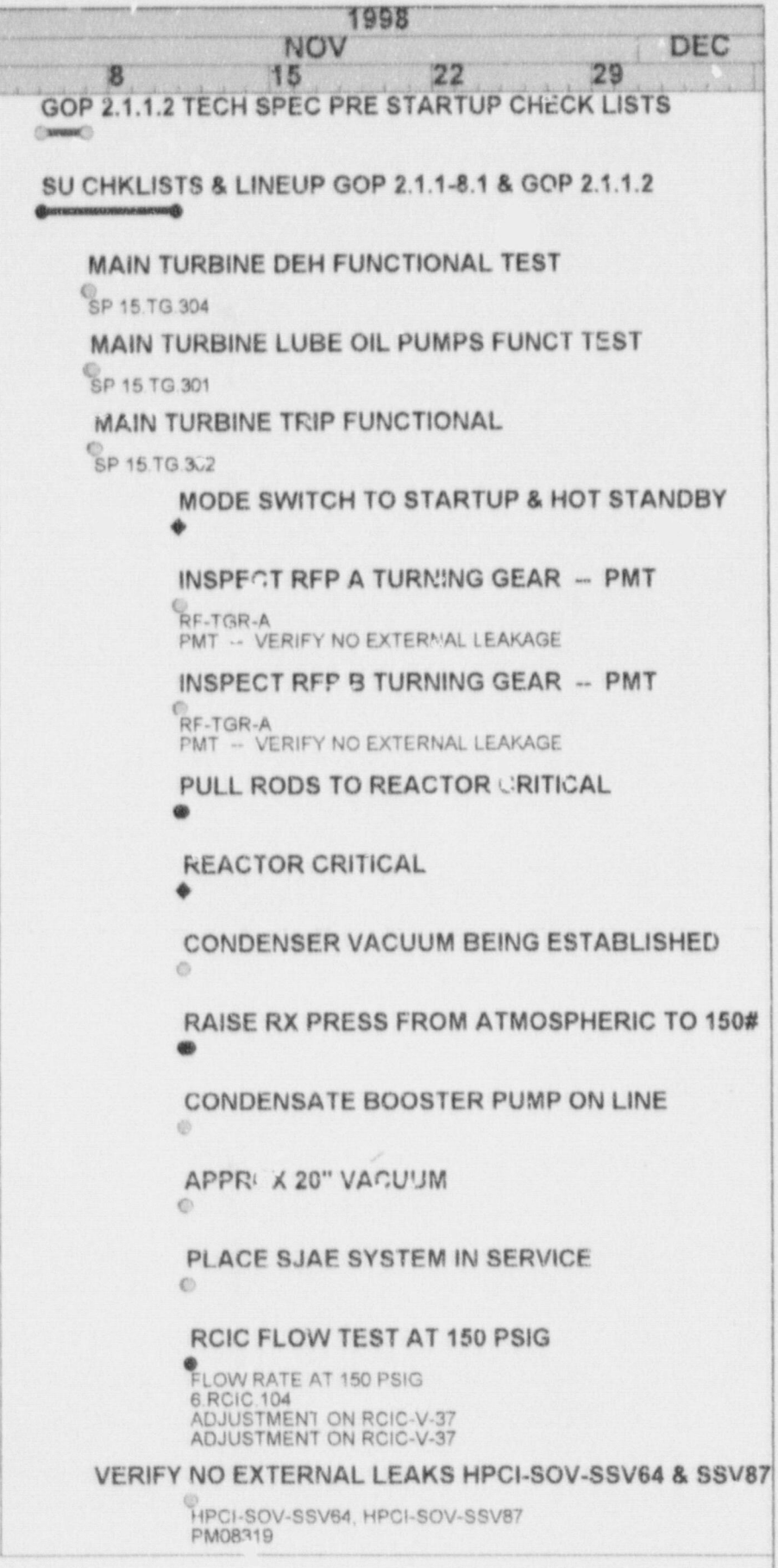
Item **SU410** allows 6 hours to raise reactor pressure from atmospheric to 150#. 113# will be late in this period. Based on early finish time, can conclude, will be at 113# at 05.59
Other items are completed concurrently.

6.RCIC.104 duration 1 hour.		1 hr
6.HPCI.308, HPCI PS-68A-D functional		1 hr
6.HPCI.104, HPCI Flow Test at 150#		1 hr
SU440, Raise pressure to 300#		4 hrs
6.ADS.202, ADS Manual Valve Actuation from ASD-ADS PNL		1 hr
6.ADS.201, ADS Manual Valve Actuation		1 hr
RFP testing to placing the 1st RFP in service is 1500 to 1859		4 hrs
SU540, Reactor pressure 800-1000#		2 hrs
SU-MS600, Mode switch to RUN		4 hrs
SU610, Raise power to 50% bypass	0200-1359	12 hrs

Based on the schedule, it will take about 8 hours of achieving 113# to get to the point of testing ADS valves, which is currently performed at 300#.

Randy Carlson OSG 11-24-97

ITEM	OD	DEPT	Early Start	Early Finish
R05800	48	O	05NOV98 01:00	07NOV98 00:59
OP 2.1.1	140	O	05NOV98 01:00	10NOV98 20:59
15.TG.304	1	O	07NOV98 01:00	07NOV98 01:59
15.TG.301	4	O	07NOV98 02:00	07NOV98 05:59
15.TG.302	2	O	07NOV98 06:00	07NOV98 07:59
01MM202000	0	O	10NOV98 21:00	
PM05163	1	O	10NOV98 21:00	10NOV98 21:59
PM05164	1	O	10NOV98 21:00	10NOV98 21:59
SU205	3	O	10NOV98 21:00	10NOV98 23:59
SU-MS200	0	O	11NOV98 00:00	
SU300	1	O	11NOV98 00:00	11NOV98 00:59
SU410	6	O	11NOV98 00:00	11NOV98 05:59
SU320	0	O	11NOV98 01:00	11NOV98 00:59
SU310	2	O	11NOV98 01:00	11NOV98 02:59
SU470	2	O	11NOV98 03:00	11NOV98 04:59
6.RCIC.104	1	O	11NOV98 06:00	11NOV98 06:59
PM08319	1	O	11NOV98 06:00	11NOV98 06:59



Project Start
Project Finish
Data Date
Run Date

Early Bar
Progress Bar
Critical Activity

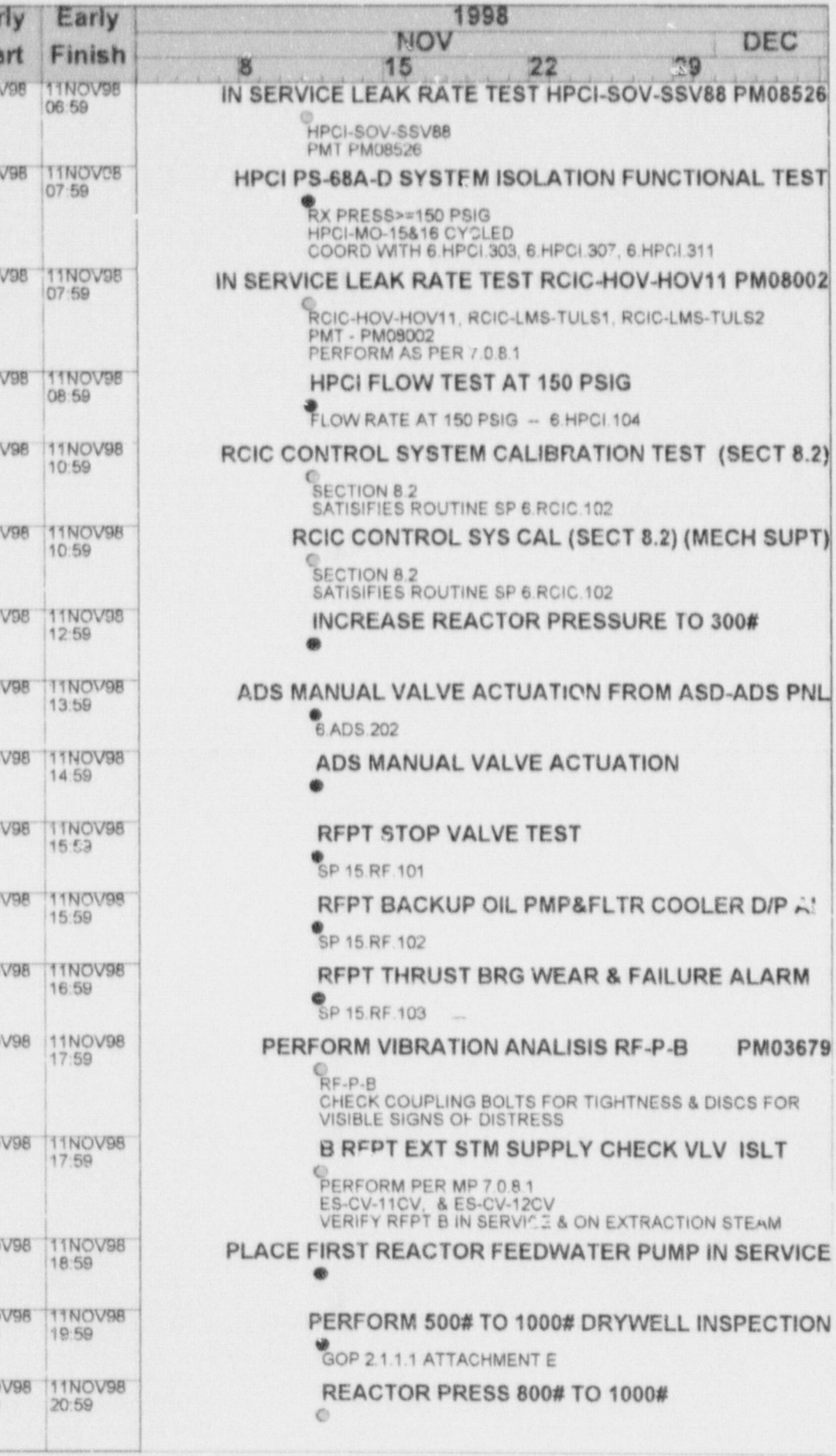
RE 18 REV A

RX STARTUP & POWER ASCENT

COMPETITIVIELY STRONG 2005 & BEYOND

NPPD
Cooper Nuclear Station

ITEM	OD	DEPT	Early Start	Early Finish
PM08562	1	O	11NOV98 06:00	11NOV98 06:59
6.HPCI.305	1	O	11NOV98 07:00	11NOV98 07:59
PM08002	1	O	11NOV98 07:00	11NOV98 07:59
6.HPCI.104	1	O	11NOV98 08:00	11NOV98 08:59
6.RCIC.311	2	O	11NOV98 09:00	11NOV98 10:59
6.RCIC.311	2	O	11NOV98 09:00	11NOV98 10:59
SU440	4	O	11NOV98 09:00	11NOV98 12:59
6.ADS.202	1	O	11NOV98 13:00	11NOV98 13:59
6.ADS.201	1	O	11NOV98 14:00	11NOV98 14:59
15.RF.101	1	O	11NOV98 15:00	11NOV98 15:59
15.RF.102	1	O	11NOV98 15:00	11NOV98 15:59
15.RF.103	1	O	11NOV98 16:00	11NOV98 16:59
PM03679	1	MS	11NOV98 17:00	11NOV98 17:59
PM06162	1	O	11NOV98 17:00	11NOV98 17:59
SU520	2	O	11NOV98 17:00	11NOV98 18:59
GOP 2.1.1 ATT E	1	O	11NOV98 19:00	11NOV98 19:59
SU540	2	O	11NOV98 19:00	11NOV98 20:59



Project Start 22OCT98 00:00
Project Finish 11NOV98 20:59
Data Date 22OCT98 00:00
Run Date 22OCT97 11:00

Early Bar
Progress Bar
Critical Activity

REV A

Sheet 2 of 2

RE 18 REV A
RX STARTUP & POWER ASCENT
COMPETITIVIELY STRONG 2005 & BEYOND

NPPD
Cooper Nuclear Station

ITEM	OD	DEPT	Early Start	Early Finish	1998 NOV 8 15 22 29 DEC
SU535	2	NA	11NOV98 20:00	11NOV98 21:59	MANAGEMENT WALKDOWN
.PC.524	4	O	11NOV98 20:00	11NOV98 23:59	58# DRYWELL AIRLOCK LLRT, SP 6.PC.524 PC-PENT-X-2 PMT -- PM03058, WI962297 (PM07227)
SU560	6	O	11NOV98 20:00	12NOV98 01:59	INERTING THE SUPPRESSION CHAMBER
6.HPCI.102	1	O	11NOV98 21:00	11NOV98 21:59	HPCI TEST FROM ASD
PM00293	1	O	11NOV98 21:00	11NOV98 21:59	A RFP DISCHARGE CV -- PMT RF-CV-10CV PMT -- VERIFY NO EXTERNAL LEAKAGE TO PERFORM PMT A RFP MUST BE IN SERVICE
PM00294	1	O	11NOV98 21:00	11NOV98 21:59	B RFP DISCHARGE CV -- PMT RF-CV-11CV PMT -- VERIFY NO EXTERNAL LEAKAGE TO PERFORM PMT B RFP MUST BE IN SERVICE
6.HPCI.321	2	O	11NOV98 21:00	11NOV98 22:59	HPCI TURB TRIP & OPER TEST - ASD RM
6.HPCI.323	3	O	11NOV98 21:00	11NOV98 23:59	HPCI CONTROL SYSTEM READOUT - ASD RM
SU-MS500	0	O	11NOV98 22:00	11NOV98 21:59	REACTOR PRESS 1000#
SU-MS600	4	O	11NOV98 22:00	12NOV98 01:59	MODE SWITCH TO RUN
6.HPCI.316	2	O	12NOV98 02:00	12NOV98 03:59	HPCI CONTROL SYSTEM CALIBRATION TEST(SECT 8.2)
SU610	12	O	12NOV98 02:00	12NOV98 13:59	INCREASE POWER TO 50% BYPASS VALVES
SU570	16	O	12NOV98 02:00	12NOV98 17:59	INERTING THE DRYWELL
15.TG.303	2	O	12NOV98 14:00	12NOV98 15:59	MAIN TURBINE TRIP TESTS TRIP TURBINE 15.TG.303 THIS ALSO MEETS THE REQUIRMENTS OF SP 15.TG.302
15.TG.304	6	O	12NOV98 13:00	12NOV98 21:59	MAIN TURBINE TRIP (OVER SPEED TEST) TRIP TURBINE SP 15.TG.304
SU-MS570	0	O		12NOV98 17:59	DRYWELL & SUPPRESSION CHAMBER INERTED MUST BE COMPLETED WITHIN 24 HOURS FROM MODE SWITCH TO RUN
R05650	4	O	12NOV98 22:00	13NOV98 01:59	TURBINE SYNCHRONIZED

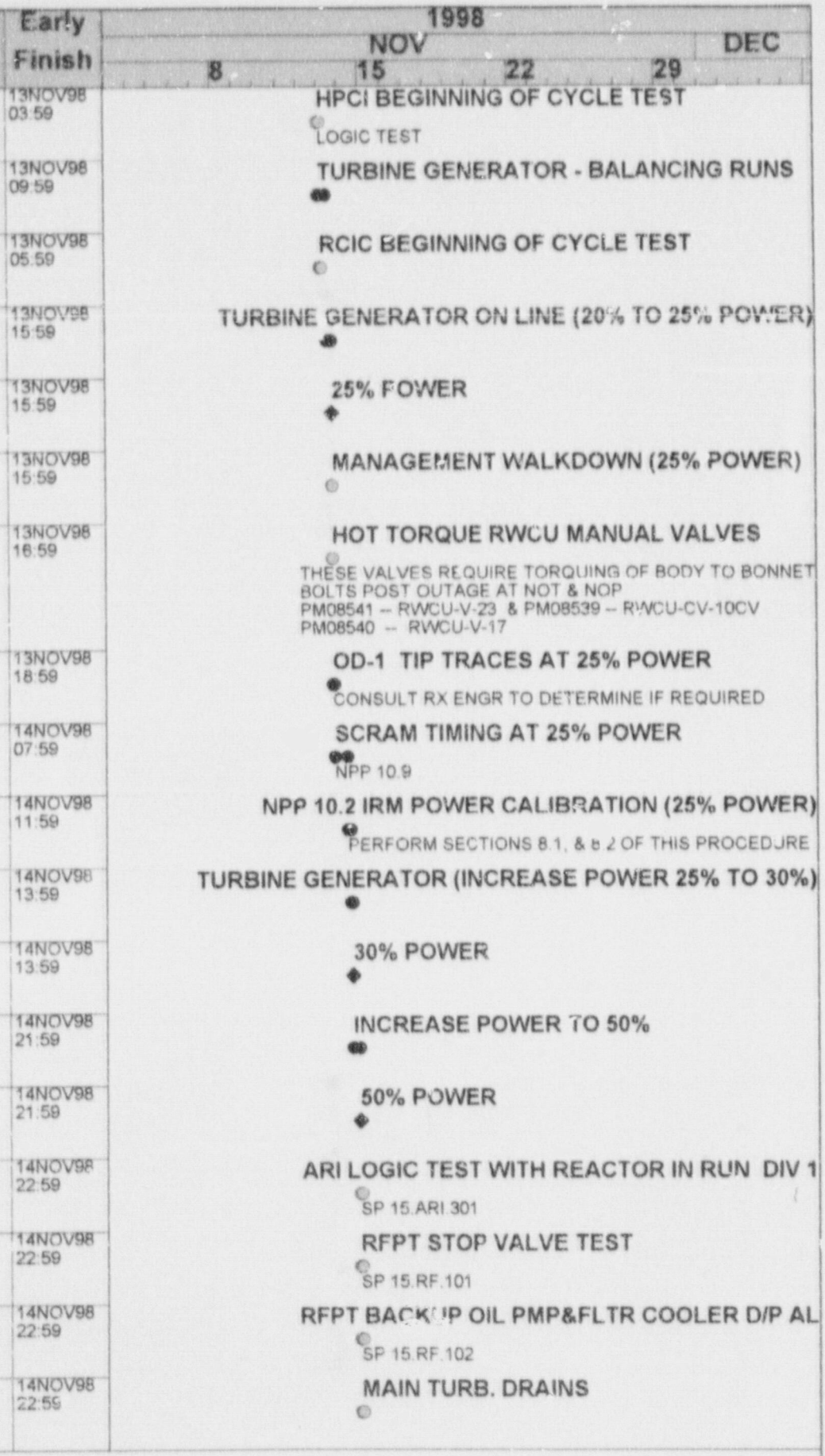
Project Start 02OCT96 00:00
Project Finish 11NOV98 00:00
Data Date 02OCT96 00:00
Run Date 22OCT97 11:00

Early Bar
Progress Bar
Critical Activity

RE 18 REV A
RX STARTUP & POWER ASCENT
COMPETITIVIELY STRONG 2005 & BEYOND

NPPD
Cooper Nuclear Station

ITEM	OD	DEPT	Early Start	Early Finish
6.HPCI.313	2	O	13NOV98 02:00	13NOV98 03:59
[illegible]315	8	O	13NOV98 02:00	13NOV98 09:59
6.RCIC.309	2	O	13NOV98 04:00	13NOV98 05:59
SU710	6	O	13NOV98 10:00	13NOV98 15:59
SU-MS700	0	O		13NOV98 15:59
SU536	0	NA	13NOV98 16:00	13NOV98 15:59
PM08539	1	O	13NOV98 16:00	13NOV98 16:59
NPP 10.1	3	O	13NOV98 16:00	13NOV98 18:59
NPP 10.9	13	O	13NOV98 19:00	14NOV98 07:59
NPP 10.2	4	I	14NOV98 08:00	14NOV98 11:59
SU720	2	O	14NOV98 12:00	14NOV98 13:59
SU-MS750	0	O		14NOV98 13:59
SU755	8	O	14NOV98 14:00	14NOV98 21:59
SU-MS760	0	O		14NOV98 21:59
15.ARI.301	1	O	14NOV98 22:00	14NOV98 22:59
15.RF.101	1	O	14NOV98 22:00	14NOV98 22:59
15.RF.102	1	O	14NOV98 22:00	14NOV98 22:59
15.TG.601	1	O	14NOV98 22:00	14NOV98 22:59



Early Bar
Progress Bar
Critical Activity

REV A

RE 18 REV A
RX STARTUP & POWER ASCENT
COMPETITIVIELY STRONG 2005 & BEYOND

NPPD
Cooper Nuclear Station

ITEM	OD	DEPT	Early Start	Early Finish
SU760	12	O	14NOV98 22:00	15NOV98 09:59
15.ARI.302	1	O	14NOV98 23:00	14NOV98 23:59
15.RF.103	1	O	14NOV98 23:00	14NOV98 23:59
PM03678	1	MS	15NOV98 00:00	15NOV98 00:59
SU770	2	O	15NOV98 00:00	15NOV98 01:59
OD1A	6	O	15NOV98 10:00	15NOV98 15:59
SU780	7	O	15NOV98 16:00	15NOV98 22:59
SU790	12	O	15NOV98 23:00	16NOV98 10:59
SU791	20	O	16NOV98 11:00	17NOV98 06:59
01MM505000	0	O		17NOV98 06:59

1998

NOV 8 15 22 29 DEC

12 HOUR 50% SOAK FOR LPRM CAL

CONSULT RX ENGR TO DETERMINE IF REQUIRED

ARI LOGIC TEST WITH REACTOR IN RUN DIV 2

SP 15.ARI.302

RFPT THRUST BRG WEAR & FAILURE ALARM

SP 15.RF.103

PERFORM VIBRATION ANALSIS RF-P-A PM03678

RF-P-A
CHECK COUPLING BOLTS FOR TIGHTNESS & DISCS FOR VISIBLE SIGNS OF DISTRESS

PLACE SECOND REACTOR FEEDWATER PUMP IN SERVICE

OD-1 & LPRM CAL AT 50%

CONSULT RX ENGR TO DETERMINE IF REQUIRED

INCREASE POWER 50% TO 70%

PLACE AOG TRAIN ? IN SERVICE

INCREASE POWER 70% TO 100% (12MWe/HR)

100% POWER

3.5.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L1		CTS 3.5.F.5.c ITS SR 3.5.2.1 CTS 3.5.F.5.c requires a Condensate Storage Tank (CST) level of 230,000 gallons when in Mode 5 during an OPDRV. ITS SR 3.5.2.1 requires 14 ft. (equivalent to 150,000 gallons) for the same conditions. There is inadequate justification for the decrease in CST level.	The bases suggests that NPSH, vortexing, and recirculation/makeup were considered to determine the lower water level limit. There is no discussion on why 80,000 gallons of water required in the CTS are no longer required in the ITS. Provide additional discussion describing the difference in analysis of the required water levels.	

NPPD Response: NPPD is analyzing the validity of the 150,000 gallon value at CNS, but will revise DOC L.1 with this information: The basis for the 230,000 gallon CST volume in CTS 3.5.F.5.c was a value the NRC determined adequate in CNS CTS Change 11, which added this requirement, for the situation in which the suppression pool is empty for required inspection and a control rod drive is removed for maintenance. The removal of a control rod drive is an operation with the potential for draining the reactor vessel (OPDRV). The difference between that value and the 150,000 gallon CST volume in CTS 3.10.B.F is that the 150,000 gallon value is for refueling activities with the suppression pool empty and no OPDRV. The acceptability of the 150,000 gallon value in the ITS can use the availability of other sources of water that would normally be available during an outage. During OPDRVs, the NOTE to ITS SR 3.5.3.1 b. allows only one required subsystem to take credit for the CST volume. ITS SR 3.5.2.1 a. then requires the suppression pool available as a source of water for the other required low pressure ECCS injection/spray subsystem.

3.5.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2		2	STS SRs 3.5.2.1 and 3.5.2.2 ITS SR 3.5.2.1 The ITS combines the two STS SRs to verify that the water supply(ies) to the LPCI subsystem(s) and/or core spray subsystem(s) are above the minimum volume required. STS appears to assume a design in which LPCI is not capable of being aligned to draw from a condensate storage tank (CST). Thus, STS SR 3.5.2.1 only addresses the LPCI subsystem water source - the suppression pool water level. JFD 2 indicates that because the CST is also available to the LPCI subsystem, then the core spray water supply surveillance, STS SR 3.5.2.2, can equally apply to the LPCI subsystem. It appears this adaptation of the STS to the CNS design is acceptable. But staff needs more information regarding why CNS design differs from that assumed in the STS.	Revise JFD 2 to further address the uniqueness of the CNS LPCI water supply design relative to other BWR/4 plants.	
NPPD Response: The CNS plant design does allow a suction source of LPCI as being capable of taking suction from the CST, as USAR Section VI-4.4 describes. The CNS design is different in this way from other BWR/4s that have undergone the ITS upgrade process before (Hatch, Peach Bottom, and Brunswick do not include this design feature). Thus, NPPD believes JFD 2 is adequate and needs no revision.					
3	L5		CTS 4.5.G.2 ITS 3.5.2 STS 3.5.2 CTS 4.5.G.2 requires functionally testing and calibration of the low pressure ECCS "keep filled" pressure switches. ITS 3.5.2 does not include this requirement. Justification for omitting the requirements is based on duplicate requirements in 10 CFR 50, Appendix B, Section XII. This section of the CFR deals with calibration of instruments and test equipment but not installed plant equipment.	Maintain the CTS requirement to functionally test and calibrate the low pressure ECCS "keep filled" switches or provide justification for the omission. See Comment 3.5.1-1	
NPPD Response: NPPD will revise the ITS submittal to show the application of new DOC LA.3, to justify relocating this information to the USAR and to replace the L.5 application.					

3.5.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L3		CTS 4.5.D.1.b CTS 4.5.D.1.c CTS 4.5.D.1.b and c require performing an Operability test on the RCIC pump and motor operated valves once every month. ITS 3.5.3 does not include these requirements. Justification is based on industry plant operating experience. There is inadequate justification for deleting this CTS requirement.	Relying upon industry operating experience only is inadequate justification for deleting the CTS requirement for performing Operability tests on the RCIC pump and motor operated valves. Provide justification based on specific plant design or conditions to substantiate deleting these CTS surveillance requirements.	
NPPD Response: NPPD will update DOC L.3 for ITS 3.5.3 and the associated NSHC, as needed, with the results of the plant test history review and evaluation of the subject pump and valve tests.					
2	L7	2	CTS 4.5.D.2 ITS 3.5.3 Required Action A.1 STS 3.5.3 Required Action A.1 CTS 4.5.D.2 requires immediately verifying the HPCI system is Operable when the RCIC is determined Inoperable. ITS 3.5.3 Action A retains this CTS requirement. However, the Completion Time of "Immediate" differs from the corresponding STS time of 1 hour. Note: DOC L.7 incorrectly describes the disposition of CTS 4.5.D.2 as being deleted; in fact it is retained as ITS 3.5.3 Required Action A.1.	Revise the submittal to adopt the STS Completion Time of 1 hour. See Comment 3.5.1-5. Revise DOC L7 to address changing "immediate" to one hour and to address clarifying that HPCI system operability be verified by administrative means.	
NPPD Response: NPPD will revise the submittal to adopt the STS 1-hour Completion Time for verifying OPERABILITY of the HPCI system "by administrative means." NPPD will also revise DOC L.7, its NSHC, and its application.					

3.5.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	L5		CTS 4.5.D.1.e STS SR 3.5.3.4 ITS SR 3.5.3.4 Bases for ITS SR 3.5.3.4, STS markup page B 3.5-27 The steam pressure for performing the RCIC system cyclic flow test is changed from "approximately 150 psig" to "≤ 165 psig," a bracketed number in the STS. The CTS value of 150 psig should be retained, as indicated by the brackets in STS SR 3.5.3.4. Changing the current number is a beyond scope change. Note: The proposed Bases for ITS SR 3.5.3.4 is consistent with the STS, giving a number of 150 psig. Neither STS nor ITS Bases discuss the 165 psig allowance - but should.	Changing the steam pressure allowed for conducting the test is referred to the Reactor Systems Branch for review.	
NPPD Response: No response required. NPPD considers this comment to be for NRC internal tracking purposes.					
4	L9		CTS 4.5.G.2 CTS 4.5.G.2 requires functionally testing and calibrating the RCIC system "keep filled" pressure switches on a quarterly basis. ITS 3.5.3 does not include this requirement. Justification for omitting the CTS requirement is based on duplicate requirements in 10 CFR 50, Appendix B, Section XII. This section of the CFR deals with calibration of instruments and test equipment but not installed plant equipment.	There is inadequate justification for omitting the CTS requirement from the ITS. Retain the requirement to functionally test and calibrate the RCIC pressure switches in the ITS or provide justification for the omission. See Comment 3.5.1-1	
NPPD Response: NPPD will revise the ITS submittal to show the application of new DOC LA.2, to justify relocating this information to the USAR and to replace the L.9 application.					

3.5.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5		Bases 2	Bases for ITS SR 3.5.3.5, STS markup page B 3.5-28 The omission from the second paragraph addressing the rational for the 18-month Frequency for the RCIC automatic actuation test is not based on a plant-specific design difference and is not editorial.	This is not a justifiable plant-specific or editorial difference. Adopt the STS language proposed for omission. Such omissions may occur throughout the CNS ITS Bases. Unless the CNS design or current licensing basis supports such omissions the STS wording should be adopted. The response to this comment should address the global aspects of this type of Bases difference.	

