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William R. Brian
Vice President - Operations
Grand Gulf Nuclear Station

GNRO-2007/00068

September 21, 2007

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

Subject: Supplement 2 to Amendment Request
Changes to the Condensate Storage Tank Level-Low Setpoints
Grand Gulf Nuclear Station, Unit 1 (GGNS)
Docket No. 50-416
License No. NPF-29

References: 1. Letter GNRO-2007/00016 from W. R. Brian, Entergy Operations, Inc., to Document Control Desk, USNRC, "License Amendment Request Condensate Storage Tank Level-Low Setpoint Change," dated March 1, 2007 (TAC # MD 4675)

2. Letter GNRO-2007/00061 from W. R. Brian, Entergy Operations, Inc., to Document Control Desk, USNRC, "Supplement to Amendment Request Changes to the Condensate Storage Tank Level-Low Setpoints," dated September 5, 2007

Dear Sir or Madam:

By the Reference 1 letter above, Entergy Operations, Inc. (Entergy) proposed a change to the Grand Gulf Nuclear Station, Unit 1 (GGNS) Technical Specifications (TS) to incorporate the corrected allowable values in TS Tables 3.3.5.1-1 and 3.3.5.2-1.

The letter in Reference 2 above documented responses to six questions resulting from calls held with the NRC staff to discuss the technical basis for the proposed TS change. The NRC Staff has further requested copies of the surveillance procedures referenced in the supplemental letter. Copies of the requested procedures are attached.

There are no technical changes proposed. The original no significant hazards consideration included in Reference 1 above is not affected by any information contained in this supplemental letter. There are no new commitments contained in this letter.

If you have any questions or require additional information, please contact Matt Crawford at 601-437-2334.

G070068

A001
NRK

I declare under penalty of perjury that the foregoing is true and correct. Executed on September 21, 2007.

Sincerely,



WRB/MLC/amm

Attachments:

1. GGNS Procedure 06-IC-1E22-Q-0002
2. GGNS Procedure 06-IC-1E22-R-0002
3. GGNS Procedure 06-IC-1E51-Q-0002
4. GGNS Procedure 06-IC-1E51-R-0002
5. GGNS Procedure 01-S-06-12

cc: Mr. Elmo E. Collins
Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
61 1 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-4005

U.S. Nuclear Regulatory Commission
ATTN: Mr. Bhalchandra Vaidya, NRR/DORL (w/2)
ATTN: ADDRESSEE ONLY
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Mail Stop OWFN/O-8G14
Washington, D.C. 20555-0001

Mr. Brian W. Amy, MD, MHA, MPH
Mississippi Department of Health
P. O. Box 1700
Jackson, MS 39215-1700

NRC Senior Resident Inspector
Grand Gulf Nuclear Station
Port Gibson, MS 39150

GNRO-2007/00068

bcc:

OUTLOOK MAIL: **DISTRIBUTION IS ALL ELECTRONIC**

Barfield A. D. (GG-ENG)
Bottemiller C. A. (GG-NSAPL)
Bregar C. A. (ANO-NSA)
Brian W. R. (GG-VP)
Burford F. G. (ECH-NSL)
Caery J. (GG-TRNG)
Cook K. S. (W3-NSA)

GGN CENTRAL FILE (17)

GGN PLANT LICENSING

James D. E. (ANO-NSAPL)
Krupa M. A. (GG-GMPO)
Lorfing D. N. (RB-NSAPL)
Marlow T. A. (ANO-NSA)
McCann J. F. (WP-NS&L)
Murillo R. J. (W3-NSAPL)
Roberts J. C. (RB-NSA)

OTHER: File (LRS_DOCS Directory - GNRI or GNRO)

NRC SUBMITTAL REVIEW

Letter # GNRO-2007/00068

Response Due: NA

Subject: Supplement 2 to Amendment Request –
Changes to the Condensate Storage Tank
Level-Low Setpoints

Date Issued for Review: 9/21/07

Correspondence Preparer / phone #: Matt Crawford / 601-437-2334

SECTION I LETTER CONCURRENCE and AGREEMENT TO PERFORM ACTIONS (see Section III)

POSITION/NAME	ACTION (concurrence, certification, etc.)	SIGNATURE (sign, interoffice memo, e-mail, or telecom)
Manager, Plant Licensing	Concurrence	
COMMENTS		

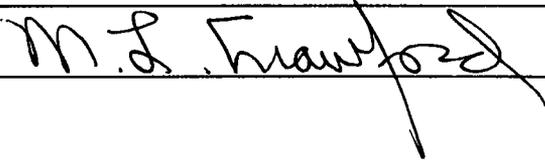
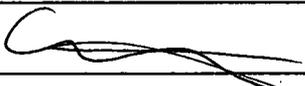
SECTION II CORRESPONDENCE SCREENING

Does this letter contain commitments? If "yes," identify the commitments with due dates in the submittal and in Section III.	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>
Does this letter contain any information or analyses of new safety issues performed at NRC request or to satisfy a regulatory requirement? If "yes," reflect requirement to update the UFSAR in Section III.	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>
Does this letter request NRC approval of a change that may/will require UFSAR, TS Bases, or other Licensing documents to be updated if approved? If "yes," reflect requirement to update the applicable Licensing document in Section III.	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>
Does this letter require procedure changes, if approved? If "yes," indicate in Section III an action to determine affected procedures. (The Correspondence Preparer may indicate the specific procedures requiring revision, if known.)	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>
Does this letter contain information certified accurate? If "yes," identify the information and document certification in an attachment. (Attachment 9.6 may be used.)	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>

SECTION III ACTION ITEMS

Required Actions	Due Date	RESPONSIBLE DEPARTMENT
NOTE: Actions needed upon approval should be captured in the appropriate action tracking system.		
None		

SECTION IV FINAL DOCUMENT SIGNOFF FOR SUBMITTAL

Correspondence Preparer	Matt Crawford 
Final Submittal Review (optional)	N/A
Responsible Dept. Head	

Attachment 1

To

GNRO-2007/00068

GGNS Procedure 06-IC-1E22-Q-0002

PLANT OPERATIONS MANUAL

Volume 06
Section 04

06-IC-1E22-Q-0002

Revision: 101

Date: 11/18/05

SURVEILLANCE PROCEDURE
CONDENSATE STORAGE TANK LOW LEVEL

FUNCTIONAL TEST

SAFETY RELATED

Prepared: _____

Reviewed: _____

Approved: _____

J. Moody
[Signature]
Technical
[Signature]
I&C Superintendent

List of Effective Pages:

Pages 1-2

Attachments I, II

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
20	None
100	None
101	None

Title: Condensate Storage Tank Low Level Functional Test	No.: 06-IC-1E22-Q-0002	Revision: 101	Page: i
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10CFR50.59 Review Required?	<input checked="" type="checkbox"/> Yes	If Yes, transmit 50.59 Review Form along with procedure to Document Control as a separate record.
	<input type="checkbox"/> No	Not required per LI-101

Cross-Discipline review required?	<input checked="" type="checkbox"/> Yes	(Note affected Departments Below)
	<input type="checkbox"/> No	
Preparer Initials>>> Jm		

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)
Engineering	<i>Amata</i>

Does this directive contain Tech Spec Triggers? YES NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
Function	3.3.5.1-1.3.d	*
Tech Spec	SR 3.3.5.1.2	*
Tech Spec	SR 3.3.5.1.3	*
TRM	SR 6.8.2.1	2.9, 5.13.24
TRM	3.3.5.1-1.3.d	*

* Covered by directive as a whole or by various paragraphs of the directive.

NOTE

The Equipment Database (EDB) Request statement is applicable only to Volume 06 and 07 maintenance directives.

EDB Change Request generated and the backup documentation available for setpoint and/or calibration data only Yes N/A EBCR # _____

Current Revision Statement

Revision 101 incorporates:

- ER-GG-1999-0217-000 which changes transmitters and ranges of CST level instrumentation.
- Section Revision Request # 589, which clarifies nomenclature of hand switch.
- Procedure changed to Read/Write format and required numerous changes therefore no rev bars were used.

Title: Condensate Storage Tank Low Level Functional Test	No.: 06-IC-1E22-Q-0002	Revision: 101	Page: 1
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1.0 PURPOSE

- 1.1 To functionally test Condensate Storage Tank Low Level Loop to ensure operability.
- 1.2 A Channel Functional Test is required every 92 days in accordance with Section SR 3.3.5.1.2 Function 3.3.5.1-1.3.d of GGNS Technical Specifications.
- 1.3 A Trip Unit Calibration is required every 92 days in accordance with SR 3.3.5.1.3, Function 3.3.5.1-1.3.d of GGNS Technical Specifications.
- 1.4 This functional test is associated with 1E22-LIS-N654C and N654G.
- 1.5 Verifies that MOV thermal overloads are bypassed per TRM SR 6.8.2.1.
- 1.6 Changes required for implementation of 1994 TSIP were incorporated in Revision 100. For historical reference this statement should not be deleted.

2.0 PRECAUTIONS AND LIMITATIONS

- 2.1 Steps marked with a pound sign (#) are initialed on Data Sheet I as each step is completed. If steps are repeated during this functional test, they shall be reinitialed on Data Sheet I. Place an N/A on Data Sheet I for optional steps not performed.
- 2.2 Steps marked with a dollar sign (\$) are required to be completed for Technical Specifications Acceptance Criteria.
- 2.3 If "As Found" values are not in tolerance, if procedural steps cannot be completed as stated, or if any other problem develops during this test, notify your immediate supervisor.
- 2.4 If "As Found" values exceed Technical Specifications tolerance, notify Shift Supervisor.
- 2.5 When HPCS is required to be Operable this test shall be performed on only one channel at a time. When one channel is being tested, remaining channels must be in Normal (untripped) condition.
- 2.6 Valve 1E22-F015 (Pump Suction from Suppression Pool) will Open during performance of this test.
- 2.7 Valve 1E22-F001 (Pump Suction from Condensate Storage Tank) will Close during performance of this test.
- 2.8 Instrument channel under test shall not remain out of service for more than six hours without entering applicable Tech Spec Action Statement. When it becomes apparent this time limit will be exceeded, immediately contact Shift Supervisor. This time limit is applicable only when instrument channel under test is required to be Operable.
- 2.9 Placing MOV TEST switch to TEST, places overload protection in force for valves associated with Test switch. Overload protection may be left in force for up to eight hours, after which overloads must be bypassed by placing MOV Test switch to NORMAL or declaring valves Inoperable and entering applicable Tech Spec Action Statement. If it becomes apparent that MOV Test switch will be in TEST for longer than eight hours, immediately notify Shift Supervisor.

Title: Condensate Storage Tank Low Level Functional Test	No.: 06-IC-1E22-Q-0002	Revision: 101	Page: 2
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2.10 Following alarms, trips and/or actions should occur from following Trip Units:

INSTRUMENT NO.	ANNUNCIATOR	COMPUTER POINT	IND LIGHT/ACTION
1E22-N654C	"CST LVL LO"	"CNDS STORAGE	TRIP UNIT IN CAL/GR FAIL
1E22-N654G	1H13-P601-16A(C-4)	TANK WTR LEVEL	1H13-P601-16B (DS-5)
	"HPCS SYS OOSVC"	LOW" E22L600	1E22-F001 will Close
	1H13-P601-16A (H-5)		1E22-F015 will Open

3.0 REQUIRED MATERIALS AND TEST EQUIPMENT

- 3.1 Attachments I and II (as required by channel to be tested)
- 3.2 Current Calibrator, Transmation 1040/1048 or equivalent (0-40 mAdc output) no M&TE requirements
- 3.3 Readout Assembly, Rosemount 710DU or equivalent (accuracy better than ± 0.040 mAdc at 0-20 mA)
- 3.4 Card extender, (As Needed)

4.0 PREREQUISITES AND PLANT CONDITIONS

- 4.1 This procedure may be performed in any Plant Mode except as modified by releasing organization.
- # 4.2 HPCS is in Standby Readiness (E22-F001 Open, E22-F015 Closed) in accordance with SOI 04-1-01-E22-1.

5.0 INSTRUCTIONS

For 1E22-N654C perform instructions on Attachment I.
For 1E22-N654G perform instructions on Attachment II.

6.0 REFERENCES

- 6.1 Bechtel Drawing No. E-1183-000, Rev 13
High Pressure Core Spray System
- 6.2 Rosemount Technical Manual 460000047
Rosemount 510DU Digital Trip Unit
- 6.3 07-S-53-181, Bench Calibration of Rosemount 510DU (710DU) Master and Slave Trip Units
- 6.4 UFSAR Chapter 16, Appendix 16B
- 6.5 ER-GG-1999-0217-000
- 6.6 SC-1E22-LT-N054, Rev.1

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL C
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.1	Obtain permission from Shift Supervisor to begin test.	
5.2	Shift Supervisor's signature is required on Cover Sheet.	
5.3	Verify prerequisite 4.2; HPCS is in Standby Readiness per SOI 04-1-01-E22-1 (with E22-F001 Open, E22-F015 Closed).	_____
5.4	Establish communications, if required, between Control Room and technician performing test.	
5.5	On Calibration Unit containing Master Trip Unit 1E22-N654C on 1H13-P625, ensure TRANSIENT CURRENT switch knob and center knob of Calibration Select/Command switch are pulled out.	
5.6	Ensure Calibration Unit POWER switch and both center and outer Calibration Select/Command switches are in OFF position.	
5.7	Install Readout Assembly into Calibration Unit, and place Calibration Unit POWER switch to ON.	
5.8	Position center and outer knobs of Calibration Select/Command switch to position 3, selecting Master Trip Unit 1E22-N654C.	_____
5.9	Adjust Stable Current to approximately 20.00 mA on Readout Unit.	
5.10	Complete Test Start Time on Data Package Cover Sheet.	
5.11	Push in center knob of Calibration Select/Command switch to activate Calibration Unit.	
\$ 5.12	Ensure CAL LED on Calibration Unit comes On.	_____
5.13	Verify GROSS FAIL LED on Master Trip Unit comes On. N/A if selected trip unit is a Rosemount Model 710.	_____
5.14	Verify "HPCS SYS OOSVC" annunciator, 1H13-P601-16A (H-5), Alarms.	_____
\$ 5.15	Verify TRIP UNIT IN CAL/GR FAIL status light, 1H13-P601-16B (DS-5), comes On.	_____
5.16	Request Operations to place, HPCS MOV TEST SWITCH, 1E22-HS-M614 (1H13-P601-16B) in TEST to activate thermal overload protection devices for 1E22-F001 and 1E22-F015.	_____

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL C
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

5.18.6 Decrease stable current to 4.00 mA (allowable tolerance 3.99 to 4.01) and record "As Found" 0% Master Trip Unit Meter Indication.

MASTER TRIP UNIT ANALOG METER				1E22-N654C
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
0	NOP		1	

NOP - Not on Peg

5.18.7 Press RESET pushbutton on Readout Assembly.

5.18.8 Increase stable current until Master Trip Unit Resets (TRIP LED Off), then record "As Found" reset value from upper display of Readout Assembly.

LOW LEVEL TRIP CALIBRATION DATA (RESET)				1E22-N654C
DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA
6.08	6.04		6.12	

\$ 5.18.9 Verify "CST LVL LO" annunciator, 1H13-P601-16A (C-4), Clears. _____

5.18.10 Pull out center knob of Calibration Select/Command switch.

5.18.11 Connect Current Calibrator (mA OUT, adjusted for 0 mA) positive lead (+) to J1 on Master Trip Unit and negative lead (-) to J2 on Calibration Unit.

NOTE

If On, reset GROSS FAIL LED. If LED does not go Off, adjust Current Calibrator until GROSS FAIL LED can be Reset.

\$ 5.18.12 Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On. _____

5.18.13 Reconnect Current Calibrator negative lead (-) to J1 on Master Trip Unit and positive lead (+) to J2 on Calibration Unit (mA OUT adjusted for 0 mA). _____

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL C
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
\$ 5.18.14	Reset GROSS FAIL LED on Master Trip Unit, and verify LED goes Off.	_____
\$ 5.18.15	Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On.	_____
5.18.16	Disconnect Current Calibrator.	_____
\$ 5.18.17	Reset GROSS FAIL LED on Master Trip Unit. Verify LED goes Off.	_____
5.18.18	Push in center knob of Calibration Select/Command switch.	
5.18.19	If Trip Point adjustment is required, proceed to Step 5.18.19a. If not, record "Final" values and proceed to Step 5.18.20.	
	a. Adjust Stable Current to desired value and adjust Trip Point pot as required.	
	b. Recheck reset value. If reset requires no adjustment, proceed to Step 5.18.19e. If reset requires adjustment, proceed to Step 5.18.19c	
	c. Install card extender between trip unit and card file if necessary.	
	d. Adjust Stable Current to Desired Reset values and adjust RESET DIFFERENTIAL pot on circuit board as required.	
	e. Recheck trip and reset values. If both trip and reset require no further adjustment, record "Final" values and proceed to Step 5.18.20. If not, repeat Steps 5.18.19a through 5.18.19e until unit requires no further adjustment.	
5.18.20	If Master Trip Unit meter adjustment is required, proceed to Step 5.18.20a. If not, record "Final" values and proceed to Step 5.18.21.	
	a. If necessary, install card extender between Master Trip Unit and card file.	
	b. Adjust meter ZERO at back of meter, then recheck 0, 50, and 100% indications. Repeat as required until unit is in tolerance.	
	c. Record "Final" indications.	
5.18.21	If installed, remove card extender from Master Trip Unit and reinstall trip unit in card file. Otherwise, N/A.	_____

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL C
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> | <u>INITIALS</u> |
|-------------|--|-----------------|
| 5.18.22 | Adjust Stable Current to approximately 20.00 mA. | |
| 5.18.23 | Pull out center knob of Calibration Select/Command switch and ensure CAL LED is Off. | |
| 5.18.24 | Have Operations reposition Valves 1E22-F001 and 1E22-F015 to STANDBY READINESS positions and complete Valve Restoration. | |

VALVE RESTORATION

VALVE	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
1E22-F001	CLOSED	OPEN			
1E22-F015	OPEN	CLOSED			

- 5.18.25 Request Operations to place, HPCS MOV TEST SWITCH, 1E22-HS-M614 in NORM to bypass thermal overload protection for 1E22-F001 and 1E22-F015. Complete Hardware Restoration.

HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
HPCS MOV TEST SWITCH 1E22-HS-M614	TEST	NORM			

- \$ 5.18.26 Verify status light, HPCS MOV IN TEST STATUS, 1H13-P601-16B (DS-3), goes Off. _____
- \$ 5.18.27 Press Master Trip Unit Gross Fail RESET pushbutton, and verify GROSS FAIL LED goes Off. _____
- 5.18.28 Verify:
- a. The "HPCS SYS OSVC" annunciator, 1H13-P601-16A (H-5), Clears. _____
- \$ b. The TRIP UNIT IN CAL/GR FAIL status light, 1H13-P601-16B (DS-5), goes Off. _____

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET
SAFETY RELATED

Title: Condensate Storage Tank Low Level (HPCS) Functional Test Channel G
 Technical Specifications: SR 3.3.5.1.2 and SR 3.3.5.1.3; Function 3.3.5.1-1.3.d

1.0 IMPACT STATEMENT

- 1.1 Performance of this procedure will result in swapping suction points of HPCS. Per LCO 3.3.5.1, Surveillance Requirement Note 2, when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the appropriate Condition may be delayed for up to 6 hours provided the associated function or the redundant function maintains ECCS initiation capability. Do not allow both HPCS Suction valves (1E22-F001 and 1E22-F015) to be closed at the same time.
- 1.2 One channel of condensate storage tank level instrumentation will be out of service during performance of this procedure.
- 1.3 The thermal overload protection 8 hour time limit LCO (6.8.2) is applicable (See Step 2.9).

2.0 PROCEDURE

- 2.1 Plant Mode is (circle one): 1 2 3 4 5
- 2.2 Permission to begin test _____ / _____
 Shift Supervisor / Date
- 2.3 Test Start Time: _____ / _____ / _____
 Performer's signature Date Time

3.0 TEST RESULTS

- 3.1 Test Completion: (Check one in each category.)

Entire procedure completed	<input type="checkbox"/>	Partial procedure completed	<input type="checkbox"/>
As Found data Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
As Left data Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
Tech Spec Acceptance Criteria Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
All other steps/data Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
- 3.2 TCNs in effect during performance (list): _____
- 3.3 Comments: Rev Verified by: _____
- 3.4 Test performed by _____ Date/Time _____ / _____

4.0 DEFICIENCIES

CR Issued # _____
 LCO Entered # _____ WR Issued # _____

5.0 APPROVAL

Tech Spec Operability Requirements Acceptable Unacceptable
 Shift Supv/Manager _____ Date _____
 Comments: _____

CONCURRENCE

I&C Superintendent _____ Date _____

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.1	Obtain permission from Shift Supervisor to begin test.	
5.2	Shift Supervisor's signature is required on Cover Sheet.	
5.3	Verify prerequisite 4.2; HPCS is in Standby Readiness per SOI 04-1-01-E22-1 (with E22-F001 Open, E22-F015 Closed).	
5.4	Establish communications, if required, between Control Room and technician performing test.	
5.5	On Calibration Unit containing Master Trip Unit 1E22-N654G on 1H13-P625, ensure TRANSIENT CURRENT switch knob and center knob of Calibration Select/Command switch are pulled out.	
5.6	Ensure Calibration Unit POWER switch and both center and outer Calibration Select/Command switches are in OFF position.	
5.7	Install Readout Assembly into Calibration Unit, and place Calibration Unit POWER switch to ON.	
5.8	Position center and outer knobs of Calibration Select/Command switch to position 4, selecting Master Trip Unit 1E22-N654G.	
5.9	Adjust Stable Current to approximately 20.00 mA on Readout Unit.	
5.10	Complete Test Start Time on Data Package Cover Sheet.	
5.11	Push in center knob of Calibration Select/Command switch to activate Calibration Unit.	
\$ 5.12	Ensure CAL LED on Calibration Unit comes On.	
5.13	Verify GROSS FAIL LED on Master Trip Unit comes On. N/A if selected trip unit is a Rosemount Model 710.	
5.14	Verify "HPCS SYS OOSVC" annunciator, 1H13-P601-16A (H-5), Alarms.	
\$ 5.15	Verify TRIP UNIT IN CAL/GR FAIL status light, 1H13-P601-16B (DS-5), comes On.	
5.16	Request Operations to place, HPCS MOV TEST SWITCH, 1E22-HS-M614 (1H13-P601-16B) in TEST to activate thermal overload protection devices for 1E22-F001 and 1E22-F015.	

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
\$ 5.18.14	Reset GROSS FAIL LED on Master Trip Unit, and verify LED goes Off.	_____
\$ 5.18.15	Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On.	_____
5.18.16	Disconnect Current Calibrator.	_____
\$ 5.18.17	Reset GROSS FAIL LED on Master Trip Unit. Verify LED goes Off.	_____
5.18.18	Push in center knob of Calibration Select/Command switch.	
5.18.19	If Trip Point adjustment is required, proceed to Step 5.18.19a. If not, record "Final" values and proceed to Step 5.18.20.	
	a. Adjust Stable Current to desired value and adjust Trip Point pot as required.	
	b. Recheck reset value. If reset requires no adjustment, proceed to Step 5.18.19e. If reset requires adjustment, proceed to Step 5.18.19c	
	c. Install card extender between trip unit and card file if necessary.	
	d. Adjust Stable Current to Desired Reset values and adjust RESET DIFFERENTIAL pot on circuit board as required.	
	e. Recheck trip and reset values. If both trip and reset require no further adjustment, record "Final" values and proceed to Step 5.18.20. If not, repeat Steps 5.18.19a through 5.18.19e until unit requires no further adjustment.	
5.18.20	If Master Trip Unit meter adjustment is required, proceed to Step 5.18.20a. If not, record "Final" values and proceed to Step 5.18.21.	
	a. If necessary, install card extender between Master Trip Unit and card file.	
	b. Adjust meter ZERO at back of meter, then recheck 0, 50, and 100% indications. Repeat as required until unit is in tolerance.	
	c. Record "Final" indications.	
5.18.21	If installed, remove card extender from Master Trip Unit and reinstall trip unit in card file. Otherwise, N/A.	_____

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL G
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> | <u>INITIALS</u> |
|-------------|--|-----------------|
| 5.18.22 | Adjust Stable Current to approximately 20.00 mA. | |
| 5.18.23 | Pull out center knob of Calibration Select/Command switch and ensure CAL LED is Off. | |
| 5.18.24 | Have Operations reposition Valves 1E22-F001 and 1E22-F015 to STANDBY READINESS positions and complete Valve Restoration. | |

VALVE RESTORATION

VALVE	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
1E22-F001	CLOSED	OPEN			
1E22-F015	OPEN	CLOSED			

- 5.18.25 Request Operations to place, HPCS MOV TEST SWITCH, 1E22-HS-M614 in NORM to bypass thermal overload protection for 1E22-F001 and 1E22-F015. Complete Hardware Restoration.

HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
HPCS MOV TEST SWITCH 1E22-HS-M614	TEST	NORM			

- \$ 5.18.26 Verify status light, HPCS MOV IN TEST STATUS, 1H13-P601-16B (DS-3), goes Off.
- \$ 5.18.27 Press Master Trip Unit Gross Fail RESET pushbutton, and verify GROSS FAIL LED goes Off.
- 5.18.28 Verify:
- a. The "HPCS SYS OSVC" annunciator, 1H13-P601-16A (H-5), Clears.
 - b. The TRIP UNIT IN CAL/GR FAIL status light, 1H13-P601-16B (DS-5), goes Off.

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DATA SHEET I
CONDENSATE STORAGE TANK LOW LEVEL (HPCS)
FUNCTIONAL TEST
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.19	Complete Hardware Restoration.	

HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
Cal Select/Command switch center knob	Pos 3	OFF			
Cal Select/Command switch outer knob	Pos 3	OFF			
Cal Unit POWER switch	ON	OFF			

5.20	Remove Digital Readout Assembly.	_____
5.21	Verify 1E22-N654G reflects current plant conditions.	_____
5.22	Record test equipment used for this test on Data Sheet III. This step may be performed out of sequence if desired.	

