94 07840

ATTACHMENT 1
SURVEILLANCE TEST ROUTING SHEET
(STRS)

STS/STN NO: STS BG-210 REV. 12 **TEST FREQUENCY:
(CIRCLE ONE) **DUE DATE/TIME:
TITLE: CVCS INSERVICE CHECK VALVE TEST **LATE DATE/TIME:
**T/S REQUIRED MODE:
**PROCEDURE REQUIRED MODE:

INITIATING DOCUMENT#(s)

**RESPONSIBLE GROUP: **SUPPORT GROUP(s):

PRE-TEST COMMENTS

** OPTIONAL INFORMATION-NOT REQUIRED TO BE FILLED IN

1) TEST PERFORMERS SIG/DATE

	10-24-94
	10-24-94
	10-24-94
	10-24-94
	10-24-94
	10-24-94
	10/24/94

Procedure verified to be the correct revision with all temporary changes attached and incorporated.
INT/DATE 10/24/94

2) PRE-TEST REVIEWS SIG/DATE/TIME
SS/SO AUTH/NOTIF/NI (CIRCLE) (AS APPLICABLE) 10/24/94 1408

3) *TEST DEFICIENCY DESCRIPTION: N/A
TP INT/DATE
DATE

4) *T/S FAILURE YES / NO (CIRCLE ONE) S/S SIGNATURE
IF NO-JUSTIFICATION:

5) ACTION TAKEN EOL # WR#

*SECTIONS 3, 4 ,AND 5 ARE COMPLETED IF A TEST DEFICIENCY OCCURS, OTHERWISE MARK N/A
TEST SUSPENDED YES / NO (CIRCLE ONE) SS SIGNATURE DATE

6) POST TEST REVIEWS

	SIG/	DATE	TIME
TOTAL MAN HOURS: 5			
TEST PERFORMER		10-25-94	0032
SS/SO REVIEW/NOTIF		10-25-94	0236
GROUP SUP.		10-31-94	
		10-26-94	
SC/SURV. TECHNICIAN		11-8-94	

☒ COMPLETE ☐ PARTIAL
(GROUP SUP. CHECK ONE)

7) ADDITIONAL COMMENTS:

FORM APP 15C-004-04 REV 02

ON THE SPOT CHANGE (OTSC)

OTSC Number: 94-0319

Current Revision Number: 12

Document Number: STS BG-210

Document Title: CVCS INSERVICE CHECK VALVE TEST

Originator: STEVE ERNEST (Print Name) 10/24/94 (Date)

Reason For Change: (Explain)

REVISE STEPS 7.11 AND 7.12 TO DELETE SECOND CHECKS ON TEST EQUIPMENT REMOVAL. REPLACE PAGE 27 WITH ATTACHED. TEST EQUIPMENT IS NON-INTRUSIVE.

☐ Continued on attached

OTSC SCREENING

(A YES answer to any of the following questions indicates an OTSC can not be performed.)

1. Is this a change to the intent of the procedure as defined in the purpose or scope? ☐ YES ☒ NO
2. Will this change decrease or modify a hold point requirement or Quality inspection point? ☐ YES ☒ NO
3. Will the change result in a reduction of personnel or equipment safety? ☐ YES ☒ NO
4. Will the change involve a USQD? ☐ YES ☒ NO

☒ A marked up copy of the proposed change is attached.

☒ Regulatory Screenings and/or Evaluations (form KGF-115) has been completed and attached as required by KGP-1220, SCREENING AND EVALUATING CHANGES, TESTS, AND EXPERIMENTS.

APPROVAL FOR IMMEDIATE USE

Approved By: _____ (Call Superintendent (for ACPs only)) ___/___/___ (Date)

Approved By: _____ (WCNOC Staff Member) STEVE ERNEST (Print Name) 10/24/94 (Date)

Approved By: _____ (Cognizant Supervisor*) Oakley A. Korbelic (Print Name) 10/24/94 (Date)

* For Operations Department procedures, must hold a Senior Reactor Operator license per TS 6.8.3.

The remainder of this form shall be completed within 14 days as required by Technical Specification 6.8.3.

QUALIFIED REVIEW

☐ NONE REQUIRED

Cross-Disciplinary Review Required By:

☐ Quality Assurance ☐ Quality Control ☐ Surveillance Coordinator ☐ Other (Specify)

All cross-disciplinary reviews have been completed, reviewer comments have been resolved, and the recommended disposition of this OTSC has been identified in the FINAL APPROVAL section of this form.

_____ (Qualified Reviewer) _____ (Print Name) ___/___/___ (Date)

FINAL APPROVAL

☐ Approved:

☐ Disapproved, cancel, remove from OTSC file, and initiate PIR

☐ Maintain in active OTSC file until incorporated into future revision.