NPPD Response: The current plant practice at CNS is to perform this SR during startup from a refueling outage. NPPD will revise the proposed Bases for ITS SR 3.5.3.5 and the STS markup to restore the deleted and revised STS wording. There is no need to change the associated JFD. NPPD will review the rest of the proposed CNS ITS Bases for 18-month Surveillance Requirements to determine if the same phrase was deleted and/or revised, and determine if CNS currently performs the associated SRs during power operation or whether to restore the STS wording and change the STS markup. NPPD will update each associated JFD, as needed.

NRC RAI 3.5.3-5
Analysis

STS SR w/ NRC-questioned 18-mo. F Bases Justification *	CNS ITS SR - Have?	Justification for Deviation (JFD)	CNS CTS	Performed during Operation or Outage?
3.1.7.8	3.1.7.8 - Yes	-	N/A	N/A
3.1.7.9	3.1.7.9 - Yes	-	N/A	N/A
3.1.8.3	3.1.8.3 - Yes	-	N/A	N/A
3.3.1.1.12	3.3.1.1.11- Yes	-	N/A	N/A
3.3.1.1.15	3.3.1.1.13 - Yes	-	N/A	N/A
3.3.2.1.6	3.3.2.1.7 - Yes	-	N/A	N/A
3.3.2.2.4	3.3.2.2.3 - Yes	-	N/A	N/A
3.3.4.1.4	None	-	N/A	N/A
3.3.4.2.5	3.3.4.1.3 - Yes	-	N/A	N/A
3.3.5.1.6	3.3.5.1.5 - No	See resolution table below.		
3.3.5.2.6	3.3.5.2.5 - Yes	-	N/A	N/A
3.3.6.1.7	3.3.6.1.6 - No	See resolution table below.		
3.3.6.2.6	3.3.6.2.4 - No	See resolution table below.		
3.3.6.3.7	3.3.6.3.5 - Yes	-	N/A	N/A
3.3.7.1.5	3.3.7.1.4 - No	See resolution table below.		
3.3.8.1.4	3.3.8.1.3 - Yes	-	N/A	N/A
3.3.8.2.3	3.3.8.2.2 - Yes	-	N/A	N/A
3.4.5.1	None	-	N/A	N/A
3.5.1.10	3.5.1.9 - Yes	-	N/A	N/A
3.5.1.11	3.5.1.10 - Yes	-	N/A	N/A
3.5.3.4	3.5.3.4 - Yes	-	N/A	N/A
3.5.3.5	3.5.3.5 - No	See resolution table below.		

NRC RAI 3.5.3-5
Analysis

STS SR w/ NRC-questioned 18-mo. F Basis Justification *	CNS ITS SR - Have?	Justification for Deviation (JFD)	CNS CTS	Performed during Operation or Outage?
3.6.1.3.10	3.6.1.3.8 - No	See resolution table below.		
3.6.1.6.2	3.6.1.6.2 - Yes	-	N/A	N/A
3.6.1.7.3	3.6.1.7.3 - No	See resolution table below.		
3.6.1.8.3	3.6.1.8.3 - Yes	-	N/A	N/A
3.6.1.9.3	None	-	N/A	N/A
3.6.3.2.2	None	-	N/A	N/A
3.6.4.2.3	3.6.4.2.3 - Yes	-	N/A	N/A
3.7.7.2	3.7.7.2 - Yes	-	N/A	N/A
3.7.7.3	3.7.7.3 - Yes	-	N/A	N/A

* The 18 month Frequency is based on the need to perform the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

NRC RAI 3.5.3-5
Resolution

STS SR w/ NRC-questioned 18-mo. F Bases Justification *	CNS ITS SR - Have?	Justification for Deviation (JFD)	CNS CTS	Performed during Operation or Outage?
3.3.5.1.6 LOGIC SYSTEM FUNCTIONAL TEST	3.3.5.1.5 - No	ITS Bases: 3.3.5.1 - 1 NPPD will revise the ITS to match the restored STS wording.	Table 4.2.B Logic (4) (6) 2. **CS** Initiation, & 3. **P&V (SO)** Cntrl; Logic (4) (6) 2. **RHR** Initiation, & 3. **P&V** Cntrl; Logic (4) (6) 2. **HPCI** Initiation, 3. Turbine Trip, & 5. Aux Oil Pump & Glnd Stm Exh; and Logic (4) (6) 2. **ADS** Actuation	 6.1CS.304 Outage 6.1CS.304 Outage 6.RHR.301 Outage 6.PCIS.301 Outage 6.HPCI.311 Outage 6.HPCI.311 Outage 6.HPCI.311 Outage 6.1ADS.303 Outage

NRC RAI 3.5.3-5
Resolution

STS SR w/ NRC-questioned 18-mo. F Bases Justification *	CNS ITS SR - Have?	Justification for Deviation (JFD)	CNS CTS	Performed during Operation or Outage?
3.3.6.1.7 LOGIC SYSTEM FUNCTIONAL TEST	3.3.6.1.6 - No	ITS Bases: 3.3.6.1 - 1 NPPD will revise the ITS to match the restored STS wording.	Table 4.2.A Logic Systems 1. **MSL** iso vlvs, drain vlvs, & **Rx Wtr** smpl vlvs; 2. **Drywell Vent** iso vlvs; 3. **Rx Wtr Clnup Sys** isolation, & **Rx Sys** pump trip; 4. **Drywell Floor Drain/ Equip Drain** iso vlvs; 5. **RHR Sys** iso vlvs; & 6. **Tip** withdrawal; Table 4.2.B Logic (4) (6) 4. **HPCI** auto isolation, & 4. **RCIC** auto isolation; and Table 4.2.D Logic Systems **Mech. Vac. Pump** Isolation	6.PCIS.302 Outage 6.PCIS.302 Outage 6.PCIS.301 Outage 6.PCIS.301 Outage 6.RWCU.301 Outage 6.PCIS.301 Outage 6.PCIS.301 Outage 6.PCIS.301 Outage 6.HPCI.307 Outage 6.RCIC.307/313 Outage 6.PCIS.302 Outage

NRC RAI 3.5.3-5
Resolution

STS SR w/ NRC-questioned 18-mo. F Bases Justification *	**CNS ITS SR - Have?**	**Justification for Deviation (JFD)**	**CNS CTS**	**Performed during Operation or Outage?**
3.3.6.2.6 LOGIC SYSTEM FUNCTIONAL TEST	3.3.6.2.4 - No	ITS Bases: 3.3.6.2 - 1 NPPD will revise the ITS to match the restored STS wording.	Table 4.2.A Logic Systems 2. **Rx Bldg.** H & V, and **SGT** Start; and Table 4 2.D Logic Systems **SGT** Initiation, and **Rx Bldg.** Isolation	6.PCIS.301 Outage 6.PCIS.301 Outage 6.PCIS.301 Outage 6.PCIS.301 Outage
3.3.7.1.5 LOGIC SYSTEM FUNCTIONAL TEST	3.3.7.1.4 - No	ITS Bases: 3.3.7.1 - 1 *New JFD No. ITS Bases: 3.3.7.1 - 6*	Table 4.2.D Logic Systems **CREF**	6.PRM.318 Operation
3.5.3.5	3.5.3.5 - No	ITS Bases: 3.5.3.5 - 2 NPPD will revise the ITS to match the restored STS wording.	4.5.D.1.a	6.PCIS.301/.302 Outage

NRC RAI 3.5.3-5
Resolution

STS SR w/ NRC-questioned 18-mo. F Bases Justification *	CNS ITS SR - Have?	Justification for Deviation (JFD)	CNS CTS	Performed during Operation or Outage?
3.6.1.3.10	3.6.1.3.8 - No	ITS Bases: 3.6.1.3 - 3 NPPD will revise the ITS to match the restored STS wording.	4.7.D.1.c	6.PC.205 Outage
3.6.1.7.3	3.6.1.7.3 - No	ITS Bases: 3.6.1.7 - 1 NPPD will revise the ITS to match the restored STS wording.	4.7.A.3.b	6.1PC.203 Outage

* The 18 month Frequency is based on the need to perform the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.1, Primary Containment

3.6.1.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.2 A.13		CTS 1.0.P CTS 3.7.A.2.a ITS B3.6.1.1 Bases - BACKGROUND CTS 1.0.P defines Primary Containment Integrity. A markup of CTS 1.0.P is provided in the CTS markup of ITS 1.0, but not in the CTS markup of ITS 3.6.1.1. Justification A.2 in the CTS markup of ITS 3.6.1.1 and justification A.13 in the CTS markup of ITS 1.0 both state that the definition of Primary Containment Integrity is deleted from the ITS. This is incorrect. The details of the definition are relocated to ITS B3.6.1.1 Bases- BACKGROUND, which is a Less Restrictive (LA) change. In addition, the individual statements within the definition (CTS 1.0.P.1, 1.0.P.2, 1.0.P.3 and 1.0.P.4) are used as the basis for various ITS SRs and Bases statements in ITS 3.6.1.2 and ITS 3.6.1.3, which are Administrative and Less Restrictive (LA) changes. See Item Numbers 3.6.1.2-1 and 3.6.1.3-3.	Revise the CTS markup of ITS 3.6.1.1 to include a markup of CTS 1.0.P and provide additional discussion and justification for relocating the details of the definition to ITS B3.6.1.1 Bases-BACKGROUND and to ITS 3.6.1.2 and ITS 3.6.1.3. See Item Numbers 3.6.1.2-1 and 3.6.1.3-3.	
NPPD Response: NPPD will revise the CNS ITS submittal to address the comment.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.1, Primary Containment

3.6.1.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2	A.4		CTS 4.7.A.1.d CTS 4.7.A.2 STS SR 3.6.1.1.1 and Associated Bases ITS SR 3.6.1.1.1 and Associated Bases CTS 4.7.A.1.d and 4.7.A.2 specify the visual inspections and leak rate testing requirements for Primary Containment based on 10 CFR 50, Appendix J, Option A as modified by approved exemptions. Even though the STS is bases on Appendix J Option A, the ITS modifies the STS to explicitly state 10 CFR 50 Appendix J Option A, to avoid confusion since Appendix J also has an Option B. This change is acceptable. Changes to the STS with regard to Option A versus Option B are covered by a letter from Mr. Christopher I. Grimes to Mr. David J. Modeen, NEI, dated 11/2/95 and TSTF-52. While a majority of the changes in the letter and TSTF-52 as modified by staff comments deal with Option B, some of the changes are applicable to both Option A and Option B.	Licensee to consider updating the Bases to include those portions of the 11/2/95 letter and updated TSTF-52 when OG provides revisions that are applicable to 10 CFR 50 Appendix J, Option A.	
NPPD Response: NPPD will not incorporate TSTF-52, since it was not approved at the time the CNS ITS was submitted and is still not approved.					

3.6.1.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	A.4		CTS 4.7.A.2.c.2 CTS 4.7.A.2.f.3 CTS 4.7.A.2.f.4 CTS 4.7.A.2.f.5 ITS SR 3.6.1.2.1 and Associated Bases ITS SR 3.6.1.3.10 and Associated Bases CTS 4.7.A.2.c.2, 4.7.A.2.f.3, 4.7.A.2.f.4 and 4.7.A.2.f.5 specify exemptions to 10 CFR 50 Appendix J. The exemptions for MSIV leak rate testing (CTS 4.7.A.2.f.3) and containment air lock leak rate testing (CTS 4.7.A.2.f.5) are addressed in ITS SR 3.6.1.3.10, ITS SR 3.6.1.2.1 and their associated Bases, respectively. See Item Number 3.6.1.2-3 for further concerns with regard to the air lock exemption. The exemptions for CTS 4.7.A.2.c.2 (ILRT frequency extension of up to 8 months) and CTS 4.7.A.2.f.4 (main steam line and feedwater line expansion bellows leakage testing) do not seem to be retained in the ITS or its associated Bases, except for the phrase in ITS SR 3.6.1.1.1 "in accordance with 10 CFR 50 Appendix J, as modified by approved exemptions." Justification A.4 implies that all the exemptions are to be retained.	Provide additional discussion and justification to verify that the Appendix J exemptions specified in CTS 4.7.A.2.c.2 and 4.7.A.2.f.4 are still valid exemptions at CNS and to which licensee controlled document they have been relocated.	
NPPD Response: NPPD will indicate all of the exemptions to Appendix J, which are still current in the CNS CTS, in DOC LA.1 for ITS 3.6.1.1, which justifies relocating them to the CNS USAR.					
4	A.5		CTS 3/4 7.A Justification A.5 indicates that a CTS requirement is moved to ITS 3.6.4.3, but does not identify the requirement nor the CTS location. CTS Sections 3/4.7.A.1 through 3/4.7.A.5 do not show requirements that are moved to ITS 3.6.4.3.	Correct this discrepancy.	
NPPD Response: NPPD has determined that DOC A.5 for ITS 3.6.1.1 is not used in any of the CTS markup pages for ITS 3.6.1.1. NPPD will delete DOC A.5 for ITS 3.6.1.1.					

3.6.1.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5		Bases 1	STS B3.6.1.1 Bases-APPLICABLE SAFETY ANALYSES ITS B3.6.1.1 Bases-APPLICABLE SAFETY ANALYSES STS B3.6.1.1 Bases-APPLICABLE SAFETY ANALYSES states: "Primary containment satisfies Criterion 3 of the NRC Policy Statement." ITS B3.6.1.1 Bases-APPLICABLE SAFETY ANALYSES changes this by deleting "NRC Policy Statement" and replacing it with "Reference 4." Ref. 4 is 10 CFR 50.36(c)(2)(ii). A similar change is made in all other sections of ITS B3.6. This change is incorrect; The Bases must be able to stand alone, references only provide supplemental information. Therefore, the correct change should replace "NRC Policy Statement" with "10 CFR 50.36(c)(2)(ii)". Reference 4 in the references may be retained if desired.	Revise the statement accordingly.	

NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions.

The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.

6		Bases 1	STS B3.6.1.1 Bases - SR 3.6.1.1.1 ITS B3.6.1.1 Bases - SR 3.6.1.1.1 STS B3.6.1.1 Bases SR 3.6.1.1.1 states that failure to meet various other STS SR 3.6.1.x.x's does not necessarily result in failure of STS SR 3.6.1.1.1. ITS B3.6.1.1 Bases-SR 3.6.1.1.1 deletes all STS SR 3.6.1.x.x's except STS/ITS SR 3.6.1.2.1. The total deletion of the other SR 3.6.1.x.x's is incorrect. STS SR 3.6.1.2.13 MSIV leakage is retained in the ITS as ITS SR 3.6.1.3.10.	Correct the ITS markup to include ITS SR 3.6.1.3.10 in the discussion of ITS B3.6.1.1 Bases - SR 3.6.1.1.1.	

NPPD Response: CNS CTS 4.7.A.f.1 states that the total acceptable leakage for all valves and penetrations other than MSIVs is 0.60 L_a. CTS 4.7.A.f.3 provides separate leakage rate limits and test pressure for MSIVs. Therefore, since MSIV leakage at CNS cannot impact the ability to meet proposed ITS SR 3.6.1.1.1, NPPD will revise the statement in the ITS Bases, that failure to meet MSIV leakage does not necessarily result in failure of SR 3.6.1.1.1 (primary containment leakage), to reflect the CNS current licensing basis in CTS 4.7.A.f.1.

3.6.1.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.2 A.5 A.13		CTS 1.0.P.2 CTS 3.7.A.2.a ITS B3.6.1.1 Bases - BACKGROUND ITS B3.6.1.2 Bases-LCO CTS 1.0.P defines Primary Containment Integrity. A markup of CTS 1.0.P is provided in the CTS markup of ITS 1.0, but not in the CTS markup of ITS 3.6.1.2. Justification A.2 in the CTS markup of ITS 3.6.1.2 and justification A.13 in the CTS markup of ITS 1.0 both state that the definition of Primary Containment Integrity is deleted from the ITS. This is incorrect. The details of the definition with regard to CTS 1.0.P.2 are relocated to ITS B3.6.1.1 Bases-BACKGROUND, ITS 3.6.1.2 ACTIONS, ITS SR 3.6.1.2.1 Note, and ITS B3.6.1.2 Bases which are Administrative and Less Restrictive (LA) changes. See Item Number 3.6.1.2-7.	Revise the CTS markup of ITS 3.6.1.2 to include a markup of CTS 1.0.P.2 and provide additional discussion and justification for the Administrative and Less Restrictive (LA) changes of relocating the airlock details of the definition to ITS B3.6.1.1, ITS 3.6.1.2, and ITS B3.6.1.2.	
NPPD Response: NPPD will revise the CNS ITS submittal to address the comment.					
2	A.4		CTS 4.7.A.2.f.5 STS SR 3.6.1.2.1 and Associated Bases ITS SR 3.6.1.2.1 and Associated Bases See Item Number 3.6.1.1-2.	Licensee to consider updating ITS SR 3.6.1.2.1 Notes and Associated Bases to include those portions of the 11/2/95 letter and updated TSTF-52 when OG provides revision that are applicable to 10 CFR 50 Appendix J, Option A.	
NPPD Response: NPPD will not incorporate TSTF-52, since it was not approved at the time the CNS ITS was submitted and is still not yet approved.					

3.6.1.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	A.4		CTS 4.7.A.2.f.5 ITS SR 3.6.1.2.1 and Associated Bases CTS 4.7.A.2.f.5 specifies the leak rate testing for the Primary Containment Air Lock, which contains an exemption from 10 CFR 50 Appendix J Option A. While the specifics of the exemption are included in ITS SR 3.6.1.2.1, the details of the performance of the test are relocated to the ITS B3.6.1.2 Bases-SR 3.6.1.2.1. Justification A.4 does not address this relocation of details to the Bases.	Provide additional discussion and justification for this relocation of details.	
NPPD Response: NPPD provided the justification for moving the details of performing the test to the Bases of ITS 3.6.1.2 in DOC LA.1 for ITS 3.6.1.2. NPPD will revise the CTS markup for CTS 4.7.A.2.f.5 to reflect the LA.1 annotation instead of the A.4 annotation.					
4	A.4	3	CTS 4.7.A.2.f.5 ITS SR 3.6.1.2.1 ITS SR 3.6.1.2.1.b specifies an overall air lock leakage rate of $\leq$ 0.23 scfh when tested at $\geq$ 3 psig. CTS 4.7.A.2.f.5 does not specify a leakage rate for the 3 psig air lock leakage test. However, CTS 4.7.A.2.f.5 does state that for test pressures less than 58 psig, the leakage is adjusted to the equivalent value at 58 psig. No discussion or justification is provided to show from where the 0.23 scfh leakage rate came.	Provide additional discussion and justification to show that the 0.23 scfh leakage rate is based on current licensing basis.	
NPPD Response: NPPD will provide a More Restrictive DOC for the change.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.2 , Primary Containment Air Lock

3.6.1.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5	M.1		STS SR 3.6.1.2.2 ITS SR 3.6.1.2.2 and Associated Bases STS SR 3.6.1.2.2 verifies that only one door in the air lock can be opened at a time on a frequency of 184 days. TSTF-17 modifies STS SR 3.6.1.2.2 and associated Bases by deleting the Note and changing the frequency to 24 months. ITS SR 3.6.1.2.2 and its associated Bases implement TSTF-17; however, the SR frequency and Bases changes are not in accordance with TSTF-17.	Licensee to update submittal to be in accordance with TSTF-17 or provide additional justification for the deviations based on current licensing basis, system design or operational constraints.	
NPPD Response: NPPD will revise the CNS ITS submittal to reflect the NRC approved version of TSTF-17.					
6			CTS 3.7.A.2.a ITS 3.6.1.2 Action A Justification L.2 states the following: "Proposed ITS 3.6.1.2 ACTION A is proposed to be added to CTS 3.7.1.2...". There is no CTS 3.7.1.2 in the CTS markup.	Correct this discrepancy.	
NPPD Response: NPPD will revise DOC L.2 for ITS 3.6.1.2, from "CTS 3.7.1.2" to "CTS 3.7.A.2."					

3.6.1.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
7	L.2		CTS 1.0.P.2 CTS 3.7.A.2.a ITS 3.6.1.2 ACTION A CTS 3.7.A.2 requires containment integrity. The CTS definition of containment integrity (CATS 1.0.P.2) requires at least one OPERABLE air lock door. ITS 3.6.1.2 ACTION A is added to provide Required Actions when one air lock door is inoperable. The justification for this change (L.2) is classified as Less Restrictive. However, this change adds Required Actions where none were required by the CTS and is, therefore, More Restrictive.	Reclassify this change as More Restrictive and provide additional discussion and justification as appropriate.	
NPPD Response: While the CTS definition of Primary Containment Integrity only requires one door in the airlock to be closed and sealed, CTS 4.7.A.2.f.5 requires testing of the airlock, not just one door. CTS 1.0Y states that performance of a Surveillance Requirement within the specified time interval shall constitute compliance with the operability requirements of an LCO. Therefore, some action is required if one of the airlock doors is found to be inoperable. Since no action is currently specified for this condition, NPPD considers the addition of ITS 3.6.1.2 ACTION A to be a Less Restrictive change, not More Restrictive.					
8		Bases 1	ITS B3.6.1.2 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.1.2 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.3, Primary Containment Isolation Valves (PCIVs)

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.4	3 Bases 3 Bases 6	CTS 3.7.A.2.b STS SR 3.6.1.3.2 Note 2 ITS SR 3.6.1.3.1 and Associated Bases CTS 3.7.A.2.b allows the Drywell and Suppression Chamber Purge and Vent Systems to be in operation with the 24 inch supply and exhaust valves open provided that if venting and purging is through the Standby Gas Treatment (SGT) System, both SGT trains shall be OPERABLE and only one SGT train shall be in operation. This condition is not applicable provided the 2 inch bypass lines are used. Note 2 to STS SR 3.6.1.3.2 is modified in the ITS to address this requirement. The Note in ITS SR 3.6.1.3.1 as proposed does not meet the intent of the CTS requirements. It would allow venting and purging to continue with one SGT subsystem inoperable. This is unacceptable. In addition, the justification (3) used to add the Note justifies deleting purge valve leakage limit SRs not the adding of this Note. See Item Numbers 3.6.1.3.2 and 3.6.4.3-8.	Revise the ITS markup of ITS SR 3.6.1.3.1 Note 2 to reflect CTS 3.7.A.2.b requirements. Provide additional discussion and justification as necessary for this change. See Item Numbers 3.6.1.3-2 and 3.6.4.3-8.	

NPPD Response: NPPD will revise the Note to ITS SR 3.6.1.3.1 to reflect that two SGT subsystems must also be OPERABLE when the purge and vent valves are open. In addition, NPPD will provide a new JFD for this change. The JFD will discuss the change as being made to reflect the current licensing basis in CTS 3.7.A.2.b.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.3, Primary Containment Isolation Valves (PCIVs)

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2	A.4	3 Bases 3 Bases 6	CTS 3.7.A.2.b ITS 3.6.1.3 ACTIONS ITS SR 3.6.1.3.1 ITS 3.6.4.3 ACTIONS Because of the plant specific requirements associated with CTS 3.7.A.2.b, a Note has been added to ITS SR 3.6.1.3.1 (See Item Number 3.6.1.3-1.) and the staff proposes ACTIONS be included in ITS 3.6.4.3 with regard these requirements (See Item Number 3.6.4.3-8). Consideration should also be given to adding appropriate Conditions, Required Actions and Completion Times to ITS 3.6.13 to supplement the proposed staff requirements of ITS 3.6.4.3 ACTIONS.	Revise the ITS 3.6.1.3 ACTIONS as necessary and provide the appropriate discussions and justifications. See Item Number 3.6.4.3-8.	
NPPD Response: NPPD believes that, with the revision to the Note to ITS SR 3.6.1.3.1 discussed in the response above, it is not necessary to provide the suggested actions. Not including the suggested actions is equivalent to the approach used in the NUREG-1433 Note 2 to SR 3.6.1.3.2 (i.e, if the affected purge valves are open for reasons other than described in Note 2, SR 3.6.1.3.2 would not be met and purging must be immediately suspended, or compliance with the provisions of Note 2 must be immediately obtained, or LCO 3.0.3 would have to be entered.)					
3	A.13 M.7		CTS 1.0.P.1 CTS 1.0.P.3 CTS 1.0.P.4 ITS 3.6.1.3 - SRs and Associated Bases CTS 1.0.P defines Primary Containment Integrity. A markup of CTS 1.0.P is provided in the CTS markup of ITS 1.0, but not in the CTS markup of ITS 3.6.1.3. Justification A.13 in the CTS markup of ITS 1.0 states that the definition of Primary Containment Integrity is deleted from the ITS. This is incorrect. The details of the definition with regards to CTS 1.0.P.1, 1.0.P.3 and 1.0.P.4 are relocated to ITS B3.6.1.3 Bases-BACKGROUND and to various ITS 3.6.1.3 SRs, which are Less Restrictive (LA)/Administration changes.	Revise the CTS markup of ITS 3.6.1.3 to include a markup of CTS 1.0.P.1, 1.0.P.3, and 1.0.P.4 and provide additional discussion and justification for the Administrative/Less Restrictive changes.	
NPPD Response: NPPD will revise the CNS ITS submittal to address the comment.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.3, Primary Containment Isolation Valves (PCIVs)

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
4	M.2	1 Bases 2	CTS 4.7.D.1.a ITS SR 3.6.1.3.5 and Associated Bases CTS 4.7.D.1.a requires verifying the closure time (isolation time) of the PCIVs on a frequency of once per operating cycle (18 months). ITS SR 3.6.1.3.5 will perform this requirement in accordance with the in service Testing Program (IST). This change in frequency is based on the fact that the IST program requires testing of some PCIVs every quarter. Thus the change is considered More Restrictive. While the staff does not dispute some PCIVs may have to be tested for isolation times on a quarterly frequency, no mention is made in the justification (M.2) as to the isolation time test frequency for the balance of the PCIVs. Will the IST isolation time test frequencies for the balance of the PCIVs be less than once per operating cycle (18 months) (More Restrictive change), 18 months (Administrative change), or greater than 18 months (Less Restrictive)?	Provide additional discussion and justification for the IST isolation time frequency change for those PCIVs that are not tested on a quarterly frequency.	

NPPD Response: NPPD will determine the various isolation time (stroke time) testing frequencies for the other PCIVs (i.e., every Cold Shutdown that is scheduled to exceed a certain time period) and add these details to DOC M.2 for ITS 3.6.1.3.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.3, Primary Containment Isolation Valves (PCIVs)

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
4	M.2	1 Bases 2	CTS 4.7.D.1.a ITS SR 3.6.1.3.5 and Associated Bases CTS 4.7.D.1.a requires verifying the closure time (isolation time) of the PCIVs on a frequency of once per operating cycle (18 months). ITS SR 3.6.1.3.5 will perform this requirement in accordance with the in service Testing Program (IST). This change in frequency is based on the fact that the IST program requires testing of some PCIVs every quarter. Thus the change is considered More Restrictive. While the staff does not dispute that some PCIVs may have to be tested for isolation times on a quarterly frequency, no mention is made in the justification (M.2) as to the isolation time test frequency for the balance of the PCIVs. Will the IST isolation time test frequencies for the balance of the PCIVs be less than once per operating cycle (18 months) (More Restrictive change), 18 months (Administrative change), or greater than 18 months (Less Restrictive)?	Provide additional discussion and justification for the IST isolation time frequency change for those PCIVs that are not tested on a quarterly frequency.	

NPPD Response: NPPD will determine the various isolation time (stroke time) testing frequencies for the other PCIVs (i.e., every Cold Shutdown that is scheduled to exceed a certain time period) and add these details to DOC M.2 for ITS 3.6.1.3.

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5	M.6	6	CTS 3.7.D STS 3.6.1.3 ACTION I ITS 3.6.1.3 ACTION F ITS 3.6.1.3 ACTION F is proposed to be added to CTS 3.7.D in the event any RA and associated Completion Time cannot be met in MODES 4 and 5. STS 3.6.1.3 Condition I defines the acronym OPDRVs in Condition I. ITS 3.6.1.3 ACTION F removes the phrase "Operation with a potential for draining the reactor vessel (OPDRVs) from Condition F and places it in RA F.1 in place of "OPDRVs." The justification (M.6) states that the only OPDRVs that need to be suspended are those associated with the RHR Shutdown Cooling System. The justification does not provide adequate justification as to why ITS 3.6.1.3 ACTION F should not apply to the other OPDRVs implied by the justification. Since the RAs are connected by an "or" there is no guaranty that RA F.1 will be used for when the RHR valves are inoperable rather than RA F.2. While the staff considers the addition of ITS 3.6.1.3 ACTION F as acceptable, the staff has determined that the modifications made are a generic change which is beyond the scope of review for this conversion.	Delete this generic change.	