TEST EQUIPMENT LOG

TEST EQUIPMENT	M&TE NO.	CAL DUE DATE

5.23 Notify Shift Supervisor test is complete. Shift Supervisor's signature is required on Data Package Cover Sheet.

Attachment 2

To

GNRO-2007/00068

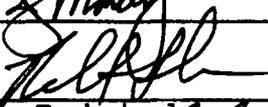
GGNS Procedure 06-IC-1E22-R-0002

PLANT OPERATIONS MANUAL

Volume 06
Section 04

06-IC-1E22-R-0002
Revision: 104
Date: 11/18/05

SURVEILLANCE PROCEDURE
CONDENSATE STORAGE TANK LOW LEVEL
CALIBRATION
SAFETY RELATED

Prepared: 
Reviewed: 
Technical
Approved: 
I&C Superintendent

List of Effective Pages:

Pages 1-3

Attachments I, II

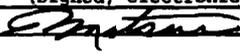
List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
0	None
1	1
2	2, 3
3	None
20	None
21	None
22	4
23	None
100	None
101	5
102	None
103	None
104	None

Title: Condensate Storage Tank Low Level Calibration	No.: 06-IC-1E22-R-0002	Revision: 104	Page: i
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10CFR50.59 Review Required?	<input checked="" type="checkbox"/> Yes	If Yes, transmit 50.59 Review Form along with procedure to Document Control as a separate record.
	<input type="checkbox"/> No	Not required per LI-101

Cross-Discipline review required?	<input checked="" type="checkbox"/> Yes	(Note affected Departments Below)
	<input type="checkbox"/> No	
Preparer Initials>>>		

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)
Engineering	

Does this directive contain Tech Spec Triggers? () YES NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
Function	3.3.5.1-1.3.d	*
Tech Spec	SR 3.3.5.1.5	*
Tech Spec	SR 3.3.5.1.6	*
Tech Spec	3.5.1.5	5.13.3, 5.13.4c & d
TRM	SR 6.8.2.1	2.8, 5.19.9.c
TRM	3.3.5.1-1.3.d	*

* Covered by directive as a whole or by various paragraphs of directive.

NOTE

The Equipment Database (EDB) Request statement is applicable only to Volume 06 and 07 maintenance directives.

EDB Change Request generated and the backup documentation available for setpoint and/or calibration data only Yes N/A EDBCR # _____

Current Revision Statement

Revision 104 incorporates:

- ER-GG-1999-0217-000 which changes transmitters and ranges of CST level instrumentation.
- Section Revision Request # 989, which allows use of test adapter for transmitter calibration.
- Procedure required numerous changes therefore no rev bars were used.

Title: Condensate Storage Tank Low Level Calibration	No.: 06-IC-1E22-R-0002	Revision: 104	Page: 1
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1.0 PURPOSE

- 1.1 To calibrate Condensate Storage Tank Low Level Logic System Channels (HPCS) to ensure operability. This CHANNEL CALIBRATION is required every 18 months in accordance with SR 3.3.5.1.5, Function 3.3.5.1-1.3.d of GGNS Technical Specifications.
- 1.2 To verify HPCS suction path is automatically transferred from CST to suppression pool on CST low level. This test is required every 18 months in accordance with SR 3.5.1.5 (for 1E22-F015 and 1E22-F001) of GGNS Technical Specifications.
- 1.3 To provide testing at least once per 18 months which satisfies requirement for LOGIC SYSTEM FUNCTIONAL TEST of ECCS Actuation Instrumentation per SR 3.3.5.1.6, Function 3.3.5.1-1.3.d of GGNS Technical Specifications.
- 1.4 This procedure is associated with instruments 1E22-LT-N054C/G and 1E22-LIS-N654C/G.
- 1.5 Changes required for implementation of 1994 TSIP were incorporated in Revision 100. For historical reference this statement should not be deleted.

2.0 PRECAUTIONS AND LIMITATIONS

- 2.1 If steps are repeated during this calibration, they shall be reinitialed on Data Sheet I. Place an N/A in Data Sheet I for optional steps not performed.
- 2.2 Steps marked with dollar sign (\$) are required to be completed for Technical Specifications Acceptance Criteria.
- 2.3 If "As Found" values are not in tolerance, if procedural steps cannot be completed as stated, or if any other problem develops during this test, notify your immediate supervisor.
- 2.4 If "As Found" values exceed Technical Specifications tolerance, notify Shift Supervisor.
- 2.5 Any water drained from transmitter, test assembly, and/or associated tubing may be contaminated. Exercise caution and radiological safety precautions.
- 2.6 Pump suction flow path valve transfer will occur during performance of this procedure.
 - 2.6.1 Valve 1E22-F015 (Pump Suction from Suppression Pool) will open on low level in Condensate Storage tank.
 - 2.6.2 Valve 1E22-F001 (Pump Suction from Condensate Storage Tank) will close on low level in Condensate Storage tank.
- 2.7 Instrument channel under test shall not remain out of service for more than six hours without entering applicable Tech Spec Action Statement. When it becomes apparent this time limit will be exceeded, immediately contact Shift Supervisor. This time limit is applicable only when instrument channel under test is required to be Operable.
- 2.8 Placing an MOV TEST switch to TEST, places overload protection in force for valves associated with Test switch. Overload protection may be left in force for up to eight hours, after which overloads must be bypassed by placing MOV TEST switch to NORMAL or declaring valves Inoperable. (Reference LCO 6.8.2, SR 6.8.2.1).

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- 2.9 Following alarms, trips, and/or actions should occur from following Trip Units:

TRIP UNIT	ANNUNCIATOR	COMPUTER POINT	ACTION/IND LIGHT
1E22-N654C Low Level	"CST LVL LO" 1H13-P601-16A (C-4)	E22L600 "CNDS STORAGE TANK WTR LEVEL LOW"	1E22-F015 Opens 1E22-F001 Closes
1E22-N654G Low Level	"HPCS SYS OOSVC" 1H13-P601-16A(H-5) "HPCS SUPP POOL SUCT VLV F015 MAN OVERRD" 1H13-P601-16A(E-5)		

3.0 REQUIRED MATERIALS AND TEST EQUIPMENT

- 3.1 Attachments I and II (as required by channel to be tested)
- 3.2 DVM, Fluke 45 or equivalent (accuracy better than: ± 0.040 mAdc at 0-20 mA; ± 0.193 Vdc at 0-10 Vdc)
- 3.3 Current Calibrator, Transmation 1040/1048 or equivalent (0-40 mAdc output) no M&TE requirements
- 3.4 Readout Assembly, Rosemount 710DU or equivalent (accuracy better than ± 0.040 mAdc at 0-20 mA)
- 3.5 Pressure gauge, Heise (0-491" H₂O) or equivalent (accuracy better than ± 1.194 " H₂O)
- 3.6 Pressure Source (Air)
- 3.7 Card extender (510DU Type) (As Needed)
- 3.8 Test fitting for vent port of Rosemount transmitter. (As Needed)
- 3.9 Torque Wrench, capable of 90"lbs. or equivalent.

4.0 PREREQUISITES AND PLANT CONDITIONS

- 4.1 This procedure may be performed in any Plant Mode except as modified by releasing organization.
- 4.2 HPCS is in Standby per SOI 04-1-01-E22-1 (with 1E22-F015 Closed and 1E22-F001 Open).

5.0 INSTRUCTIONS

- For 1E22-N654C and 1E22-N054C perform instructions on Attachment I.
For 1E22-N654G and 1E22-N054G perform instructions on Attachment II.

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6.0 REFERENCES

- 6.1 Bechtel Drawing No. E-1183, HPCS Schematic Diagram
M-1086, HPCS P&ID Diagram
- 6.2 Vendor Manual 460000047
Trip/Calibration System Model 510DU
- 6.3 Vendor Manual 460001972, Model 1153 Series B & D Alphaline Pressure
Instruments (Rosemount 1153 Transmitter)
- 6.4 07-S-53-181, Bench Calibration of the Rosemount 510DU (710DU) Master and
Slave Trip Units
- 6.5 UFSAR Chapter 16, Appendix 16B
- 6.6 CR-GGN-2001-1367 and SC-1E22-LT-N054, Rev.0
- 6.7 ER-GG-1999-0217-000
- 6.8 SC-1E22-LT-N054, Rev.1

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET
SAFETY RELATED

Title: Condensate Storage Tank Low Level Calibration Channel C
 Technical Specifications: SR 3.3.5.1.5 and SR 3.3.5.1.6, Function 3.3.5.1-1.3.d
SR 3.5.1.5

1.0 IMPACT STATEMENT

- 1.1 Performance of this procedure will result in swapping suction points of HPCS. Do not allow both HPCS Pump Suction valves (1E22-F001 and 1E22-F015) to be Closed at the same time.
- 1.2 In Plant Mode 1, 2 or 3, when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into appropriate Condition may be delayed for up to 6 hours provided associated function or redundant function maintains ECCS initiation capability.
- 1.3 In Plant Modes 4 or 5 when associated subsystems are required to be OPERABLE, entry into Conditions and Required Actions associated with LCO 3.3.5.1 may be delayed for up to 6 hours per Surveillance Note 2, provided associated or redundant Functions maintain ECCS initiation capability. When one of required ECCS Subsystems is MANUALLY re-aligned, above Surveillance Note 2 does not provide allowances for removing from service instrumentation associated with required automatic ECCS subsystem.
- 1.4 Thermal overload protection 8 hour time limit LCO 6.8.2 is applicable.

2.0 PROCEDURE

- 2.1 Plant Mode is (Circle one): 1 2 3 4 5
- 2.2 Permission to begin test and perform system modifications. _____
Shift Supervisor / Date
- 2.3 Test Start Time: _____
Performer's Signature / Date / Time

3.0 TEST RESULTS

- 3.1 Test Completion: (Check one in each category.)

Entire procedure completed	<input type="checkbox"/>	Partial procedure completed	<input type="checkbox"/>
As Found data Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
As Left data Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
Tech Spec Acceptance Criteria Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
All other steps/data Acceptable	<input type="checkbox"/>	Unacceptable	<input type="checkbox"/>
- 3.2 TCNs in effect during performance (list): _____
- 3.3 Comments: Rev.verified by: _____
- 3.4 Test performed by _____ Date/Time _____ / _____

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET (Continued)
SAFETY RELATED

4.0 DEFICIENCIES

CR Issued # _____

LCO Entered # _____

WR Issued # _____

5.0 APPROVAL

Tech Spec Operability Requirements Acceptable [] Unacceptable []

Shift Supv/Manger _____ Date _____

Comments: _____

CONCURRENCE

I&C Superintendent _____ Date _____

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DATA SHEET I
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.1	Obtain permission from Shift Supervisor to begin test. Shift Supervisor's signature is required on Cover Sheet.	
5.2	Perform following:	
5.2.1	Verify prerequisite 4.2; HPCS is in Standby per SOI 04-1-01-E22-1 (with 1E22-F015 Closed and 1E22-F001 Open).	_____
5.2.2	Establish communications, if required, between Control Room and technician performing test.	
5.3	On Calibration Unit containing Master Trip Unit 1E22-N654C on 1H13-P625, ensure TRANSIENT CURRENT switch knob and center knob of Calibration Select/Command switch are pulled out.	
5.4	Ensure Calibration Unit POWER switch and center and outer Calibration Select/Command switches are in OFF position.	
5.5	Install Readout Assembly into Calibration Unit. Place Calibration Unit POWER switch to ON.	
5.6	Position center knob of Calibration Select/Command switch to position 3, selecting Master Trip Unit 1E22-N654C.	
5.7	Position outer knob of Calibration Select/Command switch to position 3, selecting Master Trip Unit 1E22-N654C.	
5.8	Adjust STABLE CURRENT knob to approximately 20 mA as observed on lower display of Readout Assembly.	
5.9	Perform following:	
5.9.1	Complete Test Start Time on Data Package Cover Sheet.	
5.9.2	Push in center knob of Calibration Select/Command switch to activate Calibration Unit.	
5.10	Perform following:	
5.10.1	Ensure CAL LED on Calibration Unit comes On.	
§ 5.10.2	Verify GROSS FAIL LED on Master Trip Unit comes On.	_____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> | <u>INITIALS</u> |
|-------------|---|-----------------|
| 5.11 | Verify: | |
| 5.11.1 | Annunciator, "HPCS SYS OOSVC", on 1H13-P601-16A (H-5), Alarms. | _____ |
| 5.11.2 | Computer point E22L607 displays OUT SVCE. | _____ |
| § 5.11.3 | Status light TRIP UNIT IN CAL/GR FAIL on 1H13-P601-16B (DS-5) comes On. | _____ |
| 5.12 | Perform following: | |
| 5.12.1 | Have Operations place HPCS MOV TEST handswitch (1E22-HS-M614) in TEST position. | |
| § 5.12.2 | Verify status light HPCS MOV IN TEST STATUS DS3, on 1H13-P601-16B is On. | _____ |
| 5.13 | <u>Master Trip Unit Trip Calibration</u> (1E22-N654C on 1H13-P625) | |
| 5.13.1 | Adjust stable current to 20.00 mA (allowable tolerance 19.99 to 20.01). | |
| 5.13.2 | Record "As Found" 100% Master Trip Unit Meter Indication. | |

MASTER TRIP UNIT ANALOG METER				1E22-N654C
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
40	39		NOP	

NOP - Not on Peg

- 5.13.3 Adjust stable current to 12.00 mA (allowable tolerance 11.99 to 12.01) and record "As Found" 50% Master Trip Unit Meter Indication.

MASTER TRIP UNIT ANALOG METER				1E22-N654C
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
20	19		21	

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CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.13.17	If Gross Failure adjustment is required, continue with Step 5.13.17a; otherwise, record them as "Final" values and proceed to Step 5.13.18.	
a.	Install card extender between trip unit to be adjusted and card file.	
b.	Connect DVM, negative (-) to J2 of Calibration Unit and positive (+) to J1 on Master Trip Unit.	
c.	For Low Gross Fail adjustment, connect Current Calibrator positive (+) to J2 of Calibration Unit and negative (-) to J1 on Master Trip Unit. For High Gross Fail adjustment, connect Current Calibrator positive (+) to J1 on Master Trip Unit and negative (-) to J2 of Calibration Unit.	
d.	Increase milliamp output of Current Calibrator until DVM reads "Desired" value for Gross Failure trip being adjusted.	
e.	If necessary, adjust applicable CURRENT TRIP pot on circuit board ccw until GROSS FAIL LED can be reset with RESET pushbutton.	
f.	Very slowly turn pot cw until GROSS FAIL LED just comes On.	
g.	Lower Current Calibrator output until GROSS FAIL LED can be reset with RESET pushbutton, then very slowly increase output until LED just comes On.	
h.	If no further adjustment required, record value as "Final" and proceed to Step 5.13.17i; otherwise, repeat Steps 5.13.17c through 5.13.17h until unit requires no adjustment.	
i.	Disconnect Current Calibrator and DVM from Master Trip Unit and Calibration Unit.	
5.13.18	Push in center knob of Select/Command switch.	

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CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.13.19	If Trip Point adjustment is required, continue Step 5.13.19a; otherwise, record as "Final" and proceed to Step 5.13.20.	
a.	Adjust stable current to "Desired" value and adjust Trip Point adjustment as required.	
b.	Recheck reset value. If reset requires no adjustment, proceed to Step 5.13.19e. If reset requires adjustment, continue with Step 5.13.19c.	
c.	If necessary, install card extender between trip unit and card file.	
d.	Adjust stable current to Desired Reset value and adjust RESET DIFFERENTIAL pot on circuit board as required.	
e.	Recheck trip and reset values. If both trip and reset require no adjustment, record as "Final" and proceed to Step 5.13.20. If trip and/or reset require adjustment, repeat Steps 5.13.19a through 5.13.19e until unit requires no adjustment.	
5.13.20	If Master Trip Unit Meter adjustment is required, continue with Step 5.13.20a; otherwise, record as "Final" and proceed to Step 5.13.21.	
a.	If necessary, install card extender between Master Trip Unit and card file.	
b.	Adjust meter ZERO at back of meter, then recheck 0, 50 and 100% indications. Repeat as required until unit requires no adjustment.	
c.	Record "Final" indications.	
5.13.21	If installed, remove card extender from Master Trip Unit 1E22-N654C and reinstall trip unit in card file.	_____
5.13.22	Adjust stable current to approximately 20 mA.	
\$ 5.13.23	Verify Annunciator, "CST LVL LO" on 1H13-P601-16A (C-4), Cleared.	_____
5.13.24	Computer point E22L600 displays NOT LOW.	_____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.14.10	Apply 50% pressure, as specified, and verify output requires no adjustment. If output requires adjustment, adjust Linearity adjustment until it is in tolerance.	
5.14.11	Repeat Step 5.14.7 through 5.14.11 until transmitter requires no adjustment.	
5.14.12	Reapply inputs as specified, and record "Final" values.	
5.14.13	Apply approximately 490" H ₂ O to transmitter.	
5.15	Pull out center knob of Calibration Select/Command switch and ensure CAL LED is Off.	
\$ 5.16	Press Master Trip Unit Gross Fail RESET pushbutton and verify GROSS FAIL LED is Off.	_____
5.17	Verify:	
\$ 5.17.1	Status light TRIP UNIT IN CAL/GR FAIL on 1H13-P601-16B (DS-5) goes Off.	_____
5.18	<u>CST Low Level Functional Test</u>	

NOTE

Various trips and/or alarms other than those stated below will occur during performance of this section. See Section 2.0. They will not require verification.

CAUTION

Do not use portable radios in Control Room due to interference with surrounding electronic circuits and panels.

5.18.1 Establish communications between Control Room and transmitter.

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

STEP REQUIRED ACTION

5.18.2 Decrease pressure to transmitter until it is near trip point. Very slowly continue to decrease pressure until TRIP LED on Master Trip Unit comes On.

\$ 5.18.3 Record trip value as indicated on pressure gauge.

LOW LEVEL TRIP FUNCTIONAL TEST DATA (TRIP)				1E22-N654C
PRESS TO XMITTER SIDE	TEST GAUGE READING			
	DESIRED "H ₂ O	MIN "H ₂ O	TRIP "H ₂ O	MAX "H ₂ O
High	72.9	70.5		75.3

5.18.4 Increase pressure until it is near reset point. Very slowly continue to increase pressure until Trip LED on Master Trip Unit goes Off.

\$ 5.18.5 Record reset value as indicated on pressure gauge.

LOW LEVEL TRIP FUNCTIONAL TEST DATA (RESET)				1E22-N654C
PRESS TO XMITTER SIDE	TEST GAUGE READING			
	DESIRED "H ₂ O	MIN "H ₂ O	TRIP "H ₂ O	MAX "H ₂ O
High	75.3	N/A		N/A

5.18.6 If any "As Found" values are out of tolerance, contact your immediate supervisor.

5.19 Restoration

5.19.1 Perform one of the following:

- a. Vent pressure from HP section of transmitter and remove test gauge and pressure source. Install vent plug in HP vent port on top of transmitter.

OR

- b. Close Test Valve F02 and Vent pressure from HP section of transmitter and remove test gauge and pressure source.

5.19.2 Very slowly open Instrument HP Isolation Valve F01 to admit process pressure to transmitter.

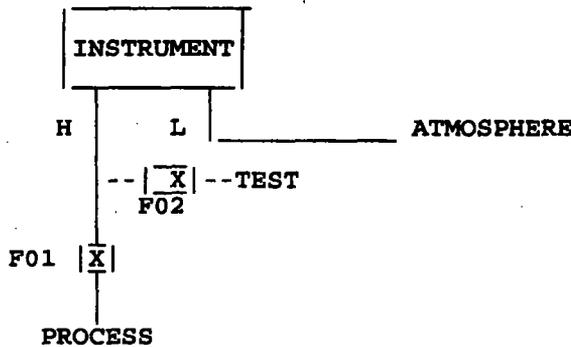
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CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> | <u>INITIALS</u> |
|-------------|---|-----------------|
| 5.19.3 | Perform following: | |
| | a. Vent transmitter as necessary to ensure sensing leg is filled. | _____ |
| | b. Torque vent plugs on transmitter to 90 in/lbs. | _____ |
| | c. Remove DVM. | _____ |
| 5.19.4 | Complete Return to Service Verification Record. | |

INSTRUMENT NO.: 1E22-N054C
 LOCATION: Column 6.2G 1A201
119'Aux., Area 7



RETURN TO SERVICE VERIFICATION RECORD

VALVE DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
HP TEST VLV F02	OPEN	CLOSED			
HP ISOL VLV F01	CLOSED	OPEN			

- 5.19.5 Check all valves and fittings for leaks. _____
- 5.19.6 Replace valve seals on Transmitter valves, as required. _____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL C
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.19.11	Remove Digital Readout Assembly.	_____
5.19.12	Verify 1E22-N654C reflects current plant conditions.	_____
5.19.13	Verify Annunciator "HPCS SUPP POOL SUCT VLV F015 MAN OVERRD", on 1H13-P601-16A (E-5), Cleared.	_____
5.20	Record test equipment used for this test. This step may be performed out of sequence if desired.	

TEST EQUIPMENT LOG

TEST EQUIPMENT	M&TE NO.	CAL DUE DATE

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET (Continued)
SAFETY RELATED

4.0 DEFICIENCIES

CR Issued # _____

LCO Entered # _____

WR Issued # _____

5.0 APPROVAL

Tech Spec Operability Requirements Acceptable [] Unacceptable []

Shift Supv/Manager _____ Date _____

Comments: _____

CONCURRENCE

I&C Superintendent _____ Date _____

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DATA SHEET I
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.1	Obtain permission from Shift Supervisor to begin test. Shift Supervisor's signature is required on Cover Sheet.	
5.2	Perform following:	
5.2.1	Verify prerequisite 4.2; HPCS is in Standby per SOI 04-1-01-E22-1 (with 1E22-F015 Closed and 1E22-F001 Open).	_____
5.2.2	Establish communications, if required, between Control Room and technician performing test.	
5.3	On Calibration Unit containing Master Trip Unit 1E22-N654G on 1H13-P625, ensure TRANSIENT CURRENT switch knob and center knob of Calibration Select/Command switch are pulled out.	
5.4	Ensure Calibration Unit POWER switch and center and outer Calibration Select/Command switches are in OFF position.	
5.5	Install Readout Assembly into Calibration Unit. Place Calibration Unit POWER switch to ON.	
5.6	Position center knob of Calibration Select/Command switch to position 4, selecting Master Trip Unit 1E22-N654G.	
5.7	Position outer knob of Calibration Select/Command switch to position 4, selecting Master Trip Unit 1E22-N654G.	
5.8	Adjust STABLE CURRENT knob to approximately 20 mA as observed on lower display of Readout Assembly.	
5.9	Perform following:	
5.9.1	Complete Test Start Time on Data Package Cover Sheet.	
5.9.2	Push in center knob of Calibration Select/Command switch to activate Calibration Unit.	
5.10	Perform following:	
5.10.1	Ensure CAL LED on Calibration Unit comes On.	
§ 5.10.2	Verify GROSS FAIL LED on Master Trip Unit comes On.	_____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> | <u>INITIALS</u> |
|-------------|---|-----------------|
| 5.11 | Verify: | |
| 5.11.1 | Annunciator, "HPCS SYS OOSVC", on 1H13-P601-16A (H-5), Alarms. | _____ |
| 5.11.2 | Computer point E22L607 displays OUT SVCE. | _____ |
| § 5.11.3 | Status light TRIP UNIT IN CAL/GR FAIL on 1H13-P601-16B (DS-5) comes On. | _____ |
| 5.12 | Perform following: | |
| 5.12.1 | Have Operations place HPCS MOV TEST handswitch (1E22-HS-M614) in TEST position. | |
| § 5.12.2 | Verify status light HPCS MOV IN TEST STATUS DS3, on 1H13-P601-16B is On. | _____ |
| 5.13 | <u>Master Trip Unit Trip Calibration</u> (1E22-N654G on 1H13-P625) | |
| 5.13.1 | Adjust stable current to 20.00 mA (allowable tolerance 19.99 to 20.01). | |
| 5.13.2 | Record "As Found" 100% Master Trip Unit Meter Indication. | |

MASTER TRIP UNIT ANALOG METER				1E22-N654G
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
40	39		NOP	

NOP - Not on Peg

- 5.13.3 Adjust stable current to 12.00 mA (allowable tolerance 11.99 to 12.01) and record "As Found" 50% Master Trip Unit Meter Indication.

MASTER TRIP UNIT ANALOG METER				1E22-N654G
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
20	19		21	

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CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

5.13.4 Decrease stable current until Master Trip Unit Trips (TRIP LED On). Record "As Found" trip value from upper display of Readout Assembly.

LOW LEVEL TRIP CALIBRATION DATA (TRIP)				1E22-N654G
DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA
6.00 (73.02" H ₂ O)	5.96 (70.62" H ₂ O)	(2)	6.04 (75.42" H ₂ O)	

(2): Transfer value to corresponding location in Step 5.21.

5.13.5 Verify:

- \$ a. Annunciator, "CST LVL LO" on 1H13-P601-16A (C-4), Alarmed. _____
- b. Computer point E22L600 displays LOW. _____
- \$ c. Valve 1E22-F015 Opened. _____

NOTE

Valve F015 is full open before valve F001 starts to close.
 (based on valve position indicating lights)

- \$ d. Valve 1E22-F001 Closed. _____
- e. Have Operations place Handswitch 1E22-HS-M609 HPCS PMP SUCT FM SUPP POOL to CLOSED position, verify Valve 1E22-F015 Closes. _____
- f. Verify annunciator, "HPCS SUPP POOL SUCT VLV F015 MAN OVERRD", on 1H13-P601-16A (E-5), Alarmed. As soon as 1E22-F015 indicates not fully open, open Valve 1E22-F001 with Handswitch 1E22-HS-M600 "HPCS PMP SUCT FM CST". _____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

NOTE

If On, reset GROSS FAIL LED. If LED does not go Off, adjust Current Calibrator until GROSS FAIL LED can be reset.

§ 5.13.11 Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On. Record "As Found" High Gross Fail trip voltage from DVM.

MASTER TRIP UNIT GROSS FAIL CALIBRATION DATA				1E22-N654G
DESIRED Vdc	MIN Vdc	AS FOUND Vdc	MAX Vdc	FINAL Vdc
7.50	6.00		9.00	

5.13.12 Reconnect Current Calibrator negative lead (-) to J1 on Master Trip Unit and positive lead (+) to J2 of Calibration Unit (mA adjusted for 0 mA). (Do not disconnect DVM.)