Incorporated by DRR number: _____
or OTSC number: _____

☐ Maintain in active OTSC file until specified date ___/___/___

This section for Administrative Control Procedures Only)

☐ Approved ☐ Disapproved PSRC Meeting No: _____ _____ (PSRC Chairmain (Initials)) ___/___/___ (Date)

_____ (Vice-President Plant Operations) ___/___/___ (Date)

_____ (Responsible Manager (For all OTSC except ACP's)) ___/___/___ (Date)

OTSC 94-0319

FORM KGF-115, SHEET 1 OF 3, REV. 4/94

SCREENING FOR LICENSING BASIS CHANGES

No. 59

Page 1 of 3

Revision: 12

Document Number: STS BG-210

Description of Proposed Change:

REVISE STEPS 7.11 AND 7.12 TO DELETE SECOND CHECKS ON TEST EQUIPMENT REMOVAL STEPS.

Screening Questions: (Note: All questions must be answered except as provided in questions 1 and 2)

1. Has this change been previously approved for WCNOC by the NRC or covered by another Unreviewed Safety Question Determination (KGF-117)

☐ YES — No further screening is required. Document # _____ Justify in "Clarification" Section. If referencing a previously performed USQD, contact Licensing to update USQD log.

☒ NO

Note: If referencing another Unreviewed Safety Question Determination, ensure that it has been approved by the PSRC prior to implementing the change.

2. Would the change result in a revision to the Operating License including Appendices? (this includes the Technical Specifications)

☐ YES — Change may NOT be implemented prior to approval of a License Amendment (Note: No further screening is required since NRC approval must be obtained prior to implementing the change.)

☒ NO

3. Would the change involve one or more of the following:
   a. a change to plant structures, systems, components or equipment as outlined, summarized or described in the USAR such that accomplishment of the change would make information in the USAR no longer true or accurate, or would violate a requirement stated in the USAR?
   b. a change to procedures or administrative controls as outlined, summarized, or described in the USAR such that accomplishment of the change would make information in the USAR no longer true or accurate, or would violate a requirement stated in the USAR?
   c. tests or experiments NOT described in the USAR?

☐ YES — A formal Unreviewed Safety Question Determination using KGF-117 must be completed prior to implementing the change.

☒ NO — Identify USAR sections considered in answering these questions.

Sections Reviewed: 9.3.4, 9.3.4.2, 13.5

NOTE: If yes, evaluate need for a USAR Change Request in accordance with KGP-1225.

(REF. KGP-1220)

OTSC 94-0319

	SCREENING FOR LICENSING BASIS CHANGES (continued)	Document Number: STS BG-210 No. 59 Page 2 of 3

4. Does the proposed change involve one or more of the following:

   a. a change in the rate, volume, concentration, composition or flow path of nonradiological liquid or gaseous effluents?

   b. a change in the volume, concentration or composition of nonradiological solid waste?

   c. an increase in the thermal power above the current licensed level and/or an alteration in the magnitudes of thermally affected effluents?

   d. a physical change in an area outside of the owner controlled area boundary which was not disturbed by previous construction?

   ☐ Yes — An environmental impact determination must be completed by the Supv. Environmental Management using KGF-116 prior to implementing the change.

   ☒ No

5. Could the change potentially result in a revision to:

   a. the Security Plan,

   b. the Safeguards Contingency Plan, or

   c. the Guard Training and Qualification Plan?

   ☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(p) prior to implementing the change. This evaluation must be performed by the Manager Security or Manager NPE-Wichita using KGF-116.

   ☒ No

6. Could the change potentially result in a revision to the Operating Quality Assurance Program commitment described in Chapter 17 of the USAR?

   ☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(A)(3) by the Manager QA using KGF-116 prior to implementing the change.

   ☒ No

7. Could the change potentially result in a revision to the Fire Protection Program described in USAR Section 9.5 and Appendices?

   ☐ Yes — An evaluation must be completed in accordance with license NPF-42 paragraph 2.c(5) by the Manager Operations or Manager System Engineering using KGF-116 prior to implementing the change.

   ☒ No

OTSC 94-0319

FORM KGF-115, SHEET 3 OF 3, REV. 12/92

	SCREENING FOR LICENSING BASIS CHANGES (continued)	Document Number: STS BG-210 No. 59 Page 3 of 3

8. Could the change potentially result in a revision to the Radiological Emergency Response Plan?

☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(q) by the Manager Technical Services using KGF-116 prior to implementing the change.

☒ No

9. Could the change potentially result in a revision to the Licensed Operator Requalification Program as described in USAR Section 13.2.1.2?

☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(i-1) by the Manager Training using KGF-116 prior to implementing the change.