NPPD Response: NPPD revised Condition I to delete "or during operations with the potential for draining the reactor vessel (OPDRVS)." Condition I describes the applicability for required PCIV(s) in MODES or conditions other than MODES 1, 2, and 3. ITS 3.3.6.1 and ITS 3.6.1.3 require all PCIVS to be OPERABLE in MODES 1, 2, and 3, and the RHR shutdown cooling isolation valves to be OPERABLE during MODES 4 and 5. Therefore, NPPD made the change to Condition I to be consistent with the CNS ITS since the CNS ITS does not require PCIVs to be OPERABLE during OPDRVs. NUREG-1433 brackets Condition I. The NRC has not treated changes to bracketed information in the NUREGs as beyond-scope issues during past ITS conversion reviews. Therefore, NPPD does not view this change as generic. In addition, DOC M.6 for ITS 3.6.1.3 does not state that the only OPDRVs that need to be suspended are those associated with the RHR Shutdown Cooling System.

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
6	L.9	4 Bases 6	CTS 1.0.J. CTS 3.7.A.2.a CTS 4.7.A.2.f.3 STS 3.6.1.3 ACTION D and Associated Bases ITS 3.6.1.3 ACTION D and Associated Bases CTS 4.7.A.2.f.3 specifies the MSIV leakage limits while CTS 1.0.J and 3.7.A.2.a specify the remedial actions to take upon discovery of leakage rates exceeding specified limits. CTS 4.7.A.2.f.3 provide additional operability requirements, and remedial actions in which to complete the repairs and retests associated with CTS 4.7.2.f.3. ITS 3.6.1.3 Condition D changes STS 3.6.1.3 Condition D from "Secondary containment bypass leakage rate not within limit" to "One or more penetration flow paths with one or more MSIVs not within leakage limits." Based on STS B.3.6.1.3 Bases RA D.1 discussion, STS 3.6.1.3 Condition D includes both secondary containment and MSIV leakage. Therefore, the proposed change to Condition D is acceptable. However, the change of the Completion Time associated with RA D.1 from 4 hours to an ITS time of 8 hours is not adequately justified. The justification used is consistency with the Completion Time of RA A.1. The Completion Time associated with STS 3.6.1.3 RA D.1 takes into account the safety significance of containment leakage versus valve inoperability. Thus the STS Completion Time for leakage is less than the Completion Time for an inoperable MSIV. In addition, the staff finds this change to be generic and beyond the scope of review for a conversion.	Delete this generic change.	
NPPD Response: A generic change has been submitted to the NEI TSTF for processing.					

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STA
7		7 Bases 3	STS SR 3.6.1.3.2 and Associated Bases STS SR 3.6.1.3.15 and Associated Bases ITS SR 3.6.1.3.1 and Associated Bases ITS SR 3.6.1.3.11 and Associated Bases STS SR 3.6.1.3.2, SR 3.6.1.3.15 and their associated Bases refer to purge valves. In the same situation ITS SR 3.6.1.3.1, SR 3.6.1.3.11 and their associated Bases refer to purge and vent valves. The justification (7) is based on being consistent with similar guidance in other specifications and not on plant specific considerations. This justification is not applicable to this plant specific case.	Revise the submittal justification to justify the change based on plant special nomenclature.	
NPPD Response: NPPD will revise JFD 7 to also state that changes are also made to reflect plant specific nomenclature.					
8		Bases 1	ITS B3.6.1.3 Bases - RA C.1 and C.2 ITS B3.6.1.3 Bases - RA C.1 and C.2 adds a sentence to the second paragraph. The additional sentence is justified (Bases 1) on editorial clarification. The sentence does not clarify the paragraph and only repeats what is said in the first sentence of the paragraph.	Delete this change.	
NPPD Response: NPPD will delete the added sentence in the second paragraph of the proposed Bases for ITS 3.6.1.3 Required Actions C.1 and C.2.					

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
9		Bases 1	STS B3.6.1.3 Bases-RA C.1 and C.2 STS B3.6.1.3 Bases-SR 3.6.1.3.3 STS B3.6.1.3 Bases-SR 3.6.1.3.4 ITS B3.6.1.3 Bases-RA C.1 and C.2 ITS B3.6.1.3 Bases-SR 3.6.1.3.2 ITS B3.6.1.3 Bases-SR 3.6.1.3.3 ITS B3.6.1.3 Bases-RA C.1 and C.2 changes the STS B3.6.1.3 Bases-RA C.1 and C.2 words in the third paragraph from "valves and blind flanges" to "isolation devices." Likewise ITS B3.6.1.3 Bases for SR 3.6.1.3.2 and SR 3.6.1.3.3 changes the STS word "PCIV" to "isolation device" in numerous places. In the first case the word change to "isolation devices" was proposed in TSTF 196 which has been rejected by the staff. In the other case, the paragraphs and sentences that refer to "PCIVs" are discussing valves and not blind flanges. Therefore the correct terminology to use is the STS wording "PCIVs." Isolation devices refer to more than just PCIVs and blind flanges.	Delete these changes.	

NPPD Response: NPPD did not make these changes to be consistent with TSTF-196. Rather NPPD made the change to be consistent with similar statements in other portions of the Bases of NUREG-1433 STS 3.6.1.3. In the first case, the term "isolation devices" refers to the valves and blind flanges specified in ITS 3.6.1.3 Required Action C.1 similar to the manner in which the associated Bases addresses the valves and blind flanges in ITS 3.6.1.3 Required Action A.1. Since the Bases can not change the requirements of the Technical Specifications and the Technical Specifications still require the use of valves and blind flanges, the term "isolation devices" refers to those devices specified in the Technical Specifications. In the second case, if the Bases only refers to PCIVs (i.e., valves), this would mean that the associated Surveillance Requirements are only applicable to valves. This is incorrect, since the subject Technical Specification Surveillance Requirements are applicable to both valves and blind flanges, and the Bases cannot change Technical Specification requirements. Therefore, the term "isolation device" refers to both valves and blind flanges.

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
10		Bases 3	ITS B3.6.1.3 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.1.3 Bases -REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					
11		Bases 3	ITS SR 3.6.1.3.11 STS B3.6.1.3 Bases-LCO ITS B3.6.1.3 Bases-LCO ITS B3.6.1.3 Bases-LCO deletes the following STS B3.6.1.3 Bases-LCO sentence from the second paragraph: "The [18] inch purge valves must be maintained sealed closed [or blocked] to prevent full opening." Justification used (Bases 3) is a general addition/deletion justification, which is not applicable in this case. Because of ITS SR 3.6.1.3.11 the deleted statement is partially correct- that portion dealing with valve blockage. Therefore, the sentence should be retained in the following form: "The inch 24 inch purge and vent valve is blocked to prevent full opening."	Revise ITS B3.6.1.3 Bases-LCO as proposed to reflect ITS SR 3.6.1.3.11 and provide the appropriate discussion and justification.	
NPPD Response: NPPD will revise the affected Bases section to state, "The inboard 24 inch purge and vent valves are blocked to prevent full opening," and provide the appropriate discussion and justification.					

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
12		Bases 6	STS B3.6.1.3 Bases-SR 3.6.1.3.2 ITS B3.6.1.3 Bases-SR 3.6.1.3.1 The second and third sentences in STS B3.6.1.3 Bases-SR 3.6.1.3.2 state the following: "If a purge valve is open in violation of this SR, the valve is considered inoperable. If the inoperable valve is not otherwise known to have excessive leakage when closed, it is not considered to have leakage outside of limits." ITS B3.6.1.3 Bases-SR 3.6.1.3.1 deletes these sentences based on the justification (Bases 6) of changes made to the specification. This justification is inadequate, since no changes were made to ITS SR 3.6.1.3.1 which would justify these deletions.	Either delete this change or provide additional discussion and justification for this deletion based on current licensing basis, system design or operational constraints.	
NPPD Response: NPPD will add back the first of the two sentences discussed in this comment into the CNS ITS Bases. NPPD will provide an additional JFD for deleting the second of the two sentences. The JFD will say that the CNS CTS do not include individual purge and vent valve leakage limits.					
13		Bases 6	STS B3.6.1.3 Bases-SR 3.6.1.3.2 ITS B3.6.1.3 Bases-SR 3.6.1.3.1 The third sentence from the end of STS B3.6.1.3 Bases - SR 3.6.1.3.2 states the following: "The [18] inch purge valves are capable of closing in the environment following a LOCA." ITS B3.6.1.3 Bases - SR 3.6.1.3.1 deletes this sentence based on the justification (Bases 6) of changes made to the specification. No changes were made to ITS SR 3.6.1.3.1 which would require this change. In addition, changes made to the ITS B3.6.1.3 Bases-BACKGROUND and ITS SR 3.6.1.3.11 imply that the purge valves automatically close during or following a LOCA.	Delete this change or provide additional discussion and justification for this deletion based on current licensing basis, system design, or operational constraints.	
NPPD Response: While the purge valves are fully capable of closing in the environment following a LOCA, NPPD will provide additional justification and modify the affected portions of the Bases Background section and the Bases for SR 3.6.1.3.11 according to the current CNS licensing basis.					

3.6.1.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
14		Bases 6	STS SR 3.6.1.3.13 and Associated Bases ITS SR 3.6.1.3.10 and Associated Bases The Bases for STS SR 3.6.1.3.13 refers to a Note 1 while STS SR 3.6.1.3.13 does not show a Note. Therefore, the Bases discussion on the Note was deleted from the ITS SR 3.6.1.3.10. This is an error. The Note should be added to ITS SR 3.6.1.3.10 and the discussion retained in the Bases. This Note deals with leakage limit applicability and is associated with ITS 3.6.1.3 ACTIONS Note 4. Also, BWR 16 C.5 corrected this error. This error has been corrected by TSB-13	Add Note to ITS SR 3.6.1.3.13 and retain Bases description of Note. Provide additional justification and discussion to support this change.	

NPPD Response: ITS 3.6.1.3.10 verifies that the leakage rate of each main steam isolation valve is within the required limit. The main steam isolation valves are only required to be OPERABLE, in accordance with the Applicability of ITS 3.6.1.3, in MODES 1, 2, and 3. The additional Applicability in ITS 3.6.1.3, "When associated instrumentation is required to be OPERABLE per ITS 3.3.6.1, 'Primary Containment Isolation System Instrumentation,'" does not require main steam isolation valves to be OPERABLE in MODES or specified conditions other than MODES 1, 2, and 3. Therefore, the referenced Bases discussion and proposed addition of the Note to ITS SR 3.6.1.3.10 are not required to ensure proper interpretation of the requirement and the deletion of the referenced Bases discussion has no impact on safety. In addition, TSB-13 was not issued or approved at the time of the CNS ITS submittal. Therefore, per NRC guidance, the CNS ITS submittal does not need to include this generic change.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.4, Drywell Pressure

3.6.1.4	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		Bases 2	ITS B3.6.1.4 Bases - Applicable Safety Analyses ITS B3.6.1.4 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	

NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions.

The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.5, Drywell Air Temperature

3.6.1.5	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		Bases 1	ITS B3.6.1.5 Bases - APPLICABLE SAFETY ANALYES ITS B3.6.1.5 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	

NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated to all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions.

The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.6, Low-Low Set (LLS) Valves

3.6.1.6	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		Bases 1	ITS B3.6.1.6 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.1.6 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	

NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions.

The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.7, Reactor Building-to-Suppression Chamber Vacuum Breakers

3.6.1.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.2	2 Bases 6	CTS 4.7.A.3.a STS SR 3.6.1.7.2 ITS SR 3.6.1.7.2 and Associated Bases CATS 4.7.A.3.a and STS SR 3.6.1.7.2 required performing a functional test of the each vacuum breaker every 3 months/ 92 days respectively. ITS 3.6.1.7.2 requires this test in accordance with the IST Program. The justification states that the IST Program requires this test quarterly and therefore is equivalent. However while the IST program frequency is currently quarterly, there is no guaranty that it will remain quarterly. The staff deems this change to be generic and beyond the scope of review for this conversion.	Delete this generic change.	
NPPD Response: NPPD will revise the Frequency to be consistent with the CTS (i.e., 92 days).					

3.6.1.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2	L.1		CTS 3.7.A.3 ITS LCO 3.6.1.7 ITS 3.6.1.7 ACTIONS and Associated Bases CTS 3.7.A.3.a requires to OPERABLE suppression chamber-reactor building vacuum breakers. ITS LCO 3.6.1.7 requires each vacuum breaker be OPERABLE. Since there are a total of 4 reactor building-to-suppression chamber vacuum breakers this change increases the number required OPERABLE vacuum breakers from 2 to 4. CTS 3.7.A.3.b specifies the ACTIONS to be taken when one of the required two reactor building-to-suppression chamber vacuum breakers is inoperable. Thus the CTS allows plant operation with 2 vacuum breakers inoperable and no ACTIONS need to be taken until 3 vacuum breakers become inoperable. The addition of ITS 3.6.1.7 ACTIONS A through D require remedial actions be taken as soon as one out of the four vacuum breakers becomes inoperable. In addition, the justification (L.1) states that the CTS fails to make the distinction between loss of function and loss of redundancy and is therefore "unnecessarily conservative." The staff believes that the CTS is less conservative because of this lack of distinction. Thus, the changes associated with L.1 are More Restrictive changes rather than Less Restrictive changes.	Provide discussion and justification for this More Restrictive change.	

NPPD Response: CTS 3.7.A.3.a considers one vacuum breaker to consist of an air-actuated device and a self-actuated device. Therefore, the number of devices the Technical Specifications required OPERABLE is not increased, and NPPD does not consider the changes to be More Restrictive.

3.6.1.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3		Bases 1	STS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES STS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES states that the analytical methods and assumptions involving the reactor building-to-suppression chamber vacuum breakers in the accident analyses are referenced in the FSAR. ITS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES deletes this reference, and just says that the analytical methods and assumptions are used. The justification used to delete this reference is Bases 1, which is a general justification. The Bases needs to either describe the methods and assumptions used or provide a reference to where they can be found. The same change is made in ITS B3.6.1.8 Bases - APPLICABLE SAFETY ANALYSIS (See Item Number 3.6.1.8-5).	Either retain the STS wording or provide the required details in ITS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES. Provide additional discussion and justification as necessary.	
NPPD Response: NPPD will revise the Bases to describe the plant-specific methods and assumptions for CNS.					
4		Bases 1	ITS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.1.7 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.1.7, Reactor Building-to-Suppression Chamber Vacuum Breakers

3.6.1.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5		Bases 2	STS B3.6.1.7 Bases - LCO ITS B3.6.1.7 Bases - LCO ITS B3.6.1.7 Bases - LCO extensively modifies for enhanced clarity (Justification Bases 2) STS B3.6.1.7 Bases - LCO. The modifications do not provide enhanced clarity and are somewhat confusing. The staff would consider this extensive change as generic and beyond the scope of review for this conversion.	Delete this change.	
NPPD Response: NPPD will revise the subject ITS Bases wording to match the NUREG-1433 Bases, except will maintain the terms "vacuum breaker," instead of the NUREG-1433 Bases terms "butterfly valve," based on plant-specific nomenclature.					
6		Bases 4	STS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES STS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES specifies the five case that were considered in the safety analyses to determine the adequacy of the external vacuum breakers. ITS B3.6.1.7 Bases - APPLICABLE SAFETY ANALYSES deletes this information entirely. The justification (Bases 4) states that the appropriate analyses are in the UFSAR, and that the discussion in the Bases is not needed. This is incorrect. The discussion is needed in the Bases to provide a degree of understanding on how these technical concerns were addressed at CNS.	Either retain the STS wording, provide plant-specific wording, or appropriate plant specific references for each of the five STS cases or the plant-specific cases. Provide additional discussion and justification as necessary.	
NPPD Response: NPPD will revise the Bases to include any plant-specific cases analyzed for CNS.					

3.6.1.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
7		Bases 5	STS B3.6.1.7 Bases - APPLICABILITY ITS B3.6.1.7 Bases - APPLICABILITY STS B3.6.1.7 Bases - APPLICABILITY justifies the operability of the Reactor Building-to-Suppression Pool vacuum breakers in MODES 1, 2, and 3. Two conditions related to excessive negative pressure necessitate this MODE Applicability, an inadvertent actuation of the Suppression Pool Spray System and depressurization of the drywell. ITS B3.6.1.7 Bases APPLICABILITY states that depressurization of the drywell could occur due to inadvertent actuation of the Drywell Spray System. All mention of inadvertent actuation of the Suppression Pool Spray System has been deleted. The justification does not adequately address this deletion except to say that the major concern is a LOCA inside the drywell. The STS does not differentiate between the two conditions, since they are both of concern. In addition, if this is such a major concern why isn't a plant specific LCO proposed for the Drywell Spray System as was done with Browns Ferry ITS? The staff also considers this change to be a potential generic change. In addition, see Item Number S3.6.2.4-1.	Provide additional justification and discussion for this deletion based on current licensing bases, system design or operational constraints.	

NPPD Response: The typical vacuum breaker analyses for older BWR/4 plants only looked at a couple of worst-case conditions. Actuation of drywell spray following a LOCA is one of these conditions. Actuation of suppression pool spray has a very small impact and is not limiting. Also, as far as adding an LCO for Drywell Spray, NPPD does not credit this system with mitigation of any DBA or transient at CNS and, therefore, chooses not include it in the CNS ITS (See DOC R.1 for CTS 4.5.A.3.f). The proposed LCO would require the Drywell Spray System to be OPERABLE in order to actuate to mitigate the consequences of a LOCA. The LCO does nothing to preclude actuation of the system, which is actually better from a vacuum breaker calculation point of view.

3.6.1.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
8	None	None	CTS 3.7.A.3 ITS 3.6.1.7 and Associated Bases ITS 3.6.1.7 adds a Note to the ACTIONS stating that separate Condition entry is allowed for each line. The CTS does not contain this allowance. No discussion or justification is provided.	Provide discussion and justification for adding the ACTIONS Note.	
NPPD Response: NPPD will revise DOC L.1 for ITS 3.6.1.7 to address adding the Note to the Actions.					

Cooper Nuclear Station Improved TS Review Comments
CNS ITS 3.6.1.8, Suppression Chamber-to-Drywell Vacuum Breakers

3.6.1.8	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.4 LA.1		CTS 3.7.A.4.c CTS 4.7.A.4.d ITS SR 3.6.1.1.2 Justification A.4 states that CTS 3.7.A.4.c and 4.7.A.4.d are moved to ITS 3.6.1.1 as ITS SR 3.6.1.1.2. Justification LA.1 states that the details of CTS 3.7.A.4.c are moved to the Bases. CTS 4.7.A.4.d is marked in the CTS markup "Moved to ITS 3.6.1.1; A.4." CTS 3.7.A.4.c in the CTS markup is shown as deleted, with no designations or explanation as in CTS 4.7.A.4.d.	Correct these discrepancies.	
NPPD Response: NPPD will annotate CTS 3.7.A.4.c with both LA.1 and A.4.					
2		2	STS 3.6.1.8 RA A.1 ITS 3.6.1.8 RA A.1 ITS 3.6.1.8 RA A.1 makes editorial wording changes to corresponding portions of the STS. The justification is that editorial changes are made for consistency. The change is not consistent with other RAs, is considered generic, and beyond the scope of review for this conversion.	Delete this generic change.	
NPPD Response: NPPD will delete the word added to ISTS 3.6.1.8 Required Action A.1, annotated with JFD 2.					

3.6.1.8	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3		4	STS SR 3.6.1.8.1 ITS SR 3.6.1.8.1 and Associated Bases STS SR 3.6.1.8.1 requires the vacuum breakers be verified closed every 14 days and after any discharge or steam or any operation causing a vacuum breaker to open. ITS SR 3.6.1.6.1 deletes the second frequency (steam or operational opening). The justification (4) states that this frequency is not needed since ITS SR 3.0.1 would not be met and appropriate actions taken. The justification also states that if conditions exist for the vacuum breakers to be potentially opened, control room operators would be alerted to the possibility and would ensure the vacuum breakers were closed at the completion of the evolution. The SR frequency assures that this is done. Further justification for these frequencies/justifications is that they delay the entering into the appropriate actions based on statements made in the LCO Bases section (See Item Number 3.6.1.8-8). The staff has determined based on the justification that this is a generic change which is beyond the scope of review of a conversion.	Delete this generic change.	

NPPD Response: The CNS current licensing basis reflected in the CTS does not include requirements to verify the vacuum breakers are closed within 2 hours after any discharge of steam or any operation causing a vacuum breaker to open. CNS chooses to not include this conditional frequency in ITS SR 3.6.1.8.1.

3.6.1.8	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
4		5 Bases 5	STS 3.6.1.8.2 ITS 3.6.1.8.2 and Associated Bases STS SR 3.6.1.8.2 requires a functional test of the vacuum breakers within 12 hours of any discharge of steam into the suppression chamber and following any operation that causes the vacuum breaker to open. ITS SR 3.6.1.6.8.2 deletes these frequencies/conditions. The justification (5) quotes a memorandum from C. E. McCracken to C.I. Grimes, dated 9/8/92, providing the basis for the SR frequency. The staff determined that this was sufficient justification to retain the frequencies/conditions in Revision 1 to NUREG 1433. The licensee provides additional discussion for deleting these frequencies based on the NRC memorandum. Further justification for these frequencies/justifications is that they delay the entering into the appropriate actions based on statements made in the LCO Bases section (See Item Number 3.6.1.8-8). The staff has determined that this is a generic change which is beyond the scope of review for a conversion.	Delete this generic change.	
NPPD Response: The CNS current licensing basis reflected in the CTS do include requirements to periodically perform a functional test on the vacuum breakers. However, the CTS do not include requirements to perform functional tests within 12 hours of any discharge of steam into the suppression chamber and following any operation that causes the vacuum breakers to open. NPPD chooses to not include this conditional frequency in ITS SR 3.6.1.8.2.					
5		Bases 3	ITS B3.6.1.8 APPLICABLE SAFETY ANALYSES See Item Number 3.6.1.7-3.	See Item Number 3.6.1.7-3.	
NPPD Response: NPPD will revise the Bases to describe the plant-specific methods and assumptions for CNS.					

3.6.1.8	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
6		Bases 3	ITS B3.6.1.8 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.1.8 Bases - REFERENCES See Item. Number 3.6.1.1-5	See Item Number 3.6.1.1-5	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary					
7		Bases 4 Bases 6	ITS B3.6.1.8 Bases - APPLICABILITY See Item Numbers 3.6.1.7-7 and S3.6.2.4-1.	See Item Number 3.6.1.7-7 and S3.6.2.4.1	
NPPD Response: The typical vacuum breaker analyses for older BWR/4 plants only looked at a couple of worst-case conditions. Actuation of drywell spray following a LOCA is one of these conditions. Actuation of suppression pool spray has a very small impact and is not limiting. Also, as far as adding an LCO for Drywell Spray, NPPD does not credit this system with mitigation of any DBA or transient at CNS and, therefore, chooses not include it in the CNS ITS (See DOC R.1 for CTS 4.5.A.3.f). The proposed LCO would require the Drywell Spray System to be OPERABLE in order to actuate to mitigate the consequences of a LOCA. The LCO does nothing to preclude actuation of the system, which is actually better from a vacuum breaker calculation point of view.					

3.6.1.8	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
8		Bases 5	STS B3.6.1.8 Bases - LCO ITS B3.6.1.8 Bases - LCO ITS SR 3.6.1.8.1 The LCO Bases for STS 3.6.1.8 requires the vacuum breakers to be closed except during testing or when performing their intended function. ITS B3.6.1.6 Bases LCO deletes the exception for "during testing or." ITS SR 3.6.1.6.1 verifies that the vacuum breakers are closed. ITS SR 3.6.1.6.1 has a Note associated with it that provides an exception during surveillance testing. The deletion of phrases "during testing or" from the LCO Bases section negates the Note. It should be noted that the same phrase is retained in ITS B3.6.1.7 Bases - LCO.	Return the words "during testing or" to the LCO Bases section.	
NPPD Response: NPPD will revise the LCO Bases section as suggested in the comment.					

3.6.2.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L.2	2 Bases 4	CTS 3.7.A.1.c CTS 3.7.A.1.d CTS 3.7.A.1.e STS LCO 3.6.2.1 STS 3.6.2.1 ACTIONS and Associated Bases ITS LCO 3.6.2.1 ITS 3.6.2.1 Condition A ITS 3.6.2.1 RA B.1 ITS 3.6.2.1 Condition C and Associated Bases CTS 3.7.A.1.c requires a maximum suppression pool temperature of 95°F during normal power operation. CTS 3.7.A.1.d requires a maximum suppression pool temperature of 105°F during testing which adds heat to the suppression pool. CTS 3.7.A.1.e scrams the reactor when the suppression pool temperature reaches 110°F. STS LCO 3.6.2.1.a requires a suppression pool average temperature be ≤ 95°F when any OPERABLE intermediate range monitor (IRM) channel is ≥ 25/40 divisions of full scale on Range 7, while STS LCOs 3.6.2.1.b and c require a suppression pool average temperature be ≤ 105° F when any IRM channel ≥ 25/40 divisions on Range 7 and ≤ 110°F when all IRM channels are ≤ 25/40 divisions on Range 7. ITS 3.6.2.1 changes the IRM criteria in both the LCO and ACTIONS to 1% RTP. Both STS B3.6.2.1 Bases-LCO and justification 2 state that 1% RTP is not readily quantified with much accuracy. However, the Bases states that 25/40 divisions of full scale on IRM Range 7 is a convenient measure of when reactor is providing power essentially equivalent to 1% RTP. Since 1% RTP cannot be readily quantified with much accuracy the STS specifies an acceptable means to determine this. Therefore, the staff finds the ITS change unacceptable and generic. See Item Number 3.6.2.1-3.	Delete this generic change. See Item Number 3.6.2.1-3.	

NPPD Response: NPPD has identified this change to the NRC Project Manager for CNS as a beyond-scope change and should be processed as such (i.e., provided to the NRC Containment Systems Branch for review).

3.6.2.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2	L.3		CTS 4.7.A.1.c CTS 4.7.A.1.c requires an external visual inspection of the suppression chamber whenever there is indication of relief valve operation with the local suppression pool temperature reaching 160°F or greater. L.3 states that ITS 3.6.2.1 does not retain this CTS requirement in accordance with NEDO-30832, "Elimination of Limit on BWR Suppression Pool Temperature for SRV Discharge with Quenchers," dated December 1984. The discussion and justification do not indicate if NEDO-30832 has been reviewed and approved by the staff. It also does not indicate its applicability to CNS. This item may be considered a beyond scope of review item for this conversion since its applicability to CNS may not have been approved by the staff.	Provide additional discussion and justification to show that NEDO-30832 has been reviewed and approved by the staff and its applicability and/or acceptance by the staff for use as CNS.	

NPPD Response: The SRV discharge quenchers were not part of the original design at CNS and were subsequently installed in 1980. CTS 4.7.A.1.c was included in the CNS CTS in 1975.

The requirements of NUREG-1433 (Revision 0 and Revision 1) were developed based on NEDC-31681, "BWR Owners' Group Improved BWR Technical Specifications," dated 1989. In Volume 4 (Standard Technical Specifications Comparison) to NEDC-31681, markups of Standard Technical Specifications (NUREG-0123) and discussions were provided. NUREG-0123 surveillance 4.6.2.1.c required performing an external visual examination of the suppression chamber after safety/relief valve operation with the suppression chamber average water temperature greater than or equal to 160°F and the reactor coolant system pressure greater than 200 psig. This requirement was deleted from the NUREG-0123 during the conversion to NUREG-1433. The basis for this deletion, as discussed in NEDC-31681, is that NEDO-30382, "Elimination of Limit on BWR Suppression Pool Temperature of SRV Discharge with Quenchers," dated December 1984 demonstrated that there were no undue loads on the suppression pool or its components from SRV discharges through quenchers at elevated pressures and temperatures and therefore there was no need to perform this visual examination. CTS 4.7.A.1.c requires an equivalent visual inspection and was put in place during the original licensing of CNS. The CNS SRV discharge lines did not have installed quencher devices when the plant was originally licensed. Therefore, this change is considered to be part of the ITS conversion and should be processed as such.