§ 5.13.13 Reset GROSS FAIL LED on Master Trip Unit.

§ 5.13.14 Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On. Record "As Found" Low Gross Fail trip voltage from DVM.

MASTER TRIP UNIT GROSS FAIL CALIBRATION DATA				1E22-N654G
DESIRED Vdc	MIN Vdc	AS FOUND Vdc	MAX Vdc	FINAL Vdc
0.694	0.500		0.887	

5.13.15 Disconnect Current Calibrator and DVM from Master Trip Unit.

§ 5.13.16 Reset GROSS FAIL LED and verify GROSS FAIL LED goes Off.

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.13.19	If Trip Point adjustment is required, continue Step 5.13.19a; otherwise, record as "Final" and proceed to Step 5.13.20.	
a.	Adjust stable current to "Desired" value and adjust Trip Point adjustment as required.	
b.	Recheck reset value. If reset requires no adjustment, proceed to Step 5.13.19e. If reset requires adjustment, continue with Step 5.13.19c.	
c.	If necessary, install card extender between trip unit and card file.	
d.	Adjust stable current to Desired Reset value and adjust RESET DIFFERENTIAL pot on circuit board as required.	
e.	Recheck trip and reset values. If both trip and reset require no adjustment, record as "Final" and proceed to Step 5.13.20. If trip and/or reset require adjustment, repeat Steps 5.13.19a through 5.13.19e until unit requires no adjustment.	
5.13.20	If Master Trip Unit Meter adjustment is required, continue with Step 5.13.20a; otherwise, record as "Final" and proceed to Step 5.13.21.	
a.	If necessary, install card extender between Master Trip Unit and card file.	
b.	Adjust meter ZERO at back of meter, then recheck 0, 50 and 100% indications. Repeat as required until unit requires no adjustment.	
c.	Record "Final" indications.	
5.13.21	If installed, remove card extender from Master Trip Unit 1E22-N654G and reinstall trip unit in card file.	_____
5.13.22	Adjust stable current to approximately 20 mA.	_____
\$ 5.13.23	Verify Annunciator, "CST LVL LO" on 1H13-P601-16A (C-4), Cleared.	_____
5.13.24	Computer point E22L600 displays NOT LOW.	_____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

STEP REQUIRED ACTION

5.14.5 Apply inputs as specified, and record "As Found" values.

Steps 5.14.5, 5.14.6/12

TRANSMITTER CALIBRATION DATA				1E22-N054G	
INPUT	OUTPUT				
	DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA
"H ₂ O					
15	4.06	4.02		4.10	
130	7.91	7.87		7.95	
250	11.93	11.89		11.97	
370	15.95	15.91		15.99	
490	19.97	19.93		20.01	
370	15.95	15.91		15.99	
250	11.93	11.89		11.97	
130	7.91	7.87		7.95	
73.02	6.00	5.96	(1)	6.04	
15	4.06	4.02		4.10	

NOTE: (1) Transfer value to corresponding location on Step 5.21.

- 5.14.6 If "As Found" values requires no adjustment, record them as "Final" values and proceed to Step 5.14.13; otherwise, continue with Step 5.14.7.
- 5.14.7 Apply 0% pressure, as specified, and adjust ZERO until output is as specified.
- 5.14.8 Apply 100% pressure, as specified, and adjust SPAN until output is as specified.
- 5.14.9 Repeat Step 5.14.7 and 5.14.8 until unit requires no further adjustment.

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.14.10	Apply 50% pressure, as specified, and verify output requires no adjustment. If output requires adjustment, adjust Linearity adjustment until it is in tolerance.	
5.14.11	Repeat Step 5.14.7 through 5.14.11 until transmitter requires no adjustment.	
5.14.12	Reapply inputs as specified, and record "Final" values.	
5.14.13	Apply approximately 490" H ₂ O to transmitter.	
5.15	Pull out center knob of Calibration Select/Command switch and ensure CAL LED is Off.	
\$ 5.16	Press Master Trip Unit Gross Fail RESET pushbutton and verify GROSS FAIL LED is Off.	_____
5.17	Verify:	
\$ 5.17.1	Status light TRIP UNIT IN CAL/GR FAIL on 1H13-P601-16B (DS-5) goes Off.	_____
5.18	<u>CST Low Level Functional Test</u>	

NOTE

Various trips and/or alarms other than those stated below will occur during performance of this section. See Section 2.0. They will not require verification.

CAUTION

Do not use portable radios in Control Room due to interference with surrounding electronic circuits and panels.

5.18.1 Establish communications between Control Room and transmitter.

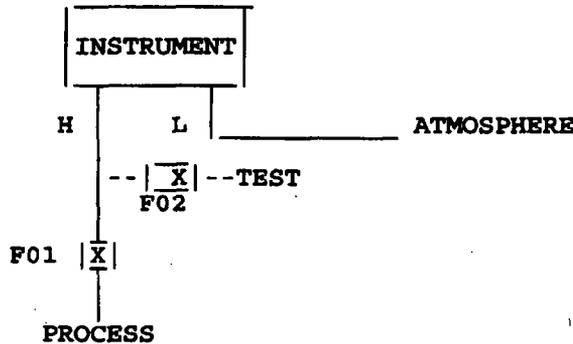
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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> | <u>INITIALS</u> |
|-------------|---|-----------------|
| 5.19.3 | Perform following: | |
| | a. Vent transmitter as necessary to ensure sensing leg is filled. | _____ |
| | b. Torque vent plugs on transmitter to 90 in/lbs. | _____ |
| | c. Remove DVM. | _____ |
| 5.19.4 | Complete Return to Service Verification Record. | |

INSTRUMENT NO.: 1E22-N054G
 LOCATION: Column 6.2G 1A201
119' Aux., Area 7



RETURN TO SERVICE VERIFICATION RECORD

VALVE DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
HP TEST VLV F02	OPEN	CLOSED			
HP ISOL VLV F01	CLOSED	OPEN			

- 5.19.5 Check all valves and fittings for leaks. _____
- 5.19.6 Replace valve seals on Transmitter valves, as required. _____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.19.7	Have Operations close Valve 1E22-F015 using Handswitch 1E22-M609 on 1H13-P601-16C; and, as soon as Valve 1E22-F015 leaves OPEN position, open Valve 1E22-F001 using Handswitch 1E22-M600 on 1H13-P601-16C.	

VALVE RESTORATION

VALVE	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
1E22-F015	OPEN	CLOSED			
1E22-F001	CLOSED	OPEN			

5.19.8 Have Operations place HPCS MOV TEST handswitch (1E22-HS-M614) in NORM position. Operations: _____

Verifier: _____

5.19.9 Verify:

- a. Annunciator, "HPCS SYS OOSVC" on 1H13-P601-16A (H-5), Cleared. _____
- b. Computer point E22L607 displays NORMAL. _____
- § c. Status light HPCS MOV IN TEST STATUS on 1H13-P601-16B (DS-3) goes Off. _____

5.19.10 Complete Hardware Restoration.

HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
Cal Select/Command switch center knob	Pos 4	OFF			
Cal Select/Command switch outer knob	Pos 4	OFF			
Cal Unit POWER switch	ON	OFF			

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK
LOW LEVEL CALIBRATION
CHANNEL G
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.19.11	Remove Digital Readout Assembly.	_____
5.19.12	Verify 1E22-N654G reflects current plant conditions.	_____
5.19.13	Verify Annunciator "HPCS SUPP POOL SUCT VLV F015 MAN OVERRD", on 1H13-P601-16A (E-5), Cleared.	_____
5.20	Record test equipment used for this test. This step may be performed out of sequence if desired.	

TEST EQUIPMENT LOG

<u>TEST EQUIPMENT</u>	<u>M&TE NO.</u>	<u>CAL DUE DATE</u>

Attachment 3

To

GNRO-2007/00068

GGNS Procedure 06-IC-1E51-Q-0002

PLANT OPERATIONS MANUAL

Volume 06
Section 04

06-IC-1E51-Q-0002

Revision: 102

Date: 12/9/05

SURVEILLANCE PROCEDURE

CONDENSATE STORAGE TANK (RCIC) LOW LEVEL

FUNCTIONAL TEST

SAFETY RELATED

Prepared: *J. Mandy*
Reviewed: *Phil D...*
 Technical
Approved: *R. Carroll*
 I&C Superintendent

List of Effective Pages:

Pages 1-6

Attachments I, II

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
20	None
100	1
101	2
102	None

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10CFR50.59 Review Required?	<input checked="" type="checkbox"/> Yes	If Yes, transmit 50.59 Review Form along with procedure to Document Control as a separate record.
	<input type="checkbox"/> No	Not required per LI-101

Cross-Discipline review required?	<input checked="" type="checkbox"/> Yes	(Note affected Departments Below)
	<input type="checkbox"/> No	

Preparer Initials>>>

[Handwritten Signature]

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)
Engineering	<i>[Handwritten Signature]</i>

Does this directive contain Tech Spec Triggers? () YES (✓) NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
Function	3.3.5.2-1.3	*
Tech Spec	SR 3.3.5.2.2	*
TRM	SR 6.8.2.1	2.8; 5.13.30
TRM	3.3.5.2-1.3	*

* Covered by directive as a whole or by various paragraphs of the directive.

NOTE

The Equipment Database (EDB) Request statement is applicable only to Volume 06 and 07 maintenance directives.

EDB Change Request generated and the backup documentation available for setpoint and/or calibration data only Yes N/A EDBCR # _____

Current Revision Statement

Revision 102 incorporates:

- ER-GG-1999-0217-000 which changes transmitters, ranges, and setpoints of CST level instrumentation.

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1.0 PURPOSE

- 1.1 To functionally test the Condensate Storage Tank Low Level Trip Systems to ensure operability.
- 1.2 This Functional Test is associated with instruments 1E51-LIS-N635A & E.
- 1.3 This procedure provides testing at least once per 92 days which satisfies the requirement for a CHANNEL FUNCTIONAL TEST for the RCIC System instrumentation per SR 3.3.5.2.2, Function 3.3.5.2-1.3.
- 1.4 Changes required for implementation of 1994 TSIP were incorporated in Revision 100. For historical reference this statement should not be deleted.

2.0 PRECAUTIONS AND LIMITATIONS

- 2.1 Steps marked with a pound sign (#) are initialed on Data Sheet I as each step is completed. If steps are repeated during this functional test, they are to be reinitialed on Data Sheet I. Place an N/A on Data Sheet I for optional steps not performed.
- 2.2 If "As Found" values are not in tolerance, if procedural steps cannot be completed as stated, or if any other problem develops during this test, notify your immediate supervisor.
- 2.3 If "As Found" values exceed the Technical Specifications tolerance, notify the Shift Supervisor.
- 2.4 Steps marked with a dollar sign (\$) are required to be completed for Technical Specifications Acceptance Criteria.
- 2.5 In Plant Mode 1 (Plant Mode 2 or 3 with Reactor Steam Dome Pressure >150 psig) this test must be performed on only one channel at a time. When one channel is being tested, the remaining channels must be in the Normal (untripped) condition.
- 2.6 The instrument channel under test shall not be out of service for more than six hours without entering the applicable Tech Spec Action Statement. When it becomes apparent this time limit may be exceeded, immediately contact the Shift Supervisor. The time limit is applicable only when the instrument channel under test is required to be Operable.

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2.7 The following alarms, trips, and actions occurs from the following Trip Units:

INSTRUMENT NO.	ANNUNCIATOR	COMPUTER POINT	IND LIGHT/ACTION
CHANNEL A 1E51-N635A Low Level	"CST LVL LO", 1H13-P601-21A (B-5)	E51N100 SUCT FROM SUPPR POOL VALVE OPEN/NOT OPEN	Open Valve F031
CHANNEL E 1E51-N635E Low Level			Close Valve F010 Close Valve F022 Close Valve F059

2.8 Placing a MOV TEST switch to TEST places the overload protection in force for the valves associated with that Test switch. The overload protection may be left in force for up to eight hours, after which the overloads must be bypassed by placing the MOV TEST switch to NORMAL or declare the valves Inoperable and enter the applicable Tech Spec Action Statements. (Refer to TRM 6.8.2)

2.9 Valves F022 and F059 will Close, if Open, when F031 Opens.

3.0 REQUIRED MATERIALS AND TEST EQUIPMENT

- 3.1 Attachments I, II (as required by channel to be tested)
- 3.2 Current Calibrator, Transmation 1040/1048 or equivalent (0-40 mAdc output) no M&TE requirements
- 3.3 Readout Assembly, Rosemount 710DU or equivalent (accuracy better than ± 0.040 mAdc at 0-20 mA)
- 3.4 Card extender (510DU Type) (As Needed)

4.0 PREREQUISITES AND PLANT CONDITIONS

4.1 This procedure may be performed in any Plant Mode except as modified by the releasing organization.

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5.0 INSTRUCTIONS

- 5.1 Obtain permission from Shift Supervisor to begin the test. Shift Supervisor's signature is required on Data Package Cover Sheet.
- 5.2 Establish communications, if required, between Control Room and technician performing test.
- 5.3 On the Calibration Unit containing Master Trip Unit (see Data Sheet I), ensure the TRANSIENT CURRENT switch knob and the center knob of Calibration Select/Command switch are pulled out.
- 5.4 Ensure the Calibration Unit POWER switch and both the center and outer Calibration Select/Command switches are in the OFF position.
- 5.5 Install the Readout Assembly into the Calibration Unit.
- 5.6 Place the Calibration Unit POWER switch to ON.
- 5.7 Position the center and outer knobs of the Calibration Select/Command switch to positions (see Data Sheet I), selecting Master Trip Unit (see Data Sheet I).
- 5.8 Adjust STABLE CURRENT knob to approximately 20 mA on the Readout Assembly.
 - 5.8.1 Complete the Test Start Time on the Data Package Cover Sheet.
- 5.9 Push in center knob of Calibration Select/Command switch to activate Calibration Unit.
- 5.10 Ensure that CAL LED on Calibration Unit is On.
- \$ # 5.11 Verify that GROSS FAIL LED on Master Trip Unit is On.
 - \$ # 5.11.1 Verify status light (see Data Sheet I) comes On.
- # 5.12 Have Operations place the RCIC DIV 1 MOV TEST handswitch, 1E51-HS-M641, in the TEST position.
 - # 5.12.1 Verify status light (see Data Sheet I) comes On.
- 5.13 Master Trip Unit Functional with Calibration (see Data Sheet I for location and ID)
 - 5.13.1 Adjust Stable Current to 20.00 mA (allowable error 19.99 to 20.01).
 - 5.13.2 Record "As Found" 100% Master Trip Unit meter indication on Data Sheet II.
 - 5.13.3 Adjust Stable Current to 12.00 mA (allowable error 11.99 to 12.01) and record "As Found" 50% Master Trip Unit meter indication on Data Sheet II.
 - 5.13.4 Decrease Stable Current until Master Trip Unit Trips (TRIP LED On). Record "As Found" trip value from the upper display of the Readout Assembly on Data Sheet III.
 - \$ # 5.13.5 Verify the "(see Data Sheet I)" annunciator, (see Data Sheet I), Alarmed.

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- 5.13.6 Decrease Stable Current to 4.00 mA (allowable error 3.99 to 4.01) and record "As Found" 0% Master Trip Unit meter indication on Data Sheet II.
- 5.13.7 Press RESET pushbutton on Readout Assembly.
- 5.13.8 Increase Stable Current until the Master Trip Unit Resets (TRIP LED Off). Record "As Found" reset value from the upper display of the Readout Assembly on Data Sheet III.
- \$ # 5.13.9 Verify the "(see Data Sheet I)" annunciator, (see Data Sheet I), (see Data Sheet I), Cleared.
- 5.13.10 Pull out center knob of Calibration Select/Command switch.
- 5.13.11 Connect Transmation (mA OUT adjusted for 0 mA) positive lead (+) to J1 on the Master Trip Unit and the negative lead (-) to J2 on the Calibration Unit.

NOTE

If On, reset the GROSS FAIL LED. If the LED does not go Off, adjust Transmation until GROSS FAIL LED can be Reset.

- \$ # 5.13.12 Slowly increase milliamp output of Transmation until GROSS FAIL LED on Master Trip Unit comes On.
- 5.13.13 Reconnect Transmation negative lead (-) to J1 on Master Trip Unit and positive lead (+) to J2 on Calibration Unit (mA OUT adjusted for 0 mA).
- \$ # 5.13.14 Reset GROSS FAIL LED on Master Trip Unit.
- \$ # 5.13.15 Slowly increase milliamp output of Transmation until GROSS FAIL LED on Master Trip Unit comes On.
- \$ # 5.13.16 Disconnect Transmation from Master Trip Unit and Calibration Unit. Reset GROSS FAIL LED on Master Trip Unit. Verify GROSS FAIL LED Off.
- 5.13.17 Push in center knob of Calibration Select/Command switch.
- 5.13.18 If Trip Point adjustment is required continue with Step 5.13.18a. If not, record "Final" values and proceed to Step 5.13.19.
- a. Adjust Stable Current to desired value on Data Sheet III and adjust Trip Point adjustment as required.
 - b. Recheck reset value. If reset requires no adjustment, proceed to Step 5.13.18e. If reset requires adjustment, proceed to Step 5.13.18c.

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- 5.13.18 (Cont.)
- c. Install a card extender between trip unit and card file, if required.
 - d. Adjust Stable Current to Desired Reset value on Data Sheet III and adjust RESET DIFFERENTIAL pot on circuit board as required.
 - e. Recheck trip and reset values. If both trip and reset require no further adjustment, record them as "Final" values and proceed to Step 5.13.19. If not, repeat Steps 5.13.18a through 5.13.18e until unit requires no further adjustment.
- 5.13.19 If Master Trip Unit meter adjustment is required continue with Step 5.13.19a. If not, record them as "Final" values and proceed to Step 5.13.20.
- a. Install a card extender between Master Trip Unit and card file, if required.
 - b. Adjust meter ZERO at back of meter, then recheck the 0, 50, and 100% indications. Repeat as required until unit requires no further adjustment.
 - c. Record "Final" indications on Data Sheet II.
- # 5.13.20 Remove card extender (if installed earlier) from Master Trip Unit and reinstall trip unit in card file.
- 5.13.21 Adjust Stable Current to approximately 20.00 mA (allowable error 19.99 to 20.01).
- 5.13.22 Pull out center knob of Calibration Select/Command switch.
- 5.13.23 Ensure that CAL LED is Off.
- \$ # 5.13.24 Press Master Trip Unit Gross Fail RESET pushbutton and verify GROSS FAIL LED is Off.
- \$ # 5.13.25 Verify status light (see Data Sheet I) goes Off.
- 5.13.26 Perform applicable section of Hardware Restoration on Data Sheet III.
- # 5.13.27 Remove Digital Readout Assembly.
- 5.13.28 If required, have Operations close Suppression Pool Suction valve (F031) and open CST Suction valve (F010) in accordance with SOI 04-1-01-E51-1. Complete Valve Restoration section on Data Sheet II documenting "Final" valve position.
- 5.13.29 Have Operations place the RCIC DIV I MOV TEST switch to Norm and complete applicable Hardware Restoration on Data Sheet III.
- \$ # 5.13.30 Verify status light (see Data Sheet I), goes Off.
- 5.13.31 Record test equipment used for this test on Data Sheet II. This step may be performed out of sequence if desired.

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5.13.32 Verify reading (see Data Sheet I) is consistent with existing plant conditions.

5.13.33 Notify Shift Supervisor the test is complete. Shift Supervisor's signature is required on Data Package Cover Sheet.

6.0 REFERENCES

6.1 Bechtel Drawings

6.1.1 E-1185, E51 - Reactor Core Isolation Cooling Sys

6.1.2 M-1065, P11 - Condensate & Refueling Water Storage & Transfer Sys

6.1.3 M-1083A, E51 - Reactor Core Isolation Cooling Sys

6.2 Rosemount Technical Manual 460000047
Rosemount 510DU Digital Trip Unit

6.3 Section Instruction 07-S-53-181, Bench Calibration of the Rosemount 510DU
(710 DU) Master and Slave Trip Units

6.4 Bechtel Setpoint Calculation, E51 Calc No. J-E51-1 Rev 0, PMI 83/5655

6.5 USFAR Chapter 16, Appendix 16B

6.6 ER-GG-1999-0217-000

6.7 SC-1E51-LT-N035, Rev.1

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DATA SHEET I
CONDENSATE STORAGE TANK (RCIC) LOW LEVEL
FUNCTIONAL TEST
CHANNEL A
SAFETY RELATED

STEPS	REQUIRED ACTION	INITIALS
5.3	1E51-N635A on 1H13-P629	N/A
5.7	Pos 6, 1E51-N635A	N/A
\$ 5.11	GROSS FAIL LED On	
\$ 5.11.1	Status light TRIP UNIT 1 IN CAL/GR FAIL, 1H13-P601-21B (DS-12), comes On	
5.12	RCIC DIV 1 MOV TEST handswitch, 1E51-HS-M641, in TEST position	
5.12.1	Status light RCIC DIV 1 MOV IN TEST STATUS, 1H13-P601-21B (DS-8), comes On	
5.13	Master Trip Unit 1E51-N635A on 1H13-P629	N/A
\$ 5.13.5	"CST LVL LO" annunciator, 1H13-P601-21A (B-5), Alarmed	
\$ 5.13.9	"CST LVL LO" annunciator, 1H13-P601-21A (B-5), Cleared	
\$ 5.13.12	GROSS FAIL LED On	
\$ 5.13.14	GROSS FAIL LED Off	
\$ 5.13.15	GROSS FAIL LED On	
\$ 5.13.16	Transmation removed, GROSS FAIL LED Off	
5.13.20	Card extender removed (1E51-N635A)	
\$ 5.13.24	GROSS FAIL LED Off	
\$ 5.13.25	Status light TRIP UNIT 1 IN CAL/GR FAIL, 1H13-P601-21B (DS-12), goes Off	
5.13.27	Digital Readout Assembly removed	
\$ 5.13.30	Status light RCIC DIV 1 MOV IN TEST STATUS, 1H13-P601-21B (DS-8), goes Off	
5.13.32	Reading 1E51-N635A is consistent with plant conditions	

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DATA SHEET II
CONDENSATE STORAGE TANK (RCIC) LOW LEVEL
FUNCTIONAL TEST
CHANNEL A
SAFETY RELATED

MASTER TRIP UNIT ANALOG METER				1E51-N635A	
STEP/PERCENT	DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
5.13.2 / 100	40	39		NOP	
5.13.3 / 50	20	19		21	
5.13.6 / 0	0	NOP		1	

NOP - Not on Peg

5.13.31 TEST EQUIPMENT LOG (This step may be performed out of sequence if desired)

TEST EQUIPMENT	M&TE NO.	CAL DUE DATE

5.13.28 VALVE RESTORATION

VALVE	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
1E51-F031	OPEN	CLOSED			
1E51-F010	CLOSED	OPEN			

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DATA SHEET III
CONDENSATE STORAGE TANK (RCIC) LOW LEVEL
FUNCTIONAL TEST
CHANNEL A
SAFETY RELATED

TRIP CALIBRATION DATA						1E51-N635A
TRIP/RESET	DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA	TECH SPEC mA
5.13.4	5.60 (62.0" H ₂ O)	5.56 (59.6" H ₂ O)	(1)	5.64 (64.4" H ₂ O)		≥ 5.48 (3.7 ft.)
5.13.8	5.68	5.64		5.72		N/A

(1) Initial: _____ Yes (As Found data complies with Tech Spec limit)
 _____ No (As Found data does not comply - Notify Shift Supervisor)

HARDWARE RESTORATION

STEP	DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
					PERFORMER	VERIFIER
5.13.26	Cal Select/Command switch center knob	Pos 6	OFF			
	Cal Select/Command switch outer knob	Pos 6	OFF			
	Cal Unit POWER switch	ON	OFF			
5.13.29	RCIC DIV 1 MOV TEST switch 1E51-HS-M641	TEST	NORMAL			

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DATA SHEET I
CONDENSATE STORAGE TANK (RCIC) LOW LEVEL
FUNCTIONAL TEST
CHANNEL E
SAFETY RELATED

STEPS	REQUIRED ACTION	INITIALS
5.3	1E51-N635E on 1H13-P629	N/A
5.7	Pos 7, 1E51-N635E	N/A
\$ 5.11	GROSS FAIL LED On	
\$ 5.11.1	Status light TRIP UNIT 1 IN CAL/GR FAIL, 1H13-P601-21B (DS-12), comes On	
5.12	RCIC DIV 1 MOV TEST handswitch, 1E51-HS-M641, in TEST position	
5.12.1	Status light RCIC DIV 1 MOV IN TEST STATUS, 1H13-P601-21B (DS-8), comes On	
5.13	Master Trip Unit 1E51-N635E on 1H13-P629	N/A
\$ 5.13.5	"CST LVL LO" annunciator, 1H13-P601-21A (B-5), Alarmed	
\$ 5.13.9	"CST LVL LO" annunciator, 1H13-P601-21A (B-5), Cleared	
\$ 5.13.12	GROSS FAIL LED On	
\$ 5.13.14	GROSS FAIL LED Off	
\$ 5.13.15	GROSS FAIL LED On	
\$ 5.13.16	Transmation removed, GROSS FAIL LED Off	
5.13.20	Card extender removed (1E51-N635E)	
\$ 5.13.24	GROSS FAIL LED Off	
\$ 5.13.25	Status light TRIP UNIT 1 IN CAL/GR FAIL, 1H13-P601-21B (DS-12), goes Off	
5.13.27	Digital Readout Assembly removed	
\$ 5.13.30	Status light RCIC DIV 1 MOV IN TEST STATUS, 1H13-P601-21B (DS-8), goes Off	
5.13.32	Reading 1E51-N635E consistent with plant conditions	

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DATA SHEET II
CONDENSATE STORAGE TANK (RCIC) LOW LEVEL
FUNCTIONAL TEST
CHANNEL E
SAFETY RELATED

MASTER TRIP UNIT ANALOG METER				1E51-N635E	
STEP/PERCENT	DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
5.13.2 / 100	40	39		NOP	
5.13.3 / 50	20	19		21	
5.13.6 / 0	0	NOP		1	

NOP - Not on Peg

5.13.31 TEST EQUIPMENT LOG (This step may be performed out of sequence if desired)

TEST EQUIPMENT	M&TE NO.	CAL DUE DATE

5.13.28 VALVE RESTORATION

VALVE	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
1E51-F031	OPEN	CLOSED			
1E51-F010	CLOSED	OPEN			

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DATA SHEET III
CONDENSATE STORAGE TANK (RCIC) LOW LEVEL
FUNCTIONAL TEST
CHANNEL E
SAFETY RELATED

TRIP CALIBRATION DATA					1E51-N635E	
TRIP/RESET	DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA	TECH SPEC mA
5.13.4	5.60 (62.0" H ₂ O)	5.56 (59.6" H ₂ O)	(1)	5.64 (64.4" H ₂ O)		≥ 5.48 (3.7 ft.)
5.13.8	5.68	5.64		5.72		N/A

(1) Initial: Yes (As Found data complies with Tech Spec limit)
 No (As Found data does not comply - Notify Shift Supervisor)

HARDWARE RESTORATION

STEP	DESCRIPTION	TEST	NORMAL	FINAL	INITIALS	
					PERFORMER	VERIFIER
5.13.26	Cal Select/Command switch center knob	Pos 7	OFF			
	Cal Select/Command switch outer knob	Pos 7	OFF			
	Cal Unit POWER switch	ON	OFF			
5.13.29	RCIC DIV 1 MOV TEST switch 1E51-HS-M641	TEST	NORMAL			

Attachment 4

To

GNRO-2007/00068

GGNS Procedure 06-IC-1E51-R-0002

PLANT OPERATIONS MANUAL

Volume 06
Section 04

06-IC-1E51-R-0002
Revision: 103
Date: 12/9/05

SURVEILLANCE PROCEDURE
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
SAFETY RELATED

Prepared: *J. Mandy*
Reviewed: *Robert L. Reage*
 Technical
Approved: *Kevin Canell*
 I&C Superintendent

List of Effective Pages:

Pages 1-3

Attachments I, II

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
0	None
1	None
2	1
3	None
20	None
21	None
22	2
23	3
24	4
100	None
101	5
102	None
103	None

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10CFR50.59 Review Required?	<input checked="" type="checkbox"/> Yes	If Yes, transmit 50.59 Review Form along with procedure to Document Control as a separate record.
	<input type="checkbox"/> No	Not required per LI-101

Cross-Discipline review required?	<input checked="" type="checkbox"/> Yes	(Note affected Departments Below)
	<input type="checkbox"/> No	
Preparer Initials>>> Jm		

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)
Engineering	

Does this directive contain Tech Spec Triggers? () YES (✓) NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive Paragraph Number	Directive Paragraph Number That Implements Requirement
Function	3.3.5.2-1.3	*
Tech Spec	SR 3.3.5.2.4	*
Tech Spec	SR 3.3.5.2.5	*
Tech Spec	SR 3.5.3.5	5.16.4, 5.16.5d&e
TRM	6.8.2.1	2.9, 5.22.11
TRM	3.3.5.2-1.3	*

* Covered by directive as a whole or by various paragraphs of directive.