☒ No

10a. Could the change potentially result in a change to an NRC commitment?

☐ Yes — An evaluation must be completed by the Manager Regulatory Services using Form KGF-116 prior to implementing the change.

☒ No

10b. Could the Change potentially result in changing or nullifying an INPO commitment?

☐ Yes — The basis for accepting the change will be provided below in the clarification section by the responsible manager. Coordinate with the Manager Plant Support to provide a basis for accepting the change to an INPO commitment.

☒ No

Clarification: NONE.

Disposition: Further Action Needed (Mark answer and explain below):

☐ Yes

☒ No

Prepared by: [signature] Date: 10-24-94

Approved by: [signature] Date: 10-24-94

(REF. KGP-1220)

FORM APP 15C-004-04 REV 02

ON THE SPOT CHANGE (OTSC)

OTSC Number: 94-0302

Document Number: STS BG-210 Current Revision Number: 12

Document Title: CVCS INSERVICE CHECK VALVE TEST

Originator: Larry R. Veeder (Print Name) 10/24/94 (Date)

Reason For Change: (Explain)
Change nomenclature of valves BG HV-8357A and B due to implementation of PMR-4394 ☐ Continued on attached

OTSC SCREENING

(A YES answer to any of the following questions indicates an OTSC can not be performed.)

1. Is this a change to the intent of the procedure as defined in the purpose or scope? ☐ YES ☒ NO
2. Will this change decrease or modify a hold point requirement or Quality inspection point? ☐ YES ☒ NO
3. Will the change result in a reduction of personnel or equipment safety? ☐ YES ☒ NO
4. Will the change involve a USQD? ☐ YES ☒ NO

☒ A marked up copy of the proposed change is attached.
☒ Regulatory Screenings and/or Evaluations (form KGF-115) has been completed and attached as required by KGP-1220, SCREENING AND EVALUATING CHANGES, TESTS, AND EXPERIMENTS.

APPROVAL FOR IMMEDIATE USE

Approved By: _____ (Call Superintendent (for ACPs only)) ___/___/___ (Date)

Approved By: Patrick Gueuel (WCNOC Staff Member) Patrick Gueuel (Print Name) 10/24/94 (Date)

Approved By: _____ (Cognizant Supervisor*) Dennis Mosley (Print Name) 10/24/94 (Date)

* For Operations Department procedures, must hold a Senior Reactor Operator license per TS 6.8.3.

The remainder of this form shall be completed within 14 days as required by Technical Specification 6.8.3.

QUALIFIED REVIEW

Cross-Disciplinary Review Required By: ☐ NONE REQUIRED
☐ Quality Assurance ☐ Quality Control ☐ Surveillance Coordinator ☐ Other (Specify)

All cross-disciplinary reviews have been completed, reviewer comments have been resolved and the recommended disposition of this OTSC has been identified in the FINAL APPROVAL section of this form.

_____ (Qualified Reviewer) _____ (Print Name) ___/___/___ (Date)

FINAL APPROVAL

☒ Approved: ☐ Disapproved, cancel, remove from OTSC file, and initiate PIR

☒ Maintain in active OTSC file until incorporated into future revision. Incorporated by DRR number: _____ or OTSC number: _____

☐ Maintain in active OTSC file until specified date ___/___/___

(This section for Administrative Control Procedures Only)

☐ Approved ☐ Disapproved PSRC Meeting No: _____ _____ (PSRC Chairmain (Initials)) ___/___/___ (Date)

_____ (Vice-President Plant Operations) ___/___/___ (Date)

_____ (Responsible Manager (For all OTSC except ACP's)) ___/___/___ (Date)

FORM KGF-115, SHEET 1 OF 3, REV. 4/94

OTSC 94-0302

	SCREENING FOR LIC ING BASIS CHANGES	No. 59 Page 1 of 3

Document Number: STS BG-210 Revision: 12

Description of Proposed Change:
Correct valve nomenclature for BG HV-8357A and B due to changes implemented by PMR-4394.

Screening Questions: (Note: All questions must be answered except as provided in questions 1 and 2)

1. Has this change been previously approved for WCNOC by the NRC or covered by another Unreviewed Safety Question Determination (KGF-117)

☐ YES — No further screening is required. Document # _____ Justify in "Clarification" Section. If referencing a previously performed USQD, contact Licensing to update USQD log.

☑ NO

Note: If referencing another Unreviewed Safety Question Determination, ensure that it has been approved by the PSRC prior to implementing the change.

2. Would the change result in a revision to the Operating License including Appendices? (this includes the Technical Specifications)

☐ YES — Change may NOT be implemented prior to approval of a License Amendment (Note: No further screening is required since NRC approval must be obtained prior to implementing the change.)