3.6.2.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3		2 Bases 4	CTS 3.7.A.1.c CTS 3.7.A.1.d CTS 3.7.A.1.e ITS LCO 3.6.2.1 ITS 3.6.2.1 ACTIONS A, B, and C and Associated Bases CTS 3.7.A.1.c requires a maximum suppression pool temperature of 95°F during normal power operation. CTS 3.7.A.1.d requires a maximum suppression pool temperature of 105° during testing which adds heat to the suppression pool. CTS 3.7.A.1.e scrams the reactor when the suppression pool temperature reacher 110°F. ITS LCO 3.6.2.1.a requires suppression pool average temperature is ≤ 95°F with THERMAL POWER ≥ 1% RTP and performing no testing that adds heat to the suppression pool. ITS LCO 3.6.2.1.b requires suppression pool average temperature ≤ 105°F with THERMAL POWER ≥ 1% RTP and testing that adds heat to the suppression pool. ITS LCO 3.6.2.1.c requires the suppression pool average temperature ≤ 110° F with Thermal Power ≤ 1% RTP. Adding a specific THERMAL POWER level limits to these CTS LCOs is a Less Restrictive change and was not discussed and justified. See Item Number 3.6.2.1-1.	Provide additional discussion and justification for this Less Restrictive change. See Item Number 3.6.2.1-1.	
NPPD Response: NPPD has identified this change to the NRC Project Manager for CNS as a beyond-scope change and should be processed as such (i.e., provided to the NRC Containment Systems Branch for review).					
4		Bases 3	ITS 3.6.2.1 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.2.1 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					

3.6.2.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5		Bases 5	STS B3.6.2.1 Bases - RA D.1.D.2 and D.3 ITS B3.6.2.1 Bases - RA D.1, D.2 and D.3 STS B3.6.2.1 Bases - RA D.1, D.2 and D.3 states the following: "Given the high suppression pool average temperature in this Condition..." ITS B3.6.2.1 Bases - D.1, D.2, and D.3 decapitalizes the "C" in "Condition" and justifies it as a typographical error. This is incorrect. The condition referred to is Condition D. Therefore, it should be "Condition" rather than "condition."	Correct this discrepancy.	
NPPD Response: NPPD will delete this change in a revision to the CNS ITS submittal. However, note that the NUREG-1433 Bases are inconsistent in the treatment of this term. This same term used in the same manner was found to be both "Condition" and "condition" in the various Bases sections.					
6			CTS 3.7.1.c,d,e, and f. ITS LCO 3.6.2.1 ITS 3.6.2.1 ACTIONS A, C, D, and E CTS 3.7.1.c, d, e, and f specify temperature limits that are expressed as "temperature" without specifying whether the temperature is an average for the suppression pool or a single temperature measurement. ITS LCO 3.6.2.1 and ACTIONS 3.6.2.1 A, C, D, and E specify the temperature limits as "average temperature." No discussion or justification is provided to indicate that the CTS and ITS are equivalent.	Provide additional discussion and justification regarding whether the CTS and ITS are equivalent in how temperature limits are specified.	
NPPD Response: NPPD will write an A DOC stating that the change is consistent with current CNS plant practice.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.2.2, Suppression Pool Water Level

3.6.2.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.2 L.1		CTS 3.7.A.1 ITS 3.5.2 CTS 3.7.A.1 specifies that at any time the nuclear system is pressurized or work is being done which has the potential to drain the vessel (OPDRVs) the suppression pool water level shall be within limits except as specified in CTS 3.5.F.5. The applicability that deals with OPDRVs has been moved to ITS 3.5.2 by justification A.2 which is acceptable. The exception for CTS 3.5.F.3 is also moved to ITS 3.5.2 but it is justified by an L.1. L.1 states that this is an Administrative Change that deals with OPDRVs. The staff agrees that the change is Administrative not Less Restrictive and believes that justification A.2 is the appropriate change designation.	Revise the CTS markup to indicate that the change "except as specified in...and 3.5.f.5." is an Administrative change (A.2).	
NPPD Response: The elimination of the minimum suppression pool level requirements in MODES 4 and 5 is an Administrative change (since ITS 3.5.2 duplicates them). However, the elimination of the maximum suppression pool level requirements in MODES 4 and 5 is a Less Restrictive change and is more appropriately addressed in this section, since ITS 3.5.2 does not include limits on maximum suppression pool water level.					
2		Bases 3	ITS B3.6.2.2 Bases-APPLICABLE SAFETY ANALYSES ITS B3.6.2.2 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3 6.2.3, Residual Heat Removal (RHR) Suppression Pool Cooling

3.6.2.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	M.1	1 Bases 4	STS 3.6.2.3 ACTION B ITS 3.6.2.3 ACTIONS B and C and Associated Bases STS 3.6.2.3 ACTION B requires a shutdown if the RAs and associated Completion Times are not met and for two RHR Suppression Pool Cooling subsystems inoperable (loss of function). ITS 3.6.2.3 breaks STS 3.6.2.3 ACTION B up into two ACTIONS - ACTION B - two subsystems inoperable (loss of function) and ACTION C - RAs and Completion Times not met. ACTION B instead of requiring a shutdown per the STS, requires the restoration of one RHR subsystem to OPERABLE status within 8 hours. The justification used (1) provides a number of reasons to allow this change. In addition, other BWR/4 conversions have proposed this same change using the stated reasons as well as others. In all cases, the staff finds that total loss of RHR Suppression Pool Cooling requires an immediate shutdown. It is the staff's understanding that this change was submitted to the OGs as a TSTF and was rejected. Therefore, the change is unacceptable and is considered a generic change that is beyond the scope of review for this conversion.	Delete this generic change.	
NPPD Response: A generic change has been submitted to the NEI TSTF for processing. This change has not been rejected.					
2		Bases 2	ITS B3.6.2.3 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.2.3 Bases REFERENCES See Item Number 3.6.1.1-5.	See Item Number 3.6.1.1-5.	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.2.3, Residual Heat Removal (RHR) Suppression Pool Cooling

3.6.2.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3		Bases 3	STS B3.6.2.3 Bases - RA A.1 ITS B3.6.2.3 Bases RA A.1 STS B3.6.2.3 Bases - RA A.1 states the following: "In this Condition, the remaining RHR..." ITS B3.6.2.3 Bases-RA C.1 decapitalizes the letter "C" in "Condition". This is incorrect. The sentence is referring to Condition A; therefore, the "C" in "Condition" should be capitalized.	Correct this discrepancy.	
NPPD Response: NPPD will delete this change in a revision to the CNS ITS submittal. However, note that the NUREG-1433 Bases are inconsistent in the treatment of this term. This same term used in the same manner was found to be both "Condition" and "condition" in the various Bases sections.					
4		Bases 6	STS B3.6.2.3 Bases - SR3.6.2.3.2 ITS B3.6.2.3 Bases - SR 3.6.2.3.2 STS B3.6.2.3 Bases - SR 3.6.2.3.2 states that the inservice inspections of the RHR Pump trend performance. ITS B3.6.2.3 Bases - SR3.6.2.3.2 deletes the reference to performance trending. The justification states that the change is revised to be consistent with the specifications. This justification is inadequate and does not apply in this case.	Provide additional discussion and justification for this change.	
NPPD Response: The CNS IST Program does trend RHR pump performance. NPPD will revise the CNS ITS submittal to use the STS words.					
5		Bases 7	ITS B3.6.2.3 Bases - LCO A paragraph has been added to ITS B3.6.2.3 Bases-LCO which discusses RHR OPERABILITY in Mode 3 when below the actual RHR shutdown cooling permissive pressure. The justification used (Bases 7) states that the addition is an editorial change for clarity. The change is not an editorial clarity change, but a technical change. As such, the staff finds the change to be generic and beyond the scope of review for this conversion.	Delete this generic change.	
NPPD Response: NPPD will delete the subject phrases.					

S3.6.2.4	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	R.1	1 Bases 1	CTS 3/4.5.A STS 3.6.2.4 and Associated Bases CTS 3.5.A specifies the OPERABILITY requirements for the Core Spray and LPCI Systems. CTS 4.5.A.3 specifies the surveillance required to determine Drywell and Suppression Pool Spray System OPERABILITY - RHR pump tests (CTS 4.5.A.3.b and d) and air test of spray header (CTS 4.5.A.3.f). STS 3.6.2.4 specifies the OPERABILITY requirement for the RHR Suppression Pool Spray. ITS 3.6. does not include STS 3.6.2.4 based on the premise (R.1) that CTS 4.5.A.3.f does not meet the Criterion specified in 10 CFR 50.36(c)(2)(ii). This justification is incomplete in that it does not address the other aspects of the RHR Suppression Pool Spray System and Drywell Spray System encompassed by CTS 3/4.5.A. In addition, the staff has determined and stated in the Bases of STS B3.6.2.4 that the RHR Suppression Pool Spray System does meet Criterion 3 of 10 CFR 50.36(c)(2)(ii). Since this system was in the CTS and the staff determination is that it meets Criterion 3, this specification should be included in the ITS. However, STS 3.6.2.4 of NUREG-1433 may not be the appropriate TS in the CNS case, STS 3.6.1.7 "RHR Containment Spray System" of NUREG-1434 (BWR-6) may be the more appropriate TS to use. Also, consideration should be given to adding a separate LCO for Drywell Spray System. See Item Number 3.6.1.7-7.	Include CTS 3/4.5.A in ITS 3.6. Provide additional discussions and justifications for any changes made to the CTS/STS.	

NPPD Response: The NRC Staff's evaluation that concluded that RHR Suppression Pool Cooling System did meet Criterion 3 of 10 CFR 50.36(c)(2)(ii) was based on the fact that the BWRs included in the evaluation take credit for the system to mitigate the consequences of a DBA. In addition, the drywell and torus spray headers do not support the OPERABILITY of Core Spray or LPCI. Since drywell and torus spray are not credited with mitigating the consequences of DBA or transients at CNS and do not meet any of the other criteria in 10 CFR 50.36 (c)(2)(ii) at CNS, NPPD finds it inappropriate to include these requirements or add any other requirements related to the drywell and torus spray headers to the CNS ITS.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.3.1, Primary Containment Oxygen Concentration

3.6.3.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		1 Bases 4	STS 3.6.3.3 ITS 3.6.3.1 The change in numbering from STS 3.6.3.3 (Primary Containment Oxygen Concentration) to ITS 3.6.3.1 will depend on the resolution of Item Number S3.6.3.2-1	See Item Number S3.6.3.2-1.	
NPPD Response: No response required. NPPD considers this comment to be for internal NRC issue tracking purposes.					
2		Bases 1	STS B3.6.3.3 Bases - BACKGROUND ITS B3.6.3.3 Bases BACKGROUND STS B3.6.3.3 Bases - BACKGROUND references certain STS LCO one of which is STS LCO 3.6.3.2 "Drywell Cooling System Fans". The ITS deletes this reference based on the justification that STS 3.6.3.2 is not included in the CNS ITS. This deletion will depend on the resolution of Item Number S3.6.3.2-1.	See Item Number S3.6.3.2-1.	
NPPD Response: No response required. NPPD considers this comment to be for internal NRC issue tracking purposes.					
3		Bases 2	ITS B3.6.3.1 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.3.1 Bases - REFERENCES See Item Number 3.6.1.1-5.	See Item Number 3.6.1.1-5.	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					

Cooper Nuclear Station Improved TS Review Comments
STS 3.6.3.2, Drywell Cooling System Fans

S3.6.3.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		1 Bases 1	STS 3.6.3.2 and Associated Bases STS 3.6.3.2 specifies the requirements and surveillances for Drywell Cooling System Fans. The ITS does not contain this specification. The justification (1) used states that CNS does not assume Drywell Cooling System Fans are available to assure adequate mixing. STS B3.6.3.2 Bases APPLICABLE SAFETY ANALYSES states that even though no credit for mechanical mixing is assumed in the analysis, the system does meet Criterion 3 of 10 CFR 50.36(c)(2)(ii), for other reasons.	Provide additional discussion and justification for this deletion based on current licensing bases, system design or operational constraints.	

NPPD Response: The Applicable Safety Analysis section of the Bases for ISTS 3.6.3.2, "[Drywell Cooling System Fans]," says that the Drywell Cooling System provides the capability to reduce the local hydrogen concentration to approximately the bulk average concentration following a DBA. The Applicable Safety Analysis section of the ISTS Bases also says that the [Drywell Cooling System fans] are required to keep the drywell cool during MODES 1 and 2.

At CNS, the combustible gas control analysis does not assume drywell cooling fans operate to assure adequate mixing of the drywell of the drywell atmosphere. The requirement to maintain the drywell within the initial temperature assumptions of the primary containment analysis is adequately controlled by ITS 3.6.1.5, "Drywell Air Temperature." In addition, the CNS current licensing basis, as reflected in the CTS, does not include requirements for drywell cooling fan OPERABILITY. Therefore, consistent with the current licensing basis, NPPD will not include the requirements of ISTS 3.6.3.2 in the CNS ITS.

3.6.4.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.5 A.13 M.6	4 Bases 1 Bases 5	CTS 1.0.V ITS 3.6.4.1 CTS 3.7.C.1 ITS 3.6.4.2 CTS 3.7.B.1 ITS 3.6.4.3 CTS 1.0.V defines Secondary Containment Integrity. A markup of CTS 1.0.V is provided in the CTS markup of ITS 1.0, but not in the CTS markups of ITS 3.6.4.1, 3.6.4.2 and 3.6.4.3. Justification A.5 in the CTS markup of ITS 3.6.4.1 and 3.6.4.2 and justification A.13 in the CTS markup of ITS 1.0 both state that the definition of Secondary Containment Integrity is deleted from the ITS. This is incorrect. The details of the definition with regard to 1.0.V.1 is encompassed by ITS SR 3.6.4.1.3, 1.0.V.2 is encompassed by ITS LCO 3.6.4.3 and 1.0.V.3 is encompassed by ITS LCO 3.6.4.2, ITS SR 3.6.4.2.2 and ITS SR 3.6.4.2.3. These Administrative changes either have not been justified, or are characterized as More Restrictive changes. See Item Numbers 3.6.4.1-4, 3.6.4.2-2 and 3.6.4.3-2.	Revise the CTS markup of ITS 3.6.4.1, 3.6.4.2, and 3.6.4.3 to include a markup of CTS 1.0.V and provide additional discussion and justification for these Administrative changes. See Item Numbers 3.6.4.1-4, 3.6.4.2-2 and 3.6.4.3-2.	
NPPD Response: NPPD will revise the CNS ITS submittal to address the comment.					
2	M.4		CTS 3.7.C.1 CTS 3.7.C.1.e.b ITS 3.6.4.1 APPLICABILITY ITS 3.6.4.1 ACTION C Justification M.4 states that a new APPLICABILITY is proposed to be added to CTS 3.7.C.1 (ITS 3.6.4.1) and a corresponding Condition (ITS 3.6.4.1 Condition C) and Required Actions (ITS 3.6.4.1 RA C.3) for Operations with the Potential for Draining the Reactor Vessel (OPDRVs). The CTS markup does not show these changes and the M.4 change that is shown (CTS 3.7.C.1.e.b) has nothing to do with these changes. See Item Number 3.6.4.1-3.	Revise the CTS markup to include these More Restrictive changes. See Item Number 3.6.4.1-3.	
NPPD Response: On CTS markup page 2 of 2, NPPD will show the M.4 annotation applies to the term "OPDRVs" added in approximately the middle of the left hand margin of the page. NPPD will also revise DOC M.4 to appropriately use the acronym for proper communication.					

3.6.4.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	M.4		CTS 3.7.C.1.e.b ITS 3.6.4.1 RA C.1 Note CTS 3.7.C.1.e.b specifies the remedial actions for an inoperable secondary containment when moving irradiated fuel or during core alterations. A statement is provided in CTS 3.7.C.1.e.b that the provisions of CTS 1.0.J are not applicable. CTS 1.0.J is the shutdown requirement of the CNS TS. The CTS markup shows this as becoming ITS 3.6.4.1 RA C.1 Note "LCO 3.0.3 is not applicable" and is designated M.4. ITS LCO 3.0.3 and CTS 1.0.J are basically the same requirement. Thus the ITS 3.6.4.1RA C.1 Note and the CTS statement on 1.0.J are the same. Thus, the change is an Administrative change, rather than a More Restrictive change. See Item Number 3.6.4.1-2.	Revise the CTS markup to show this change as an Administrative change and provide discussion and justification for this Administrative change.	

NPPD Response: For movement of irradiated fuel in secondary containment during MODE 4 or 5, the change is Administrative. However, if irradiated fuel were moved in secondary containment during MODE 1, 2, or 3, then LCO 3.0.3 would apply. The clarification the Note provides is necessary because defaulting to ITS LCO 3.0.3 (during irradiated fuel assembly movement in MODE 1, 2, or 3) would require a reactor shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies when required components are inoperable. ITS LCO 3.0.3 is only applicable in MODE 1, 2, or 3. Therefore, once the unit has been placed in MODE 4 in accordance with ITS LCO 3.0.3, ITS LCO 3.0.3 is no longer applicable. ITS 3.6.4.1 Required Action C.1, which requires suspension of irradiated fuel movement, would then be applicable. However, the requirements of ITS LCO 3.0.3 would allow up to 37 hours to place the unit in MODE 4 (and as a result would allow up to 37 hours to suspend irradiated fuel movement). Therefore, with the unit in this Condition, the Note, "LCO 3.0.3 is not applicable," ensures there is no postponement of the actions for requiring immediate suspension of movement of irradiated fuel assemblies due to entry into ITS LCO 3.0.3 and the immediate placement of the unit in a condition of minimum risk, with respect to fuel handling activities during MODE 1, 2, or 3. Therefore, NPPD will provide an M DOC for this change.

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.4.1, Secondary Containment

3.6.4.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
4	M.6	4 Bases 1 Bases 5	CTS 1.0.V.1 STS SR 3.6.4.1.3 and Associated Bases ITS SR 3.6.4.1.3 and Associated Bases STS SR 3.6.4.1.3 verifies that the secondary containment access doors are closed except when it is being used for entry or exit, then at least one door shall be opened. ITS SR 3.6.4.1.2 and its associated Bases modifies STS SR 3.6.4.1.3 and its associated Bases based on CTS 1.0.V.1 and TSTF 18. TSTF 18 has been rejected by the staff.	Delete the TSTF 18 changes or provide additional discussion and justification for the deviations from the STS.	
NPPD Response: The reason for the changes in ITS 3.6.4.1.3 and the associated Bases is maintenance of the CNS current licensing basis reflected in the CTS definition of Secondary Containment Integrity (CTS 1.0V). NPPD does not choose to adopt the ISTS SR 3.6.4.1.3 requirement to maintain two doors closed in each secondary containment access opening. (The first full sentence in the Change/Difference section should end with "closed.")					
5	LA.2	ITS B3.6.4.3 Bases 1	CTS 4.7.C.1.c ITS B3.6.4.3 Bases - BACKGROUND CTS 4.7.C.1.c specifies details regarding wind conditions when verifying Secondary Containment integrity. These details (calm wind between 2 and 5 mph) are not included in ITS SR 3.6.4.1.4. The justification (LA.2) states that the design details are moved to the Bases for ITS 3.6.4.3. However, ITS B3.6.4.3 Bases - BACKGROUND states that wind conditions are "neutral wind conditions" which the staff defines as "0 mph," which is a Less Restrictive change.	Provide additional discussion and justification for this Less Restrictive change.	
NPPD Response: NPPD will revise the Bases to provide details similar to CTS 4.7.C.1, but to reflect the CNS USAR Section V-3.3.4 (ITS B3.6.4.3 Reference 2) definition of neutral wind conditions as >2 mph and <5 mph.					

3.6.4.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
6		Bases 3	ITS B3.6.4.1 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.4.1 Bases - REFERENCES See Item Number 3.6.1.1-5.	See Item Number 3.6.1.1-5.	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					
7		Bases 4	ITS B3.6.4.1 Bases - SR 3.6.4.1.1 The following statement is added to ITS B3.6.4.1 Bases - SR 3.6.4.1.1: "Momentary transients on the installed...failure to meet this SR." The justification used (Bases 4) to add this statement is an editorial clarity justification. This justification is inadequate for this technical change, which is not specified in the CTS.	Provide additional discussion and justification for this technical change.	
NPPD Response: NPPD will delete the subject phrase.					

3.6.4.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
8			CTS 3.7.C.1.e ITS 3.6.4.1 ACTION C CTS 3.7.C.1.e requires the restoration of secondary containment integrity within 4 hours or suspend fuel handling operations and core alterations. ITS 3.6.4.1 ACTION C requires the immediate suspension of fuel handling, core alterations and OPDRVs with no time is allowed to restore secondary containment. Thus ITS 3.6.4.1 ACTION C is More Restrictive than CTS 3.7.C.1.e. No discussion or justifications are provided for this More Restrictive change.	Provide a discussion and justification for this More Restrictive change.	
NPPD Response: NPPD will provide an M DOC for this change.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.4.2, Secondary Containment Isolation Valves (SCIVs)

3.6.4.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.4		CTS 3.7.C.1 ITS 3.6.4.2 ACTION Note 2 A new Note is proposed to be added to CTS 3.7.C.1 as proposed ITS 3.6.4.2 Note 2. Note 2 provides explicit instructions (separate Condition entry for each flow path) for the proper application of the ACTIONS for TS compliance. This change is classified as an Administrative change that is consistent with the intent of the CTS ACTIONS for inoperable secondary containment isolation valves. This justification is incorrect. The wording of CTS 3.7.C.1 and in particular CTS 3.7.C.1.e does not convey the implicit or explicit instructions to allow separate Condition entry for each secondary containment flow path. Thus the addition is considered as a Less Restrictive change.	Provide a discussion and justification for this Less Restrictive change.	
NPPD Response: NPPD will revise DOC L.2 for ITS 3.6.4.2 to address the addition of Note 2 to the ITS 3.6.4.2 ACTIONS.					
2	A.5 A.13 M.5		CTS 1.0.V.3 ITS SR 3.6.4.2.2 CTS 3.7.C.1 ITS SR 3.6.4.2.3 ITS LCO 3.6.4.2 See Item Number 3.6.4.1-1.	See Item Number 3.6.4.1-1.	
NPPD Response: NPPD will revise the CNS ITS submittal to address the comment.					

3.6.4.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3		Bases 1	ITS B3.6.4.2 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.4.2 Bases - REFERENCES See Item Number 3.6.1.1-5.	See Item Number 3.6.1-1-5.	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					
4		Bases 1	STS B3.6.4.2 Bases - APPLICABILITY ITS B3.6.4.2 Bases - APPLICABILITY The last sentence in STS B3.6.4.2 Bases - APPLICABILITY states the following: "Moving irradiated fuel assemblies in the [secondary] containment may also occur in MODES 1, 2, and 3." ITS B3.6.4.2 Bases - APPLICABILITY deletes this sentence and justifies the deletion on the basis of a plant specific nomenclature, etc. This is a just an inadequate justification, since the statement is a true statement.	Provide additional discussion and justification for this deletion based on current licensing basis, system design, or operational constraints.	
NPPD Response: NPPD will provide additional plant-specific justification in the JFD for the deletion.					

3.6.4.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5		Bases 4	STS B3.6.4.2 Bases - RA B.1 ITS B3.6.4.2 Bases - RA B.1 The last sentence of STS B3.6.4.2 Bases - RA B.1 states: "This clarifies that only Condition A is entered if one SCIV is inoperable in each of two penetrations." ITS B3.6.4.2 Bases -RA B.1 modifies the end of the sentence as follows: "...if only one SCIV is inoperable in multiple penetrations." The change is justified on the basis of enhanced editorial clarity. The staff concludes that the change does not clarify the sentence.	Delete the change.	
NPPD Response: As there are more than two penetrations with two SCIVs in them at CNS, NPPD will revise JFD 4 to also indicate this is plant-specific design.					
6		Bases 4	STS B3.6.4.2 Bases - SR 3.6.4.2.2 ITS B3.6.4.2 Bases - SR 3.6.4.2.2 The last sentence of STS B3.6.4.2 Bases - SR 3.6.4.2.2 states: "The isolation time and frequency of this SR are in accordance with the Inservice Testing Program..." ITS B3.6.4.2 Bases - SR 3.6.4.2.2 deletes the words "isolation time and" using the justification of editorial clarity/consistency. The deletion is unacceptable. The wording of the sentence assumes that the isolation times for the SCIVs are specified in the IST program. Therefore, the words must stay.	Retain the STS wording or provide plant specific wording specifying the location of the SCIVs isolation times. Provide additional discussion and justification as appropriate.	
NPPD Response: Since the CNS IST Program does include the isolation times of the automatic SCIVs, NPPD will revise the subject Bases statement to return to the words "isolation time and . . . are . . .."					

Nebraska Public Power District
Cooper Nuclear Station

STUDENT-TEXT

Lesson Title/Number:	Standby Gas Treatment `OR002-28-02
Computer ID Number:	C1280209.S
Revision Number:	9
Lesson Plans Associated with this Student Text:	COR002-28-02 (parent) COR002-28-01

Lesson Number: COR002-28-02	**Revision:** 09

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Figure 2	5
Figure 3	4
Figure 4	4
Figure 5	4

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References:

1. Technical Specifications
   a. Section 3.7.B, SGT System
   b. Section 3.7.C, Secondary Containment
   c. Section 3.10.E, SGT System

2. USAR
   a. Volume II, Section V, Subsection 3.3.4
   b. Volume III, Section VII, Subsection 17

3. Drawings
   a. BR2020, Reactor Building H&V
   b. BR2022, Primary Containment Cooling and N_2 Inerting
   c. BR2037, Standby Gas Treatment and Off Gas Filters
   d. BR3006, Auxiliary One Line Diagram
   e. BR3010, Vital One Line Diagram
   f. BR3030, Control Elementary Diagram
   g. BR3031, Control Elementary Diagram
   h. BR3036, Control Elementary Diagram
   i. BR3038, Control Elementary Diagram
   j. BR3039, Control Elementary Diagram
   k. BR3065, Control Elementary Diagram
   l. BR3405, Control Elementary Diagram
   m. GE791E271, HPCI
   n. GE791E256,Reactor Protection System
   o. GE791E266, Primary Containment Isolation System
   p. GE791E267, Process Radiation Monitoring System

4. Technical/Vendor Manuals
   CNS Number 0218, Standby Gas and Off Gas Filter Units

5. Procedures
   a. SOP 2.2.47, HVAC Reactor Building
   b. SOP 2.2.60, Primary Containment Cooling and Nitrogen Inerting System
   c. SOP 2.2.73, SGT System
   d. SOP 2.2.73A, SGT Valve Checklist

6. Others
   NEDC 93-089, Effect of Removing PC-AD-R-1C and SGT-CV-10CV on PC and SGT Systems

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STATION OPERATOR TERMINAL OBJECTIVE(S)

The operator will demonstrate an understanding of the Standby Gas Treatment (SGT) system's normal and abnormal operation, loads, interlocks and integrated plant functions. This terminal objective will also be evaluated during completion of the applicable Qualification Card(s)

STATION OPERATOR ENABLING OBJECTIVES

1 State the purpose of the Standby Gas Treatment system.

2 State the purpose of the following major components of the Standby Gas Treatment system.
- a Moisture separator
- b Rough prefilter
- c Electric air heating element
- d High efficiency inlet filter (HEPA)
- e Activated carbon iodine adsorber (charcoal filter)
- f High efficiency final filter
- g Fan

3 State the location of the major system components of the Standby Gas Treatment. *

4 Given a simplified diagram, correctly label all major system components.

5 Using the Standby Gas Treatment system P & ID's demonstrate the ability to physically trace the systems flowpaths. *

6 Demonstrate the ability to locate, in the plant, all local indications associated with the Standby Gas Treatment system. *

7 State how the following systems interrelate with the operation of the Standby Gas Treatment system.
- a Containment Isolation Control system
- b High Pressure Coolant Injection system
- c Plant Air system
- d MCC-K
- e MCC-S
- f Reactor Building Ventilation

* Component locations and the location of local indications/alarms may not be stated in this text. The ability of the individual to trace system flowpaths and state locations is implied. Specific instances may be covered in the lecture, plant tours and/or OJT.

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LICENSED OPERATOR TERMINAL OBJECTIVE(S)

The operator will demonstrate an understanding of the Standby Gas Treatment (SGT) system's normal and abnormal operation, design features, and interlocks, including analysis of and response to system casualties. This will be demonstrated by successful completion of scheduled written exams and simulator demonstrations, as applicable.

LICENSED OPERATOR ENABLING OBJECTIVES

1. Identify the Function(s) of the Standby Gas Treatment (SGT) system.

2 (C) Given condition(s) and/or parameters associated with the Standby Gas Treatment system, recognize and indicate those conditions which would be an entry condition into a Technical Specification Limiting Condition for operation action statement and/or which exceed a safety limit.

3 (C) Given a specific Technical Specification Limiting Condition for operation or Safety Limit associated with the Standby Gas Treatment system, identify the applicable basis for that Limiting Condition or Safety Limit.

4. Given a condition of the Standby Gas Treatment system, identify any alarm that should actuate.

5. Identify the relationships (physical and/or cause-effect) that exist between SGT and the system/components below.
   a. Reactor Building Ventilation system
   b. Primary Containment
   c. Secondary Containment
   d. HPCI
   e. ERP/Off Gas
   f. Process Radiation Monitoring system
   g. PCIS
   h. Plant Air system

6 (C) Indicate the electrical power supply to the following.
   a. System valves
   b. System fans and heaters
   c. Initiation logic

7 (C) Given a specific loss or malfunction of the Standby Gas Treatment system, analyze the situation and indicate the effect that the loss or malfunction would have on.
   a. Secondary Containment differential pressure
   b. Off-site release rate
   c. Primary Containment pressure
   d. Secondary Containment radiation/contamination levels

8 (C) Given plant and/or Standby Gas Treatment system conditions, apply the design features and/or interlocks that provide for the below listed items to determine the resultant condition of the system.
   a. Automatic system initiation
   b. Charcoal bed decay heat removal
   c. Moisture removal
   d. Radioactive particulate filtration
   e. Fission product gas removal/charcoal bed retention

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LICENSED OPERATOR ENABLING OBJECTIVES (Continued)

9 (C) Given plant and/or Standby Gas Treatment system condition, apply the below (listed) concepts as they are associated with the Standby Gas Treatment system and predict the resultant condition of the system
- a. Heat removal mechanisms
- b. Air operated valves operations

10 (C) Given a specific condition below, analyze the situation and indicate the effect that the condition would have on the Standby Gas Treatment system
- a. AC and DC power failures
- b. Process radiation monitoring failure
- c. RPS failure
- d. Plant Air system failures
- e. Deleted
- f. Deleted

11 (C) Given a specific precaution or limitation applicable to the operation of the SGT system, indicate the basis for and/or apply the precaution or limit

12 (C) Predict the consequences of the following conditions on the SGT system
- a. High/Low system flow
- b. High train temperature
- c. High train moisture content
- d. Fan trips

NOTE (C) denotes objectives identified for continuing training

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I. SYSTEM BRIEF DESCRIPTION

A. System Purpose

LO-01,5c
SO-01

1. With the Reactor Building isolated, the STANDBY GAS TREATMENT (**SGT**) system will reduce and maintain the Reactor Building at a negative pressure of at least 0.25 inches of water.