NOTE

The Equipment Database (EDB) Request statement is applicable only to Volume 06 and 07 maintenance directives.

EDB Change Request generated and the backup documentation available for setpoint and/or calibration data only Yes N/A EBCR # _____

Current Revision Statement

Revision 103 incorporates:

- ER-GG-1999-0217-000 which changes transmitters, ranges, and setpoints of CST level instrumentation.
- Procedure required numerous changes therefore no rev bars were used.

Title: Condensate Storage Tank (RCIC) Low Level Calibration	No.: 06-IC-1E51-R-0002	Revision: 103	Page: 1
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1.0 PURPOSE

- 1.1 To calibrate Condensate Tank Low Level Trip Channels to ensure operability. This CHANNEL CALIBRATION is required every 18 months in accordance with SR3.3.5.2.4, Function 3.3.5.2-1.3 of GGNS Technical Specifications.
- 1.2 To verify RCIC suction path is automatically transferred from CST to suppression pool on CST low level. This test is required every 18 months in accordance with SR 3.5.3.5 (for 1E51-F031 and 1E51-F010) of GGNS Technical Specifications.
- 1.3 An additional purpose of this procedure is to provide testing at least once every 18 months which satisfies requirement for LOGIC SYSTEM FUNCTIONAL TEST of RCIC System Actuation Instrumentation as per SR 3.3.5.2.5, Function 3.3.5.2-1.3 of GGNS Technical Specifications.
- 1.4 This procedure is associated with instruments 1E51-LT-N035A/E and 1E51-LIS-N635A/E.
- 1.5 Changes required for implementation of 1994 TSIP were incorporated in Revision 100. For historical reference this statement should not be deleted.

2.0 PRECAUTION AND LIMITATIONS

- 2.1 If steps are repeated during this calibration, they shall be reinitialed on Data Sheet I. Place N/A on Data Sheet I for optional steps not performed.
- 2.2 Steps marked with dollar sign (\$) are those items which are required to be completed for Technical Specification Acceptance Criteria.
- 2.3 If "As Found" values are not in tolerance, procedural steps cannot be completed as stated, or if any other problem develops during this test, notify your immediate supervisor.
- 2.4 If "As Found" values exceed Technical Specification tolerance, notify your Shift Supervisor.
- 2.5 Any water drained from transmitter, test assembly, and/or associated tubing may be contaminated. Exercise caution and radiological safety precautions.
- 2.6 In Plant Mode 1, or Mode 2 & 3 with Reactor Dome Pressure >150 psig, this test shall be performed on only one channel at a time. When one channel is being tested, remaining channels must be in Normal (Untripped) condition.
- 2.7 Instrument channel under test shall not be out of service for more than six hours without entering applicable Tech Spec Action statement. When it becomes apparent this time limit will be exceeded, immediately contact Shift Supervisor. This time limit is applicable only when instrument channel under test is required to be Operable.
- 2.8 Valves F022 and F059 will close, if open, when F031 opens.
- 2.9 Placing MOV Test switch to TEST places overload protection in force for valves associated with that test switch. Overload protection may be left in force up to 8 hours, after which the overloads must be bypassed by placing MOV Test switch to NORMAL or declaring valves inoperable and entering applicable Action Statement. (Refer to LCO 6.8.2)

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2.10 Following alarms, trips and actions should occur from following Trips Units:

TRIP UNIT	ANNUNCIATOR	COMPUTER POINT	ACTION/IND LGT
CHANNEL A 1E51-N635A LOW LEVEL	"CST LVL LO" 1H13-P601-21A (B-5) "RCIC SYS OOSVC" 1H13-P601-21A (H-5)	E51N100 SUCTION FROM SUPPR POOL VALVE OPEN/NOT OPEN	Open Valve F031
CHANNEL E 1E51-N635 E Low Level		E51N104 SUCTION FROM CONDENSATE TANK OPEN/NOT OPEN	Close Valve F010 Close Valve F022 Close Valve F059
1E31-N685A Att. I and II (See Note 1)	"RCIC DIV 1 STM SPLY PRESS LO" 1H13-P601-21A (A-1)	E31L600A RCIC ST LINE RTR. PRESS LOW/NOT LOW	

NOTE

(1) Applies during testing in Plant Mode 3 (below 150 psig) and 4 or 5. Trip Unit 1E31-PIS-N685A must be used to facilitate testing under those conditions.

3.0 REQUIRED MATERIALS AND TEST EQUIPMENT

- 3.1 Attachments I and II (as required by channel to be tested)
- 3.2 DVM, Fluke 45 or equivalent (accuracy better than: ± 0.040 mAdc at 0-20 mA; ± 0.193 Vdc at 0-10 Vdc)
- 3.3 Current Calibrator, Transmation 1040/1048 or equivalent (0-40 mAdc output) no M&TE requirements
- 3.4 Readout Assembly, Rosemount 710DU or equivalent (accuracy better than ± 0.040 mAdc at 0-20 mA)
- 3.5 Pressure gauge, Heise (0-490" H.O) or equivalent (accuracy better than ± 1.194 " H.O)
- 3.6 Pressure Source (Air)
- 3.7 Card extender (510DU Type) (As Needed)
- 3.8 Test fitting for vent port of Rosemount transmitter. (As Needed)
- 3.9 Torque Wrench, capable of 90"lbs. or equivalent.

4.0 PREREQUISITES AND PLANT CONDITIONS

- 4.1 This procedure may be performed in any plant Mode except as modified by releasing organization.

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5.0 INSTRUCTIONS

For 1E51N635A and 1E51N035A perform instructions on Attachment I.

For 1E51N635E and 1E51N035E perform instructions on Attachment II.

6.0 REFERENCES

- 6.1 Bechtel Drawings: E-1185, M-1065, M-1083A
- 6.2 Vendor Manual 460000047 (Trip/Calibration System Model 510DU)
- 6.3 Vendor Manual 460001972, Model 1153 Series B & D Alphaline Pressure Instruments (Rosemount 1153 Transmitter)
- 6.4 07-S-53-181, Bench Calibration of the Rosemount 510DU (710DU) Master and Slave Trip Units
- 6.5 Bechtel Setpoint Calculation E51 PMI 83/5655 Calc No. J-E51-1, Rev. 0
- 6.6 UFSAR Chapter 16, Appendix 16B
- 6.7 CR-GGN-2001-1367 and SC-1E51-LT-N035, Rev.0
- 6.8 ER-GG-1999-0217-000
- 6.9 SC-1E51-LT-N035, Rev.1

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET
SAFETY RELATED

Title: Condensate Storage Tank (RCIC) Low Level Calibration Channel A
Technical Specifications: SR 3.3.5.2.4 and SR 3.3.5.2.5, Function 3.3.5.2-1.3;
SR 3.5.3.5

1.0 IMPACT STATEMENT

1.1 Performance of this procedure opens Suppression Pool Suction Valve (F031), closes CST Suction Valve (F010) and sends Close signal to RCIC Test Return to CST Valves (F022 and F059). In Mode 1, or in Modes 2 and 3 with reactor steam dome pressure > 150 psig, a channel may be placed in an inoperable status solely for performance of required Surveillances without entering into appropriate Condition for up to 6 hours provided associated Function maintains RCIC initiation capability.

1.2 Thermal overload protection 8 hour time limit LCO 6.8.2 is applicable.

2.0 PROCEDURE

2.1 Plant Mode is (circle one): 1 2 3 4 5

2.2 Permission to begin test _____ / _____
Shift Supervisor / Date

2.3 Test Start Time: _____ / _____ / _____
Performer's signature / Date / Time

3.0 TEST RESULTS

3.1 Test Completion: (Check one in each category.)
Entire procedure completed Partial procedure completed
As Found Data Acceptable Unacceptable
As Left Data Acceptable Unacceptable
Tech Spec Acceptance Criteria Acceptable Unacceptable
All other steps/data Acceptable Unacceptable

3.2 TCNs in effect during performance (list): _____

3.3 Comments: Rev Verified by: _____

3.4 Test performed by _____ Date/Time _____ / _____

4.0 DEFICIENCIES

CR Issued # _____ LCO Entered # _____ WR Issued # _____

5.0 APPROVAL

Tech Spec Operability Requirements Acceptable Unacceptable
Shift Supv./Manager _____ Date _____
Comments: _____

CONCURRENCE

I&C Superintendent _____ Date _____

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DATA SHEET I
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> |
|-------------|--|
| 5.1 | Obtain permission from Shift Supervisor to begin test. Shift Supervisor's signature is required on Data Package Cover Sheet. |
| 5.2 | Establish communications between Control Room and technician performing test. |
| 5.3 | On Calibration Unit containing Master Trip Unit 1E51-N635A on 1H13-P629, ensure Transient Current switch knob and center knob of Calibration Select/Command switch are pulled out. |
| 5.4 | Ensure Calibration Unit POWER switch and both center and outer Calibration Select/Command switches are in OFF position. |
| 5.5 | Install Readout Assembly into Calibration Unit. |
| 5.6 | Place Calibration Unit POWER switch to ON. |
| 5.7 | Verify devices listed are in state indicated. |

DEVICE	DESIRED STATUS	DESCRIPTION	LOCATION	VERIFICATION
1E51-F031	Closed	Suction From Suppr Pool	1H13-P601-21C	
1E51-F010	Open	Suction From Condensate Storage Tank	1H13-P601-21C	
1E51-F031				
1E51-HS-M600	Auto	Suction From Suppr Pool	1H13-P601-21C	
1E51-F010				
1E51-HS-M604	Auto	Suction From Condensate Storage Tank	1H13-P601-21C	
1E51-F031				
1C61-HS-M100	Auto	Suction From Suppr Pool	1H22-P150	
1E51-F010				
1C61-HS-M104	Auto	Suction From Condensate Storage Tank	1H22-P150	

- 5.8 Position center and outer knobs of Calibration Select/Command switch to Position 6, selecting Master Trip Unit 1E51-N635A.
- 5.9 Adjust STABLE CURRENT knob to approximately 20 mA as observed on lower display of Readout Assembly.
- 5.9.1 Complete Test Start Time on Data Package Cover Sheet.

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.10	Push center knob of Calibration Select/Command switch to activate Calibration Unit.	
5.11	Ensure CAL LED on Calibration Unit is On.	
\$ 5.12	Verify GROSS FAIL LED on Master Trip Unit is On.	_____
5.13	Verify:	
5.13.1	Computer Point E51L617 displays OUT SVCE.	_____
\$ 5.13.2	Status Light TRIP UNIT 1 IN CAL/GR FAIL 1H13-P601-21B (DS-12) comes On.	_____
5.14	In Plant Mode 3, 4, and 5, check Annunciator "RCIC DIV 1 STM SPLY PRESS LO" 1H13-P601-21A (A-1). If annunciator is in Alarm, continue with Step 5.14.1. If annunciator is Clear, proceed to Step 5.15.	
5.14.1	On Calibration Unit containing Master Trip Unit 1E31-N685A on 1H13-P629 position center knob to Position 3, place POWER switch to ON, push in center knob and increase Stable Current until Trip Unit Resets (TRIP LED goes Off).	
5.14.2	Reset RCIC DIV 1 ISOLATION SIGNAL using handswitch 1E51-HS-M628A on 1H13-P601-21B.	
5.14.3	Ensure Status Light RCIC D1 ISOL INIT, 1H13-P601-21B (DS6), is Off.	
5.15	Perform following:	
5.15.1	Have Operations place RCIC DIV 1 MOV TEST handswitch, 1E51-HS-M641, in TEST position.	Operations: _____
5.15.2	Verify Status Light RCIC D1 MOV IN TEST STATUS 1H13-P601-21B (DS8) comes On.	_____
5.16	<u>Master Trip Unit Calibration</u> (1E51-N635A on 1H13-P629)	
5.16.1	Adjust Stable Current 20.00 ± 0.01 mA.	

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

5.16.2 Record As Found 100% Master Trip Unit meter indication.

MASTER TRIP UNIT ANALOG METER				1E51-N635A
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
40	39		NOP	

NOP - Not on Peg

5.16.3 Adjust Stable Current to 12.00 ± 0.01 mA and record As Found 50% Master Trip Unit meter indication.

MASTER TRIP UNIT ANALOG METER				1E51-N635A
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
20	19		21	

5.16.4 Decrease Stable Current until Master Trip Unit Trips (TRIP LED On). Record "As Found" trip value from upper display of Readout Assembly.

LOW LEVEL TRIP CALIBRATION DATA (TRIP)				1E51-N635A
DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA
5.60 (62.0" H ₂ O)	5.56 (59.6" H ₂ O)	(2)	5.64 (64.4" H ₂ O)	

(2) Transfer value to corresponding location in Step 5.24.

5.16.5 Verify:

- \$ a. Annunciator, "CST LVL LO", on 1H13-P601-21A (B-5), Alarmed. _____
- b. Computer Point E51N100 displays OPEN. _____
- c. Computer Point E51N104 displays NOT OPEN. _____
- \$ d. Valve 1E51-F031 Opened. _____

NOTE

Valve F010 begins to close after F031 is full open.

- \$ e. Valve 1E51-F010 Closed. _____

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

NOTE

If on, Reset GROSS FAIL LED. If LED does not go Off, adjust Current Calibrator until GROSS FAIL LED can be Reset.

5.16.11 Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On. Record As Found High Gross Fail trip voltage from DVM.

MASTER TRIP UNIT GROSS FAIL CALIBRATION DATA				1E51-N635A
DESIRED Vdc	MIN Vdc	AS FOUND Vdc	MAX Vdc	FINAL Vdc
7.50	6.00		9.00	

\$ a. Verify GROSS FAIL LED on Master Trip Unit comes On. _____

5.16.12 Reconnect Current Calibrator negative lead (-) to J1 on Master Trip Unit and positive lead (+) to J2 on Calibration Unit (mA OUT adjusted for 0 mA). (Do not disconnect DVM.)

\$ 5.16.13 Reset GROSS FAIL LED on Master Trip Unit. _____

5.16.14 Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On. Record As Found Low Gross Fail trip voltage from DVM.

MASTER TRIP UNIT GROSS FAIL CALIBRATION DATA				1E51-N635A
DESIRED Vdc	MIN Vdc	AS FOUND Vdc	MAX Vdc	FINAL Vdc
0.694	0.500		0.887	

\$ a. Verify GROSS FAIL LED on Master Trip Unit comes On. _____

\$ 5.16.15 Disconnect Current Calibrator and DVM from Master Trip Unit and Cal Unit. Reset GROSS FAIL LED on Master Trip Unit. _____

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CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
-------------	------------------------	-----------------

- 5.16.16 If Gross Failure adjustment is required, continue with Step 5.16.16.a. If not, record them as "Final" values and proceed to Step 5.16.17.
- a. Install card extender between Trip Unit to be adjusted and Card File.
 - b. Connect DVM, negative lead (-) to J2 on Calibration Unit and positive lead (+) to J1 on Master Trip Unit.
 - c. For Low Gross Fail adjustment, connect Current Calibrator positive (+) to J2 on Calibration Unit and negative (-) to J1 on Master Trip Unit. For High Gross Fail adjustment, connect Current Calibrator positive (+) to J1 on Master Trip Unit and negative (-) to J2 on Calibration Unit.
 - d. Increase milliamp output of Current Calibrator until DVM reads Desired value for Gross Failure Trip being adjusted.
 - e. If necessary, adjust applicable CURRENT TRIP pot on circuit board CCW until GROSS FAIL LED can be reset with RESET pushbutton.
 - f. Very slowly turn pot CW until GROSS FAIL LED just comes On.
 - g. Lower Current Calibrator output until GROSS FAIL LED can be reset with RESET pushbutton, then very slowly increase output until LED just comes On.
 - h. If value obtained requires no further adjustment, record reading as "Final" and proceed to Step 5.16.16i; otherwise, repeat Step 5.16.16c through 5.16.16h until unit requires no further adjustment.
 - i. Repeat Steps 5.16.16c through 5.16.16h for other Gross Fail if adjustment is required.
 - j. Disconnect Current Calibrator and DVM from Master Trip Unit and Cal Unit.

5.16.17 Push in center knob of Select/command switch.

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CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.16.18	If Trip point adjustment is required, continue with Step 5.16.18a. If not, record as "Final" and proceed to Step 5.16.19.	
a.	Adjust Stable Current to Desired value and adjust Trip Point adjustment as required.	
b.	Recheck Reset Value. If Reset requires no adjustment, proceed to Step 5.16.18e. If Reset required adjustment, proceed to Step 5.16.18c.	
c.	Install card extender between Trip Unit and Card File, if required.	
d.	Adjust Stable Current to Desired Reset value and adjust RESET DIFFERENTIAL pot on circuit board as required.	
e.	Recheck Trip and Reset values. If both Trip and Reset require no further adjustment, record them as "Final" values and proceed to Step 5.16.19. If not, repeat Step 5.16.18a through 5.16.18e until unit requires no further adjustment.	
5.16.19	If Master Trip Unit meter adjustment is required, continue with Step 5.16.19a. If not, record them as "Final" values and proceed to Step 5.16.20.	
a.	Install card extender between Master Trip Unit and Card File, if required.	
b.	Adjust meter ZERO at back of meter, then recheck 0,50, and 100 percent indications. Repeat as required until unit requires no further adjustment.	
c.	Record "Final" indications.	
5.16.20	Remove Card extender from Master Trip Unit 1E51-N635A and reinstall Trip Unit in Card File, if required.	
5.16.21	Adjust Stable Current to approximately 20.00 ± 0.01 mA.	
\$ 5.16.22	Verify Annunciator, "CST LVL LO", 1H13-P601-21A (B-5), Clears.	

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CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

5.16.23 Complete applicable Hardware Restoration Section for 1E31-N685A.
 (N/A Hardware Restoration Section if Step 5.14 was not completed.)
HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	PERFORMER	VERIFIER
Cal Select Command switch center knob	POS 3	OFF			
Cal Select Command switch outer knob	POS 3	OFF			
Cal Unit POWER switch	ON	OFF			

5.17 Transmitter Calibration 1E51-LT-N035A (119'Aux, Area 7)

NOTE

Refer to Return to Service Verification Record for instrument valve identification.

WARNING

Any water drained from the transmitter and/or associated tubing may be contaminated. Exercise caution and radiological safety precautions.

- 5.17.1 Perform following:
- a. Remove valve seals as required.
 - b. Close instrument Isolation Valve F01 to 1E51-LT-N035A
- 5.17.2 Slowly loosen HP side vent plug on top of transmitter.
- 5.17.3 Perform one of the following:
- a. Install test fitting in HP vent port on top of transmitter.
- OR
- b. Open Test Valve F02 and ensure transmitter is vented and drained of all water.

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CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

STEP REQUIRED ACTION

5.17.4 Perform following:

- a. Connect test gauge and pressure source to either test fitting in HP vent port or HP manifold test connection.
- b. Connect DVM (mAdc) to test connections on transmitter.

5.17.5 Apply inputs to Transmitter, as specified, and record "As Found" values.

Step 5.17.5, 6, 12

TRANSMITTER CALIBRATION DATA					1E51-N035A (119'Aux, Area 7)
INPUT	OUTPUT				
"H ₂ O	DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA
15	4.03	3.99		4.07	
135	8.05	8.01		8.09	
250	11.90	11.86		11.94	
370	15.92	15.88		15.96	
490	19.94	19.90		19.98	
370	15.92	15.88		15.96	
250	11.90	11.86		11.94	
135	8.05	8.01		8.09	
62	5.60	5.56	(1)	5.64	
15	4.03	3.99		4.07	

(1): Transfer value to corresponding location in Step 5.24.

- 5.17.6 If "As Found" values require no adjustment, record them as "Final" values and proceed to Step 5.18; otherwise, continue with Step 5.17.7.
- 5.17.7 Apply 0% pressure, as specified, and adjust ZERO until output is as specified.
- 5.17.8 Apply 100% pressure, as specified, and adjust SPAN until output is as specified.

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CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.17.9	Repeat Steps 5.17.7 and 5.17.8 until unit requires no further adjustment.	
5.17.10	Apply 50% pressure, as specified, and ensure output is within specified tolerance. If output requires adjustment, adjust LINEARITY adjustment until no further adjustment is required.	
5.17.11	Repeat Steps 5.17.7 through 5.17.11 until Transmitter requires no further adjustment.	
5.17.12	Reapply inputs to Transmitter, as specified, and record them as "Final" values.	
5.18	Pull out center knob of Calibration Select/Command switch and verify CAL LED is Off.	
\$ 5.19	Press Master Trip Unit Gross Fail RESET pushbutton and verify Gross Fail LED is Off.	
5.20	Place Cal Select/Command switch knobs to OFF position.	
5.21	<u>Condensate Storage Tank (RCIC) Low Level Cal Functional Test</u>	

NOTE

Various trips and/or alarms other than those stated below will occur during performance of this section. (See Section 2.0.) They will not require verification.

- 5.21.1 Establish communications between Control Room and transmitter.
- 5.21.2 Increase pressure to high side of Transmitter until it is near Reset Point. Very slowly continue to increase pressure until TRIP LED on Master Trip Unit goes Off.

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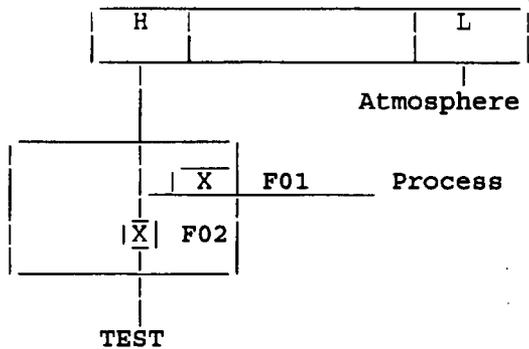
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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

- 5.22.3 Perform following:
- a. Vent transmitter as necessary to ensure sensing leg is filled. _____
 - b. Torque vent plug on transmitter to 90 in/lbs. _____
 - c. Remove DVM. _____

5.22.4 Complete Return to Service Verification Record.
 INSTRUMENT NO.: 1E51-LT-N035A
 LOCATION: 119'Aux., Area 7



RETURN TO SERVICE VERIFICATION RECORD

VALVE DESCRIPTION	VALVE POSITION			INITIALS	
	TEST	NORMAL	FINAL	PERFORMER	VERIFIER
HP ISOL VALVE F01	CLOSED	OPEN			
HP TEST VALVE F02	OPEN	CLOSED			

- 5.22.5 Check all valves and fittings for leaks. _____
- 5.22.6 Replace valve seals on transmitter valves as required. _____
- 5.22.7 Have Operations Close 1E51-F031 and Open 1E51-F010.

VALVE RESTORATION

VALVE	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
1E51-F031	OPEN	CLOSED			
1E51-F010	CLOSED	OPEN			

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LOW LEVEL CALIBRATION
CHANNEL A
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

5.22.8 Have Operations place RCIC DIV I MOV TEST switch to NORM. Operations: _____

Verifier: _____

5.22.9 Complete Hardware Restoration for 1E51-N635A.
 HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	PERFORMER	VERIFIER
Cal Select Command switch center knob	POS 6	OFF			
Cal Select Command switch outer knob	POS 6	OFF			
Cal Unit POWER switch	ON	OFF			

5.22.10 Remove Digital Readout Assembly. _____

5.22.11 Verify:

\$ a. Status Light TRIP UNIT 1 IN CAL/GR FAIL 1H13-P601-21B (DS-12) is Off. _____

b. Computer Point E51L617 displays NORMAL. _____

\$ c. Indicating Light RCIC D1 MOV IN TEST STATUS 1H13-P601-21B (DS8) is Off. _____

5.22.12 Verify reading 1E51-N635A is consistent with existing plant conditions. _____

5.23 Record test equipment used for this test. This step may be performed out of sequence if desired.

TEST EQUIPMENT LOG

TEST EQUIPMENT	M&TE NO.	CAL DUE DATE

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DATA SHEET I
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

- | <u>STEP</u> | <u>REQUIRED ACTION</u> |
|-------------|--|
| 5.1 | Obtain permission from Shift Supervisor to begin test. Shift Supervisor's signature is required on Data Package Cover Sheet. |
| 5.2 | Establish communications between Control Room and technician performing test. |
| 5.3 | On Calibration Unit containing Master Trip Unit 1E51-N635E on 1H13-P629, ensure Transient Current switch knob and center knob of Calibration Select/Command switch are pulled out. |
| 5.4 | Ensure Calibration Unit POWER switch and both center and outer Calibration Select/Command switches are in OFF position. |
| 5.5 | Install Readout Assembly into Calibration Unit. |
| 5.6 | Place Calibration Unit POWER switch to ON. |
| 5.7 | Verify devices listed are in state indicated. |

DEVICE	DESIRED STATUS	DESCRIPTION	LOCATION	VERIFICATION
1E51-F031	Closed	Suction From Suppr Pool	1H13-P601-21C	
1E51-F010	Open	Suction From Condensate Storage Tank	1H13-P601-21C	
1E51-F031	Auto	Suction From Suppr Pool	1H13-P601-21C	
1E51-F010	Auto	Suction From Condensate Storage Tank	1H13-P601-21C	
1E51-F031	Auto	Suction From Suppr Pool	1H22-P150	
1E51-F010	Auto	Suction From Condensate Storage Tank	1H22-P150	

- 5.8 Position center and outer knobs of Calibration Select/Command switch to Position 7, selecting Master Trip Unit 1E51-N635E.
- 5.9 Adjust STABLE CURRENT knob to approximately 20 mA as observed on lower display of Readout Assembly.
- 5.9.1 Complete Test Start Time on Data Package Cover Sheet.

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LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.10	Push center knob of Calibration Select/Command switch to activate Calibration Unit.	
5.11	Ensure CAL LED on Calibration Unit is On.	
\$ 5.12	Verify GROSS FAIL LED on Master Trip Unit is On.	_____
5.13	Verify:	
5.13.1	Computer Point E51L617 displays OUT SVCE.	_____
\$ 5.13.2	Status Light TRIP UNIT 1 IN CAL/GR FAIL 1H13-P601-21B (DS-12) comes On.	_____
5.14	In Plant Mode 3, 4, and 5, check Annunciator "RCIC DIV 1 STM SPLY PRESS LO" 1H13-P601-21A (A-1). If annunciator is in Alarm, continue with Step 5.14.1. If annunciator is Clear, proceed to Step 5.15.	
5.14.1	On Calibration Unit containing Master Trip Unit 1E31-N685A on 1H13-P629 position center knob to Position 3, place POWER switch to ON, push in center knob and increase Stable Current until Trip Unit Resets (TRIP LED goes Off).	
5.14.2	Reset RCIC DIV 1 ISOLATION SIGNAL using handswitch 1E51-HS-M628A on 1H13-P601-21B.	
5.14.3	Ensure Status Light RCIC D1 ISOL INIT, 1H13-P601-21B (DS6), is Off.	
5.15	Perform following:	
5.15.1	Have Operations place RCIC DIV 1 MOV TEST handswitch, 1E51-HS-M641, in TEST position.	Operations: _____
5.15.2	Verify Status Light RCIC D1 MOV IN TEST STATUS 1H13-P601-21B (DS8) comes On.	_____
5.16	<u>Master Trip Unit Calibration (1E51-N635E on 1H13-P629)</u>	
5.16.1	Adjust Stable Current 20.00 + 0.01 mA.	

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CONDENSATE STORAGE TANK (RCIC)
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CHANNEL E
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

5.16.2 Record As Found 100% Master Trip Unit meter indication.

MASTER TRIP UNIT ANALOG METER				1E51-N635E
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
40	39		NOP	

NOP - Not on Peg

5.16.3 Adjust Stable Current to 12.00 ± 0.01 mA and record As Found 50% Master Trip Unit meter indication.

MASTER TRIP UNIT ANALOG METER				1E51-N635E
DESIRED Ft.	MIN Ft.	AS FOUND Ft.	MAX Ft.	FINAL Ft.
20	19		21	

5.16.4 Decrease Stable Current until Master Trip Unit Trips (TRIP LED On). Record "As Found" trip value from upper display of Readout Assembly.

LOW LEVEL TRIP CALIBRATION DATA (TRIP)				1E51-N635E
DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA
5.60 (62.0" H ₂ O)	5.56 (59.6" H ₂ O)	(2)	5.64 (64.4" H ₂ O)	

(2) Transfer value to corresponding location in Step 5.24.

5.16.5 Verify:

- \$ a. Annunciator, "CST LVL LO", on 1H13-P601-21A (B-5), Alarmed. _____
- b. Computer Point E51N100 displays OPEN. _____
- c. Computer Point E51N104 displays NOT OPEN. _____
- \$ d. Valve 1E51-F031 Opened. _____

NOTE
 Valve F010 begins to close after F031 is full open.

- \$ e. Valve 1E51-F010 Closed. _____

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CHANNEL E
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

NOTE

If on, Reset GROSS FAIL LED. If LED does not go Off, adjust Current Calibrator until GROSS FAIL LED can be Reset.

5.16.11 Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On. Record As Found High Gross Fail trip voltage from DVM.

MASTER TRIP UNIT GROSS FAIL CALIBRATION DATA				1E51-N635E
DESIRED Vdc	MIN Vdc	AS FOUND Vdc	MAX Vdc	FINAL Vdc
7.50	6.00		9.00	

\$ a. Verify GROSS FAIL LED on Master Trip Unit comes On. _____

5.16.12 Reconnect Current Calibrator negative lead (-) to J1 on Master Trip Unit and positive lead (+) to J2 on Calibration Unit (mA OUT adjusted for 0 mA). (Do not disconnect DVM.)

\$ 5.16.13 Reset GROSS FAIL LED on Master Trip Unit. _____

5.16.14 Slowly increase milliamp output of Current Calibrator until GROSS FAIL LED on Master Trip Unit comes On. Record As Found Low Gross Fail trip voltage from DVM.

MASTER TRIP UNIT GROSS FAIL CALIBRATION DATA				1E51-N635E
DESIRED Vdc	MIN Vdc	AS FOUND Vdc	MAX Vdc	FINAL Vdc
0.694	0.500		0.887	

\$ a. Verify GROSS FAIL LED on Master Trip Unit comes On. _____

\$ 5.16.15 Disconnect Current Calibrator and DVM from Master Trip Unit and Cal Unit. Reset GROSS FAIL LED on Master Trip Unit. _____

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CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.16.16	If Gross Failure adjustment is required, continue with Step 5.16.16.a. If not, record them as "Final" values and proceed to Step 5.16.17.	
a.	Install card extender between Trip Unit to be adjusted and Card File.	
b.	Connect DVM, negative lead (-) to J2 on Calibration Unit and positive lead (+) to J1 on Master Trip Unit.	
c.	For Low Gross Fail adjustment, connect Current Calibrator positive (+) to J2 on Calibration Unit and negative (-) to J1 on Master Trip Unit. For High Gross Fail adjustment, connect Current Calibrator positive (+) to J1 on Master Trip Unit and negative (-) to J2 on Calibration Unit.	
d.	Increase milliamp output of Current Calibrator until DVM reads Desired value for Gross Failure Trip being adjusted.	
e.	If necessary, adjust applicable CURRENT TRIP pot on circuit board CCW until GROSS FAIL LED can be reset with RESET pushbutton.	
f.	<u>Very slowly</u> turn pot CW until GROSS FAIL LED just comes On.	
g.	Lower Current Calibrator output until GROSS FAIL LED can be reset with RESET pushbutton, then <u>very slowly</u> increase output until LED just comes On.	
h.	If value obtained requires no further adjustment, record reading as "Final" and proceed to Step 5.16.16i; otherwise, repeat Step 5.16.16c through 5.16.16h until unit requires no further adjustment.	
i.	Repeat Steps 5.16.16c through 5.16.16h for other Gross Fail if adjustment is required.	
j.	Disconnect Current Calibrator and DVM from Master Trip Unit and Cal Unit.	
5.16.17	Push in center knob of Select/command switch.	

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LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.16.18	If Trip point adjustment is required, continue with Step 5.16.18a. If not, record as "Final" and proceed to Step 5.16.19.	
	<ul style="list-style-type: none"> a. Adjust Stable Current to Desired value and adjust Trip Point adjustment as required. b. Recheck Reset Value. If Reset requires no adjustment, proceed to Step 5.16.18e. If Reset required adjustment, proceed to Step 5.16.18c. c. Install card extender between Trip Unit and Card File, if required. d. Adjust Stable Current to Desired Reset value and adjust RESET DIFFERENTIAL pot on circuit board as required. e. Recheck Trip and Reset values. If both Trip and Reset require no further adjustment, record them as "Final" values and proceed to Step 5.16.19. If not, repeat Step 5.16.18a through 5.16.18e until unit requires no further adjustment. 	
5.16.19	If Master Trip Unit meter adjustment is required, continue with Step 5.16.19a. If not, record them as "Final" values and proceed to Step 5.16.20.	
	<ul style="list-style-type: none"> a. Install card extender between Master Trip Unit and Card File, if required. b. Adjust meter ZERO at back of meter, then recheck 0,50, and 100 percent indications. Repeat as required until unit requires no further adjustment. c. Record "Final" indications. 	
5.16.20	Remove Card extender from Master Trip Unit 1E51-N635E and reinstall Trip Unit in Card File, if required.	
5.16.21	Adjust Stable Current to approximately 20.00 ± 0.01 mA.	
§ 5.16.22	Verify Annunciator, "CST LVL LO", 1H13-P601-21A (B-5), Clears.	

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CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

STEP REQUIRED ACTION INITIALS

5.16.23 Complete applicable Hardware Restoration Section for 1E31-N685A.
 (N/A Hardware Restoration Section if Step 5.14 was not completed.)
HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	PERFORMER	VERIFIER
Cal Select Command switch center knob	POS 3	OFF			
Cal Select Command switch outer knob	POS 3	OFF			
Cal Unit POWER switch	ON	OFF			

5.17 Transmitter Calibration 1E51-LT-N035E (119'Aux, Area 7)

NOTE

Refer to Return to Service Verification Record for instrument valve identification.

WARNING

Any water drained from the transmitter and/or associated tubing may be contaminated. Exercise caution and radiological safety precautions.

5.17.1 Perform following:

- a. Remove valve seals as required.
- b. Close instrument Isolation Valve F01 to 1E51-LT-N035E

5.17.2 Slowly loosen HP side vent plug on top of transmitter.

5.17.3 Perform one of the following:

- a. Install test fitting in HP vent port on top of transmitter.

OR

- b. Open Test Valve F02 and ensure transmitter is vented and drained of all water.

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

STEP REQUIRED ACTION

- 5.17.4 Perform following:
- a. Connect test gauge and pressure source to either test fitting in HP vent port or HP manifold test connection.
 - b. Connect DVM (mAdc) to test connections on transmitter.
- 5.17.5 Apply inputs to Transmitter, as specified, and record "As Found" values.

Step 5.17.5, 6, 12

TRANSMITTER CALIBRATION DATA					1E51-N035E (119'Aux, Area 7)
INPUT	OUTPUT				
	DESIRED mA	MIN mA	AS FOUND mA	MAX mA	FINAL mA
15	4.02	3.98		4.06	
135	8.04	8.00		8.08	
250	11.90	11.86		11.94	
370	15.92	15.88		15.96	
490	19.94	19.90		19.98	
370	15.92	15.88		15.96	
250	11.90	11.86		11.94	
135	8.04	8.00		8.08	
62	5.60	5.56	(1)	5.64	
15	4.02	3.98		4.06	

(1): Transfer value to corresponding location in Step 5.24.

- 5.17.6 If "As Found" values require no adjustment, record them as "Final" values and proceed to Step 5.18; otherwise, continue with Step 5.17.7.
- 5.17.7 Apply 0% pressure, as specified, and adjust ZERO until output is as specified.
- 5.17.8 Apply 100% pressure, as specified, and adjust SPAN until output is as specified.

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 XRef _____

DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.17.9	Repeat Steps 5.17.7 and 5.17.8 until unit requires no further adjustment.	
5.17.10	Apply 50% pressure, as specified, and ensure output is within specified tolerance. If output requires adjustment, adjust LINEARITY adjustment until no further adjustment is required.	
5.17.11	Repeat Steps 5.17.7 through 5.17.11 until Transmitter requires no further adjustment.	
5.17.12	Reapply inputs to Transmitter, as specified, and record them as "Final" values.	
5.18	Pull out center knob of Calibration Select/Command switch and verify CAL LED is Off.	
\$ 5.19	Press Master Trip Unit Gross Fail RESET pushbutton and verify Gross Fail LED is Off.	
5.20	Place Cal Select/Command switch knobs to OFF position.	
5.21	<u>Condensate Storage Tank (RCIC) Low Level Cal Functional Test</u>	

NOTE

Various trips and/or alarms other than those stated below will occur during performance of this section. (See Section 2.0.) They will not require verification.

- 5.21.1 Establish communications between Control Room and transmitter.
- 5.21.2 Increase pressure to high side of Transmitter until it is near Reset Point. Very slowly continue to increase pressure until TRIP LED on Master Trip Unit goes Off.

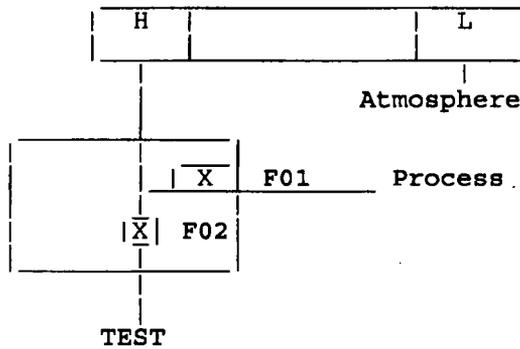
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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.22.3	Perform following:	
	a. Vent transmitter as necessary to ensure sensing leg is filled.	_____
	b. Torque vent plug on transmitter to 90 in/lbs.	_____
	c. Remove DVM.	_____

5.22.4 Complete Return to Service Verification Record.
 INSTRUMENT NO.: 1E51-LT-N035E
 LOCATION: 119'Aux., Area 7



RETURN TO SERVICE VERIFICATION RECORD

VALVE DESCRIPTION	VALVE POSITION			INITIALS	
	TEST	NORMAL	FINAL	PERFORMER	VERIFIER
HP ISOL VALVE F01	CLOSED	OPEN			
HP TEST VALVE F02	OPEN	CLOSED			

- 5.22.5 Check all valves and fittings for leaks. _____
- 5.22.6 Replace valve seals on transmitter valves as required. _____
- 5.22.7 Have Operations Close 1E51-F031 and Open 1E51-F010.

VALVE RESTORATION

VALVE	TEST	NORMAL	FINAL	INITIALS	
				PERFORMER	VERIFIER
1E51-F031	OPEN	CLOSED			
1E51-F010	CLOSED	OPEN			

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DATA SHEET I (Continued)
CONDENSATE STORAGE TANK (RCIC)
LOW LEVEL CALIBRATION
CHANNEL E
SAFETY RELATED

<u>STEP</u>	<u>REQUIRED ACTION</u>	<u>INITIALS</u>
5.22.8	Have Operations place RCIC DIV I MOV TEST switch to NORM.	Operations: _____ Verifier: _____

5.22.9 Complete Hardware Restoration Section for 1E51-N635E.
HARDWARE RESTORATION

DESCRIPTION	TEST	NORMAL	FINAL	PERFORMER	VERIFIER
Cal Select Command switch center knob	POS 7	OFF			
Cal Select Command switch outer knob	POS 7	OFF			
Cal Unit POWER switch	ON	OFF			

- 5.22.10 Remove Digital Readout Assembly. _____
- 5.22.11 Verify:
 - \$ a. Status Light TRIP UNIT 1 IN CAL/GR FAIL 1H13-P601-21B (DS-12) is Off. _____
 - b. Computer Point E51L617 displays NORMAL. _____
 - \$ c. Indicating Light RCIC D1 MOV IN TEST STATUS 1H13-P601-21B (DS8) is Off. _____
- 5.22.12 Verify reading 1E51-N635E is consistent with existing plant conditions. _____
- 5.23 Record test equipment used for this test. This step may be performed out of sequence if desired.

TEST EQUIPMENT LOG

TEST EQUIPMENT	M&TE NO.	CAL DUE DATE

Attachment 5

To

GNRO-2007/00068

GGNS Procedure 01-S-06-12

PLANT OPERATIONS MANUAL

Volume 01
Section 06

01-S-06-12
Revision: 109
Date: 8/10/05

ADMINISTRATIVE PROCEDURE
GGNS SURVEILLANCE PROGRAM
SAFETY RELATED

Prepared: Deborah R. Kerby
Reviewed: Alan J. Cook
 Technical
Concurred: [Signature]
 Responsible Manager
Approved: [Signature]
 Plant General Manager
 FNRD

List of Effective Pages:

Pages 1-37

Attachments I-VI

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>	<u>Revision</u>	<u>TCN</u>
0	None	100	None
1	1	101	29, 30, 31, 32
2	2	102	None
3	3-5	103	33, 34
4	None	104	None
5	6	105	35, 36
6	7	106	None
7	8	107	37, 38
8	9, 10	108	39
9	11, 12	109	None
10	13		
11	14, 15 (Canceled)		
12	None		
13	16		
14	17, 18		
15	19		
16	20, 21, 22		
17	None		
18	23		
19	24, 25, 26		
20	None		
21	27, 28		

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RPTS FORM

10CFR50.59 Review Required?	<input checked="" type="checkbox"/> Yes	If Yes, transmit 50.59 Review Form along with procedure to Document Control as a separate record.
	<input type="checkbox"/> No	Not required per LI-101

Cross-Discipline review required?	<input checked="" type="checkbox"/> Yes	(Note affected Departments Below)
	<input type="checkbox"/> No	
Preparer Initials>>>		<i>See</i>

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)
System Engineering	<i>[Signature]</i>

Does this directive contain Tech Spec Triggers? YES NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
COC 1014	SR3.0.2, SR 3.0.3.S3	6.4.4
ANSI N18.7	5.2.8.S1, 5.2.19.S1 & S2(3)	*
TECH SPEC	5.4.1.a	*
FSAR	13.1.2.2.S6	*
FSAR	18.1.13.Response.Para.2.S2	*
FSAR	13.5.3.1.S2	*
QAPM	B.8.a, A.1.d	*
QAPM	A.1.b, B.8.c, A.2.e.2	2.0
FSAR	6.3.2.2.1.S34	2.4.3
TECH SPEC	SR 3.0.2, SR 3.0.3.S3	6.4.4
TECH SPEC	5.5.6	6.4.5
TRM	7.6.3.3	6.4.5
FSAR	13.5.3.1.S1	6.1.2
QAPM	B.8.c, B.8.d.3, B.8.d.1, B.8.d.4, A.1.d	6.2
FSAR	18.1.13.Response.Para.3.a.S1 & S2	6.5.5b
AECM 85/0415	Att. 1, Pg. 1, IV.S1	6.7.1
ANSI N18.7	5.2.6.S1, S2, S3, S4, S5, S16, S17, S18	6.2.1e
FSAR	6.3.2.2.1.S35.a	6.2.1.e
ANSI N18.7	5.2.6.S13 & S14	6.2.1e(3)
AECM 80/0026	Question #6	6.2.1e(9)
FSAR	18.1.13.Response.Para.3.c.S1	6.2.1e(9)
ANSI N18.7	5.2.6.S22	6.2.1e(9)
FSAR	4.6.1.1.2.4.2.6.S35	6.2.1e(9)
FSAR	18.1.29.1.Response.Para7, 6.3.2.2.1.S35.a	2.4.3, 6.2.1e(9) (a)
IEEE 338	All	*
ANSI N18.7	5.2.6.S14 & S15	6.2.2b
ANSI N18.7	5.3.S3	6.2.2b(4)
QAPM	A.3.f, B.14.b	6.3.1
ANSI N18.7	5.2.15.S1, S4, S15 & S20(1)	6.3.1b
ANSI N18.7	5.2.15.S8 & S14	6.3.1f
ANSI N18.7	5.2.15.S9	6.3.1
TRM	7.6.2	6.3.1
QAPM	B.8.a, B.10.a, B.10.b	

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REQUIREMENTS CROSS-REFERENCE LIST (Cont.)

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
QAPM	Table 1.C.19	6.4
ANSI N18.7	5.2.8.S5	6.4.2, 6.4.4
QAPM	Table 1.B.3	6.1.5
OMa-1988 Part 10	4.2.1.2(g)	6.4.5a & b
ANSI N18.7	5.2.8.S2	6.4.5
OMa-1988 Part 6	6.1	6.4.6a
FSAR	18.1.29.1.Response.Para8	6.5.5
FSAR	7.2.2.1.2.3.1.13.S1	6.5.5a
FSAR	7.2.2.1.2.3.1.14.S1, S2 & Para.3 & 4	6.5.5a
OMa-1988 Part 10	4.2.1.8	6.7.2
OMa-1988 Part 10	4.2.1.9	6.7.2
QAPM	B.8.e, B.8.f	6.8
FSAR	13.1.2.2.S5	6.8.3
AECM 86/0307	Att. 1, Pg. 4, Item E.S5	6.8.3.a,
AECM 87/0229	87-26-03, It. 4.S7	6.8.9, 6.9
AECM 87/0229	87-26-03, It. 4.S6	6.8.11, 6.9.1, 6.9.2
AECM 87/0229	87-26-03, It. 4.S4	6.2.2.b(4)
AECM 87/0229	87-26-03, It. 4.S5	6.6.1b
FSAR	6.3.2.2.1.S33	6.2.1e(9) (a)
QDR 0202-93		6.4.9, 6.4.11
GNRO-95/00063	Item E. Para. 2	6.2.2.a(2) (c)
AECM-83/0177	Pg. 12 Item #7	*
QDR	87/0559	6.5.4a,b
GNRO-97/00105	Item E. Para. 3(2)	*
CR GGCR1996-0551		Attachment IV
		pp 1 of 2, 2 of 2
CR GGCR1997-0088		Attachment VII
		pp 1 of 2, 2 of 2
CR GGCR1999-0345		6.9.3
CR GGCR2004-1660		6.8.13, 6.9.2
AECM 83/0177	Pg.16, Item 2	6.4.1
AECM 87/0237	Att. 1, Pg. 3, IT.E.S4	6.4.1
GNRO 91-00183	Att. 1.E, Para.2.S1 & S3	6.4.1

* Covered by directive as a whole or by various paragraphs of the directive.

NOTE

The Equipment Database (EDB) Request statement is applicable only to Volume 06 and 07 maintenance directives.

EDB Change Request generated and the backup documentation available for setpoint and/or calibration data only Yes N/A EDBCR # _____

Current Revision Statement

Revision 109:

- Removed outdated commitment ANSI N18.7, Section 5.2.15, Sentence 12 from cross reference list. This commitment required plant procedure review of no less than every two years to determine if changes were necessary. Required procedure reviews are now determined and controlled in accordance with the QAPM Section 6. Ref: CR-GGN-2005-01383
- Deleted Step 6.3.3. New and revised Surveillance procedure review and approval requirement is clarified and included in step 6.3.1. Ref: CR-GGN-2005-01383

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Current Revision Statement (cont'd)

- Incorporates the use of the Corrective Action Process for documenting and reviewing unsatisfactory conditions discovered during performance of Surveillance activities. This action eliminates redundant Engineering reviews and improves the formality of the review process. Reference step 6.8.2.d and section 6.9.
- Added requirement to clarify that Surveillance procedures must be prepared per step 6.2 of this procedure in conjunction with the Authors Guide, 01-S-02-3.
- Step 6.1.6 - Corrected procedure number from 01-S-02-3 to 01-S-02-2.
- Deleted step 6.2.2.a (8). Post Engineering reviews will be performed using the Corrective Action process.
- Section 6.8.10 - Removed the requirement of work order completion in the Work Management System by Xerox copies.
- Step 1.1.4 added to clarify the acronym "WMS".
- Deleted Reference 3.17 - Procedure 17-S-05-8 is cancelled.
- Corrected title on Reference 3.6
- Attachment 1 revised to include an outline step (FF) for delineating attachments to a Surveillance procedure.
- Enhanced step 6.1.3 and 6.4.4 to add SR 3.0.3 LCO requirement.
- Editorial changes were made such as misspelling, changing reference numbers to actual procedure numbers, correction of step number due to deleted steps in previous revision 108.
- Table of Contents 6.3 and 6.9 changes made to clarify section requirements.
- Requirements Cross-Reference List updated to add references from cancelled Scheduling procedure, 17-S-05-8.

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1.0 PURPOSE AND DISCUSSION

1.1 Purpose

- 1.1.1 To define the responsibilities and requirements for implementing the GGNS Surveillance Program.
- 1.1.2 Changes required for implementation of 1994 TSIP were incorporated in Revision 100. For historical reference this statement should not be deleted.
- 1.1.3 For clarification, any reference to "NRC LATE DATE" in this procedure is to be considered synonymous with "LATE DATE" in WMS.
- 1.1.4 For clarification any reference to "WMS", which is commonly known as the Work Management System, in this procedure is to be considered synonymous with any computer system used to track/schedule work activities.