2. SGT processes atmosphere from the primary and secondary containment when high radiation levels required a system with a higher filtering capability than normal ventilation systems provide to limit the discharge of radionuclides to the environs.

3. SGT performs leak tests on the secondary containment to ensure secondary containment integrity.

B. Design Basis

SO-07a

1. Both SGT system trains start automatically in the event of a secondary containment isolation signal.

2. After both trains have started one train may be placed in standby mode. The standby train will restart automatically if the operating unit indicates "Low Flow."

3. Both trains may be controlled from the main Control Room.

4. In the event a train is being operated for test purposes, a secondary containment isolation signal will automatically select and start the other train. The signal will also provide the proper alignment of dampers in both trains.

5. Manual alignment will provide for decay heat removal from fission products deposited on either filter bank.

6. Gas temperatures, heater temperatures and overall filter bank pressure differential will be indicated and high values will be annunciated in the Main Control Room.

7. Low flow in the selected train, automatic transfer upon low flow in the selected train, or low flow in the standby train after automatic transfer due to failure of the selected train will be annunciated in the main Control Room.

C. Technical Specifications

LO-02,03

1. Section 3.7.B (SGT system)

2. Section 3.7.C (Secondary Containment)

3. Section 3.10.E (SGT system)

Fig 1 D. Systen. Componenis

SO-04 The SGT system is comprised of two identical filtration trains, each capable of 100% rated flow. The major components of the system are

1. Valves
2. Moisture separator
3. Rough prefilter
4. Electric air heating element
5. High Efficiency Inlet filter (also referred to as a High Efficiency Particulate Air (HEPA) filter)
6. Activated Carbon Iodine Adsorber (also called the charcoal filter)
7. High Efficiency Final filter (HEPA type)
8. Instrumentation
9. Fan
10. Discharge piping

Fig 2 E. Basic System Operation

1. During normal operations, the Standby Gas Treatment system (SGT) is aligned for standby operation. This system can then be started either manually or automatically

2. When started, the SGT can take a suction from one of four areas

   a. Reactor Building ventilation discharge plenum

   b. Primary Containment

   c. HIGH PRESSURE COOLANT INJECTION (**HPCI**) Turbine Gland Seal exhauster

   d. SGT room air

3. The quantity of airborne contaminants is reduced as the air passes through the train. This is accomplished by both mechanical filtration in the filters (both rough and HEPA type) and by chemical adsorption in the charcoal filter (iodine being the predominant isotope of concern)

   Each train is equipped with an electric air heating element, which reduces the relative humidity of the air prior to the charcoal filter, thus improving the efficiency of the charcoal filter.

   The motive force for the process is provided by a single stage vortex-type fan in each train. Either fan and filter train is capable of passing 100% of required flow. Air is transported through 10" underground discharge piping to an elevated release point (ERP) for release to the atmosphere.

LO-08a 4 Automatic Operation

a. Both trains will start on either high drywell pressure (≤ 2 psig), low reactor water level (≥ +4 5"), or high radiation in the Reactor Building exhaust plenum (≤ 100 mr/Hr)

b. Both of the fans start (if selected) and the valve line-up is established which will draw air from the Reactor Building, from both the ventilation exhaust plenum and SGT room air. Then discharge it to the elevated release point. The valve from Primary Containment opens to align it to SGT system suction

SO-07f c. With the system operating, Reactor Building pressure will be lowered to at least 0.25" of water vacuum

II. SYSTEM COMPONENTS

A. Valves

Fig 4 1. SGT 1A(1B) Inlet and Discharge valves for System A(B)

a. Inlet - AO-249 (250)

b. Discharge - AO-251 (252)

LO-09b,10a,d c. The valves are butterfly valves. These valves are normally closed, but they open whenever the associated fan is energized. Actual valve position indication is provided by two lights (green-closed, red-open) located next to their control switch on Panel K. The inlet and discharge valves will fail to their full open position (fail safe) on a loss of power or control air pressure, in order to allow for system operation should it be required.

LO-06a d. The power supply for AO-249 and AO-251 solenoids is CCP-1A. The power supply for AO-250 and AO-252 solenoids is CCP-1B.

2. SGT A (B) Dilution Air valve, AO-270 (271)

a. The purpose of these valves is to provide a method of removing decay heat from the system after operation.

LO-09b,10a,d b. The valves are butterfly valves. The valves are normally closed, but they open when an initiation signal is received. Indication of the actual valve position is provided by two lights (green-closed, red-open) located next to their control switch on Panel K. On a loss of power or control air pressure, these valves fail open (fail safe) to allow system operation if required.

c. The restricting orifice located upstream in this line is installed to limit flow.

d. The check valve located further upstream in this line prevents backflow from the SGT train to the room.

LO-06a

e. The power supply for AO-270 solenoid is CCP-1A. The power supply for AO-271 solenoid is CCP-1B.

Fig 4

3. SGT 1A(1B) Flow/Rx Bldg D/P Control valve, DPCV-546A(B)

a. The purpose of the valve is to maintain the proper negative pressure in the Reactor Building.

LO-09b

b. The valve is opened by spring force and closed by air pressure. The valve is controlled from Panel-K. The control switch has three positions, AUTO, E/P CONT, and OPEN.

c. When the control switch is in AUTO, with an initiation signal present, or in OPEN, control air is blocked and the valve is full open. When the control switches are in AUTO, without an initiation signal, or in E/P CONT, control air supply pressure to AO-546A(B) is provided via an electro-pneumatic converter (E/P-546). The converter receives an electrical control signal from Reactor Building SGT DP Controller HV-DPIC-835B. The output of HV-DPIC-835B maintains Reactor Building pressure at its tape setpoint by modulating valves AO-546A(B).

d. Normally the valve control switches are in AUTO and HV-DPIC-835B is in MANUAL set at 100% output to fully close the valves. This prevents the valves from continuously cycling when the systems are not in service.

e. Indication of actual valve position is provided by two lights (green-closed, red-open) located on Panel K.

LO-10a,d

f. On a loss of power or control air pressure AO-546A(B) fails to its full open positions.

LO-06a

g. The power supply for AO-546A(B) solenoid is CCP-1A (1B).

Fig 5

4. SGT Inlet damper from Reactor Building Exhaust plenum (AD-R-1C)

The purpose of this damper is to align the Reactor Building exhaust plenum to the SGT suction. This damper is disabled open.

5. SGT valve lineup from the Primary Containment exhaust ventilation line to the Reactor Building exhaust ventilation plenum utilizes dampers AD-R-1A & AD-R-1B.

a. AD-R-1A is the Exhaust Damper from Primary Containment to the Reactor Building Exhaust Plenum.

b. AD-R-1B is the SGT Inlet Damper from Primary Containment.

c. The purpose of these valves is to stop the flow of air from the primary containment to the Reactor Building exhaust plenum and to redirect that flow to the suction of the SGT system.

NOTE: The Reactor Building exhaust plenum high radiation trip input to SGT is based on a fuel handling accident. A high radiation condition could also arise from improper venting of primary containment.

LO-09b SO-07a		d.	When the PCIS Group 6 is initiated, both SGT trains initiate. AD-R-1A shuts to secure flow to the Reactor Building exhaust plenum and AD-R-1B opens to align the SGT system to the primary containment exhaust ventilation line.
LO-10a,d		e.	AD-R-1A will fail closed and AD-R-1B will fail open (fail safe) on a loss of power or control air pressure.
LO-12a		f.	Maximum open position for AD-R-1B is blocked to limit travel to 50% open. This action was required to prevent backflow into the Reactor Building exhaust plenum during operations of high flow rates from primary containment (i.e., during de-inerting to SGT through the 24" valves).
LO-06a		g.	The power supply for AD-R-1A and AD-R-B solenoids is CCP-1A.
Fig 5	6.	HPCI gland seal condenser exhaust valve (HPCI-AO-275).	
SO-07b		a.	The purpose of this valve is to align the discharge of the HPCI gland seal exhaust blower to the SGT train. Non-condensible gases collected in the HPCI gland seal exhaust condenser are then vented off through the filtered flowpath.
		b.	This valve is normally closed, but it opens on interlock when the HPCI gland seal exhaust blower is energized. This valve fails closed on a loss of power or control air pressure.
Fig 2	7.	Cross-Connect valve (49).	
LO-08b,9a		a.	The purpose of this valve is to provide cooling air flow to remove the decay heat from the charcoal filter of the train which has been secured after service.
		b.	The valve is manually positioned to maintain a flow rate of ~240 cfm (acceptable range 180 to 280 cfm). When one of the two filter trains is secured, the operating train draws a small amount of air through the room air valve of the secured train, through the cross-connect valve and is routed to the suction of the operating fan. In this way, decay heat is removed from the secured train.
LO-08c		c.	During a DBA LOCA with concurrent loss of offsite power and single failure of AC power, air operated solenoid valves will fail open. A mechanical stop limits the manual opening of the valve to limit the flow that can bypass the operating train.
Fig 2 LO-09b,11	8.	SGT 1A(1B) Bypass valve (AO-255/256).	
		a.	These valves are normally locked close, and have no automatic opening feature, to ensure proper operation of SGT system. They are operated by two-position, keylock switches located on Panel -K in the Control Room. The OPEN position on these switches is used only for surveillance testing.
LO-10a,d		b.	The filter train bypass valves will fail closed (fail safe) on a loss of power or control air pressure.

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LO-06a c. The power supply for AO-255(256) solenoid is CCP-1A (1B).

NOTE

The following six components constitute a filter train (Figure 3). The reader is reminded that the two parallel trains are identical and each is capable of passing 100% flow.

Fig 3 B. Moisture Separator

1. Purpose

LO-08c
SO-02a

The moisture separator removes entrained water droplets and mist from the airstream to prevent plugging of the high efficiency filter.

2. The separator is constructed of woven nylon mesh which traps the water droplets.

3. The removed water droplets drain to the Reactor Building equipment drain system via a "U" trap. The "U" trap (similar to that found in a household sink drain) permits continuous drainage but prevents contaminated air from entering the drain system or outside air from entering the filtration train.

Fig 3 C. Rough Prefilter

1. Purpose

LO-08d
SO-02b

The rough prefilter removes large particulate matter from the airstream, thus minimizing the plugging of the high efficiency filter.

2. The pressure drop across the rough prefilter acts upon differential pressure switch DPIS-531A(B). At 0.4" water D/P, an alarm ("SGT A[B] PREFILTER HIGH D/P") annunciates on Control Room Panel K, indicating that the prefilter needs replacing.

3. Temperature indicator TI-532A(B) provides Control Room indication of Prefilter 1A(1B) outlet temperature on Panel K.

Fig 3 D. Electric Air Heating Element

1. Purpose

LO-08c
SO-02c

The electric air heater raises the temperature of the airstream to reduce the relative humidity. The relative humidity will change from 100% to approximately 70%, if the air is drawn from a steam environment.

NOTE

Relative humidity is defined as the amount of moisture in air as compared to the amount that the air could contain at that temperature and pressure. Relative humidity is expressed as a percentage.

2. Each train has two 460V AC heating elements.

a. One 2.8 KW heater

b. One 5.0 KW heater

3. When airflow through the train is above 800 CFM and outlet temperature is below 170°F, heater operation is controlled using a 5-position switch on Panel K. Switch positions are:

a. OFF - power is secured to both heaters

b. LOW - power is supplied to the 2.8 KW only

c. MEDIUM - power is supplied to the 5.0 KW only

d. HIGH - power is supplied to both heaters

e. SPARE - not used

4. The moisture content of the air leaving the heater is indicated by MI-533A(B) on Control Room Panel K.

LO-12b

5. Heater trips

a. High air temperature. If airstream temperature reaches 170°F at the outlet of the heater, the heater control circuit will trip. The heater control circuit will automatically reset at 160°F.

b. Electrical overload. An overcurrent condition trips the supply breaker to that heating element.

c. Low airflow. If airflow through the train drops to less than 800 cfm, the heater control circuit will trip.

LO-06b
SO-07d,e

6. Power supplies

a. System A heaters are powered from MCC-K and System B heaters are powered from MCC-S.

b. For each train, there are two feeder breakers on its respective MCC. One breaker supplies the 2.8 KW heater while the other supplies the 5.0 KW heater.

c. Heater control power is 120V AC and is supplied from MCC-K(S).

Fig 3
LO-08d
SO-02d

E. High Efficiency Inlet Filter 1A-1(1B-1)

1. Purpose

The high efficiency inlet filter removes airborne particulates which are larger than 0.30 microns from the airstream.

2. The pressure drop across the filter acts upon differential pressure switch DPIS-534A(B). At 2.0" water DP, an alarm (SGT A[B] HEPA FILTER A1[B1] [HIGH DP) annunciates on Control Room Panel K, indicating that the filter needs replacing.

3. The efficiency of the filters is tested by using di-oc'' 'phthalate (DOP) smoke

Fig 3 F Activated Carbon Iodine Adsorber

1 Purpose

LO-08e
SO-02e

The adsorber element removes 99% of the iodine in the air stream for inlet conditions in which the influent has a relative humidity of less than 70%

2 Excessive moisture or organic materials (such as lubricants) will reduce the iodine adsorption capability of the charcoal filter if these are not previously removed by the demister, heater or filter. **Wet charcoal can also cause a smoldering fire in the charcoal bed as the moisture releases heat** when drying.

LO-12c

3 Alarms

a If the relative humidity of the airstream entering the charcoal filter rises to 70%, an alarm (SGT A(B) HIGH MOISTURE) annunciates on Control Room Panel K, indicating excessive influent moisture

b The pressure drop across the charcoal filter acts upon differential pressure switch DPIS-536A(B). At 2.0" water D/P, an alarm (SGT A[B] CARBON ADSORPTION FILTER HIGH D/P) annunciates on Control Room Panel K indicating the need to replace the charcoal filter

4 Indications

a Moisture indicator MI-535A(B) provides indication of the airstream moisture content entering the adsorber element on Control Room Panel K

b Temperature indicator TI-537A(B) provides Control Room indication of adsorber element outlet temperature on Control Room Panel K

5 Each train is equipped with sprinkler nozzles **from the fire protection system in the unlikely event of a fire. There is also** piping used for testing the efficiency of the charcoal filter. Freon is injected upstream of the adsorber element and a sample is drawn downstream of the fan. The quantity of freon removed indicates how effectively the adsorber element is performing

Fig 3 G High Efficiency Final Filter 1A-2(1B-2)

1 Purpose

LO-08d
SO-02f

The high efficiency final filter removes both carbon dust and particulate which may be carried from the charcoal filter. The filtering element is identical to that of the inlet filter

2 The pressure drop across the filter acts upon differential pressure switch DPIS-538A(B). At 2.0" water D/P, an alarm (SGT A[B] HEPA FILTER A2[B2] HIGH D/P) annunciates on Control Room Panel K indicating that the filter needs replacing

H Additional Instrumentation

LO-04.12b

1 The temperature of the airstream leaving the train is sensed by temperature switch TS-539A(B). At 200 F, an alarm (SGT A(B) OUTLET HIGH TEMPERATURE) annunciates on Control Room Panel K

NOTE: This condition may be attributable to malfunctioning heaters, decay heat from fission products or combustion of the charcoal. Operator action is required to determine and correct the cause of the high temperature.

2. Two instruments are provided which sense the pressure drop across the entire filter train.

   a. When differential pressure switch DPIS-543A(B) senses 10.0" water DP across the train, an alarm (SGT A[B] HIGH DP) annunciates on Control Room Panel K, indicating a malfunction of the fan vortex control.

   b. Differential pressure controller DPIC-543 utilizes the pressure drop across the train to generate a control air signal which is supplied to fan vortex control. Thus, the fan vortex is automatically adjusted to vary system flow rate.

Fig 1
LO-12d
SO-02g

I. Fans

1. Purpose - The fans provide the motive force for flow through the system.

2. They are located downstream of the process filter. This helps to minimize the contamination level of the fan, thereby facilitating maintenance.

3. The fan is controlled using a 4-position switch on Panel K. Indication of fan status is also provided on Panel K by two lights (green-off, red-on).

   a. OFF - power is secured to the fan.

   b. STANDBY - the standby fan starts when flow in the operating train drops below 800 CFM if:

      1) the fan control switch for the operating train is in RUN
      OR
      2) an auto initiation signal is present.

   c. AUTO - the fan remains off unless an initiation signal is received.

   d. RUN - power is supplied to the fan.

4. Ratings

   a. The fans rated flow is 1780 CFM.

   b. The fan motor is a 460V AC unit which is rated at 15 Hp.

LO-06b
SO-07d,e

5. Power for fan 1E in filter train 1 is supplied from MCC-K and power for fan 1F in filter train 2 is supplied from MCC-S.

6. Each fan is equipped with a Run Time Integrator which is used to monitor the run time for the fan (1E-R-1E/1F-R-1F). This integrator is energized whenever the SGT fan breaker is closed.

7. The fan is equipped with an air-operated variable vortex. System flow setpoint is adjustable using differential pressure controller DPIC-543, located on Panel K (see II.H.2).

Fig 2

J. Discharge Piping

1. Purpose - The discharge piping provides a shielded (underground) flowpath for transporting process effluent from the fan discharge to the elevated release point.

LO-12a

2. Total system flowrate is provided by a flow indicator (FI-545) located on the common discharge piping. This flow indicator also supplies an input to a dual alarm unit (high and low flow). When system flow is measured to be 1958 CFM and rising, a high alarm will annunciate on Panel K. A high alarm indicates a problem in the system. The high flow could be a leak in the discharge of the fan, a large gap in the filter train, or a controller that is wide open and not controlling D/P.

   A low flow alarm is actuated after a 15 second time delay when system flow is 1200 CFM and lowering if at least one of the following conditions also exist: reactor low water level, high drywell pressure, or high radiation in Reactor Building ventilation. A low flow may cause the buildup of airborne contamination in the area(s) being exhausted or the inability of the system to maintain the required D/P.

3. **An excessively high water level in Z sump at the base of the the ERP can cause a low system flow that will not clear by shifting fans. This would occur if water backed up into the underground piping creating a smaller opening and thus a larger back pressure on fan discharge. The annunciators and the sump pumps should control level to prevent this problem.**

4. The temperature of the airstream is indicated on Control Room Panel K by temperature indicator TI-547.

III. INSTRUMENTATION AND CONTROLS

A. Instrumentation

1. Control Room Instrumentation

Instrument/Location	Sensing Point/Type	Description
a. Prefilter 1A(1B) Outlet Temperature TI-532A(B), 50-300°F, Panel K	TE-532A(B)	Monitors the air temperature before the electric heaters
b. Heater 1A(1B) Outlet Moisture MI-533A(B), 20°-150°F dewpoint, Panel K	ME-533A(B)	Monitors the moisture content of the air leaving the heaters
c. SGT A(B) Hi-Eff. Filter Outlet Moisture, MI-535A(B), 20°-150°F dewpoint, Panel K	ME-535A(B)	Monitors the moisture content of the air entering the charcoal filter.
d. Carbon Filter Outlet Temperature TI-537A(B), 50°-300°F, Panel K	TE-537A(B)	Monitors the air temperature leaving the filter train and entering the fan.
e. SGT Discharge Header Temperature, TI-547, 50°-300°F, Panel K	TE-547	Monitors the air temperature leaving the fan and entering the discharge piping.

Instrument/Location	Sensing Point/Type	Description
f. SGT Discharge Header Flow FI-545, 0-30 (X100) SCFM, Panel K	FE-545	Monitors total system flow supplies flow plot PMIS PT N291
g. Reactor Building/Atmos D/P Recorder, HV-DPR-835 -0.5 to +0.5" H_2O, Panel R	dPT 835A(B)(C)(D)	Monitors the average Reactor Building to atmosphere dP
h. EF-R-1E Run Time Integrator SGT-TRM-EFRE , 0-99999.9 hours, Panel K	SGT-MOT-(EF-R-1E)	Monitors the run time for SGT Fan 1E
i. EF-R-1F Run Time Integrator SGT-TMR-EFRF, 0-99999.9 hours, Panel K	SGT-MOT-(EF-R-1F)	Monitors the run time for SGT Fan 1F

2 Local Instrumentation

Instrument/Range	Location	Additional Functions
a. SGT unit A(B) differential pressure indicator, DPIS-543A(B), 0-20" H_2O	SGT room	Provides alarm in Control Room at 10 inches of water dP
b. Prefilter 1A(1B) differential pressure indicator, DPIS-531A(B), 0-3" H_2O	SGT room	Provides alarm in Control Room at 0.4 inches of water dP
c. Prefilter 1A(1B) outlet temperature indicator, TI-2666A(B), 0-250°F	SGT room	
d. High Efficiency filter 1A-1(1B-1) differential pressure indicator DPIS-534A(B), 0-3" H_2O	SGT room	Provides alarm in Control Room at 2.0 inches of water dP
e. Unit 1A(1B) moisture indicator before charcoal filter, MI-2663A(B), 0-100%	SGT room	
f. Unit 1A(1B) Carbon Iodine Adsorber differential pressure indicator DPIS-536A(B), 0-3" H_2O	SGT room	Provides alarm in Control Room at 2.0 inches of water dP
g. Unit 1A(1B) Carbon Iodine Adsorber outlet temperature indicator TI-2667A(B), 0-250°F	SGT room	
h. High Efficiency filter 1A-2(1B-2) differential pressure indicator DPIS-538A(B), 0-3" H_2O	SGT room	Provides alarm in Control Room at 2.0 inches of water dP
i. Moisture Separator 1A(1B) differential pressure indicator DPIS-530A(B), 0-3" H_2O	SGT room	Provides local indication of pressure drop across the moisture separator

B Alarms, Interlocks and Trips

1 Alarms

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Tile/Location	Initiating Device/ Setpoint	Additional Functions
a. SGT A(B) PREFILTER HIGH D/P, K-1/B-1 (K-2/B-1)	DPIS-531A(B) 0 4 inches of water	Local indication
b. SGT A(B) LOW FLOW, K-1/D-2 (K-2/D-2)	FS-540A(B) 800 cfm	1) Secures power to electric air heating elements in that system 2) Sends a start signal to the other fan if it is in standby
c. SGT A(B) HEPA FILTER A1(B1) HIGH D/P, K-1/B-2 (K-2/B-2)	DPIS-534A(B) 2.0 inches of water	Local indication
d. SGT A(B) OUTLET HIGH TEMP, K-1/A-1 (K-2/A-1)	TS-539A(B) 200 °F	
e. SGT A(B) HEPA FILTER A2(B2) HIGH D/P, K-1/C-2 (K-2/C-2)	DPIS-538A(B) 2.0 inches of water	Local indication
f. SGT A(B) HIGH MOISTURE, K-1/A-2 (K-2/A-2)	MA-535A(B) 70% relative humidity	
g. SGT A(B) CARBON ADSORPTION FILTER, HI D/P, K-1/C-1 (K-2/C-1)	DPIS-536A(B) 2.0 inches of water	
h. SGT A(B) HIGH D/P, K-1/D-1 (K-2/D-1)	DPIS-543A(B) 10 inches of water	
i. SGT UNIT HIGH FLOW, K-2/A-3	FI-545 1958 cfm rising	
j. SGT UNIT LOW FLOW, K-2/B-3	FI-545 1200 cfm lowering (after a 15 sec time delay) When an auto initiation signal is present	
k. REACTOR BLDG HIGH PRESSURE, R-2/A-4	HV-DPIC-835 low - 15"WG after a 45 sec TD	
l. REACTOR BLDG LOW PRESSURE, R-2/B-4	HV-DPIC-835 Low - 35"WG after 45 sec TD	Trips exhaust fans selected to AUTO

LO-08a,10b 2 Interlocks and Trips

Interlocks/Trips	Initiating Device/ Setpoint	Function
a. Electric air heating element	FS-540A(B) 800 cfm	1) Trips the associated heater 2) Sends a start signal to the other fan if it is in standby
b. Electric air heating element (air temperature out of heater) high temperature	TS-540A(B)&541A(B) 170 °F	Trips the associated heater. Automatically resets at 160 °F

Interlocks/Trips	Initiating Device/ Setpoint	Function
c. Reactor Building ventilation exhaust plenum radiation monitor trip	Sensors 17-430A,B,C, and D Trip Units 17452A,B,C, and D Hi-Hi ≤ 100 mr/hr or downscale 0.1 mr/hr. Mode switch not in OPERATE	1) Starts both SGT fans, which causes the associated inlet and outlet valves to open 2) Room air supply valves open 3) D/P control valves open 4) SGT inlet valve from the primary containment vent line opens 5) Exhaust valve from the primary containment to the Reactor Building exhaust plenum shuts 6) Initiates a secondary containment isolation
NOTE 1 out of 2 taken twice logic is used for both the Hi-Hi radiation and mode switch not in operate trips. All 4 trip units downscale are required to perform the same functions as the Hi-Hi trip		
d. High Drywell Pressure OR Low Reactor Water level	5-12A, B, C, D from RPS through the PCIS ≤ 2.0 psig 2-3-101A,B,C,D (switch #1) from reactor protection system through the primary containment isolation system ≥ +4.5 inches	Response is identical to Reactor Building ventilation exhaust plenum radiation monitor trip

C. Controls

LO-09b,10a,d 1. Control Room Controls

Item/Location	Switch Positions	Functions
a. SGT 1A(1B) Dilution Air, SGT-AO-270 (271), Panel K	3-positions, CLOSE, AUTO, OPEN	CLOSE-Valve remains closed, position is indicated by green lamp AUTO-Valve remains closed until an initiation signal is received OPEN-Valve opens, position is indicated by red lamp

Item/Location	Switch Positions	Functions
b SGT 1A(1B) Inlet SGT-AO-249 (250), Panel K	3-positions, CLOSE, AUTO, OPEN	CLOSE-Valve remains closed, position is indicated by green lamp AUTO-Valve remains closed, opens on interlock when associated fan is energized OPEN-Valve opens, position is indicated by red lamp
c SGT 1A(1B) Discharge SGT-AO-251 (252), Panel K	3-positions, CLOSE, AUTO, OPEN	Operation is identical to AO-249(250) above
d SGT 1A(1B) Bypass SGT-AO-255 (256), Panel K	2-positions, (keylock) CLOSE, OPEN	CLOSE-Valve is closed and keylocked, position is indicated by green lamp OPEN-This position is used for surveillance testing
e SGT 1A(1B) Exhaust Fan EF-R-1E (EF-R-1F), Panel K	4-positions, OFF STANDBY, AUTO, RUN	OFF - fan remains off STANDBY - Fan remains off and starts if flow in the opposite train drops below 800 cfm and an initiation signal is present, OR the opposite fans control switch is in RUN and its flow is <800 cfm AUTO (normal position) - The fan remains off unless an initiation signal (drywell pressure or reactor water level low or Reactor Building exhaust plenum high radiation) is received RUN - Fan is energized
f SGT 1A(1B) Heater Control SGT-HTR-SGHA (SGHB), Panel K (See Note)	5-positions, OFF, LOW, MEDIUM, HIGH, SPARE	OFF - Heaters remain off LOW-Power is supplied to the 2.8 KW heater only MEDIUM-Power is supplied to the 5.0 KW heater only HIGH-Power is supplied to both heaters SPARE - not used

Item/Location	Switch Positions	Functions
NOTE For any switch positions involving power to the heaters, both of the following conditions must be met: air flow through the train must be greater than 800 CFM and outlet temperature must not exceed 170°F. If not, the heaters will remain de-energized.		
g. Rx Bldg/SGT D/P Controller, HV-DPIC-835B, Panel R	2-positions, AUTO, MANUAL	AUTO-Provides control signals to valves DPCV546A and 546B to automatically control Reactor Building pressure when SGT is operating (normally set at -0.25" water dP). MANUAL-Provides the operator with manual control.
h. SGT 1A(1B) Flow/Rx Bldg D/P Control SGT-DPCV-546A (546B)	3-positions, E/P CONT, AUTO, OPEN	OPEN-Valve opens, position is indicated by red lamp. AUTO-Valve position is controlled by HV-DPIC 835B. Upon initiation, control air is isolated, and the valve fails to its full open position. E/P CONT-Valve is controlled by HV-DPIC-835B. The valve controls in response to signal from HV-DPIC-835B even if a Group 6 isolation signal exists.
NOTE Reactor Building pressure of ≤ -0.38" wg causes SGT-DPCV-546A(B) to fail open. When in AUTO, valves fail open on receipt of a Group 6 isolation signal. Valve will remain open, unable to be controlled, until the signal is reset.		
i. Unit 1A(1B) differential pressure controller DPIC-543A (543B), Panel VBd-K	2-positions, AUTO, MANUAL	AUTO-provides control signal to fan vortex damper which automatically controls differential pressure across the filter unit. (Normally set at 10.0" water ΔP). MANUAL-provides operator with manual control.
j. Damper AD-R-1A & AD-R-1B, Panel K	2-position, Rx Building, SGT	RX Building - (AD-R-1A) receives open signal. (AD-R-1B) receives close signal. SGT - (AD-R-1A) receives close signal. (AD-R-1B) receives open signal.
NOTE On PCIS Group 6, or loss of power or air, damper AD-R-1A closes and AD-R-1B opens regardless of switch position.		

IV. OPERATIONAL SUMMARY

A Normal Status (standby)

During normal operation, the fans and heaters will be off with their control switches in AUTO and HIGH positions, respectively. All SGT system valves controlled from Panel K will be closed and all their control switches will be in AUTO, except for the Train Bypass valves AO-255(256) which are in CLOSE. Rx Bldg/SGT DP Controller, HV-DPIC-835B, will be in MANUAL with the set at 100%, to prevent the valves from cycling when the systems are not in service.

The SGT Inlet from the Primary Containment valve, AD-R-1B, will be open and the Primary Containment to Reactor Building Exhaust Plenum valve, AD-R-1A, will be closed. The common control switch for the two valves will be in the SGT position. The SGT inlet from the Reactor Building Exhaust Plenum valve, AD-R-1C is disabled open.

B Automatic Initiation

LO-05g,8a

1 The SGT system can be automatically started on either a high drywell pressure (≥ 2 psig) or low reactor water level (≥ +4.5 inches) initiation signal or high radiation in the exhaust plenum initiation (≥ 100 mr/hr).

SO-07a,7f

This signal is caused by a Group 6 containment isolation signal. Both SGT fans will start and their respective inlet, outlet, and dilution air supply valves will open. The Group 6 isolation isolates the Reactor Building by closing the MG set ventilation valves, tripping the Reactor Building supply and exhaust fans and by isolating the normal ventilation. The SGT suction from the Reactor Building exhaust plenum and SGT room air valves draw air from the Reactor Building, through the two parallel filter trains, to the fans, and is discharged through the differential pressure control valves to the elevated release point.

The differential pressure control valves fully open to establish and maintain Reactor Building pressure at a minimum of 0.25" water vacuum. The filter train heaters maintain the airstream relative humidity below 70%. The fan vortex control system limits airstream flow through each filter train so that total pressure drop across the train remains less than 10" of water dP.

NOTE: The differential pressure control valves fail open on receipt of a Group 6 isolation signal. If in AUTO, the valves will remain open, unable to be controlled until the signal is reset.

If valves AD-R-1A and AD-R-1B are aligned to ventilate the primary containment through the Reactor Building ventilation system, i.e., with AD-R-1A open and AD-R-1B closed, two additional actions will occur concurrently.

LO-07d

a AD-R-1A will close to stop the potential spread of contamination from Primary Containment into the Reactor Building.

LO-07b

b AD-R-1B will open to direct the contaminated atmosphere from within Primary Containment to the SGT filter trains to reduce the level of airborne contamination released to the environs to lower off-site release rates.

C. Operator actions upon automatic initiation

The operator will verify the SGT trains have properly started with their valves responding correctly and their heaters energized. The operator will then verify the Reactor Building HVAC fans have stopped and valves have isolated correctly.

If Reactor Building pressure is being maintained ≤ -0.25" Water gauge as indicated on recorder DPR-8351(Panel R), the operator will place the control switch to RUN for the preferred SGT exhaust fan. The other SGT train will be placed in standby by placing its exhaust fan control switch to OFF and then to the STANDBY position and by verifying the fan stops and all valves position correctly. This provides an automatic startup of the standby fan should the running SGT train's flow drop below 800 cfm.

LO-09a,11 When SGT system is no longer required to operate. The temperature out of the carbon filter is checked prior to placing the running train back to standby. If the carbon filter outlet temperature of the train, using TI-537A[B], is ≥ 200°F, then decay heat removal is required. The other SGT train is started, the running SGT train is turned off, and its Dilution Air valve is opened. This causes room air to be drawn through the train being cooled via the manual cross-connect valve and out the second SGT fan. This action must be performed prior to returning the SGT system to standby status.

D. Manual Operation

LO-07c For those conditions in which the SGT system will be operated manually (i.e., HPCI surveillance, containment venting, etc.), the operator is directed by procedure to establish the appropriate valve lineup, ensure operating requirements are met and perform the desired evolution. The actions taken will be dictated predominantly by the type of operation being performed. Evolutions that add energy to the primary containment require manual SGT system operation to prevent primary containment pressure increases to the RPS/PCIS trip setpoints.

E. Secondary Containment Leak Test

This test is performed to verify that the secondary containment is capable of maintaining 0.25 inches of water vacuum under calm wind conditions with a filter flow rate of not more than 1780 cfm. The system that is to be tested is placed in operation. All secondary containment doors and isolation valves are verified closed.

When the SGT system is maintaining 0.25 inches of water vacuum in the Reactor Building, the system flow is recorded. This value should be less than 1780 cfm, which is equivalent to 100% of the building's volume per day. The two SGT trains can then be switched to ensure that the other fan is capable of providing rated flow.

V. SYSTEM INTERRELATIONSHIPS

A. Electrical Power Sources

LO-06b
SO-07d,7e 1. The 460V AC Panel MCC-K provides power to SGT train A fan 1F-(1-SGH-F-R-1E) and the 2.8 kw (1-SGH-R-1A-A) and 5.0 kw (1-SGH-R-1A-B) heaters.

2. The 460V AC Panel MCC-S provides power to SGT train B fan 1F-(1-SGH-F-R-1E) and the 2.8 kw (1-SGH-R-1B-A) and 5.0 kw (1-SGH-R-1B-B) heaters.

LO-06a,c 3. The 120V AC critical Panel CCP-1A provides control power and solenoid operated valve power for SGT train A.

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4. The 120V AC critical Panel CCP-1B provides control power and solenoid operated valve power for SGT train B.

5. 24V DC bus A(B) provides power to the Reactor Building exhaust plenum radiation monitor A (B) and Auxiliary Trip Units.

LO-06c

6. RPS A(B) provides power to the Group 2 isolation relays, Reactor Bldg. Exhaust Plenum Radiation Detectors and the Indicator Trip Units.

7. CCP-1A(1B) provides power to the Group 6 isolation relays.

LO-06a

8. CCP-1A provides power to PC-SOV-(AD-R-1A) and (AD-R-1B).

B. Containment Isolation and Control Systems

LO-05g,10c
SO-07a

The SGT system receives initiation signal input from the containment isolation and control system and provides for automatic closure and tripping of normal Reactor Building ventilation. RPS power failures will cause the PCIS relays to initiate SGT system start logic.

A Group 6 isolation signal causes the differential pressure control valves (SGT-DPCV-546A or SGT-DPCV-546B) to open until the signal is reset providing their respective control switches are in AUTO.

LO-05d
SO-07b

C. High Pressure Coolant Injection System

The SGT system provides a filtered flowpath for the discharge of noncondensible gases accumulated in the HPCI turbine gland seal condenser. When HPCI initiates automatically, SGT system will also initiate automatically. Manual operation of SGT is required for manual startup of the HPCI system.

LO-05h
SO-07c

D. Plant Air System

The plant air system supplies the control air used to operate all of the SGT system's differential pressure and flow controllers, as well as the air operated valves.

LO-05f

E. Process Radiation Monitors

High radiation detected by the Reactor Building ventilation exhaust plenum radiation monitors will start the SGT system.

LO-05b

F. Primary Containment

SGT can take a suction from the primary containment. Suction can be aligned from either the drywell or torus vent paths.

LO-05a
SO-07f

G. Reactor Building Ventilation

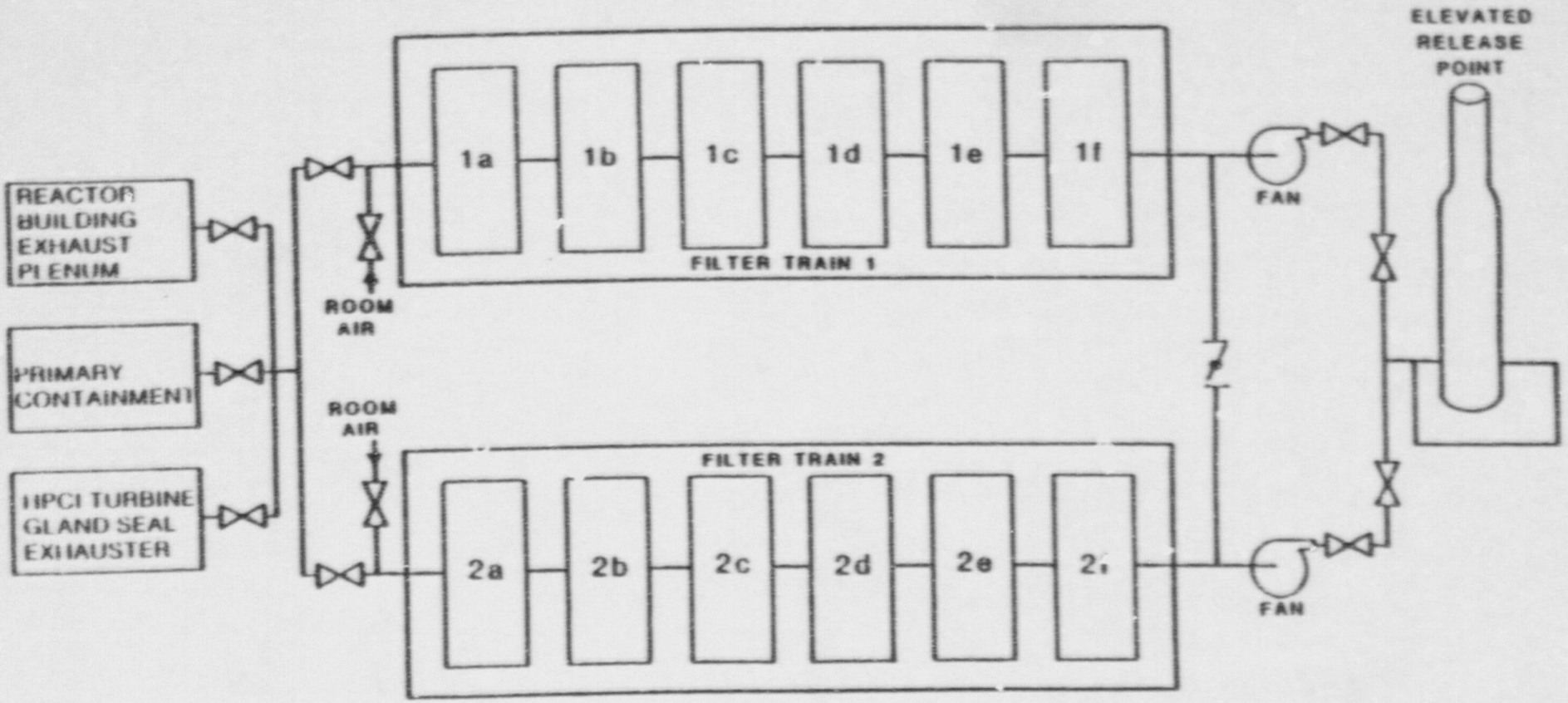
The SGT suction is always aligned to the Reactor Building Ventilation Exhaust plenum when SGT is in operation. On a PCIS Group 6 isolation, the normal Reactor Building Ventilation system isolates and SGT draws air from the Reactor Building.

LO-05e

H. Elevated release Point/Offgas System

The SGT system discharges to the ERP through two 10" underground lines. When SGT is in operation the increased ERP flow causes a slight backpressure on the Offgas system.

These SGT discharge lines can potentially be blocked by excessively high water level in Z sump located at the base of the ERP. Z sump pumps and support equipment are essential in support of the SGT system.



a= MOISTURE SEPARATOR

b= ROUGH PRE-FILTER

c= ELECTRIC AIR HEATING ELEMENT

d= HIGH EFFICIENCY INLET FILTER

e= CHARCOAL FILTER

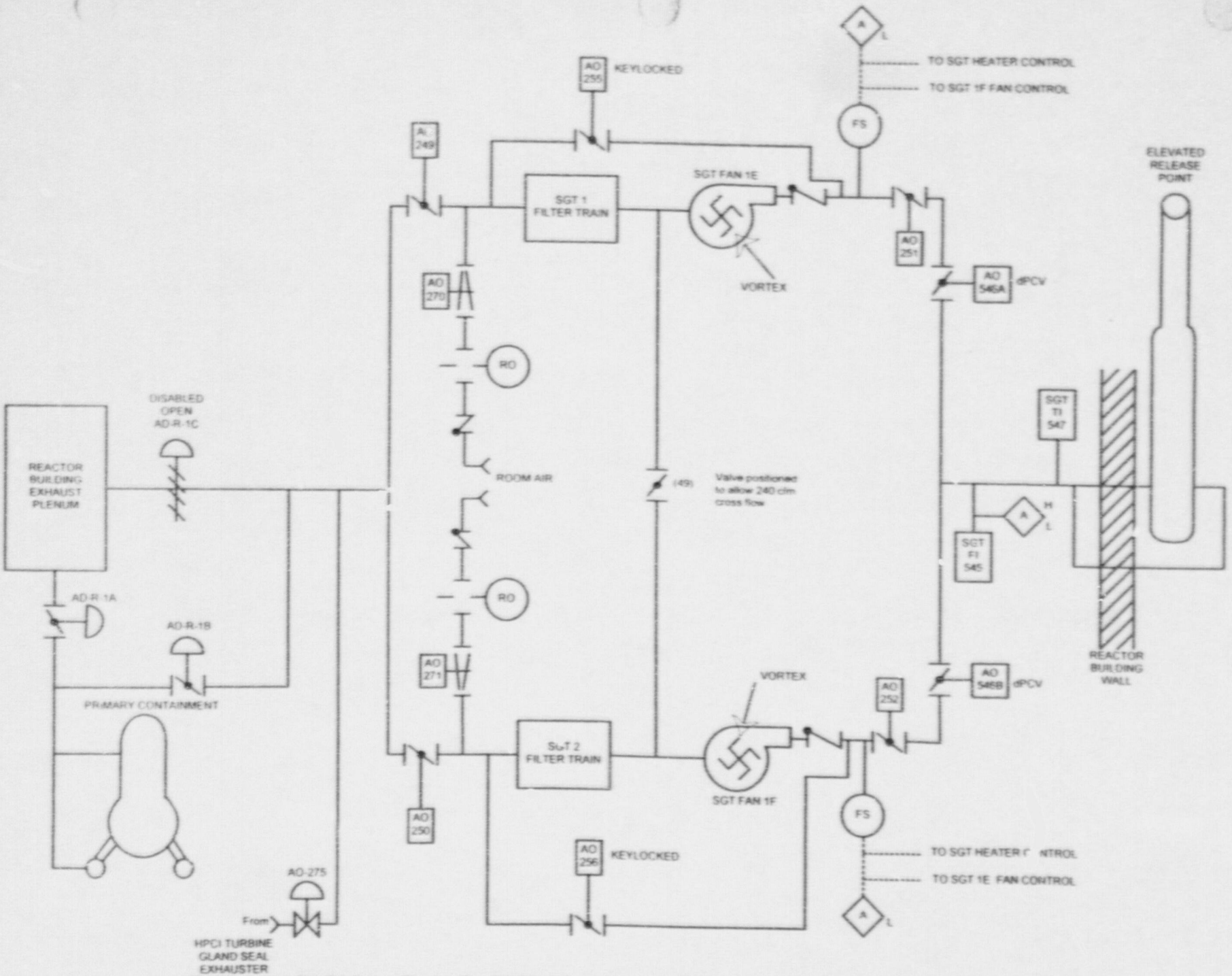
f= HIGH EFFICIENCY FINAL FILTER

STANDBY GAS TREATMENT (Basic Flow Diagram)

FIGURE 1 REV. 4

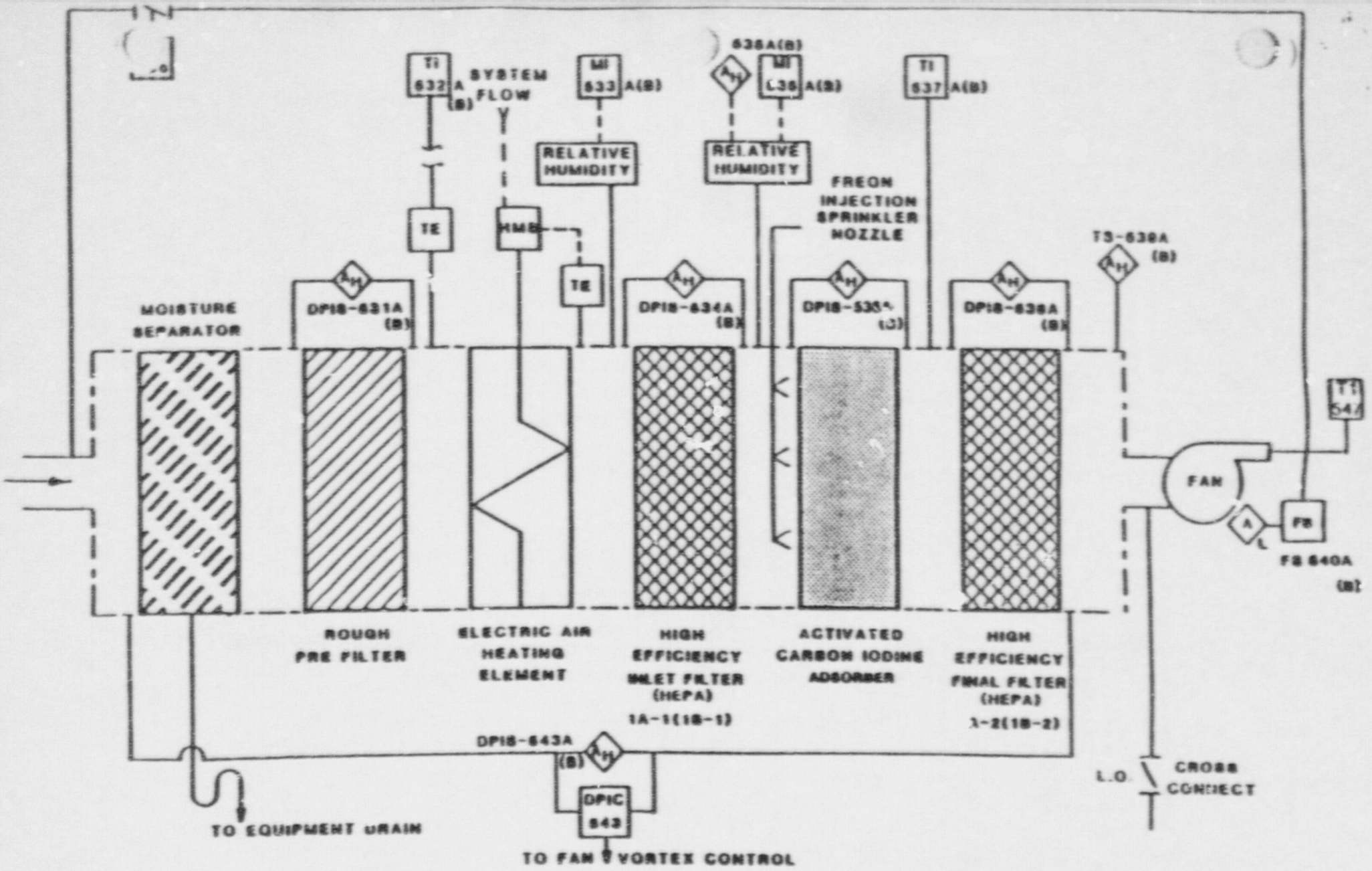
COR002-28

CXA06241



STANDBY GAS TREATMENT (Basic Valve Lineup)

FIGURE 2, REV. 5



STANDBY GAS TREATMENT FILTRATION TRAIN

FIGURE 3 REV. 4

COR002-28

CXA06243

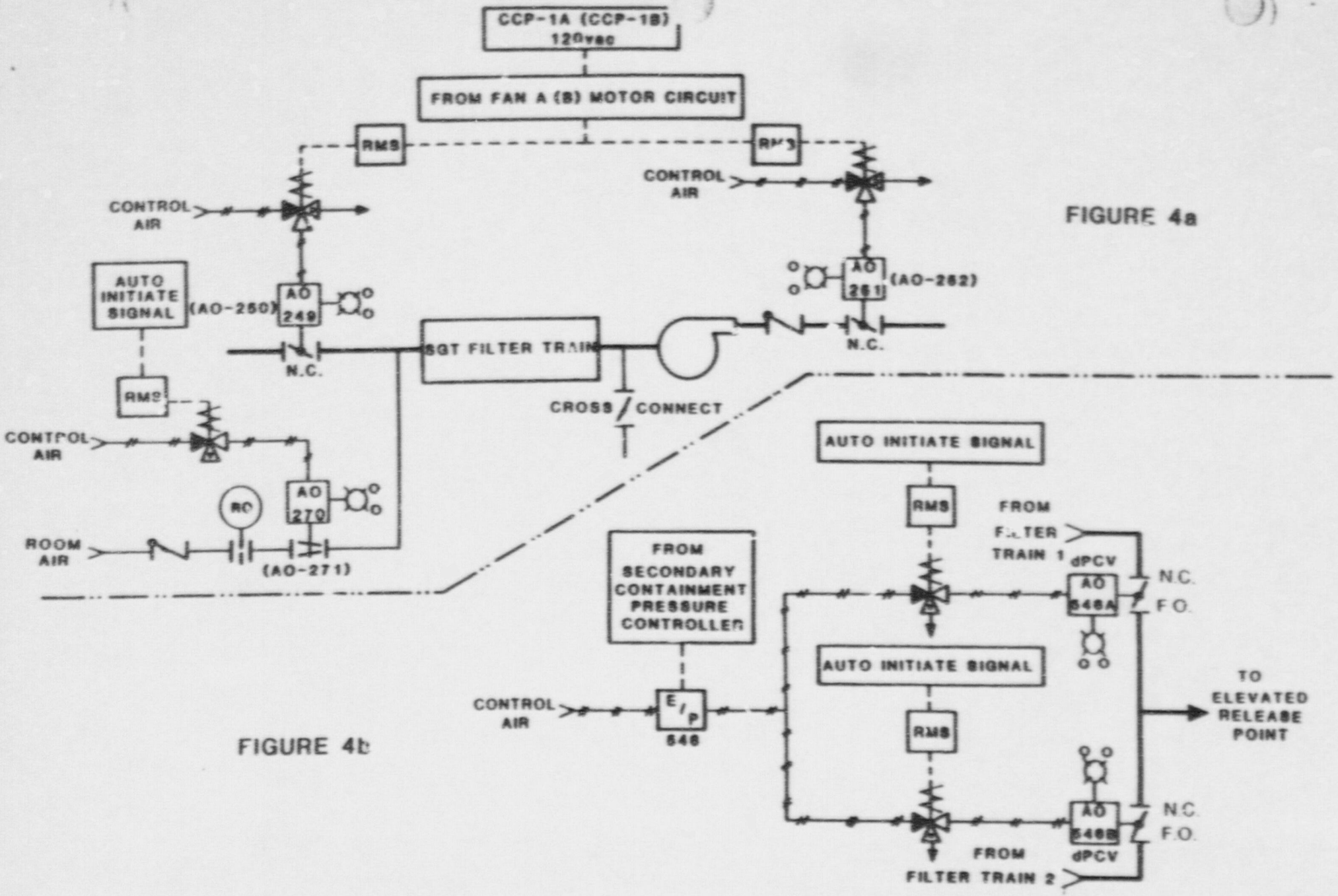


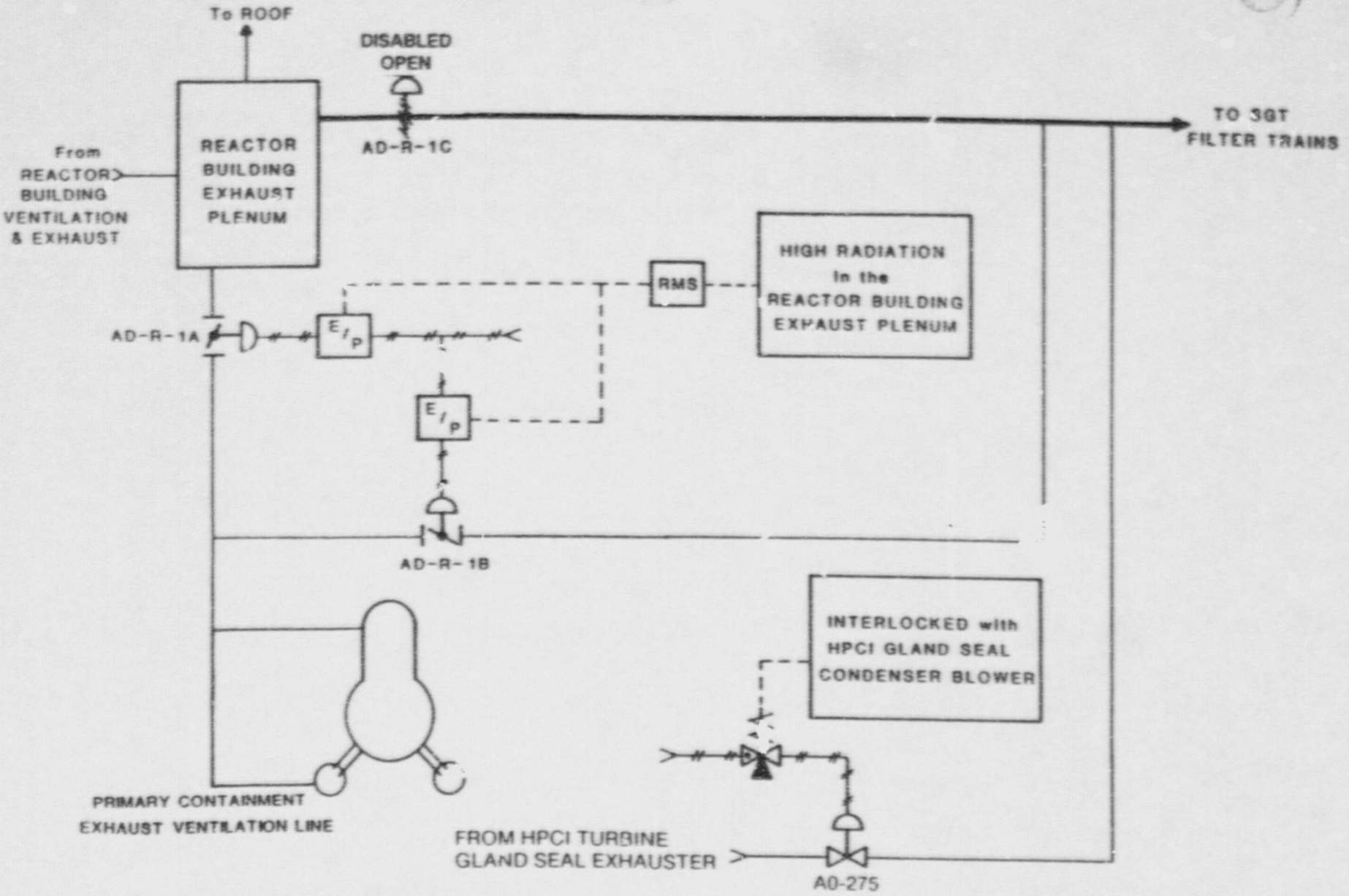
FIGURE 4a

FIGURE 4b

4a FILTER TRAIN INLET and OUTLET VALVES
4b REACTOR BUILDING PRESSURE CONTROL VALVES

FIGURE 4 REV. 4

CXA06244



SGT SUCTION FLOWPATHS

FIGURE 5 REV. 4

COR002-28

CXA06245

Cooper Nuclear Station Improved TS Review Comments
ITS 3.6.4.3, Standby Gas Treatment (SGT) System

3.6.4.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.5	2 3 beads 1 Bases 5	CTS 4.7.B.4.b STS SR 3.6.4.3.4 ITS SR 3.6.4.3.4 and Associated Bases CTS 4.7.B.4.b requires demonstrating manual OPERABILITY of the bypass valve for SGT subsystems filter cooling. STS SR 3.6.4.3.4 would meet this CTS requirement. However, STS SR 3.6.4.3.4 is modified by ITS SR 3.6.4.3.4 to require verifying the SGT units cross tie damper is in the correct position, and each SGT room air supply check valve and SGT dilution air shutoff valve can be opened. In addition, a Note is added to ITS SR 3.6.4.3.4 which specifies that the SR is not required when one SGT subsystem is isolated. Insufficient information is provided in the justifications and the ITS B3.6.4.3 Bases to assure the staff that the conversion from CTS 4.7.B.4.b to ITS SR 3.6.4.3.4 is correct.	Provide additional discussion and justification including an updated SGT System description and appropriate P&IDs to show that the conversion from CTS 4.7.B.4.b to ITS SR 3.6.4.3.4 is correct.	
NPPD Response: NPPD will provide a current P&ID, Rev. 19 of Dwg. 2037, and a current Student-Text, Rev. 9 of COR002-28-02 that places the system design and operational information into combined format, to show how the present plant interpretation of CTS 4.7.B.4.b is the same as ITS SR 3.6.4.3.4. NPPD requests a meeting to further discuss this issue.					
2	A.13		CTS 1.0.P.2 ITS LCO 3.6.4.3 See Item Number 3.6.4.1-1	See Item Number 3.6.4.1-1	
NPPD Response: NPPD will revise the CNS ITS submittal to address the comment.					