1.2 Discussion

- 1.2.1 The Surveillance Program implements the surveillance requirements of the Technical Specifications Updated Final Safety Analysis Report (UFSAR), Technical Requirements Manual (TRM), and the Offsite Dose Calculation Manual (ODCM), and Dry Fuel Storage Current License Basis documents (DFS-CLB).
 - a. The Plant Surveillance Program ensures:
 - (1) Safety Related and (Important To Safety - Dry Fuel Storage) structures, systems and components are available to perform their intended functions.
 - (2) Adherence to the chemical and radioactive release limits.
 - b. The Inservice Testing (IST) Program, Ref. 3.25, ensures that surveillance requirements for inspection and testing of ASME Code Class 1, 2 and 3 pumps and valves are met.
- 1.2.2 The Surveillance Program Coordinator is the process owner of the Surveillance Program Process and is responsible for:
 - a. Administration and interpretation of day-to-day activities.
 - b. Monitoring and adjusting for efficiency and effectiveness.
 - c. Coordination with other processes and organizations.
 - d. Accountability and responsibility for changes and improvements.
- 1.2.3 Throughout the body of this procedure the word "Technical Specification" (Tech Spec or TS) is synonymous with "Updated Final Safety Analysis Report" (UFSAR) "Technical Requirements Manual" (TRM) and "Offsite Dose Calculation Manual" (ODCM) and "Certificate of Compliance for Spent Fuel Storage Casks Number 1014" (DFS COC), and "HISTORM 10CFR72.212" (ENS 212), and "HISTORM 10CFR72.212 Appendix C" (GGNS 212).

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2.0 RESPONSIBILITIES

- 2.1 Manager, Planning and Scheduling/Outage - Is responsible to the Plant General Manager for management of the GGNS Surveillance Program.
- 2.2 Scheduling Supervisor - Is responsible for:
 - 2.2.1 Assigning responsibility for preparing procedures to satisfy Tech Spec surveillance requirements to applicable plant sections.
 - 2.2.2 Coordinating and integrating the Surveillance Scheduling Program.
- 2.3 Manager, System Engineering - Is responsible for:
 - 2.3.1 Assisting Scheduling in identifying Tech Spec surveillance requirements and the responsible section in (2.2.1).
 - 2.3.2 Providing the technical interface with the Manager, Plant Licensing for those surveillance matters requiring engineering or technical expertise.
- 2.4 On-Duty Shift Manager - Is responsible for:
 - 2.4.1 Ensuring all surveillance procedures are current and satisfactory.
 - 2.4.2 Ensuring that required sections of the Technical Specifications are followed.
 - 2.4.3 Maintaining a log of all surveillances, which require releasing plant equipment or facilities that have been authorized to start testing. This log should include the date/time surveillance started and date/time surveillance ended in accordance with 02-S-01-5, Shift Logs and Records.
- 2.5 Discipline Supervision - Is responsible for:
 - 2.5.1 Preparing applicable section surveillance procedures which meet the requirements of the Technical Specifications.
 - 2.5.2 Reviewing applicable section surveillance procedures to ensure their technical adequacy.
 - 2.5.3 Determining plant conditions required for each surveillance they are responsible for.
 - 2.5.4 Identifying the need for Tech Spec triggers for directives which are outside the implementing department's responsibility, but are required in order to support performance of the implementing procedures.
 - 2.5.5 Approving all procedures containing Tech Spec Triggers for which they are responsible. This approval ensures that triggers are correct and stay current/correct when procedures are TCNd/revised.
 - 2.5.6 Designating a cross-discipline review of procedure changes when the procedure being changed contains triggers to another section's procedures.

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- 2.5.7 Approving all surveillance procedures (except automatic revisions) for which they are responsible. This approval ensures that procedures are correct and stay current/correct when they are TCNd/revised.
- 2.5.8 Ensuring Surveillance tests are converted to Surveillance-WOs for their disciplines.

NOTE

Planning and Scheduling has the responsibility for converting Surveillance Tasks to Surveillance-WOs.

- 2.5.9 Ensuring completed Surveillance WOs and test results are forwarded to the Surveillance Program Coordinator in a timely manner.
- 2.5.10 Ensuring section Surveillance WOs are completed within the time specified on the most recent "Late Date Report" and other scheduling methods/reports per Section 6.4.2 or by notifying the Surveillance Coordinator per Step 6.4.9.
- 2.5.11 Ensuring the correct Surveillance procedure is attached to the respective work order package and issued to the individual(s) performing the test. The person(s) assembling the work order packages will accomplish this by:
- a. Verifying the Surveillance procedure number, Surveillance-WO number and any applicable attachments, tables, or component numbers shown on the printed Surveillance-WO matches the attached Surveillance procedure data sheets.
 - b. Writing the work order number and any other information designated in 2.5.11a in the upper right hand corner of the data package cover sheet if this information is not pre-printed on the Surveillance procedure data sheets. This step is optional for Operations Surveillance work order packages who should verify this information correct prior to release of work.
 - c. Initialing the Surveillance procedure data package cover sheet per Step 6.5.4 to document that the requirements of Step 2.5.11a and b are complete.
- 2.5.12 Notifying Surveillance Program Coordinator per Step 6.4.12 when changes to their surveillance procedures affect the WMS Database.
- 2.5.13 Ensuring surveillance procedure results are reviewed by qualified individuals to determine that all requirements have been satisfied.

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- 2.6 Surveillance Program Coordinator or Designee - Is responsible for:
- 2.6.1 Notifying the Supervisor, Code Programs of the status and completion of all surveillance procedures that address IST requirements to ensure code-related data is reviewed by the Supervisor, Code Programs.
 - 2.6.2 Maintaining surveillance information in the WMS Database current by updating the WMS Database as surveillance tasks change.
 - 2.6.3 Maintaining a complete status of surveillances and ensuring surveillances do not exceed their time limit without prior notification to Plant Management per Section 6.4.9.
 - 2.6.4 Receiving and reviewing completed Surveillance-WOs and Surveillance Procedure Data Packages.
 - 2.6.5 Ensuring Surveillance-WOs and Surveillance Procedure Data Packages are forwarded to Records Management for retention.
- 2.7 Engineering, Programs and Components Group, Supervisor, Code Programs - Is responsible for:
- 2.7.1 Verifying compliance with ASME code requirements that are a part of the Surveillance Program.
 - 2.7.2 Verifying test results for ASME code compliance and identifying necessary changes in the Surveillance Program.
 - 2.7.3 Reviewing all surveillance procedures that have IST Acceptance Criteria.
- 2.8 Releasing Organization Supervisor (ROS) - Is responsible for:
- 2.8.1 Releasing plant equipment or facilities in accordance with 01-S-07-1, Control of Work on Plant Equipment and Facilities.
- 2.9 Manager, Plant Licensing - Is responsible for maintaining (with input from the technical reviewer on procedure changes) the Requirements Procedure Tracking System (RPTS).
- 2.10 Engineering, Logic System Functional Testing (LSFT)Coordinator - Is responsible to ensure that changes to GGNS procedures which could change the LSFT testing scope of a procedure are reviewed against the LSFT test scope depicted on applicable marked drawings. This review is required to ensure the LSFT testing requirements specified in Technical Specifications are maintained. This review can be performed by the responsible System Engineer and discussed later with the coordinator, if required.
- 2.11 Manager, Programs and Components - Is responsible for assigning responsibility for preparing procedures to satisfy Tech Spec Surveillance requirements for applicable plant programs.

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3.0 REFERENCES

- 3.1 EOI Quality Assurance Program Manual
- 3.2 USNRC Regulatory Guide 1.33 (Rev 2, 2-78)/ANSI N18.7-1976
- 3.3 Administrative Procedure 01-S-17-11, Preventive Maintenance Program
- 3.4 FSAR Section 13.5.3.1
- 3.5 Administrative Procedure 01-S-02-3, Author's Guide
- 3.6 Administrative Procedure 01-S-02-2, Control of the GGNS Operations Manual
- 3.7 USNRC Regulatory Guide 1.118 (Rev 2, 6-78)/IEEE 338-1977
- 3.8 10CFR50.59
- 3.9 10CFR50.55a (g)
- 3.10 GGNS Technical Specifications (Appendix A to License No. NPF-29)
- 3.11 GGNS Environmental Protection Plan (Appendix B to License No. NPF-29)
- 3.12 ENS Nuclear Management Manual AD-103, Document Control and Records Management Activities
- 3.13 CEP-IST-4, ENS Standard on In-service Testing
- 3.14 Administrative Procedure 01-S-06-5, Reportable Events and Conditions
- 3.15 Administrative Procedure 01-S-06-3, Control of Temporary Alterations
- 3.16 Administrative Procedure 01-S-07-1, Control of Work on Plant Equipment and Facilities
- 3.17 Deleted (17-S-05-8 cancelled)
- 3.18 Administrative Procedure 01-S-15-5, Directive Submittal Requirements for RPTS
- 3.19 LI-101, 10CFR50.59 Review Program
- 3.20 Section Procedure 07-S-01-227, Equipment Qualification Program
- 3.21 Title 10, Code of Federal Regulations, Part 50, Appendix J
- 3.22 Surveillance Procedure 06-ME-1M61-V-0001, Local Leak Rate Test
- 3.23 Section Procedure 02-S-01-5, Shift Logs and Records
- 3.24 Administrative Procedure 01-S-08-2, Exposure and Contamination Control
- 3.25 Program Section CEP-IST-002, GGNS Pump and Valve Inservice Testing Plan
- 3.26 LI-113, License Basis Document (LBD) Control Program
- 3.27 Nuclear Management Manual RP-105, Radiation Work Permits
- 3.28 Technical Requirements Manual, Section 7.0, Administrative Controls

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3.29 Corporate Procedure, LI-102, Corrective Action Process

3.30 ASME Operation and Maintenance Standard, 1987 Edition, including ASME/ANSI OMa-1988 Addenda.

3.30.1 Part 6 - Inservice Testing of Pumps in Light-Water Reactor Power Plants

3.30.2 Part 10 - Inservice Testing of Valves in Light-Water Reactor Power Plants

3.31 Certificate of Compliance for Spent Fuel Storage Casks #1014

3.32 HISTORM 10CFR72.212

3.33 HISTROM 10CFR72.212 Appendix C

4.0 ATTACHMENTS

4.1 Attachment I - Surveillance Procedure Numbering System

4.2 Attachment II - Surveillance Procedure Cover Sheet (Example)

4.3 Attachment III - Surveillance Procedure Data Package Cover Sheet (Example)

4.4 Attachment IV - Surveillance Credit Verification Form

4.5 Attachment V - Late Surveillance Notification Form

4.6 Attachment VI - Surveillance Procedure Review Checklist

5.0 DEFINITIONS

5.1 Work Management System (WMS) - The computerized system used to track work activities. For clarification, any reference to "WMS" in this procedure is to be considered synonymous with any computer system used to track/schedule work activities.

5.2 Requirements Procedure Tracking System (RPTS) - A computerized program that:

5.2.1 References each applicable Technical Specification/TRM/ODCM requirement to a procedure that meets the requirement.

5.2.2 References each procedure to the Technical Specifications requirements that it meets.

5.2.3 Cross-references requirements of the IST Program, Reference 3.26, by the system component number to the procedure that meets the requirement.

5.2.4 Is controlled and maintained by Nuclear Safety Assurance.

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- 5.3 Surveillance Requirements - Requirements of GGNS Technical Specifications relating to test, calibration or inspection to ensure the necessary quality of systems and components are maintained, that facility operation will be within the safety limits, and limiting conditions of operation will be met (10CFR50.36(c)(3)). For Dry Fuel Storage Activities: Inspection and monitoring of spent fuel, high-level radioactive waste, or reactor-related GTCC waste in storage; Inspection, test and calibration activities to ensure that the necessary integrity of required systems and components is maintained; Confirmation that operation of the ISFSI or MRS is within the required functional and operating limits; and confirmation that the limiting conditions required for safe storage are met (10CFR72.44 (c)(3)).
- 5.4 WMS Surveillance Testing (ST) Program - The module in the WMS computerized system used to track/schedule surveillance procedures and document the performance of GGNS Surveillance Requirements.

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- 5.5 Tech Spec Trigger - A step that initiates a Tech Spec requirement causing performance of another surveillance procedure or action, or initiates increased frequency of testing to ensure compliance with the GGNS Technical Specifications.
- 5.6 IST Review - A review of the completed Surveillance Data Package to check any data recorded affecting IST Acceptance Criteria to satisfy ASME Code Section XI, and ASME/ANSI OMA-1988 requirements for Inservice Testing of Pumps and Valves (Tech Spec 5.5.6). This review may be performed either before or after the completed Surveillance Data Package is sent to Records Management.
- 5.7 Technical Requirements Manual (TRM) - A controlled document that may contain relocated Technical Specifications. The items in the TRM are used in conjunction with the TS and may be duplicated in other controlled documents.
- 5.8 Offsite Dose Calculation Manual (ODCM) - A supporting document of the Grand Gulf Nuclear Station Technical Specifications. It describes the methodology and parameters used in the calculation of offsite doses resulting from radioactive liquid and gaseous effluents, in the calculation of liquid and gaseous effluent monitoring ALARM/TRIP setpoints, and in the conduct of the Radiological Environment Monitoring Program.
- 5.9 Logic System Functional Test - A Logic System Functional Test shall be a test of all required logic components (i.e., all required relays and contacts, trip units, solid state logic elements, etc.) of a logic circuit, from as close to the sensor as practicable up to, but not including, the actuated device, to verify Operability. The Logic System Functional Test may be performed by means of any series of sequential, overlapping, or total system steps so that the entire logic system is tested.
- 5.10 Dry Fuel Storage License Basis Documents (DFS) - a series of documents that promulgate the requirements of operating an Independent Spent Fuel Storage Installation (ISFSI). They include: HISTORM 10CFR72.212; HISTORM 10CFR72.212 Appendix C; Certificate of Compliance for Spent Fuel Storage Casks Number 1014; HISTORM COC; and HISTORM FSAR.

6.0 DETAILS

6.1 Surveillance Requirements

- 6.1.1 Each Discipline Supervision must prepare specific detailed surveillance procedures to be included in Volume 6 of the GGNS Operations Manual per 6.1.1b and 6.1.1c below.
- a. If surveillance requirements are covered by permanent procedures not in Volume 6, they must be referenced in the RPTS.
 - b. Surveillance procedures must be prepared in accordance with this procedure as directed by the Author's Guide, section 6.2 in conjunction with the Author's Guide, 01-S-02-3. The numbering system for surveillance procedures must be in accordance with this procedure, Attachment I.
 - c. The review, approval, and distribution of surveillance procedures must be performed in accordance with Administrative Procedures 01-S-02-2 and 01-S-02-3.

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- 6.1.2 This procedure shall control the implementation of Tech Spec surveillance requirements. Other required periodic tests due to self-imposed plant requirements, manufacturer's recommendations, or good engineering practices are generally controlled by other plant section programs, but can be controlled under the surveillance program if directed by Scheduling Supervisor.
- 6.1.3 Each Surveillance shall be satisfactorily performed within the specified time interval with extensions as allowed by SR 3.0.2 or the required actions for the applicable Limiting Condition for Operation (LCO) shall be met in accordance with SR 3.0.3.
- 6.1.4 Deleted (moved to 6.1.1c)
- 6.1.5 Occasionally, Technical Specifications requirements may be satisfied by means other than permanent plant procedures (e.g., temporary directives, special tests and preoperational tests, normal/abnormal plant events or equipment actuations, etc).

The Scheduling Supervisor and the responsible Discipline Supervision must approve such tests/events as satisfying the Technical Specifications requirements using the following guidelines:

NOTE

If surveillance procedure data sheets are used for retests of WOs, the approval as specified in Step 6.1.5a-f, is not required unless credit for the surveillance is taken.

- a. The test/event must be reviewed by a qualified Technical Reviewer.
- b. The Technical Reviewer shall ensure the test and/or event satisfies the applicable Technical Specification requirements.
- c. The Technical Reviewer must compare the test and/or event to the plant procedure which incorporates the same Technical Specification requirements if a plant procedure has been issued.
- d. The Technical Reviewer will document the review, activity date and test/event data on Attachment IV or similar form. The documents shall be subject to at least the same record storage requirements as Surveillance Procedure Data Packages. The documents must be cross-referenced to the surveillance requirement for document retrieval purposes.
- e. The appropriate Discipline Supervision or designee shall approve the review.

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6.1.5 (Cont.)

NOTE

The Technical Reviewer and Approver will not be the same person.

- f. The surveillance activity shall be rescheduled based on the test/event performed date.

6.1.6 If a surveillance procedure is issued which supersedes an existing procedure, the author of the new procedure is responsible for issuing a cancellation form per the Control of the GGNS Operations Manual, 01-S-02-2.

6.1.7 During preparation and review of the procedure, the author must ensure that any special requirements listed in the DFS-CLB, UFSAR, TRM and ODCM are included in the surveillance procedure.

6.2 Surveillance Procedure Author's Guide6.2.1 Format and Content

The following sections must be included in all surveillance procedures to ensure consistency. The sections listed must be included even if "None" is their content.

a. 1.0 PURPOSE

Provide a concise statement of the procedure intent, including its scope and applicability. Specifically address procedure frequency, any IST or NUREG 0588 requirements.

b. 2.0 PRECAUTIONS AND LIMITATIONS

Identify all precautions and limitations imposed on plant operations or plant conditions during performance of the surveillance procedure. List the following items as applicable:

- (1) Precautions to protect personnel and equipment
- (2) Requirements for maintaining grade "A" cleanliness
- (3) Applicable operating limits required during performance of the activity. A list of equipment which could change status during performance of the surveillance procedure may need to be included.
- (4) Statement such as: "Steps denoted by a pound sign (#) within the body of the procedure require initials on Data Sheet I."
- (5) Statement such as: "Items marked with a dollar sign (\$) are those items which are required to be completed for Technical Specifications Acceptance Criteria."

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6.2.1b (Cont.)

- (6) Steps marked with a star (★) are those items which indicate interprocedure overlap points for Logic System Functional Test acceptance criteria.
- (7) Statement such as: "Items marked with an (I) are those items required to be completed for IST Acceptance Criteria (Tech Spec 5.5.6)."

c. 3.0 REQUIRED MATERIAL AND TEST EQUIPMENT

List the items required to perform the surveillance procedure. Common hand tools may be excluded. Note any equipment which requires an appreciable time (24 hours) to obtain.

d. 4.0 PREREQUISITES AND PLANT CONDITIONS

List requirements which have to be satisfied before performing the "INSTRUCTIONS" section of the surveillance procedure. These requirements may include the following:

- (1) Plant Mode in which the Surveillance is required or allowed to be performed
- (2) Equipment or system isolation requirements
- (3) Radiation Work Permit requirements

e. 5.0 INSTRUCTIONS

NOTE

At the discretion of the responsible Discipline Supervision, some or all requirements of Step 6.2.1e may be included in procedure attachments instead of in Section 5.0.

Include the following detailed information if applicable:

- (1) Permission from releasing organization to start

NOTE

Permission of the Shift Supervisor is required to release plant systems for surveillance testing.

- (2) Establishment of required communications
- (3) Detailed steps for placing the system, channel, instrument or component in a specific condition

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6.2.1e (Cont.)

NOTE

Equipment hardware modifications (e.g., lifted leads, jumpers) shall include requirements for the performer and an independent verifier to initial the data package in accordance with Reference 3.15.

- (4) Step-by-step instructions in the degree of detail necessary for performing the surveillance task correctly
- (5) Witness or Hold Points and other check points
- (6) Information applicable to specific steps placed and blocked in accordance with 01-S-02-3, Author's Guide:

NOTE - Clarifies instructions

CAUTION - Describes equipment hazards or adverse operations

WARNING - Describes personnel hazards

- (7) If a step contains a Tech Spec trigger, the words "TECH SPEC TRIGGER" followed by the appropriate Tech Spec number in parentheses should be placed before the first sentence of the step.
 - (a) For TRM requirements use the phrase "TECH SPEC TRIGGER".
 - (b) For ODCM requirements use the phrase "TECH SPEC TRIGGER".
- (8) An alternate method for denoting Tech Spec triggers may be used with approval from the Scheduling Supervisor.
- (9) Restoration of the component(s):
 - (a) Steps shall be included requiring return to normal valve lineup if valve positions changed during test performance.
 - (b) Steps shall be included delineating other restoration requirements (e.g., lead seals, transmitter gasket replacement and torque requirements) and comply with requirements of Reference 3.20.
 - (c) Steps shall be included to provide verification that all instrumentation has been properly returned to service following testing if applicable.
 - (d) Restoration of hardware modifications shall include requirements for the performer and an independent verifier to initial the data package per Reference 3.15.

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6.2.1 (Cont.)

(e) If functional testing cannot be performed, independent verification is required to ensure that Safety Related equipment is properly returned to service.

f. 6.0 REFERENCES

- (1) List references used to develop the procedure.
- (2) When ANSI standards, Regulatory Guides, Codes, are listed, the revision number and/or date of the reference should be used.
- (3) When listing plant procedures and instructions, the revision number may be listed.
- (4) Surveillance procedures do not have to be revised to reflect new reference revision numbers unless the surveillance procedure contents or commitments are affected by the reference change.

6.2.2 Attachments (Data Package Cover Sheets and Data Sheets)

a. A Surveillance Procedure Data Package Cover Sheet (Attachment III or similar form) must be prepared for each surveillance procedure. Environmental surveillance procedures (06-EN-S000-....) may utilize a data package cover sheet similar to Attachment III.

- (1) Provide the surveillance procedure title and applicable Tech Specs on the Data Package Cover Sheet. The Tech Spec references should be as specific as possible (e.g., Tech Spec SR 3.3.6.5.3.a is better than SR 3.3.6.5.3, TRM SR 6.3.10.1, function 6.3.10-1.1.a).
- (2) In Section 1.0 of the cover sheet, provide a brief explanation of what the impact on plant operations will be when the Surveillance Procedure is performed.
 - (a) The impact statement should aid the Shift Supervisor in determining whether or not to authorize test start based on actual plant and equipment conditions and Tech Spec requirements.
 - (b) The impact statement should also reference the applicable Tech Specs and identify out-of-service time limits associated with performance of the surveillance procedure.
 - (c) Impact statements for procedures that are infrequently performed or complex, will be sent to Operations Department for cross discipline review, as determined by Discipline Supervision. Impact statement may also be placed in Maintenance Action Item rather than in Procedure for impact that are complex or affect more than one component.

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6.2.2 (Cont.)

- (3) In Section 2.0 provide:
- (a) Means to denote Plant Mode at time of surveillance performance.
 - (b) DELETED
 - (c) A blank to record actual test start time and date.
 - 1) The primary purpose of this requirement is to keep track of LCO time.
 - 2) A signature blank for test performer should be on the cover sheet.
 - 3) The Responsible Discipline Supervision may exempt any of these requirements on a case-by-case basis.
- (4) In Section 3.0 of the cover sheet, specify the applicable "Acceptable/Unacceptable" items for each Surveillance Procedure.
- (5) In Section 4.0 provide blank spaces for identification of any deficiency documents written as a result of the surveillance test.
- (6) Section 5.0 should list the concurrent signature(s) necessary to ensure the test results are adequately reviewed by appropriate disciplines. At a minimum, the applicable Discipline Superintendent/Supervisor must be listed.
- (7) An "IST Review is Required" statement shall be provided at the bottom of the Data Package Cover Sheet if any data is being recorded which satisfies Tech Spec 5.5.6 or TRM 7.6.3.3, unless a review is not required as determined by the IST Engineer. Adding this statement ensures the Surveillance WO Data Package is routed to the IST Engineer electronically in the WMS. The IST review will be performed after it is scanned into the Records Management computer system and approved electronically in the WMS. See attachment III, page 2 of 3.
- (8) Deleted
- b. Data sheets document the completion of significant paragraphs, steps or pertinent data.
- (1) Data Sheets should be referenced in the text of the surveillance procedure.
 - (2) The surveillance procedure step being documented should be identified on the data sheet.

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6.2.2 (Cont.)

- (3) Equipment hardware modifications shall require the initials of the performer and an independent verifier.
 - (4) If the Acceptance Criteria is required for recorded data, it must be specified on the data sheet.
 - (a) Qualitative or quantitative Acceptance Criteria results shall be within the limits given in the Tech Specs for the system or component.
 - (b) Any limit associated with the data recorded should be shown on the data sheet as Acceptance Criteria, e.g., manufacturer's limits, administrative limits, etc.
 - (5) Conversion equations must be specified in the procedure text or on the data sheet if the parameter units given in the Tech Specs are different from the units of the instrumentation being used.
 - (6) When specified by the surveillance procedure, operating log sheets, computer printouts or other surveillance attachments may be used in place of data sheets.
- c. If the surveillance procedure contains Tech Spec triggers, the data sheets should have the following, as a minimum:
- (1) If another discipline is to perform the action required by the trigger, the data sheet should identify the minimum level of authority to be notified.
 - (2) The data sheet should contain blanks to record time, date, name of person notified, and test performer's initials to verify notification.
 - (3) Specific details of the action to be performed should be included. In some cases, the surveillance procedure number will be adequate.
 - (4) An alternate method other than above for denoting Tech Spec triggers may be used with approval from the Scheduling Supervisor.

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6.2.3 Typing Format

- a. The upper-left portion of the Surveillance Procedure Cover Sheet (Attachment II) must include:
 - (1) Volume 06
 - (2) Section Number
- b. The lower-left portion of the Surveillance Procedure Cover Sheet (Attachment II) must include a list of TCNs incorporated by the revision number.
 - (1) For future revisions, preparer must update the list of TCNs.
 - (2) If the revision does not incorporate a TCN, "None" is indicated on the cover sheet.

NOTE

The list of TCNs incorporated shows what TCNs have been included in the current revision. The preparer ensures that outstanding TCNs are incorporated when making a revision.

6.2.4 Revisions

- a. All changes made in the revision must be denoted by a vertical line in the margin. All changes must be marked except for revision number, page number and other exceptions per the Author's Guide, 01-S-02-3.
- b. The reason for the revision must be stated in the Current Revision Statement on the RPTS sheet and the Requirements Cross Reference List must be updated.
- c. The draft of the revision should be included with the review package.

6.3 Review, Approval, and Issue of New or Revised Surveillance Procedures

6.3.1 Surveillance procedures must be prepared, reviewed, approved and issued in accordance with this procedure, the Author's Guide, 01-S-02-3, the Control of the GGNS Operations Manual, 01-S-02-2, and the QAPM.

- a. Surveillance Procedure Review Checklist (Attachment VI)
 - (1) This checklist may be used during procedure revision preparation.
 - (2) If the checklist is not used and Discipline Supervision determines the procedure is not correct, he may return the revision to the preparer and require completion of the checklist.

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6.3.1 (Cont.)