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3.6.4.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	L.1		CTS 3.7.B.3 CTS 3.10.E When one SGT subsystem is inoperable, CTS 3.7.B.3 and 3.10.E require the diesel generator (DG) for the redundant SGT subsystem be OPERABLE. If this is not met, the CTS definition of LCO requires immediately entering a shutdown path. This requirement is not included in ITS 3.6.4.3 but is moved to ITS 3.8.1, AC Sources- Operating. The justification for this change is designated L.1. This is incorrect. The change is an Administrative change. Any changes to the requirements with regard to DG OPERABILITY need to be discussed in ITS 3.8.1, not ITS 3.6.4.3.	Revise the submittal to show this change as an Administrative change.	

NPPD Response: The CTS markups and DOC L.1 for CTS 3.7.B.3 and CTS 3.10.E address the described changes in ITS 3.6.4.3, rather than in ITS 3.8.1. NPPD proposes to delete the requirement for the OPERABLE diesel generator as a provision of the 7-day Allowed Outage Time for an inoperable Standby Gas Treatment subsystem and, instead, allow 4 hours to take the operability actions that ITS 3.8.1 requires. NPPD has justified the change, and believes the location of the justification is correct. The change is Less Restrictive due to the deletion and the allowance of additional time to determine the ITS 3.8.1 operability requirements, but NPPD will revise the CNS ITS 3.6.4.3 submittal and DOC to ensure complete and proper communication and handling of the nature of the change.

3.6.4.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
4	L.2 L.3		CTS 4.10.E ITS 3.6.4.3 R.A. C.1 CTS 4.10.E. requires periodically verifying the OPERABILITY of the other SGT subsystem when one SGT subsystem is inoperable during fuel handling operations. This Surveillance Requirement is not adopted in ITS 3.6.4.3. This is not entirely correct. ITS 3.6.4.3 RA C.1 allows the option of placing the other SGT subsystem in operation rather than suspending fuel handling operations. This is discussed as part of justification L.3. Thus even though periodically verifying the OPERABILITY of the other SGT subsystem is not required by the ITS under certain circumstances CTS 4.10.E is used as stated above.	Revise CTS submittal to show that CTS 4.10.E is modified by L.3. Revise justification L.2 to account for the unique circumstances of L.3.	
NPPD Response: CTS 4.10.E requires verification of the OPERABILITY of the remaining Standby Gas Treatment subsystem. This verification is an administrative "paper" check. It does not require demonstrating the OPERABILITY of the remaining Standby Gas Treatment subsystem. Therefore, NPPD does not consider that ITS 3.6.4.3 Required Action C.1 addresses CTS 4.10.E.					
5		Bases 1	ITS B3.6.4.3 Bases - BACKGROUND See Item Number 3.6.4.1-5.	See Item Number 3.6.4.1-5	
NPPD Response: NPPD will revise the Bases to reflect the details in CTS 4.7.C.1 (calm wind between 2 and 5 mph).					

3.6.4.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
6		Bases 1	ITS B3.6.4.3 Bases - APPLICABLE SAFETY ANALYSES ITS B3.6.4.3 Bases - REFERENCES See Item Number 3.6.1.1-5	See Item Number 3.6.1.1-5	
NPPD Response: The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary.					
7		Bases 3	STS B3.6.4.3 Bases - RA A.1 ITS B3.6.4.3 Bases - RA A.1 STS B3.6.4.3 Bases - RA A.1 states the following: "In this Condition, the remaining..." ITS B3.6.4.3 Bases -- RA C.1 decapitalizes the letter "C" in "Condition". This is incorrect. The sentence is referring to Condition A; therefore, the "C" in Condition" should be capitalized.	Correct this discrepancy.	
NPPD Response: NPPD will delete the change in a revision to the CNS ITS submittal. However, note that the NUREG-1433 Bases are inconsistent in treatment of this term. The various Bases sections use this same term in the same manner as both "Condition" and "condition."					

3.6.4.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
8			CTS 3.7.A.2.b ITS 3.6.4.3 ACTIONS CTS 3.7.A.2.b allows the Drywell and Suppression Chamber Purge and Vent Systems to be in operation with the 24 inch supply and exhaust valves open provided that if the venting and purging is through the SGT System, both SGT trains shall be OPERABLE and only one SGT train shall be in operation. Based on the CNS CTS if one SGT subsystem is inoperable, then one of the following actions would be taken with regard to venting and purging of containment: a. The Venting and Purging System is realigned such that the 2 inch bypass lines are utilized per the *Note to CTS 3.7.A.2.b, b. Venting and purging is suspended until two SGT Systems are restored to OPERABLE status, or c. The plant is shutdown in accordance with CTS 1.0.J. This particular condition is plant specific and is not addressed in the ACTIONS for ITS 3.6.4.3, nor are justifications and discussions provided for not including this condition in ITS 3.6.4.3. See Item Number 3.6.1.3-1 and 3.6.1.3-2 for additional concerns with regard to this condition.	Revise the CTS/ITS markup to address CTS 3.7.A.2.b in ITS 3.6.4.3 and provide appropriate discussions and justifications for the retention of this condition and associated remedial measures in ITS 3.6.4.3 ACTIONS. See Item Numbers 3.6.1.3-1 and 3.6.1.3-2.	

NPPD Response: With the response to comment 3.6.1.3-1, above, discussing the revision to the Note to ITS SR 3.6.1.3.1, NPPD finds it is not necessary to provide the suggested actions. Not including the suggested actions is equivalent to the approach used in the NUREG-1433 Note 2 to SR 3.6.1.3.2 (i.e, if the affected purge valves are open for reasons other than Note 2 describes, SR 3.6.1.3.2 would not be met and purging must be immediately suspended or compliance with the provisions of Note 2 must be immediately obtained or the applicable action must be taken.)

3.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	LA.1		CTS 3/4.6.H, Shock Suppressors (Snubbers) DOC LA.1 states that the snubber requirements of CTS 3/4.6.H are to be relocated from the CTS to the TRM, provides a justification for the relocation, and states that the relocated requirements are not required to be included in the ITS to provide adequate protection of the public health and safety. Why isn't this change classified and justified as an "R," i.e., a ***true*** relocated change?	Please reclassify this change as an "R" and modify the justification to address the TS criteria, or provide an explanation as to why this change should not be classified as an "R".	
NPPD Response: Since snubbers support the OPERABILITY of systems credited with mitigating the consequences of DBAs and transients, they meet Criterion 3 of 10 CFR 50.36(c)(2)(ii), and an "R" DOC cannot relocate them. Therefore, DOC LA.1 for CTS 3/4.6.H addresses the removal of the snubbers from the CNS CTS.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.7.1, Residual Heat Removal Service Water Booster (RHRSWB) System

3.7.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		1	CTS 3.5.B CTS 4.5.B STS LCO 3.7.1 STS 3.7.1 Actions C and D STS SR 3.7.1.1 ITS LCO 3.7.1 ITS 3.7.1 Actions A and B ITS SR 3.7.1 The nomenclature for the system in CTS 3.5.B, CTS 4.5.5, STS 3.7.1 , LCO, Actions C and D, and SR 3.7.1.1 is Residual Heat Removal Service Water (RHRSW) System. The nomenclature in the ITS is Residual Heat Removal Service Water Booster (RHRSWB) System. No justification for the change to the CTS is provided. The justification for the deviation from the STS is that the change reflects plant specific nomenclature. This statement is not consistent with the CTS.	Provide plant specific justification for changing the nomenclature of the system.	
NPPD Response: NPPD will provide an A DOC to address changing the name of the system to match current plant-specific nomenclature.					
2	M.2	1	STS SR 3.7.1.1 ITS SR 3.7.1.1 STS SR 3.7.1.1 is applicable to manual, power operated, and automatic valves in the RHRSW flow path. ITS 3.7.1.1 does not include automatic valves. The justification states that the change is made to reflect plant specific system description. This implies that there are no automatic valves in the RHRSW system, but it isn't explicitly stated.	Explicitly state whether the RHRSW system contains automatic valves and if it does, provide justification for not including them in ITS SR 3.3.1.1.	
NPPD Response: There are no automatic valves in the system, since the system is manually initiated.					
3		3	STS 3.7.1 Required Actions C.1 and D.1 ITS 3.7.1 Required Actions A.1 and B.1 The marked up copy of STS 3.7.1 indicates that the note for Required Actions C.1 and D.1 are repositioned in ITS 3.7.1 Required Actions A.1 and B.1 to be consistent with the Writers Guide. However, the notes are not repositioned in the smooth copy of ITS 3.7.1.	It is the STS convention to place such notes in the Required Action column. Please revise the STS markup and eliminate JFD 3 to be consistent with the smooth copy of the ITS.	
NPPD Response: NPPD will revise the ISTS markup to match the typed copy of the ITS.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.7.1, Residual Heat Removal Service Water Booster (RHRSWB) System

3.7.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
4	L.1	2	CTS 3.5.B.1 STS 3.7.1 Actions A and C CTS 3.5.B.2 ITS 3.7.1 Actions Both the CTS (CTS 3.5.B.1, CTS 3.5.B.2) and STS 3.7.1 Action A allow thirty days to restore an inoperable RHRSWB pump. STS 3.7.1 Action C is an additional requirement to address one inoperable RHRSW system for reasons other than an inoperable RHRSW pump. ITS 3.7.1 does not include the condition of one inoperable RHRSW pump nor the STS allowance to restore in 30 days. The justification states that only one pump in each subsystem (2 pumps) is required by the analyses. This justification is based, in part, on GENE 637-045-1293. This is a change to both the CTS and STS.	This change is beyond the scope of the conversion review and has been referred to the Project Manager for resolution.	
NPPD Response: No response required. NPPD considers this comment to be for internal NRC issue tracking purposes.					
5	M.1		CTS 3.5.B.3 ITS 3.7.1 Required Actions A.1 and B.1 The proposed change adds a note requiring the applicable Conditions and Required Actions of LCO 3.4.7 to be entered for an RHR SDC subsystem made inoperable by the inoperable RHRSWB System. The justification states that this is a More Restrictive change because it is an added requirement to cascade to LCO 3.4.7.	Explain why you would ***not*** enter the Actions for an inoperable RHR SDC subsystem in the same circumstance under your CTS. The staff does not believe that this is a More Restrictive change.	
NPPD Response: The CNS CTS does not include requirements for the RHR Shutdown Cooling System. Therefore, there are no RHR Shutdown Cooling System actions to enter in the event the RHR Service Water Booster System is inoperable and this results in an RHR Shutdown Cooling Systems being inoperable.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.7.2, Service Water (SW) and Ultimate Heat Sink (UHS)

3.7.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L.4		CTS 3.12.C.2 ITS 3.7.2 ITS 3.8.1 Required Action B.2 With any inoperable active component that affects operability of one SW subsystem, CTS 3.12.C.2 requires that all active components that affect operability of the operable subsystem (the other subsystem), including the associated DG, be operable. These requirements are deleted in ITS 3.7.2 but are included in ITS 3.8.1 Required Action B.2. The justification for this change incorrectly states that the CTS requires ensuring operability of required features in the same division as an inoperable DG. The CTS actually requires ensuring operability of required features in the same division as the operable DG.	Revise the justification to correctly state the CTS requirement.	
NPPD Response: NPPD will revise DOC L.4 for ITS 3.7.2 to change "inoperable DG" to "Operable DG".					
2		2	STS 3.7.2 Required Action D.1 ITS 3.7.2 Required Action A.1 The bracketed words "RHR shutdown cooling" in STS 3.7.2 Required Action D.1 are modified in ITS 3.7.2 Required Action A.1 to "RHR shutdown cooling subsystem." The justification provided for this change does not appear appropriate and the change makes the wording of this note inconsistent with the wording of similar notes in other specifications (i.e., ITS 3.7.1).	Revise the submittal to adopt the STS wording.	
NPPD Response: NPPD will revise the CNS ITS submittal as suggested in the comment.					

3.7.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	L.1	5	CTS 3.12.C.2 STS 3.7.2 Required Action D.1 ITS 3.7.2 Required Action A.1 CTS 3.12.C.2 allows continued operation for 30 days with one inoperable SW pump. With one SW subsystem (two inoperable SW pumps) the CTS requires shutdown to Mode 4 within 36 hours, STS 3.7.2 Required Action D.1 allows operation to continue indefinitely with one inoperable SW pump and continued operation for 72 hours with one inoperable SW subsystem. If STS Required Action D.1 is not met STS Required Action E.2 requires shutdown to Mode 4 within 36 hours. This is modified by ITS 3.7.2 Required Action A.1 to allow continued operation for 7 days with one inoperable SW subsystem. The ITS changes both the CTS and the STS. In addition ITS 3.7.2 Required Action A.1 extends the CTS Completion Time for shutdown by 7 days.	This change is beyond the scope of the conversion review and has been referred to the Project Manager for resolution.	
NPPD Response: None required at this time.					
4	L.1	2	CTS 3.12.C.2 and C.3 STS 3.7.2 Actions A, B and D ITS 3.7.2 Actions CTS 3.12.C.2 and 3.12.C.3 require all SW pumps to be operable and provide actions if one or two SW pumps are inoperable. STS 3.7.2 Actions A (also referenced in Action D) and B have Required Actions if one SW pump is inoperable or if one SW pump in each subsystem (two SW pumps inoperable). These Actions are not retained in ITS 3.7.2. This is a change to both the CTS and STS.	This change is beyond the scope of the conversion review and has been referred to the Project Manager for resolution.	
NPPD Response: None required at this time.					

3.7.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L.1	4	CTS 3.12.B.1 and B.2 STS 3.7.2 Actions A and B ITS 3.7.3 Action A CTS 3.12.B.1 and CTS 3.12.B.2 allow 30 days to restore and inoperable REC pump. STS 3.7.2 Action A provides the same 30-day allowance for an inoperable pump. This requirement is replaced in ITS 3.7.3 Action A to allow 72 hours to restore one inoperable REC subsystem. The justification states that the change is based on the fact the either REC loop has sufficient capacity with one pump operating to transfer the essential services design cooling load during postulated transient or accident conditions. The justification also states "If one of the two subsystems is inoperable, currently no time is allowed and a shutdown is required." This statement appears to be incorrect because CTS 3.12.B.2 allows an inoperable active component for 30 days if the other subsystem, the Core Standby Cooling Systems, and the associated DG are operable. This is a change to both the CTS and the STS.	This change is beyond the scope of the conversion review and has been referred to the Project Manager for resolution.	
NPPD Response: None required at this time.					
2	L.4		CTS 3.12.B.2 ITS 3.7.3 CTS 3.12.B.2 contains requirements to ensure that all active component that affect operability of the ECCS Systems and the DG associated with the operable subsystem are operable. These requirements are not retained in ITS 3.7.3. The justification incorrectly refers to the RHRSWB pumps instead of the REC pumps. Also, the CTS markup does not incorporate all of the text related to this change (i.e., text referring to the operability of the Core Standby Cooling Systems).	Correct the justification and the CTS markup.	
NPPD Response: NPPD will revise the justification and the CTS markup as suggested in the comment.					

3.7.6	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L.1		CTS 3.10.C ITS 3.7.6 Applicability CTS 3.10.C states that the applicability is whenever irradiated fuel is stored in the spent fuel pool. ITS 3.7.6 states that the applicability is during movement of irradiated fuel assemblies in the spent fuel storage pool. The justification (and the Bases) is based on satisfying the analysis of the fuel handling accident but does not address how water level is maintained when fuel assemblies are not being moved.	Provide additional discussion that addresses how minimum water level will be maintained when fuel assemblies are not being moved after ITS implementation (i.e., what is happening to the CTS requirement for this situation).	
NPPD Response: NPPD will revise DOC L.1 for ITS 3.7.6 to discuss the plant-specific administrative controls to ensure maintaining spent fuel pool water level.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.7.6, Spent Fuel Storage Pool Water Level

3.7.6	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2	A.2	Bases 2	CTS 3.10.C ITS LCO 3.7.6 and associated Bases CTS 3.10.C specifies that spent fuel pool level be maintained 8.5 ft above the top of the fuel. ITS LCO 3.7.6 requires that spent fuel storage pool water level be ≥ 22 ft 5 inches over the top of the irradiated fuel assemblies seated in the spent fuel storage pool racks. The justification states that 8.5 ft above a bundle being handled by the refueling bridge grapple is approximately 22 ft 5 inches above the top of irradiated fuel seated in the spent fuel pool. Also, the Background section of the Bases for ITS 3.7.6 states that the water level above the irradiated fuel assemblies is an ***implicit*** assumption of the fuel handling accident. The STS Bases refer to the water level as an explicit assumption.	Provide additional discussion of the fuel handling accident analysis assumptions that demonstrate that the ITS value is the appropriate technical specification limit.	

NPPD Response: USAR Section X-3.4.1 defines the "safe storage level" of the water in the spent fuel storage pool as "approximately 10 feet above the top of the fuel." The "safe storage level" is based on the water volume assumptions for the iodine decontamination factor in the fuel handling accident analysis. Therefore, the CNS ITS 3.7.6 water level limit of at least 22 ft 5 inches over the top of irradiated fuel assemblies seated in the spent fuel storage racks is more than that required for "safe storage level." Allowing for an adequate 6-in. clearance between a moving fuel assembly and those seated in the racks, the 22-ft-5-inch level is slightly more than 8.5 ft above the top of the irradiated fuel in the moving fuel assembly. Therefore, this preserves the current licensing basis in the CTS. "Implicit" is correct because the "safe storage level" is not part of the limiting fuel handling accident analysis over the reactor core, which assumes a water volume, not a level, for the decontamination factor assumptions.

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	L.1		CTS 3.9.B.1.b ITS 3.8.1 Action C CTS 3.9.B.1.b requires verifying operability of the diesel generators and associated critical buses. ITS 3.8.1 Action C does not require verifying the associated critical buses are OPERABLE. No discussion or justification is provided for deleting this requirement.	Provide additional discussion and justification for deleting the requirement.	
NPPD Response: If the critical buses are not OPERABLE, then the supported features powered from the critical buses would also not be OPERABLE. Therefore, ITS 3.8.1 Required Action C.1 addresses this condition, and complying with these requirements implicitly requires verifying that the critical buses are OPERABLE. NPPD will revise DOC L.1 for ITS 3.8.1 to clarify this.					
2		2	STS SR 3.8.1.2 Note 2 ITS SR 3.8.1.2 Note 2 STS SR 3.8.1.2 Note 2 indicates that a modified start may be used for this SR as recommended by the manufacturer. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.7 must be used. The corresponding note in ITS SR 3.8.1.2 states that a modified start may be used for this SR consistent with the manufacturer's recommendations. When modified start procedures are not used, the time, voltage, and frequency requirements of SR 3.8.1.7 must be used. These changes in wording are not justified.	This is not a justifiable plant-specific or editorial difference. Revise the submittal to adopt the STS wording.	
NPPD Response: NPPD chooses to maintain the CNS current licensing basis with respect to control of these values. About the changes to the Notes, NPPD will revise the CNS ITS submittal to reflect the STS wording, except for "requirements" instead of "tolerances," which JFD 1 justifies. NPPD will also revise JFD 2 and remove its application at this point, and change JFD 3 to include justifying the renumbering of the NOTES in ISTS SR 3.8.1.2.					

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	A.11		CTS 1.0.J CTS 3.9.B.1 CTS 3.9.B.2 ITS 3.8.1 Condition G CTS 3.9.B.1 and 3.9.B.2 do not provide Actions for the condition of three or more AC sources inoperable. However CTS 1.0.J requires being in Mode 3 within 6 hours and Mode 4 within 36 hours when either the emergency or normal AC power source for one train of a system is inoperable and the redundant train of the system is inoperable (because of an inoperable support system or because the system itself is inoperable or because one of its AC sources is inoperable). ITS 3.8.1 Condition G is added to direct entry into LCO 3.0.3 for the condition of three or more AC sources inoperable. ITS LCO 3.0.3 requires being in Mode 3 within 13 hours and Mode 4 within 37 hours. This is a less restrictive change because an additional hour is allowed to complete the shutdown.	Revise the submittal with a L-type DOC to justify the longer shutdown Completion Times.	
NPPD Response: As DOC A.11 for ITS 3.8.1 discusses, DOC L.1 for ITS 3.0.3 justifies the change to CTS definition of LCO (CTS 1.0J), which provides the additional time periods in ITS LCO 3.0.3. Thus, the justification for the change to CTS 1.0J does not need repeating.					
4	A.4	3	CTS 4.9.A.2.a.1 CTS 4.9.A.2.a.2 STS SR 3.8.1.2 Note 1 ITS SR 3.8.1.2 CTS 4.9.A.2.a.1 and CTS 4.9.A.2.a.2 state that CTS 4.9.A.2.a.2 (DG timed start test), satisfies CTS 4.9.A.2.a.1 (DG modified start test). This statement is omitted from corresponding ITS SR 3.8.1.2, the modified start test. This results in a STS deviation because STS SR 3.8.1.2 Note 1 states that performance of SR 3.8.1.7 satisfies SR 3.8.1.2. The justification for deleting this statement from the CTS and STS is not plant specific or editorial.	Revise the submittal to adopt STS SR 3.8.1.2 Note 1, which is consistent with CTS.	
NPPD Response: NPPD will revise the CNS ITS submittal as suggested in the comment.					

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
5	M.5	8	CTS 4.9.A.2.a.1 CTS 4.9.A.2.a.2 STS SR 3.8.1.3 ITS SR 3.8.1.3 CTS 4.9.A.2.a.1 and CTS 4.9.A.2.a.2 state that each diesel shall be started and loaded to $\geq$50% rated load. ITS SR 3.8.1.3 states that the EDG is loaded to greater than the 'assumed accident load'. This differs from STS SR 3.8.1.3 which indicates, by brackets, that plant-specific load values should be provided. DOC M.5 states that the specific values are in plant procedures and the Bases. The only load values given in the Bases are in the Bases Background discussion of DG load [illegible]ime ratings. It is unclear which of these correspond to th[illegible]umed accident load'.	Revise the submittal to include specific load values in SR 3.8.1.3, consistent with the STS and the 'assumed accident load'. In the response, state the 'assumed accident load' and where it is stated in the Bases.	
NPPD Response: DOC M.5 for ITS 3.8.1 justifies the use of and provides the values for the "assumed accident loads." JFD 8 justifies not including specific load values in ISTS SR 3.8.1.3 and says that plant procedures and the Bases have the specific load values. NPPD will revise the Bases of ITS SR 3.8.1.3 to include these accident loads. NPPD chooses to maintain the CNS current licensing basis with respect to control of these values.					
6	M.10	8	CTS 4.9.A.2.a.1 & 4.9.A.2.a.2 STS SR 3.8.1.2 & SR 3.8.1.7 ITS SR 3.8.1.2 & SR 3.8.1.7 CTS 4.9.A.2.a.1 states that each diesel shall be started and loaded for greater than 2 hours. ITS SR 3.8.1.2 requires starting the EDG and achieving rated voltage and frequency. This differs from the STS SR 3.8.1.2 which indicates, by brackets, that plant specific values for frequency and voltage should be provided. JFD 8 states that the specific values are already in plant procedures and will be added to the Bases for ITS SR 3.8.1.2 and SR 3.8.1.7.	Revise the submittal to include specific voltage and frequency values in SR 3.8.1.2, consistent with the STS and the current licensing basis.	
NPPD Response: DOC M.10 for ITS 3.8.1 justifies the addition of "rated voltage and frequency" to the current licensing basis defined in the CNS CTS. JFD 8 justifies not including specific values in ISTS SRs 3.8.1.2 and 3.8.1.7 and says that plant procedures and the Bases have the specific values. NPPD will revise the Bases of ITS SRs 3.8.1.2 and 3.8.1.7 to include these values. NPPD chooses to maintain the CNS current licensing basis with respect to control of these values.					

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
7	L.5 L.9	2 9	CTS 4.9.A.2.a.1 STS SR 3.8.1.3 Notes 1 and 2 ITS SR 3.8.1.3 Notes 1 and 2 Note 1 to ITS SR 3.8.1.3, DG load test, differs from STS 3.8.1.3 Note 1 by stating that 'gradual loading is permitted consistent with the manufacturer's recommendations' instead of stating that 'gradual loading is permitted as recommended by the manufacturer.' Also, ITS Note 2 differs from STS Note 2 by replacing 'outside the load range' with 'below the required limit.'	These are not justifiable plant-specific or editorial differences. Revise the submittal to adopt STS SR 3.8.1.3 Notes 1 and 2. See comment 3.8.1-05.	
NPPD Response: NPPD will remove the application of JFD 2 in NOTE 1 of ISTS SR 3.8.1.3 and use the STS nomenclature as capturing the typical nomenclature in the current licensing basis of the CTS. Concerning NOTE 2 of ISTS SR 3.8.1.3, the JFD 9 change goes along with the JFD 8 change to ISTS SR 3.8.1.3: with a "greater than" SR requirement statement, there is no range outside of which to go; thus, NOTE 2 only needs a "less than" allowance.					
8	M.12	8	CTS 4.9.A.2.b STS SR 3.8.1.19 ITS SR 3.8.1.11 CTS 4.9.A.2.b requires demonstrating that the diesel will start and accept the emergency load within the specified time sequence but does not specify voltage and frequency requirements. ITS SR 3.8.1.11 c.2 and c.3 specify that rated voltage and frequency must be achieved. This differs from STS SR 3.8.1.19 which indicates, by brackets, that plant specific values for frequency and voltage should be provided. JFD 8 states that the specific values are in plant procedures and are added to the Bases.	Revise the submittal to include specific voltage and frequency values in SR 3.8.1.11, consistent with the STS and the current licensing basis.	
NPPD Response: NPPD chooses to maintain the CNS current licensing basis with respect to control of these values.					

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
9	M.12	6	CTS 4.9.A.2.b STS SR 3.8.1.19 ITS SR 3.8.1.11 CTS 4.9.A.2.b requires demonstrating that the diesel will start and accept the emergency load within the specified time sequence but does not specify how long the EDG must supply the loads during the test. ITS SR 3.8.1.11 c.4 specifies that the EDG must supply only the auto-connected emergency load for ≥ 5 minutes. This differs from STS SR 3.8.1.19 which requires that the EDG supply both the permanently connected and auto-connected emergency loads for ≥ 5 minutes. No justification is provided for omitting permanently connected emergency loads from the requirement.	Provide justification for this STS deviation based on current licensing basis, system design, or operational constraints.	

NPPD Response: Because ITS SR 3.8.1.11 c.1 and the Bases for ITS SR 3.8.1.11 both refer to permantently connected loads, NPPD will revise the CNS ITS SR 3.8.1.11 c.5 to delete the application of JFD 6 here and to return to the STS SR 3.8.1.19 c.5 wording. Note that the Change/Difference section refers to ITS SR 3.8.1.11 c.4 instead of ITS SR 3.8.1.11 c.5.

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
10	M.8	12	STS SR 3.8.1.14 ITS SR 3.8.1.9 ITS SR 3.8.1.9 is a new requirement to load test the DG for at least 8 hours where 2 of the hours are at 105% to 110% of the continuous rating and the remaining hours are at 90% to 100% of the continuous rating. ITS SR 3.8.1.9 differs from STS SR 3.8.1.14 which requires (1) a 24 hour test with 2 hours at a specified load range and the remaining hours at another specified load range; and (2) stating plant-specific load values in kW. JFD 12 bases the 8-hour test on IEEE Standard 387-1995, Section 7.5.9 and Table 3 for cyclic testing, noting that a 24-hour test is only recommended for preoperational testing. Staff does not agree with this justification. In addition, plant-specific load values in kW should be specified in the SR itself, not only in the Bases.	Revise the submittal to adopt STS SR 3.8.1.14 with a 24-hour load test and load value ranges specified in kW.	**Check with ET.**
NPPD Response: Since the CNS CTS does not include a Surveillance similar to this one, this is a More Restrictive change. The 24-hour DG endurance run represents a hardship, since it has to be run with the plant shut down (adds critical-path time to each refueling outage). NPPD does not wish to adopt the 24-hr run requirement. In addition, NPPD chooses to maintain the CNS current licensing basis with respect to control of these load values.					
11	M.8	6	STS SR 3.8.1.18 ITS SR 3.8.1.10 ITS 3.8.1.10 is a new requirement to verify that the interval between each sequenced load is 'within specified limits' for the timed logic sequence. ITS SR 3.8.1.10 differs from corresponding STS SR 3.8.1.18 which specifies that the interval must be '±10% of design interval'. The '±10% of design interval' is a bracketed item where the plant specific value is to be entered. JFD 6 does not specifically discuss substituting "within specified limits" for a specific percentage limit.	Revise ITS SR 3.8.1.10 to include a plant-specific acceptance limit expressed as a percentage of the design interval.	
NPPD Response: Since the CNS CTS also does not include this Surveillance, it is a More Restrictive change. As the CNS CTS does not include specific acceptance criteria, NPPD chooses to maintain the CNS current licensing basis with respect to control of these limits.					

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
12		2	STS LCO 3.8.1 c STS 3.8.1 Action F ITS 3.8.1 STS LCO 3.8.1.c requires three automatic sequencers and STS 3.8.1 Action F applies to one automatic load sequencer inoperable (these are bracketed items). ITS 3.8.1 does not adopt these requirements for automatic sequencers. JFD 2 states that these bracketed items are not applicable to CNS, but does not explain why.	Revise JFD 2 to explicitly state how the reviewer's note for not adopting STS 3.8.1 Action F is satisfied. Otherwise, adopt STS LCO 3.8.1 c and Action F.	
NPPD Response: Since the CNS design does not include load sequencers such that an individual load sequencer inoperability will impact both the OPERABILITY of an offsite source and the DG associated with a given emergency bus, NPPD will add a new JFD to discuss this and appropriately annotate the CNS ITS submittal to replace JFD 2 in these two locations.					
13		2	STS SRs 3.8.1.4, 3.8.1.5, and 3.8.1.6 ITS SRs 3.8.1.4, 3.8.1.5, and 3.8.1.6 STS SRs 3.8.1.4, 3.8.1.5, and 3.8.1.6 indicate that surveillances are to be performed on engine mounted tanks (this is a bracketed item). Requirements for engine mounted tanks are not adopted in corresponding ITS SRs 3.8.1.4, 3.8.1.5, and 3.8.1.6. JFD 2 contains no specific information to explain why these requirements are not applicable to CNS.	Revise the submittal to explicitly confirm whether or not CNS DGs have engine mounted tanks. If they do, adopt the STS requirements.	
NPPD Response: Since the CNS DG fuel oil system design does not include separate engine mounted tanks, only day tanks and fuel oil storage tanks, NPPD will add a new JFD and annotation to discuss this.					

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
14		10	STS SR 3.8.1.9 single-largest-load rejection by DG STS SR 3.8.1.10 full load rejection by DG STS SR 3.8.1.11 DG start on LOOP STS SR 3.8.1.12 DG start on ECCS initiation STS SR 3.8.1.13 automatic DG trip bypass test STS SR 3.8.1.15 DG hot-restart and load test STS SR 3.8.1.16 transfer of loads from DG to offsite circuit STS SR 3.8.1.17 automatic return of DG to standby mode from test mode upon an ECCS initiation signal STS SR 3.8.1.20 simultaneous start of both DGs ITS do not adopt the listed SRs because they do not "materially contribute to the demonstration of DG Operability." This conclusion is based on the following reasons: (a) test of non-credited design feature SR 3.8.1.9 SR 3.8.1.10 SR 3.8.1.13 SR 3.8.1.16 (b) other DG is adequate to mitigate DBA SR 3.8.1.9 (c) consequences of overspeed bounded by failure of DG itself SR 3.8.1.10 (d) operator action required regardless of overspeed, but not assumed for first 10 minutes after DBA SR 3.8.1.10 SR 3.8.1.16 (e) combined LOOP-LOCA test (ITS SR 3.8.1.10) bounds separate tests SR 3.8.1.11 SR 3.8.1.12 (f) not consistent with current test practices (CTS 4.9.A.1.a and 4.9.A.1.b). SR 3.8.1.11 SR 3.8.1.12 continued	*Note: Comment is lettered the same as the reason.* Comment for reasons (a), (b), (c), (d), (e), (h), (i), (k), (l), and (m).: This is likely true for most facilities; thus this reason is generic, not plant-specific. Except for SR 3.8.1.17, which tests a feature not in the Cooper design, no plant-specific reasons are given for not adopting these surveillances. Revise the submittal to adopt these requirements. (f) CTS specify separate LOOP and LOCA tests, apparently in conflict with 'current test practices.' continued	

3.8.1	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
14 contd.			(continued) (g) not consistent with current test practices. SR 3.8.1.15 SR 3.8.1.20 (h) Hot restart capability demonstrated during initial plant startup testing. SR 3.8.1.15 (i) Monthly start and load test adequately demonstrate ability to operate and start at normal operating temperatures - the DG is designed to start when "hot". SR 3.8.1.15 (j) Not consistent with current test practices. SR 3.8.1.17 (k) DGs do not perform any safety-related function for a LOCA event (i.e., ECCS initiation), when offsite sources remain available. SR 3.8.1.17 (l) Current licensing basis does not require postulating that a LOOP occurs some time subsequent to when a LOCA occurs. SR 3.8.1.17 (m) Separation and Independence are part of the design and thus do not need to be verified by [periodic] testing; they are ensured by configuration control and existing maintenance practices. SR 3.8.1.20	(continued) (g) Adding these test requirements is not inconsistent with current testing practice, since they are not currently done. (j) It appears that automatic realignment to standby mode is not part of design, so it cannot be tested. Thus, this reason is pant-specific and acceptable.	

NPPD Response: Since the CNS CTS does not include Surveillances similar to the ones addressed in this comment, the addition of these requirements would constitute More Restrictive changes. As the subject Surveillances are not part of the current licensing basis reflected in the CTS, NPPD does not choose to adopt these requirements in the CNS ITS.

3.8.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		3	STS 3.8.2 Action A Note ITS 3.8.2 Action A Note STS Action A Note states "....with one required division de-energized...." The corresponding note in the ITS states "....when any division is de-energized...." JFD 3 bases this difference on avoiding a possible misinterpretation that the note would not apply if more than one division is de-energized as a result of Condition A. This is not a plant specific basis.	This generic difference is consistent with the STS Bases for Action A and appears acceptable. NPPD is requested to propose a generic change to the STS as a condition of adopting this difference in the ITS.	
NPPD Response: NPPD will develop a generic change to the STS, as suggested in the comment.					

3.8.2	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2			ITS 3.8.2 Actions Note TSTF-36 ITS propose a note to the Actions that says LCO 3.0.3 is not applicable. This difference from the STS is based on TSTF-36. NRC rejected TSTF-36 and its first revision. The TSB reviewer has recommended rejection of Revision 2.	This note is unnecessary. Revise the submittal to omit this note. This Note should also be removed from ITS 3.8.5 and 3.8.8.	
NPPD Response: The proposed Note to the ITS 3.8.2 ACTIONS provides a necessary clarification, because defaulting to ITS LCO 3.0.3 (during irradiated fuel assembly movement in MODE 1, 2, or 3) would require the reactor shut down, but would not require immediate suspension of movement of irradiated fuel assemblies when required components are inoperable. ITS LCO 3.0.3 is only applicable in MODE 1, 2, or 3. Therefore, once the unit is in MODE 4 in accordance with ITS LCO 3.0.3, ITS LCO 3.0.3 is no longer applicable. The actions of the "shutdown" Electrical Power System Technical Specifications (i.e., ITS 3.8.2 ACTIONS), which require suspension of irradiated fuel movement, would then be applicable. However, the requirements of ITS LCO 3.0.3 would allow up to 37 hours to place the unit in MODE 4 (and as a result up to 37 hours would be allowed to suspend irradiated fuel movement). Therefore, with the unit in this Condition, the Note, "LCO 3.0.3 is not applicable," ensures that the actions for requiring immediate suspension of movement of irradiated fuel assemblies are not postponed due to entry into ITS LCO 3.0.3 and that the unit is immediately placed in a condition of minimum risk, with respect to fuel handling activities during MODE 1, 2, or 3. A revision to generic change Technical Specification Task Force (TSTF)-36 has been proposed to reflect this information.				
3		1	ITS SR 3.8.2.1 STS SR 3.8.2.1 The listed SRs of ITS 3.8.1 omit the SRs of STS 3.8.1 that CNS does not propose to adopt.	Make appropriate changes upon resolution of comment 3.8.1-14.	
NPPD Response: Since the CNS CTS does not include Surveillances similar to the ones addressed in this comment, the addition of these requirements would constitute More Restrictive changes. As the subject Surveillances are not part of the current licensing basis reflected in the CTS, NPPD does not choose to adopt these requirements in the CNS ITS.					

Cooper Nuclear Station Improved TS Review Comments
ITS 3.8.3, Diesel Fuel Oil, Lube Oil, and Starting Air

3.8.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1	A.2		CTS 4.9.A.2.d ITS SR 3.8.3.3 CTS 4.9.A.2.e ITS 5.5.9 Bases for ITS SR 3.8.3.3 DOC LA.3 for ITS Section 5.5 JFD 25 for ITS Section 5.5 Bases JFD 6 for ITS Section 3.8.3 TSTF-106 (approved) ITS 5.5.9, Diesel Fuel Oil Testing Program, and ITS SR 3.8.3.3, which requires verifying fuel oil properties in accordance with ITS 5.5.9, replace CTS 4.9.A.2.d and 4.9.A.2.e. ITS 5.5.9 establishes the diesel fuel oil tests the program must include. But certain details, such as the surveillance test interval for new fuel oil parameters of density, kinematic viscosity, flash point, and appearance, are moved to the Bases for SR 3.8.3.3 and the Diesel Fuel Oil Testing Program itself, outside TS. As discussed in JFD 25 for ITS Section 5.5, ITS 5.5.9.a.3 (and associated Bases discussion of SR 3.8.3.3) allow an alternate test for verification of acceptability of new fuel (prior to addition to the storage tank) with regard to water and sediment content - the ASTM-D975-1989a water and sediment by centrifuge test - in lieu of the ASTM-D4176-1991 clear and bright test as specified by CTS 4.9.A.2.e.1.d.	Adding the centrifuge test for new fuel is a difference from the STS and a change to the CTS. Thus, it is a beyond scope change. Ed Tomlinson or EELB must review it.	

NPPD Response: The CNS DG fuel supplier provides dyed fuel oil. The water and sediment by centrifuge test was put in the Bases because the CTS 4.9.A.2.e.1.d requirement to perform the clear and bright test to determine water and sediment content is not recommended for use with dyed fuel oils. During the NRC's Peach Bottom ITS conversion reviews, this same issue about which test to use to determine water and sediment content of dyed fuel oil was discussed. At that time, Ed Tomlinson (NRC Technical Specification Branch) took the position that the clear and bright test was not appropriate to use to determine water and sediment content of dyed fuel oil and he recommended that the Peach Bottom ITS submittal be revised to allow the option of using the water and sediment by centrifuge test on dyed fuel oil. At that time, the NRC did not consider this to be a beyond-scope change.

3.8.3	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
2		4	STS 3.8.3 Required Action E.1 ITS 3.8.3 Required Action E.1 STS Required Action E.1 requires restoring starting air receiver pressure to ≥ [225] psig. ITS 3.8.3 Required Action E.1 replaces ≥ [225] psig with "within limit." The justification is based on being consistent with the Required Actions of this specification. This is not a plant specific change but is a possible generic change that should be accomplished with a TSTF.	This is not a justifiable plant specific or editorial difference. Revise the submittal to adopt the STS wording.	
NPPD Response: NPPD will revise the CNS ITS submittal as suggested in the comment.					
3		6	STS 3.8.3 Action E STS SR 3.8.3.4 ITS 3.8.3 Action E ITS SR 3.8.3.4 STS 3.8.3 Action E and SR 3.8.3.4 state "... starting air receiver..." ITS 3.8.3 Action E and SR 3.8.3.4 revises this statement to ".... required starting air receiver..." The justification states that the changes reflect plant specific design and analysis but does not provide any details about actual specific design or analysis.	Provide justification for the STS deviation based on current licensing basis, system design, or operational constraints.	
NPPD Response: Only one of the two starting air receivers on each DG is required to support the OPERABILITY of the associated DG. Thererfore, NPPD will add a new JFD to discuss this.					

3.8.4	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		1	a. Bases discussion of ITS LCO 3.8.4 Bases discussion of ITS 3.8.4 Applicability The ITS Bases replaces the STS words 'anticipated operational occurrence (AOO)' with 'abnormal operational transient.' Note this is a **global** difference and should be addressed throughout the ITS Bases.	a. This is not a justifiable plant-specific or editorial difference. Revise the submittal to adopt the STS wording. b. Revise all Bases to reflect this STS preference. c. Adopt the STS word since 'specified' doesn't add any clarity and could be confusing in the technical *specifications*. Note, this comment should be applied globally to all of the Bases. d. This is not a justifiable plant-specific or editorial difference. Revise the Bases to adopt the omitted words. e. This is not a justifiable plant-specific or editorial difference. Revise the submittal to adopt the STS wording.	
		4	b. Bases discussion of Applicable Safety Analysis for ITS 3.8.4 - last sentence This is a **global** comment - the last sentence should cite the regulation 10 CFR 50.36(c)(2)(ii) directly, not by referring to Reference 5.		
		3	c. Bases discussion of ITS 3.8.4 Required Actions B.1 and B.2 The ITS Bases uses the word 'specified' in place of the STS word 'required' regarding the time to reach Mode 4 allowed by RG 1.93.		
		1	d. Bases discussion of ITS SR 3.8.4.1 The ITS omits the STS words "(or a battery cell)."		
		3	e. Bases for ITS SR 3.8.4.8, 3rd paragraph The ITS Bases replace STS's "battery rate of deterioration is increasing" with "battery is getting old and capacity will decrease more rapidly."		

3.8.4	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
NPPD Response: Comment a. The CNS ITS Bases and the CNS USAR use "abnormal operational transient" throughout. This is the plant-specific nomenclature, and NPPD chooses to not revise the submittal as suggested. Comment b. The change, identified in the NRC comment as being incorrect, was incorporated into all of the applicable CNS ITS Bases before the Generic Editorial Change (which proposed the change from "NRC Policy Statement" to "10 CFR 50.36(c)(2)(ii)") being submitted to the NRC in its current form. The wording included in the CNS ITS Bases is consistent with that approved by the NRC in the WNP-2 ITS conversion and is more correct than the statements approved by the NRC in other recently approved ITS conversions. The difference between the wording of the Generic Editorial Change and the wording of the CNS ITS Bases (with regard to the reference to 10 CFR 50.36(c)(2)(ii)) is a matter of presentation preference, is consistent with other reference presentations in NUREG-1433, and has no impact on safety. Therefore, NPPD does not consider a revision necessary. Comment c. Regulatory Guides do not "requ...e" anything, they merely guide interpretation. NPPD chooses to use "specified." Comment d. NPPD will provide more plant-specific justification to maintain the change. Comment e. NPPD will revert to the CTS wording.					
2	L.6		CTS 4.9.A.3.d.3 ITS SR 3.8.4.8 DOC L.6 does not address omitting from SR 3.8.4.8 the 17-year in-service criteria for requiring a battery discharge test.	Revise the submittal with a justification for this omission.	
NPPD Response: The expected battery life at CNS is 20 years. NPPD will add an A DOC discussing that 17 years is 85% of the expected battery life of 20 years.					

3.8.4	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3		2	STS 3.8.4 Action C ITS 3.8.4 Actions STS 3.8.4, required actions for DG DC subsystem, is omitted from ITS 3.8.4. JFD 2 states these action requirements are not applicable to the CNS design, but fails to offer details explaining why it is not applicable to the CNS design.	Provide justification for this STS deviation which describes details of CNS design differences.	
NPPD Response: NPPD will revise JFD 2 to state that the CNS design does not include separate DG batteries.					
4	L.1	3	CTS 3.9.B.3.a ITS 3.8.4 Action A CTS 3.9.B.3.b STS 3.8.4 Action A ITS 3.8.4 Action C CTS 3.9.B.3.a and CTS 3.9.B.3.b provide Actions, including restoring the inoperable battery within **2 hours** or the inoperable battery charger within **4 hours** when one 125 V DC or 250 V DC battery or battery charger is inoperable. ITS 3.8.4 Action A is applicable to only the 125 V DC batteries and associated chargers (subsystems) and ITS 3.8.4 Action C, not contained in STS 3.8.4, is separately specified for the 250 V DC subsystems. Action C requires declaring the associated supported features inoperable immediately. According to the Bases for ITS 3.8.4 Action C: a. An inoperable 250 V DC subsystem renders the RCIC system and the Division 1 LPCI subsystem inoperable. The applicable action requirements, Action A of ITS 3.5.1 and Action A of ITS 3.5.3 allow **7 days** and **14 days**, respectively, to restore the RCIC and LPCI subsystems. b. An inoperable 250 V DC subsystem renders the HPCI system and the Division 2 LPCI subsystem inoperable. Corresponding Action E of ITS 3.5.1 allow **3 days** to restore the HPCI and LPCI subsystems. Increasing the Completion Times from 2 or 4 hours to the times given in ITS Section 3.5 is a significant change and is beyond the scope of the conversion.	This item is referred to the PM for tech staff review.	
NPPD Response: No response required. NPPD considers this comment to be for internal NRC issue tracking purposes.					

3.8.5	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		4	STS 3.8.5 SR 3.8.5.1 ITS 3.8.5 SR 3.8.5.1 STS SR 3.8.5.1 states "For DC sources required to be OPERABLE,....." ITS SR 3.8.5.1 replaces sources with electrical power subsystems and states "For DC electrical power subsystems required to be OPERABLE, ... " The justification is based on being consistent with the wording of the LCO and ACTION. This is not a plant specific change but is a possible generic change to the STS that should be accomplished using the STS generic change process.	Revise the submittal to conform to the STS wording.	
NPPD Response: NPPD will revise the CNS ITS submittal according to the comment.					
2		5	STS SR 3.8.5.1 ITS SR 3.8.5.1 STS SR 3.8.5.1 lists the SRs to be performed in a column format. ITS SR 3.8.5.1 lists the same SRs in a sentence format. The justification is based on being consistent with the Writers Guide. This is not a plant specific change but is a possible generic change to the STS that should be accomplished using the STS generic change process.	Revise the submittal to conform to the STS wording.	
NPPD Response: NPPD will revise the CNS ITS submittal according to the comment.					

3.8.5	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3			ITS 3.8.5 Actions Note and associated Bases discussion TSTF-36 ITS 3.8.5 adds a note to the Actions of STS 3.8.5 stating " LCO 3.0.3 is not applicable." The justification is based on information in TSTF-36. The disposition of TSTF-36 R.1 and R.2 is "Pending."	This note is not necessary. Explain how there could be an "inability to suspend movement of irradiated fuel assemblies" for up to 6 hours." Withdraw it from the submittal.	

NPPD Response: The proposed Note to the ITS 3.8.2 ACTIONS provides a necessary clarification, because defaulting to ITS LCO 3.0.3 (during irradiated fuel assembly movement in MODE 1, 2, or 3) would require the reactor shut down, but would not require immediate suspension of movement of irradiated fuel assemblies when required components are inoperable. ITS LCO 3.0.3 is only applicable in MODE 1, 2, or 3. Therefore, once the unit is in MODE 4 in accordance with ITS LCO 3.0.3, ITS LCO 3.0.3 is no longer applicable. The actions of the "shutdown" Electrical Power System Technical Specifications (i.e., ITS 3.8.2 ACTIONS), which require suspension of irradiated fuel movement, would then be applicable. However, the requirements of ITS LCO 3.0.3 would allow up to 37 hours to place the unit in MODE 4 (and as a result up to 37 hours would be allowed to suspend irradiated fuel movement). Therefore, with the unit in this Condition, the Note, "LCO 3.0.3 is not applicable," ensures that the actions for requiring immediate suspension of movement of irradiated fuel assemblies are not postponed due to entry into ITS LCO 3.0.3 and that the unit is immediately placed in a condition of minimum risk, with respect to fuel handling activities during MODE 1, 2, or 3. A revision to generic change Technical Specification Task Force (TSTF)-36 has been proposed to reflect this information.

3.8.6	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1			CTS Table 3.9-1 footnote (5) ITS Table 3.8.6.1 footnote (b) CTS Table 3.9-1 footnote (5) requires correcting specific gravity for electrolyte temperature and level. ITS Table 3.8.6.1 footnote (b) has the same requirement but also states that level correction is not required when on float charge and battery charging current is < 2 amps. No discussion or justification is provided for this change to the CTS.	Provide discussion and justification for the CTS change stating that level correction is not required when on float charge and battery charging current is < 2 amps.	
NPPD Response: NPPD will add an L DOC to address not requiring level correction of specific gravity when on float charge and when battery charging current is less than 2 amps.					
2		3	STS 3.8.6 Condition B ITS 3.8.6 Condition B STS Table 3.8.6.1 Category C ITS Table 3.8.6.1 Category C a. The third Condition of STS Condition B states "...parameters not within Category C values." ITS 3.8.6 Condition B replaces the word "values" with "limits". The justification is to more closely match the LCO description. b. The STS Table 3.8.6.1 Category C column is entitled "Category C: Allowable Limits for Each Connected Cell." ITS Table 3.8.6.1 deletes the word "Allowable." The justification is to be consistent with manner in which Category C "Limits" are described in the Actions and that is will avoid confusion with the term "Allowable Value" used in the Instrumentation section. These are not plant specific changes but are possible generic changes that should be accomplished using the STS generic change process.	These are not plant specific differences. Revise the submittal to adopt the STS wording. NPPD is encouraged to initiate a generic change proposal to the TSTF.	
NPPD Response: NPPD will develop a generic change to the STS.					

3.8.6	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3		2	ITS LCO 3.8.6 ITS SR 3.8.6.3 Unlike the STS, the ITS specifically requires electrolyte temperature to be within limits (given in SR 3.8.6.3) because ITS Table 3.8.6-1 does not specify electrolyte temperature limits. This is a generic difference from the STS.	This difference is acceptable; thus the STS should be corrected. NPPD is encouraged to initiate a generic change proposal to the TSTF.	
NPPD Response: A generic change has been submitted to the NEI TSTF for pro					

3.8.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		4	STS LCO 3.8.9 STS SR 3.8.9.1 STS 3.8.9 Action B ITS LCO 3.8.7 STS 3.8.9 Action E ITS 3.8.7 Actions ITS Bases Table B 3.8.7-1 The STS LCO 3.8.9 and SR 3.8.9.1 include the AC vital bus and Action B contains Conditions and Required Actions for the AC vital bus. These are not included in corresponding ITS 3.8.7. In addition ITS 3.8.7 does not include STS Action E for the DG DC electrical power distribution system. The justification for these STS changes is that the bracketed items are not applicable to CNS. This implies that CNS does not have a vital AC bus or a DG DC electrical power distribution system. However this is not specifically stated in either the justification for the deviation or in the Bases discussion.	Revise the submittal to explicitly confirm whether or not CNS has AC vital buses or a DG DC electrical power distribution system. In addition, the smooth version of the Bases table is incorrectly labeled B 3.8.9-1; it should be B 3.8.7-1.	
NPPD Response: NPPD will revise JFD 4 with supporting plant-specific detail and will correct the typed ITS Bases Table as identified in the comment.					
2		1	STS 3.8.7 and 3.8.8 STS 3.8.7 and STS 3.8.8 contain requirements for inverters when operating and when shutdown, respectively. The ITS does not implement these requirements. The justification states that these STS sections are deleted because they are not applicable to CNS. Although not explicitly stated in either the justification or the Bases, this implies that CNS does not have inverters. In addition there is no discussion of how the function of supplying AC power that is derived from DC (such as by using inverters or MG set(s) is provided.	Revise the submittal to explicitly confirm whether or not CNS has inverters or comparable equipment, such as MG sets.	
NPPD Response: CNS does not have inverters like those addressed in the ISTS. At CNS, MG sets supply AC power derived from DC. (ITS 3.3.8.2 talks about these MG sets.) NPPD will update JFD 1 for ISTS 3.8.7 and ISTS 3.8.8 with this information.					

3.8.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
3	A.4	5	CTS 3.9.A.1.d CTS 3.9.B.3.a CTS 3.9.B.3.b STS 3.8.9 ITS 3.8.7 Action D ITS 3.8.7 Action D is included to require that supported subsystems (including LPCI, RCIC, and HPCI subsystems) be declared inoperable immediately upon discovery that a 250 V DC distribution subsystem is inoperable. As discussed in Comment 3.8.4-4, in terms of when a shutdown is required, this changes relaxes this time from 2 or 4 hours to 3 or 7 days, depending upon the division that is inoperable. This is a significant change and is beyond the scope of the conversion.	This item is referred to the PM for tech staff review.	
NPPD Response: No response required. NPPD considers this comment to be for internal NRC issue tracking purposes.					

3.8.7	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
4		5	ITS LCO 3.8.7 ITS 3.8.7 Actions ITS Bases Table 3.8.7-1 Bases discussion of ITS LCO 3.8.7, STS markup Insert 1 The Bases for the simplified Actions table in STS 3.8.9 is that all safety related electrical busses, motor control centers, panels, etc. would be listed in the Bases table, relieving the operator from declaring inoperable numerous components supplied by one of these busses or panels. For simplicity, a common time of 8 hours was established for AC distribution subsystems and 2 hours for DC distribution subsystems, and 2 hours for Vital AC subsystems - regardless of the importance of the systems supported by these distribution subsystems. By not listing in the Bases table all panels supplying safety-related loads, the ITS conflicts with the rational behind the STS Actions table. NPPD proposes to mix cascading, no-cascading, and Action-directed cascading in the ITS 3.8.7 Actions table. The STS tries to avoid such an arrangement. The CTS requirements for distribution systems are only covered by the definition of operability - which implies that anytime a panel or bus is discovered inoperable, all supported loads should be declared inoperable and appropriate TS action requirements should be met, i.e., complete cascading. The STS approach - no cascading - was concluded to be an improvement. The 250 V DC busses may be a special case because of the relatively few safety related subsystems they support. Thus, ITS Action D, which directs cascading to the ECCS and RCIC specifications, may be an acceptable difference from the STS. Its acceptance is open pending resolution of Comments 3.8.4-4 and 3.8.7-3.	Revise the submittal to conform to the STS presentation of requirements - a complete list of electrical busses and panels in the Bases table. Note that the ITS for Hatch 1 and 2 were approved with no Bases table, but with a fairly comprehensive listing of electrical busses and panels in the LCO itself. See the Hatch SE page 278. Such a presentation may be acceptable for CNS.	

NPPD Response: NPPD will change the NCS ITS submittal to include the approach used by Hatch, as suggested in the comment (but with only the listing of busses currently provided in ITS Bases Table B 3.8.7-1.)

3.8.8	DOC	JFD	CHANGE/DIFFERENCE	COMMENT	STATUS
1		2	STS LCO 3.8.10 STS 3.8.10 Condition A and Required Action A.2.4 STS SR 3.8.10.1 ITS LCO 3.8.8 ITS 3.8.8 Condition A and Required Action A.2.4 ITS SR 3.8.10.1 The STS 3.8.10 LCO, Condition A, Required Action A.2.4 and SR 3.8.10.1 includes requirements, Conditions, and Required Actions for the AC vital bus. These are not included in the corresponding ITS 3.8.8. The justification for these STS changes is that the plant specific value/nomenclature has been provided for the bracketed items. This implies that CNS does not have a vital AC bus. However this is not specifically stated in either the justification for the deviation or in the Bases discussion.	Revise the submittal to explicitly confirm whether or not CNS has AC vital buses. See Comment 3.8.7-1.	
NPPD Response: NPPD will revise JFD 2 with supporting plant-specific detail.					
2			STS 3.8.10 ACTIONS ITS 3.8.8 ACTIONS ITS 3.8.8 contains a note to the ACTIONS not found in STS 3.8.10 stating " LCO 3.0.3 is not applicable." The justification is based on information in TSTF-36.	See Comments 3.8.2-2 and 3.8.5-3.	

NPPD Response: The clarification the proposed Note provides to the ITS 3.8.8 ACTIONS is necessary because defaulting to ITS LCO 3.0.3 (during irradiated fuel assembly movement in MODE 1, 2, or 3) would require the reactor shut down, but would not require immediate suspension of movement of irradiated fuel assemblies when required components are inoperable. ITS LCO 3.0.3 is only applicable in MODE 1, 2, or 3. Therefore, once the unit is in MODE 4 in accordance with ITS LCO 3.0.3, ITS LCO 3.0.3 is no longer applicable. The actions of the "shutdown" Electrical Power System Technical Specifications (e.g., ITS 3.8.8 ACTIONS), which require suspension of irradiated fuel movement, would then be applicable. However, the requirements of ITS LCO 3.0.3 would allow up to 37 hours to place the unit in MODE 4 (and, as a result, up to 37 hours allowed to suspend irradiated fuel movement). Therefore, with the unit in this Condition, the Note, "LCO 3.0.3 is not applicable," ensures no postponement of the actions for requiring immediate suspension of movement of irradiated fuel assemblies due to entry into ITS LCO 3.0.3 as well as immediate placement of the unit in a condition of minimum risk, with respect to fuel handling activities during MODE 1, 2, or 3. A revision to generic change Technical Specification Task Force (TSTF) 36 has been proposed to reflect this information.