- (3) The checklist may be disposed of after the procedure has been signed by the Responsible Discipline Supervision.
- (4) TCNs do not require the checklist.

b. Technical Review

- (1) A member of plant staff other than the preparer shall review each surveillance procedure or procedure change.
- (2) The reviewer may be from the same organization as the preparer.
- (3) The reviewer shall be a qualified Technical Reviewer.
- (4) The Technical Review shall determine:
 - (a) Technical accuracy
 - (b) Compliance with Tech Specs, FSAR and other licensing commitments
 - (c) 10CFR50.59 and/or 10CFR72.48 applicability (must be documented in the surveillance procedure or TCN)
 - (d) If an unreviewed safety question has been identified, signature must be withheld and further processing must be done per EN-LI-101 and/or EN-LI-112.
 - (e) If the revision constitutes a change to a procedure as described in the FSAR or DFS-CLB; if so, a 10CFR50.59 and/or 10CFR72.48 Safety Evaluation shall be performed in accordance with EN-LI-101 and/or EN-LI-112.
 - (f) If a cross-disciplinary review is required; if so, it shall be performed by review personnel of the appropriate discipline.
 - (g) If Tech Spec trigger points within the procedure are affected; if so, this change should be noted on the RPTS sheet.
 - (h) If a change to the Requirements Cross-Reference List is required in accordance with 01-S-15-5, changes should be reflected on the Requirements Cross-Reference List.
 - (i) If a change to a procedure affects Logic System Functional Testing requirements specified for that procedure, then the procedure should be routed through Engineering for concurrence. This can be accomplished by requiring Engineering review on the Cross-Discipline Review List.

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6.3.1 (Cont.)

(j) Reviews to verify conformance to requirements of the Quality Assurance Program. The review consists of an objective evaluation to assure:

- Compliance with applicable codes, standards, regulatory requirements, etc. listed in the procedure Commitment Cross-Reference Sheet.
- Directions are commensurate with the nature of activities affecting quality.
- Quality requirements are present in the directive and qualitative and/or quantitative acceptance criteria are clearly defined.

c. Cross-Disciplinary Review

- (1) If determined necessary by the Technical Reviewer, this review will be for concurrence review associated with changes to a particular disciplines work processes and/or responsibilities.
- (2) An IST Review is required for all surveillance procedure revisions affecting the IST test or Acceptance Criteria.

d. Responsible Discipline Supervision

- (1) Approval signature required for procedure/TCN issue, except for Auto Revs.
- (2) This signature ensures that the procedure reviews adequately verify the incorporation and preservation of:
 - (a) GGNS Technical Specifications
 - (b) Other licensing commitments
- (3) If a revision requires the procedure to be rerun, the Responsible Discipline Supervision shall inform the Scheduling Supervisor or Surveillance Program Coordinator for tracking the rerun using WMS.

6.3.2 Section directives may be established to specify additional review requirements for surveillance procedure reviews.

6.3.3 Deleted (statement was clarified in step 6.3.1)

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6.4 Scheduling of Surveillances

- 6.4.1 WMS is a computerized scheduling and tracking work management system. The following reports are generated on a routine basis:
- a. List of surveillances that are due in the present or anticipated mode in the two weeks following date of the report
 - b. List of surveillances that are NRC LATE in the present or anticipated mode in the one week following date of the report
 - c. Any other special reports requested
- 6.4.2 All identified surveillances shall be scheduled, if applicable. The method for scheduling surveillances must be as follows:
- a. Surveillance frequency interval greater than weekly - scheduled by the WMS System.
 - b. Surveillance frequency interval less than weekly - scheduled by the Discipline Supervision, e.g., plant logs, surveillance tests.
 - c. Surveillance frequency weekly - scheduled by the Discipline Supervision or may be included in the WMS if desired.
 - d. Variable or Condition-Based Surveillances - triggered by procedures or other methods. The Scheduling Supervisor is responsible for identifying any surveillance scheduled by the discipline and not by WMS.
 - e. Some surveillance tasks may have tentative or conservative due dates, late dates, or scheduled dates assigned in the WMS Database. These dates are based conservatively on the following contingency. These surveillances are tracked via a "Work Category" number code in WMS and are tested on an alternating basis to ensure compliance with Technical Specifications. For example, testing on Division I and 2 for the applicable surveillance will be performed on an alternating basis once per 36 months to ensure both divisions are tested at least once every 18 months. Division II surveillance will be scheduled and performed from the completion/performance date of Division I surveillance.
- The "tentative" due and late dates of these surveillance tasks are manually changed in WMS to override the electronic automatic calculation of WMS. These manual overrides require a secondary verification when these dates are manually changed.
- Work Category (WC) codes are defined as follows:
- (1) WC31 - Schedule Attachments 1,2 and 3,4 every 36 months such that Attachments 1,2 and 3,4 are performed 18 months apart.

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6.4.2 (Cont.)

- (2) WC32 - Schedule Attachments 1 and 2 every 36 months such that Attachments 1 and 2 are performed 18 months apart.
- (3) WC34 - Schedule Attachments 1,2,3,4 and 5,6,7,8 every 36 months such that Attachments 1,2,3,4 and 5,6,7,8 are performed 18 months apart.
- (4) WC35 - Schedule Attachments 1,2,5,6,9,10,13,14 and 3,4,7,8,11,12,15,16 every 36 months such that Attachments 1,2,5,6,9,10,13,14 and 3,4,7,8,11,12,15,16 are performed 18 months apart.
- (5) WC38 - Schedule Attachments 5,6 and 7,8 every 36 months such that Attachments 5,6 and 7,8 are performed 18 months apart.
- (6) WC43 - Schedule 18 months apart on an alternating basis.

6.4.3 The Surveillance Program Coordinator or designee should update the WMS daily, during the normal work week, to reflect the status of all surveillance tests and inspections.

6.4.4 If required in the current mode, each surveillance shall be performed within the specified Technical Specifications time interval with extensions as allowed by SR 3.0.2 or the required actions for the applicable Limiting Conditions for Operation (LCO) shall be met in accordance with SR 3.0.3.

- a. A maximum allowable extension not to exceed 25% of the surveillance interval.
- b. If the surveillance requirement is required to be met during the existing Plant Mode the applicable section superintendent is responsible to ensure the Shift Supervisor/Manager and the Surveillance Program Coordinator are notified before exceeding the NRC LATE date.
- c. For non-WMS scheduled items, the applicable Discipline Supervision is responsible for this notification.
- d. The Shift Supervisor/Manager should notify the on-call Duty Manager if it is determined that the non-performance will affect plant operations or cause a plant shutdown.
- e. If surveillance requirements cannot be met, a LCO has been entered and the NRC LATE date will be exceeded, the applicable Discipline Supervision is responsible for notifying the Surveillance Program Coordinator per Step 6.4.9.

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6.4.5 Scheduling of IST activities (Pump and Valve Program) shall be in accordance with ASME/ANSI OMa-1988 (Ref. 3.30), Technical Specification 5.5.6, TRM 7.6.3.3, and the IST Program, Ref. 3.25.

- a. All IST cold shutdown surveillances shall be performed at least once during any scheduled cold shutdown which is long enough to permit performing them, unless they have been performed during the preceding 90 days.

NOTE

Step 6.4.5b is an exception to the requirements of Tech Spec SR 3.0.2 in accordance with NRC-approved OMa-1988, Part 10, Ref. 3.30. Detail may be found in the IST Program, Ref. 3.25.

- b. If a cold shutdown occurs which is either unscheduled or is scheduled to last no longer than 30 days, all IST cold shutdown surveillances are not required to be performed before returning to Plant Modes 1, 2, or 3, provided all of the following conditions have been met:
- (1) The cold shutdown was entered to correct a single problem or closely related problems which prevented or severely hampered continued operation in Plant Modes 1, 2, or 3, and
 - (2) The cold shutdown was unscheduled or was scheduled to last no longer than 30 days before returning to Plant Modes 1, 2, or 3, and

NOTE

The effort made to perform the surveillance Requirements should be determined by the responsible discipline Superintendent; e.g., Assistant Operations Manager, Support for Operations surveillances, Mechanical Superintendent for Mechanical Surveillances, etc.

- (3) A "good faith" effort was made to perform all surveillance requirements associated with IST within the confines of the time, manpower, equipment and systems available during the cold shutdown period, and
- (4) The IST began not later than 48 hours after Plant Mode 4 was achieved and continued until other conditions required for entry into Plant Modes 1, 2, or 3 had been met, and

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6.4.5 (Cont.)

- (5) Performance of the surveillance requirements was generally in the chronological order in which they were due and without bypassing any surveillance requirements, unless both of the following apply:
- (a) The Plant Safety Review Committee has specifically approved bypassing the surveillance requirements, and
 - (b) The surveillance requirements could or should not be performed for one or more of the following reasons:
 - 1) The surveillance requirements could not be performed without rendering essential plant systems and equipment Inoperative, or
 - 2) The plant would be placed in an unsafe condition by the performance of the surveillance requirements, or
 - 3) Performance of the surveillance requirements would have involved "major" expenditures of time, manpower, or money that were not in line with the scope of the cold shutdown.

6.4.6 Increased frequency testing associated with IST Alert Range should be manually tracked and are the responsibility of Assistant Operations Manager, Support.

- a. Increased frequency testing associated with IST Alert Range can be tracked in WMS by the Surveillance Program Coordinator. Increased frequency changes are accomplished by initiating a work request per the Preventive Maintenance Program procedure, 01-S-17-11 and forwarded to the Surveillance Program Coordinator for implementation into the WMS.

6.4.7 Increased frequency testing associated with diesel generator start failures should be tracked by the WMS because the increased frequency would be long-term. It is the responsibility of the Assistant Operations Manager, Support to coordinate increased frequency changes with the Surveillance Program Coordinator.

6.4.8 Surveillances with a performance interval equal to or greater than six months are scheduled in the WMS based on a calculation code of "Completion Date". Surveillances with a performance interval less than six months are scheduled in WMS based on a calculation code of "Due Date".

- a. Upon performance of a Surveillance, the next due date on the WMS reports will be calculated using the performance date plus the scheduled interval.
- b. Surveillance tasks must be completed and approved by the Shift Supervisor/Manager before rescheduling in the WMS.

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6.4.8 (Cont.)

- c. The test performance date determines reschedule dates unless an exception is granted by the Scheduling Supervisor.
- d. Surveillance-WOs with a performance interval less than six months are scheduled based on a calculation code of Due Date, however the Late Date Report reflects a due date and a late date based on the past completion dates.

6.4.9 The applicable Discipline Supervision (or designee) must notify the Surveillance Program Coordinator or the Scheduling Supervisor of the completion status of surveillances before exceeding the NRC LATE date.

- a. If a surveillance required in the current mode cannot be performed, a Late Surveillance Notification Form (Attachment V) is required if the NRC LATE date will be exceeded. It is the responsibility of the Discipline Supervision to ensure the form has been submitted. Exceptions are:
 - (1) Surveillances which will exceed or have exceeded their NRC LATE date but are not required to be performed in the existing Plant Mode (including IST cold shutdown surveillances)
 - (2) Surveillances that are "Non Tech Spec"
 - (3) Weekly surveillances performed before NRC LATE date but not received by the Surveillance Coordinator
 - (4) Operations surveillances that are Tech Spec "Unacceptable" provided Step 6.8.6d is performed.
- b. A LCO must be issued for each surveillance requiring a late Surveillance Notification Form. A copy of the LCO report must be attached to the Late Surveillance Notification Form.

6.4.10 Expired surveillances (surveillances which have exceeded their NRC LATE date but are not required to be performed in the existing Plant Mode) must not be rescheduled in WMS until after they have been performed acceptably.

- a. The WMS NRC LATE Date Report should list the above as NRC LATE and is the responsibility of the Surveillance Coordinator to track.
- b. The purpose of expired surveillance tracking is to ensure entry into a Plant Mode is not made unless surveillance requirements have been met and there is no reliance on equipment for which surveillance requirements have not been met.
- c. A report may be generated showing which surveillances required in the next anticipated mode are past their NRC LATE date.

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- 6.4.11 It is the responsibility of the Discipline Supervision to track their expired surveillances not tracked by the WMS.
- 6.4.12 Addition of new Surveillances or changes to existing Surveillances will be accomplished by the guidelines of 01-S-17-11, Preventive Maintenance Program.

6.5 Assembly, Review and Sign-on of Surveillance Packages

- 6.5.1 All WMS scheduled surveillance tasks must be performed per a Surveillance-WO or appropriate records attached to a Surveillance-WO. (Surveillance retests are not required to have a Surveillance-WO if the entire procedure is not rescheduled.)
- 6.5.2 Each Discipline Supervision (or designee) issues Surveillance-WOs to their appropriate sections.
 - a. Surveillance-WOs may be issued for any period of time.
- 6.5.3 Discipline Supervision is responsible for:

NOTE

The Planning and Scheduling Manager is responsible for ensuring Step 6.5.3a is met for maintenance disciplines.

- a. Ensuring the latest revision, with all TCNs, is used in compiling the Surveillance Procedure Work Order Package.
 - b. Coordinating with Radiation Protection any surveillances which involve work in the Radiological Controlled Area or within a radiological boundary to determine if the work requires an RWP or RP coverage. Ref: 01-S-08-2, Exposure and Contamination Control.
- 6.5.4 Surveillance Procedure Data Packages are verified correct as follows:
- a. The person assembling the package must signify that the Surveillance-WO is attached to the correct data sheets by initialing the data package cover sheet.
 - b. The discipline supervisor or designee (Shift Supervisor for Operations) must initial the data package cover sheet to verify requirements of Step 6.5.4a and forward the package to the individual performing the test.

NOTE

All Surveillance data packages will become QA records whether acceptable or unacceptable.

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- 6.5.5 The test performer must be given permission to begin the test by the responsible supervisor (normally the Shift Supervisor) from the releasing organization (normally Operations).

For surveillance tasks which require release of plant systems or equipment:

- a. The Shift Supervisor should review the applicable Tech Spec LCO requirements, the Impact Statement, the current Plant Operational Condition, the Surveillance-WO Due date/NRC LATE date requirements, and the current plant/system/equipment status as necessary to determine whether or not to authorize start of the surveillance.
- b. The Shift Manager/Supervisor alone has the authority to release system and equipment for surveillance testing or to return the system and equipment to service.
- c. The Shift Supervisor reviews the impact that the surveillance procedure performance will have on safe operation of the plant.
- d. If permission to start is granted, the Shift Supervisor is responsible for ensuring that the surveillance is logged in the surveillance log.

NOTE

Shift Supervisor signatures are no longer required on the Surveillance Test Data Package Cover sheets. An Operations SRO will have defined the Control Room Communications requirement for the Surveillance Test and this information will be printed on the WO Cover Sheet. This represents the electronic signature that is releasing the Surveillance Test for performance.

- e. N/A the "Permission to begin the test" signature blank until it is removed from the procedure during revision.
- f. Surveillance procedure steps referring to the "Permission to begin the test" signature blank should be performed (signed off) based on the WO Cover Sheet "CR Comm Req'd" statement and the performer's knowledge that the required communication took place.
- g. The test performer circles the appropriate Plant Mode the test is being performed in.
- h. The actual test start time and date must be logged by the performer on the Data Package Cover Sheet, if required.

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NOTE

If a Surveillance test needs to be performed and the computer (WMS) is off-line, the Surveillance may be performed using only the procedure data package until the WO cover sheet can be printed and attached to the procedure.

- 6.5.6 For surveillance tasks which do not require release of plant systems or equipment:
- a. Permission to start is controlled by the releasing organization's responsible supervisor or senior person on shift.
 - b. If the computer (WMS) is off-line or a terminal and printer is not available, the releasing organization may authorize performance of the surveillance by signing the data package cover sheet and by stamping or writing OFFICIAL COPY on the INFO ONLY copy of the Surveillance-WO.
- 6.5.7 If permission to start cannot be obtained, the surveillance procedure is retained within the section for rescheduling, providing the NRC LATE date is not exceeded.
- 6.5.8 DELETED

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- 6.5.9 If surveillance procedure contains a listing of Control Room alarms to be initiated during performance of surveillance, the performer should provide a copy of list to the Control Room.
- 6.5.10 The surveillance requirements are typically reviewed in the data base before conversion to a WO. The review will be located on the work package cover sheet in the description section or reference document area. The RP review may be indicated by a statement indicating which RWP to use (or similar). RP need not review each work order generated by the Surveillance once this review is performed unless the scope of that Surveillance-WO is changed. Scope changes to Surveillances will typically be reviewed through the WMS using a Work Request.

6.6 Performance of Surveillance Package

- 6.6.1 All sign-off blocks requiring entry of initials, signature, date or data must be individually marked as required.
- a. The use of ditto marks, lines or other markings to apply a single sign-off or data to a group of blocks is prohibited except for using a line to write one "N/A" for a group of blocks.
 - b. If the step/requirement cannot be met, a comment number should be recorded on that step and a corresponding comment written on the Data Package Cover Sheet explaining why this step/requirement could be met.
- 6.6.2 The test performer should document any deviation or abnormality found during the test in the Comments section of the Data Package Cover Sheet.
- 6.6.3 If a surveillance test cannot be performed as written, the procedure may be changed in accordance with the Author's Guide Procedure, 01-S-02-3 and this procedure, section 6.2.
- 6.6.4 All TCNs or Temporary Directives that are either written or used during the performance of the surveillance must be referenced on the Data Package Cover Sheet.
- a. Operations personnel are only required to record TCNs or Temporary Directives, which are written during performance of the surveillance, in the Comment section of the Data Package Cover Sheet.
- 6.6.5 If a problem occurs during the test which cannot be resolved by the test performer, the individual immediately notifies their immediate supervisor.
- a. If the immediate supervisor cannot resolve the problem, then the supervisor immediately notifies Shift Supervisor; otherwise, upon resolution of problem, test should continue.
 - b. If immediate supervisor is unavailable, the test performer notifies releasing organization supervisor/Shift Supervisor.

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- 6.6.6 If a problem concerning a Tech Spec limit occurs during test, test performer immediately notifies releasing organization Supervisor/Shift Supervisor. The following actions are required.
- a. The Shift Supervisor must be notified immediately if operability of required equipment is affected or if Tech Spec out-of-service time will be exceeded.
 - b. The releasing organization Supervisor/Shift Supervisor ensures that the appropriate deficiency reports have been initiated and are listed on the Data Package Cover Sheet.
 - c. The responsible releasing organization Supervisor determines whether the test may continue.
- 6.6.7 If the test cannot continue, the Shift Supervisor must determine the method required to place the system under test in a stable condition (if applicable).
- 6.6.8 The individual performing the test or the supervisor is responsible for initiating the appropriate corrective action. This includes generation of Work Requests and Condition Reports as required. Refer to section 6.8.2d for additional, specific information related to generation of Condition Reports.
- NOTE

Some Surveillance Procedure Data Package contain a blank for a retest WO # (example: check valve leak tests). This blank may be marked N/A if the surveillance procedure contains Instructions and sign-off blocks for the retest and the retest can be performed before closing the Surveillance-WO.
- 6.6.9 If corrective action can be performed immediately, the releasing organization supervisor determines if the test can be completed.
- 6.6.10 If the test is completed successfully, the test performer completes the required sections of the Data Package Cover Sheet.
- 6.6.11 If the corrective action taken or other factors prevent the test completion, the Surveillance work order is returned to the Discipline Supervision.
- 6.6.12 The Discipline Supervision returns the Surveillance-WO with Data Package to the Surveillance Program Coordinator.
- 6.6.13 Surveillances which are not performed satisfactorily shall be marked "Unsat" on the Surveillance-WO and not credited by the Surveillance Coordinator until re-performance/disposition of the surveillance, except as noted in 6.6.13a.
- a. Operations surveillances which have been processed in accordance with 6.8.6d will be updated/credited in the WMS.

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6.7 Special Requirements

- 6.7.1 Valve lineups for Local Leak Rate Tests (LLRTs) will be controlled by section level instructions.
- a. Occasionally, due to operational conditions or the need to identify leakage to a particular component, deviation from the standard Local Leak Rate Test (LLRT) valve lineups may be necessary.
 - b. For this purpose, the LLRT coordinator or responsible engineer may make "pen and ink" changes on a copy of the appropriate valve lineup sheets and shall initial the changes, sign and date the sheets.
 - c. All such changes shall be reviewed for the LLRT program by a qualified technical reviewer who shall initial the changes and sign and date the sheets for technical review.
 - d. The marked-up sheets shall be attached to the LLRT data package.

NOTE

Section 6.8.3g is a special exception to Section 6.7.2 following maintenance that is intended to change the performance of a valve.

- 6.7.2 A valve stroke time that is longer than Maximum Acceptable Stroke Time (but not longer than Limiting Value of Full-Stroke Time) OR shorter than Minimum Acceptable Stroke Time is classified as Evaluation Required (IST Acceptance Criteria).
- a. The Shift Supervisor is notified immediately if a valve is classified as Evaluation Required.
 - b. The Shift Supervisor determines if a second test of the valve is to be authorized.
 - (1) The test performer documents a second test of the valve on a second Data Package.
 - (2) The test performer must perform the second test as soon as practical OR have the valve declared Inoperable and initiate a CR as soon as it is obvious that the second test will not be performed.

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6.7.2 (Cont.)

- c. If a second test is performed, the Shift Supervisor initiates a Condition Report (CR) to analyze the valve's performance.

NOTE

here is no required time limit per OMa-1988 for completion of the analysis requested per step 6.7.2.c if the second test results are Acceptable, however, the analysis should be completed as soon as practical.

- d. If the results of the second test are acceptable per the surveillance requirements the cause of the initial test shall be analyzed via the CR initiated per Step 6.7.2.c. The valve may be considered operable pending completion of the analysis.
- e. If the results of the second test are classified as Evaluation Required per Step 6.7.2, the data shall be analyzed within 96 hours after the second test to determine that the new stroke time represents acceptable valve operation.
- (1) The valve may be considered Operable pending completion of the analysis. The Shift Supervisor must initiate a tracking LCO for the 96 hour operability period.
- (2) If the analysis will not be completed within 96 hours OR if the analysis indicates that the valve's performance is unacceptable, declare the valve inoperable.
- f. If the results of the second test are classified as unacceptable per the surveillance requirements, declare the valve inoperable.

6.8 Completion and Review of Surveillance Package

- 6.8.1 The test performer records date and time that test was completed on Data Package Cover Sheet.
- 6.8.2 The test performer performs an initial review by completing Section 3.0 of the Data Package Cover Sheet.
- a. This initial review is not to determine if the system/equipment meets Tech Spec operability requirements.
- b. This review categorizes the procedure steps such that other reviewers can determine operability and actions required.
- c. If there is difficulty in evaluating the results, the responsible discipline supervisor should be contacted.

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6.8.2 (Cont.)

- d. The following conditions require generation of a Condition Report in accordance with Corporate Procedure EN-LI-102, Corrective Action Process.
- As Found Data Unacceptable
 - As Left Data Unacceptable
 - Tech Spec Data Unacceptable
 - IST Acceptance Criteria Unacceptable, in the Alert Range or in the Required Action Range
 - Valve Data Unacceptable or noted as Evaluation Required

Other information, such as observations or any unexpected or unusual conditions may be documented in a Condition Report at the discretion of the department performing the Surveillance activity, based on the requirements and guidelines provided in EN-LI-102.

- 6.8.3 The test performer should use the following guidelines in completing Section 3.0 of the Data Package Cover Sheet:

NOTE

Each Surveillance Procedure Data Package Cover Sheet is modified during procedure preparation in order to match the specific procedure; thus, some items discussed here are not applicable to some procedure data packages.

- a. Procedure Completion - Entire vs. Partial
- (1) If all steps associated with the data package were performed, check "entire procedure completed".
 - (2) If, for any reason, all steps are not completed, check "partial procedure completed". Reason may include:
 - (a) Computer out of service does not allow checking non-essential computer points.
 - (b) Surveillance procedure is used as a retest for one item and all steps do not need to be performed.
 - (c) Equipment is inoperable making completion of test impossible.
 - (d) Plant SCRAM occurs during test.
 - (e) Test performance is administratively stopped.
- b. As Found Data Acceptability
- (1) If any of the recorded "As Found" data does not fall within the allowable min/max limits as specified in the procedure, check "Unacceptable."

6.8.3 (cont'd)

c. As Left Data Acceptability

- (1) If any of the recorded "As Left/Final" data does not fall within the allowable min/max limits as specified in the procedure, check "Unacceptable".

d. Tech Spec Acceptance Criteria

- (1) Tech Spec Acceptance Criteria are identified in the procedure with a dollar sign (\$) or clearly identified in the procedure/data package as a Tech Spec item.
- (2) If any Tech Spec step cannot be performed acceptably, check "UNACCEPTABLE".
- (3) If any As Found Tech Spec Data does not meet Tech Spec Limits, check "UNACCEPTABLE".
- (4) If any Final Tech Spec Data does not meet Tech Spec Limits, check "UNACCEPTABLE".

e. IST Acceptance Criteria

- (1) IST Acceptance Criteria to satisfy ASME/ANSI OMA-1988, Parts 6 and 10, Ref. 3.30 for Inservice Testing of pumps and Valves are identified in the procedure with an "I". Reference CEP-IST-4, ENS standard on In-service Testing, for additional information.
- (2) Pump data is generally classified into the following areas.
 - (a) Acceptable - for values found that are within the surveillance procedure acceptable range with no corrective action required, check "Acceptable".
 - (b) Unacceptable - if any "I" steps cannot be performed acceptably OR if any IST data falls within the surveillance procedure Alert Range or Required Action Range, check "Unacceptable".
 - (c) Alert Range - values found that require frequency of testing to be increased until the cause of the deviation has been determined and the conditions corrected.
 - (d) Required action range - values found that require the pump to be declared Inoperable until the cause of the deviation has been determined and the condition corrected.

6.8.3 (cont'd)

(3) Valve data is generally classified into the following areas:

- (a) Acceptable - for values found that are within the surveillance procedure acceptable range with no corrective action required, check "Acceptable".

NOTE

If applicable, check both "Unacceptable" and "Evaluation Required".

- (b) Unacceptable - if any "I" steps cannot be performed acceptably OR if any IST data does not meet the surveillance procedure acceptable range or is not classified as Evaluation Required, check "Unacceptable".

- (c) Evaluation Required - if this classification is used per Step 6.7.2, check "Evaluation Required".

f. All Other Steps/Data Acceptability

- (1) All other steps/data not already evaluated should be reviewed.
- (2) If any step not previously evaluated was not performed successfully or any data is not acceptable, check "Unacceptable".

g. Pump or Valve Acceptability after Maintenance

- (1) When a pump or valve is to be in-service tested as a retest/baseline following maintenance, which was deliberately planned and intended to change one or more IST reference values used to calculate performance limits contained in a surveillance procedure, the preprinted acceptance limits in the surveillance data sheets no longer represent the current pump or valve performance and are obsolete and invalid. They may be ignored when evaluating the performance of the pump or valve.
- (2) The Operations retest in-service test results that meet the acceptance requirements of the maintenance or engineering document under which the work was performed may be accepted and the pump or valve may be declared Operable, without further review, provided the pump or valve performance meets any and all analytical limits identified for it by (\$) in the surveillance procedure.

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6.8.3.g (Cont.)

- (3) Operations will initiate a "WT" in PCRS and assign to Code Programs. Code Programs will determine the new acceptance limits for insertion into the surveillance procedure revision prior to the next scheduled performance of the surveillance.
- (4) Code Programs will initiate a "WT" in PCRS and assign to Operations for inserting the new acceptance limits into the Surveillance Procedure revision prior to the next scheduled Surveillance performance as determined by 6.8.3.g(3).

6.8.4 Any deficiency documents which are written as a result of the Surveillance test must be identified in Section 4.0 by the test performer or Shift Manager/Supervisor.

- a. These documents include Work Request/Work Orders, Condition Reports, and LCO's.
- b. The documents should be listed whether or not they remain open at the conclusion of the test.
- c. The Shift Manager/Supervisor must identify any LCO entered due to the test results.

6.8.5 The test performer notifies the responsible releasing organization supervisor who logs the surveillance out of the log and completes the approval portion of the Data Package Cover Sheet (Section 5.0).

6.8.6 The Shift Supervisor/Manager reviews the results of the surveillance and determines whether the results are acceptable based on Tech Spec operability requirements. The following, as a minimum, must be reviewed:

- a. If "Partial procedure completed" is checked, steps not completed must be reviewed to determine if they affect surveillance requirements or operability.
 - (1) If computer points (not required for Tech Spec operability) are not tested in a calibration due to computer availability problems, the use of these points for daily channel checks should be restricted.
- b. If "Tech Spec Acceptance Criteria," "IST Acceptance Criteria," or "All other steps/data" are marked Unacceptable, the specific steps/data should be reviewed to determine whether Tech Spec surveillance requirements are affected.
- c. Tech Spec Operability Requirements - Acceptable/Unacceptable must be marked based on whether the test as performed meets the Technical Specifications surveillance requirements for operability (including IST, Technical Specification 5.5.6).

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6.8.6 (Cont.)

d. Operations surveillances that are checked Tech Spec "unacceptable" can be rescheduled/updated in WMS provided all of the following are completed:

- (1) A LCO is written on each system/component that failed.

NOTE

This failure could be due to the system/component being inoperative prior to the start of the surveillance. In which case the previously existing LCO will satisfy Step 6.8.6d (1).

- (2) It is indicated on the LCO(s) that the failed surveillance must be reperformed prior to clearing said LCO; and
- (3) It is indicated on the "unsat" surveillance the LCO# and that the Step(2) above has been performed.

6.8.7 The Shift Supervisor/Manager must review the deficiency section of the Data Package Cover Sheet and ensure that all documents needed to correct the "Unacceptable" items have been initiated and listed.

- a. Any LCO entered due to the surveillance test performance must be listed in the deficiency section.

6.8.8 The Discipline Supervision (or designee) is responsible for reviewing the test results for technical accuracy and adequacy and insuring that the WO completion is posted in WMS.

- a. Increased frequency testing requirements associated with Tech Specs and ASME/ANSI OMa-1988 (Ref. 3.30) must be identified and scheduled.

- (1) If increased frequency is warranted, notify the Surveillance Program Coordinator.
- (2) Submit a Work Request to increase the frequency of the surveillance task or add a new surveillance task for the increased frequency.

- b. The Shift Supervisor must be notified immediately of any item found Unacceptable which had previously been called acceptable.

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- 6.8.9 If any deviation or abnormality is indicated, the Discipline Supervision (or designee) should review the surveillance data packages for the following:
- a. To determine if an error in the surveillance procedure caused the failure or abnormality in the surveillance results, ensure that a TCN or revision is written to correct the error.
 - b. To determine if a defective component caused the failure or abnormality in the surveillance results, ensure that a WO or Condition Report as applicable is written to cover the specific defective component.
 - c. To determine if defective materials caused the failure or abnormality in the surveillance results, ensure that a CR is written to cover the specific defective component.
 - d. To determine if the failure or abnormality was caused by personnel not following the procedure, ensure that a CR is written to document the deficiency.
 - e. If the surveillance marked "partial" and complete credit is taken, ensure performance of all steps required to meet the intent of the surveillance.

NOTE

The "Unacceptable/Acceptable/Partial" determinations may not be changed except to correct errors. Additional documentation (e.g. retests) does not change the original unacceptability of data.

- 6.8.10 After review and approval, the Discipline Supervision or designee forwards the original completed work order to the Surveillance Program Coordinator.
- a. The original completed Surveillance Work Order package should be forwarded to the Surveillance Coordinator within five working days of the completion date
 - b. Deleted
 - c. On rare occasion, it is not possible to forward a completed work order to the Surveillance Coordinator within the required limit of 5 working days. An example would be if data results were being sent off the site to be analyzed. Discipline Supervision may extend this 5 day time limit by forwarding a GIN memo to the Scheduling Supervisor and Surveillance Coordinator. The memo shall explain why the Surveillance will exceed the time limit and the date the Surveillance Coordinator can expect to receive the Surveillance work order package. A copy of the Surveillance work order shall be attached to the GIN memo.

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- 6.8.11 Supervisor, Code Programs or designated Program Engineer must review all surveillance procedures that are affected by IST requirements.
- a. The Supervisor, Code Programs or designee must inform the Surveillance Program Coordinator of any increased frequency testing requirements associated with the IST program, Ref. 3.26, not already identified.

NOTE

The Discipline Supervision of the section which performed the test is responsible for any required corrections.

- 6.8.12 The Surveillance Program Coordinator notifies the Program Engineer, ANII, or any other departments as deemed necessary of the surveillance test completion via the WMS (computerized system) for the final review, approval, and trending. This review will be accomplished by reviewing the "scanned" work orders in Record Management IDEAS Database and approving in the WMS.
- 6.8.13 The Surveillance Program Coordinator forwards the completed Surveillance-WO packages to Records Management for retention. Processing and handling of surveillance records will be done in accordance with AD-103, Document Control and Records Management Activities.

6.9 Conduct of Program and System Engineering Reviews

NOTE

Post review "hardcopy" signatures on Surveillance Work Orders are not required for System Engineering and Program Engineering. All post review signature lines on hardcopy WOs will be N/A'd until such time each procedure is revised to remove these signature lines.

- 6.9.1 Completed Surveillance work orders are reviewed as followed:
- a. To ensure that all IST surveillance requirements for in-service testing of ASME Code Class 1, 2 and 3 pumps and valves are met the Surveillance work order is forwarded electronically to the Program Engineer who reviews and approves via the WMS. Any surveillance that satisfies Technical Specification 5.5.6 or TRM 7.6.3.3 should have a Surveillance work order review unless exempted per step 6.2.2a(7).

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6.9.1 (Cont.)

- b. Documentation and review of unacceptable or unsatisfactory conditions identified by Surveillance work order activities are to be documented via the Corrective Action process in accordance with EN-LI-102. Surveillance work order data packages denoted with unacceptable conditions are required to be documented through a Condition Report by the performing department in accordance with step 6.8.2d of this procedure. Specifically, step 6.8.2d requires generation of a Condition Report per the requirements of EN-LI-102 for any unsatisfactory or unacceptable conditions. Condition Reports are subjected to an Engineering review as required, and as part of the Condition Report screening, review and disposition process per EN-LI-102, therefore, a hardcopy post review signature or electronic WMS approval is not required by System Engineering.
- c. Deleted (moved to 6.9.1(a) above.)
- d. Deleted (moved to 6.9.1(a) above.)

6.9.2 When reviewing Condition Reports generated to document unacceptable conditions or data collected during Surveillance activities, the following guidelines apply:

- a. If it appears that instrumentation has drifted or exhibited unacceptable behavior, review previous Surveillance activities on the affected instrumentation to determine if License Criteria might be exceeded before the next performance of the Surveillance activity. Initiate appropriate corrective actions to address the condition and ensure that the corrective actions are scheduled appropriately to prevent exceeding License Criteria.
- b. Deleted (incorporated in 6.9.2a above)
- c. Deleted (incorporated in 6.9.2a above)

6.9.3 The System Engineer should review surveillance data packages to gather the latest response times to ensure that the total loop time of a system is within Tech Specs. This review may require summing of the individual loop times after part of the loop was individually tested due to component replacement or due to performance of a time response surveillance test on an associated component during its normal surveillance interval.

6.9.4 Completed Surveillance Work Order activities which require a Program (IST) Engineer or ANII hard copy signature shall be reviewed and approved electronically in the WMS by the Supervisor, Code Programs or designated Program Engineer by reviewing the "scanned" work order(s) in the Record Management's "IDEAS" database.

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SURVEILLANCE PROCEDURE NUMBERING SYSTEM

06 - AA - BCCC - D - EEEE - FF

AA - Responsible Group

- OP - Operations
- CH - Chemistry
- EN - Environmental
- HP - Health Physics
- RE - Reactor Engineering
- IC - Instrument and Control
- EL - Electrical
- ME - Mechanical
- TE - System Engineering
- FS - Fuel Services

B - Unit Number

- S - Shared
- 1 - Unit 1

CCC - GGNS System Number (MPL Number)*

D - Surveillance Test Frequency (at least once per time interval specified except as noted in the Surveillance Procedure)

- S - 12 hours
- D - Daily (24 hours)
- W - Weekly (7 days)
- M - Monthly (30 days)
- Q - Quarterly (91 days)
- SA - Semiannually (183 days)
- A - Annually (365 days)
- R - Refueling (549 days)
- V - Variable
- C - Cold Shutdown
- O - Other (not covered by other designator)

EEEE - Surveillance Procedure Number

FF - Surveillance Procedure "Attachment" Number

*For surveillance procedures which are not GGNS system specific, use "000".

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SURVEILLANCE PROCEDURE COVER SHEET (Example)

Note: Format varies depending on the work discipline.

PLANT OPERATIONS MANUAL

Volume 06

06-OP-XXXX-Q-0001

Section 01

Revision: 100

Date:

SURVEILLANCE PROCEDURE

QUARTERLY FLOW RATE TEST

SAFETY RELATED

Prepared: _____

Reviewed: _____
 Technical

Approved: _____
 Assistant Operations Manager, Support or Shift

List of Effective Pages:

Pages 1-11

Attachment I

List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
0	None
1	1,2
2	None
3	3

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET (Example)
SAFETY RELATED

Title: _____
 Technical Specifications: _____

1.0 IMPACT STATEMENT

1.1 Performance of this procedure (1) has no impact on plant operations; (2) results in isolations, half-scrams, etc. The channel may remain out of service for only _____ hours

2.0 PROCEDURE

2.1 Plant Mode is (circle one): 1 2 3 4 5

2.2 Test Start Time: _____ / _____ / _____
Performer's Signature Date Time

3.0 TEST RESULTS

3.1 Test Completion: (Check one in each category.)

Entire procedure completed	[]	Partial procedure completed	[]
As Found Data Acceptable	[]	Unacceptable	[]
As Left Data Acceptable	[]	Unacceptable	[]
Tech Spec Acceptance Criteria Acceptable	[]	Unacceptable	[]
IST Acceptance Criteria Acceptable	[]	Unacceptable	[]
** IST Acceptance Criteria Evaluation, Yes Required	[]	No	[]
All other steps/data Acceptable	[]	Unacceptable	[]

* 3.2 TCNs in effect during performance (list): _____

3.3 Comments: _____

3.4 Test performed by _____ Date/Time _____ / _____

4.0 DEFICIENCIES

CR Issued # _____

LCO Entered # _____ WO Issued # _____

* This line is not required on Operations Surveillances

** Applicable to IST valves with stroke time acceptance criteria only.

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET (Example) (Continued)
SAFETY RELATED

5.0 APPROVAL

Tech Spec Operability Requirements Acceptable [] Unacceptable []

Shift Supv/Manager _____ Date _____

Comments: _____

CONCURRENCE

Discipline Supervision/Designee _____ Date _____

*EP&C Review is Required

*These review statements are required on the data package only if the review is required. These statements are needed to alert the Surveillance Coordinator or designee that these reviews are necessary prior to the WO being sent to Records Management.

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SURVEILLANCE PROCEDURE DATA PACKAGE COVER SHEET
SAFETY RELATED

Title: _____

Procedure Number: _____

ODCM Specification: _____

IMPACT STATEMENT: Performance of this procedure will have no impact on plant operation.

TASK completed satisfactorily by: _____
Signature/Date

COMMENTS: _____

REVIEWED: _____ / _____
Chemistry Superintendent or designee Date

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INSTRUCTIONS FOR USING
SURVEILLANCE CREDIT VERIFICATION FORM

The appropriate responsible discipline reviews the Surveillance Credit Verification Form and verifies Steps 1, 2, 3 and 4 are correct.

1. Check appropriate box.
2. List all documents (e.g., WO, TSTIs, etc.) used to satisfy applicable Technical Specifications.
3. List Surveillance Procedure/PMID-RQ Number for which credit is to be taken. Use a separate form for each Surveillance Procedure/PMID-RQ Number credited. If all the requirements for the Surveillance Procedure/PMID-RQ have been met and credit may be taken, check "Full Completion". If all the requirements for the Surveillance Procedure/PMID-RQ Number have not been met and credit cannot be taken for the entire Surveillance Procedure, check "Partial Completion" and list the specific requirement(s) met under the "COMMENTS" section.
4. List all Technical Specifications which have been satisfied that are applicable to this credit. If all the Technical Specifications are not entirely met, provide details (attach additional sheet(s)).

The Tech Reviewer completes Steps 5, 6, 7 and 8.

5. The Tech Reviewer should initial if the test method used complies with appropriate Quality Programs controls and complies with governing documents.
6. Self explanatory; Tech Reviewer should initial.
7. List the date that the Technical Specifications surveillance requirements were met (date performed). Tech Reviewer should initial.
8. Tech Reviewer's comments (if any).
9. All signatures are required for credit. Section superintendent is the superintendent of the discipline that the requirement(s) is assigned (e.g., for an electrical requirement, the Electrical Superintendent signs). The Scheduling Supervisor or designee should sign last.

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SURVEILLANCE CREDIT VERIFICATION FORM

TO: Scheduling Supervisor/Surveillance Coordinator

1. FROM: Chemistry and Rad/Con Supts Mechanical Supt
 Electrical Supt I&C Supt
 Assistant Operations Manager, Support Other _____

SUBJECT: Surveillance Credit

2. CREDIT DOCUMENT(S): _____

3. SURV PROC/PMID-RQ NUMBER TO BE CREDITED: _____

- Full Completion - (Step #7 Required)
 Partial Completion (WMS Update Not Required)

4. APPLICABLE TECHNICAL SPECIFICATIONS: _____

The Tech Reviewer completes Steps 5, 6, 7 and 8 below. Initials

5. The testing method used was consistent with established Surveillance test requirements and methodology. _____

6. The applicable Technical Specifications and any definitions associated with these Technical Specifications have been satisfied verbatim. _____

7. Surveillance Credit for Full Completion Date _____

8. COMMENTS: _____

9. Approval:

Prepared By _____ Date _____

Technical Review _____ Date _____

Discipline Supervision/Supt. _____ Date _____

Scheduling Supervisor _____ Date _____

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**INSTRUCTIONS FOR USING
LATE SURVEILLANCE NOTIFICATION FORM**

1. Discipline Supervision or designee fills out all fields involving the late surveillance and signs approval.
2. LATE SURVEILLANCE NOTIFICATION FORM is then hand delivered to the Scheduling Supervisor for concurrence.
3. The Scheduling Supervisor hand delivers approved and concurred form to Surveillance Program Coordinator.
4. Explanations of the fields are as follows:

PROCEDURE #: Procedure number of late surveillance

ST/PMID-RQ #: WMS PMID-RQ number of late surveillance

SCHEDULED DUE DATE: Current WMS DUE date

SCHEDULED NRC LATE DATE: Current WMS NRC LATE date

TECHNICAL SPECIFICATIONS #: Tech Spec that surveillance implements

LCO #: Required LCO(s) that has been written against late surveillance Ref Step 6.8.6d. A copy of LCO(s) must be attached to the Late Surveillance Notification Form.

WO #: Any WOs listed that affect late surveillance

JUSTIFICATION: Brief explanation for surveillance exceeding late date and justification of why it was allowed.

SCHEDULING INSTRUCTIONS TO ENSURE TECH SPEC COMPLIANCE: Any scheduling instructions that will be needed to ensure Tech Spec compliance. If individual requirements need to be scheduled in WMS, procedures may be split apart and tracked separately provided that the procedure is still on Late Date report. Special notes or comments may be listed in WMS to document scheduling requirements. These should be coordinated with the Surveillance Program Coordinator.

ANTICIPATED RESOLUTION DATE: Date on which surveillance can resume regular surveillance interval.

COMPLETED BY: Person filling out form must sign and date.
5. This form is not to be routed in company mail; it must be hand delivered.
6. Discipline Supervision/Supt. or designee must sign approval.

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LATE SURVEILLANCE NOTIFICATION FORM

TO: Scheduling Superintendent/Surveillance Coordinator

FROM: Chemistry and Rad/Con Mechanical
 Operations Other _____
 Electrical I&C

SUBJECT: Surveillance to exceed NRC LATE "late" date

PROCEDURE #: _____ ST/PMID-RQ #: _____

SCHEDULED DUE DATE: _____

SCHEDULED NRC LATE "late" DATE: _____

TECHNICAL SPECIFICATIONS #: _____

LCO #: _____
(A Copy of LCO(s) must be attached to this form)

WO #: _____

JUSTIFICATION: _____

SCHEDULING INSTRUCTIONS TO ENSURE TECH SPEC COMPLIANCE: _____

ANTICIPATED RESOLUTION DATE: _____

COMPLETED BY: _____ Date _____

APPROVAL:

Discipline Supervision/Supt. _____ Date _____

CONCURRENCE:

Scheduling Supervisor _____ Date _____

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SURVEILLANCE PROCEDURE REVIEW CHECKLIST

PROCEDURE REVIEWED: _____

CHECKLIST COMPLETED BY: _____
 Signature _____ Date _____

NOTE

Use this checklist to provide guidance in writing and reviewing surveillances. The list contains a mixture of procedural requirements and common mistakes encountered in the rewriting of surveillance procedures. Do not check N/A unless statement does not apply to procedure.

Throughout the body of this procedure the word "Technical Specification" (Tech Spec or TS) is synonymous with "Technical Requirements Manual" and "Offsite Dose Calculation Manual."

<u>Cover Sheet and Concurrence Sheet</u>	YES	N/A	NO
1. Are the procedure revision and TCN lists correct?	//		//
2. Are the Tech Specs listed correct and complete?	//		//
3. Do the Tech Specs referenced on the procedure cover sheet reflect the RPTS requirements that are taken credit for by the procedure? (Only Tech Specs that cover the Purpose of the procedure should be listed on cover sheet.)	//		//
4. Have reasons for major changes been identified on the RPTS Sheet under Current Revision Statement?	//		//
5. Has the Safety Evaluation Applicability Review been done?	//		//
<u>Procedure Section 1 through 6</u>			
1. Are the Tech Specs listed in Section 1 correct and complete? If the procedure does not contain any Tech Spec setpoints or allowable values, then there should be a statement such as: "The Technical Specifications do not specify any setpoints or allowable values for this test. Therefore, satisfactory completion of this procedure fulfills the requirements of Technical Specification _____." (This applies to I&C Procedures only.)	//		//
2. If test equipment has been added or deleted, does Section 3 reflect this? (Also ensure any new test equipment has an accuracy consistent with the engineering requirements for the application.)	//	//	//
3. If steps have been changed or deleted, are the Precautions and Limitations, Section 2, and the Prerequisites and Plant Conditions, Section 4, still adequate?	//	//	//
4. If the procedure satisfies a portion of Logic System Functional Testing (LSFT) requirements and steps have been changed or deleted, are the LSFT requirements still met (Ref 17-S-01-11)? (This determination should be coordinated with System Engineering.) System Engineering Concurrence	//	//	//

 Engr Initial/Date

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	YES	N/A	NO
5. If MOVs are cycled during the test, are the Thermal Overloads placed in force?	//	//	//
6. Is there a \$ for the test switch annunciator or status light that shows the Thermal Overloads are bypassed?	//	//	/.
7. If any Tech Spec Acceptance Criterion, \$ or I has been deleted, is there a legitimate reason for the deletion?	//	//	//
8. Is there a \$ in the Data Package for each \$ in the body of the procedure and vice versa?	//	//	//
9. Is there an I in the Data Package for each I in the body of the procedure and vice versa?	//	//	//
10. Are all bi-stable devices verified Operable by observing that they will change state and also that they will return to their previous state? (If one state is \$, then the other state should be \$ also.)	//	//	//
11. Are all device functions (i.e., trip, alarm, channel failure) verified Operable before the loop is calibrated? (There should be a \$ on both states.)	//	//	//
12. Are the "As Found" conditions and/or values recorded before any actual calibration takes place?	//	//	//
13. Is there a Data Sheet I sign-off for each # in the body of the procedure and vice versa? (Only critical steps requiring sign-offs on Data Sheet I require a # in body of procedures.)	//	//	//
14. If the procedure references a Data Sheet (e.g., "See Data Sheet I," "Record on Data Sheet II") does the Data Sheet correctly reflect the step? (These steps do not require a # in the body of the procedure. For steps requiring data entry on a data sheet, ensure there is a place to record the data.)	//	//	//
15. If test equipment is installed, is there a sign-off to verify removal? (A sign-off is not required to install the test equipment if it does not require a hardware modification.)	//	//	//
16. If changes in drawings or other references in Section 6 affect the contents or commitments in the procedure, are the revision numbers for those references updated?	//	//	//
17. Are the Tech Spec triggers labeled per Step 6.2.1 of 01-S-06-12?	//	//	//
18. Have the procedure changes affected the requirements of NUREG 0588 (Reference 07-S-01-227)? Has Section 1.0 been revised to indicate the procedure implements NUREG 0588 requirements?	//	//	//

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<u>Data Package</u>	YES	N/A	NO
1. Are the Tech Specs listed correct and complete? If the procedure intends to satisfy a particular Tech Spec, then it should be listed. Only the Tech Spec satisfied by a particular attachment should be listed on that attachment.	//	//	//
2. Does the title on the Data Sheets relate to the title on the Data Package Cover Sheet?	//	//	//
3. Does the Impact Statement adequately cover any inop equipment and/or actions or occurrences that will result from performance of the procedure?	//	//	//
4. Is the Data Package Cover Sheet consistent with GGNS Surveillance Program Procedure 01-S-06-12? (If the procedure does not contain any '\$' or Tech Spec acceptance, then an 'N/A' should be placed in the Tech Spec Acceptance Criteria - Acceptable - Unacceptable blocks.)	//	//	//
5. Do all system modifications have double verification when restored to their normal operating configuration per FSAR 18.1.13 and 18.1.29.1?	//	//	//
6. Do all hardware modifications have double verification when installing and removing (Ref 3.16)?	//	//	//
7. If any calibration data has been changed, is the new data correct and documentation available to support the data?	//	//	//
8. Are the '\$' As Found data compiled and compared to Tech Spec allowable values to document Tech Spec compliance? There should be a place for initials to signify compliance and a place for initials to notify the Shift Supervisor if not in compliance. Only Scheduling Supervisor approved methods may be used as exceptions.	//	//	//
9. Are the Tech Spec allowable values consistent with the latest Tech Spec? (Check for correct values negative and positive.)	//	//	//
10. If pump or valve reference values (i.e., valve stroke time, pump discharge press) are changing, has Supervisor, Code Programs (Design Engineering, Engineering Programs and Components Group) approved the new reference values?	//	//	//
11. Are the Tech Spec triggers incorporated per Step 6.2.1e of 01-S-06-12?	//	//	//

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General

	YES	N/A	NO
1. Were all step numbers and number values affected by changes checked carefully for typographical errors?	//	//	//
2. If changes affect other parts of the procedure or other procedures, have steps been taken to ensure all necessary corrections are made, e.g., step numbers, program changes, device or alarm IDs? Also, generic portions of all procedures and the common portions of the Channel Functional and Calibration procedures should look alike.	//	//	//
3. Are the vertical lines (rev bars) by all the changes except page numbers, revision numbers, changes to the cover sheet and RPTS Form, and other exceptions per 01-S-02-3?	//		//
4. Was a revision justified, i.e., did it make the procedure better or did it make necessary corrections? List any changes that are not justified. _____	//		//
5. Does the procedure still adhere to the applicable Tech Spec definition(s) for a test of this type?	//		//
6. Does the procedure still satisfy the applicable Tech Spec(s) as originally intended?	//		//
7. If changes have been made that would affect the WMS data base (e.g., scheduling changes, Tech Spec references), has Attachment V been completed and approved to update WMS?	//	//	//
8. If the change(s) to this procedure could affect any Operations procedures (e.g., IOI, SOI, ARI, EOI), have steps been taken to ensure necessary changes have been made to the applicable procedures? List any changes and/or procedure numbers. _____	//	//	//
9. Does the procedure ensure IST Acceptance Criteria (CEP-IST-4, Ref. 3.13, and IST Program, Ref. 3.25) is met?	//	//	//
10. If a change deletes any Technical Specification requirement, have steps been taken to ensure that this requirement is met elsewhere before this revision is issued?	//	//	//

NOTE

This step is N/A for editorial changes.

11. If changes to this procedure have been made that could affect an ASME Section XI (Class 1,2, and 3) pressure retaining item, have the changes been screened for ASME Section XI requirements in accordance with Attachment III of CEP-R&R-001 and the specified requirements included in this procedure.	//	//	//
--	----	----	----