☑ NO

3. Would the change involve one or more of the following:
   a. a change to plant structures, systems, components or equipment as outlined, summarized or described in the USAR such that accomplishment of the change would make information in the USAR no longer true or accurate, or would violate a requirement stated in the USAR?
   b. a change to procedures or administrative controls as outlined, summarized, or described in the USAR such that accomplishment of the change would make information in the USAR no longer true or accurate, or would violate a requirement stated in the USAR?
   c. tests or experiments NOT described in the USAR?

☐ YES — A formal Unreviewed Safety Question Determination using KGF-117 must be completed prior to implementing the change.

☑ NO — Identify USAR sections considered in answering these questions.

Sections Reviewed: 9.3.4

NOTE: If yes, evaluate need for a USAR Change Request in accordance with KGP-1225.

(REF. KGP-1220)

OTSC 94-0302

	SCREENING FOR LICENSING BASIS CHANGES (continued)	Document Number: STS BG-210 12 No 59 Page 2 of 3

4. Does the proposed change involve one or more of the following:

   a. a change in the rate, volume, concentration, composition or flow path of nonradiological liquid or gaseous effluents?

   b. a change in the volume, concentration or composition of nonradiological solid waste?

   c. an increase in the thermal power above the current licensed level and/or an alteration in the magnitudes of thermally affected effluents?

   d. a physical change in an area outside of the owner controlled area boundary which was not disturbed by previous construction?

   ☐ Yes — An environmental impact determination must be completed by the Supv. Environmental Management using KGF-116 prior to implementing the change.

   ☑ No

5. Could the change potentially result in a revision to:

   a. the Security Plan,

   b. the Safeguards Contingency Plan, or

   c. the Guard Training and Qualification Plan?

   ☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(p) prior to implementing the change. This evaluation must be performed by the Manager Security or Manager NPE-Wichita using KGF-116.

   ☑ No

6. Could the change potentially result in a revision to the Operating Quality Assurance Program commitment described in Chapter 17 of the USAR?

   ☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(A)(3) by the Manager QA using KGF-116 prior to implementing the change.

   ☑ No

7. Could the change potentially result in a revision to the Fire Protection Program described in USAR Section 9.5 and Appendices?

   ☐ Yes — An evaluation must be completed in accordance with license NPF-42 paragraph 2.c(5) by the Manager Operations or Manager System Engineering using KGF-116 prior to implementing the change.

   ☑ No

OTSC 94-0302

	SCREENING FOR LICENSING BASIS CHANGES (continued)	Document Number: STS BG-210 12 No. 59 Page 3 of 3

8. Could the change potentially result in a revision to the Radiological Emergency Response Plan?

☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(q) by the Manager Technical Services using KGF-116 prior to implementing the change.

☑ No

9. Could the change potentially result in a revision to the Licensed Operator Requalification Program as described in USAR Section 13.2.1.2?

☐ Yes — An evaluation must be completed in accordance with 10CFR50.54(i-1) by the Manager Training using KGF-116 prior to implementing the change.

☑ No

10a. Could the change potentially result in a change to an NRC commitment?

☐ Yes — An evaluation must be completed by the Manager Regulatory Services using Form KGF-116 prior to implementing the change.

☑ No

10b. Could the Change potentially result in changing or nullifying an INPO commitment?

☐ Yes — The basis for accepting the change will be provided below in the clarification section by the responsible manager. Coordinate with the Manager Plant Support to provide a basis for accepting the change to an INPO commitment.

☑ No

Clarification:

Disposition: Further Action Needed (Mark answer and explain below):

All questions answered no.

☐ Yes

☑ No

Prepared by: [signature] Date: 10/24/94

Approved by: [signature] Date: 10/24/94

REF. KGP-1220)

WOLF CREEK NUCLEAR OPERATING CORPORATION
WOLF CREEK GENERATING STATION

CVCS INSERVICE CHECK VALVE TEST

Rev. h

STS BG-210

Revision 12

Classification: Minor

Patrick D. Wagner — PREPARED BY — 7-14-94 DATE

[signature] — INDEPENDENT REVIEW — 7-15-94 DATE

[signature] — COGNIZANT GROUP SUPERVISOR — 7-18-94 DATE

Kevin Scherich — PSRC SUBCOMMITTEE CHAIRMAN APPROVAL — 7-18-94 DATE

N/A — PSRC APPROVAL RECOMMENDATION (Revision 0 only) — DATE

N/A — VICE PRESIDENT PLANT OPERATIONS APPROVAL (As required)

N/A — QUALITY REVIEWER (As required) DC12 — DATE 7-18-94

IMAGED

1.0 **PURPOSE**

1.1 The purpose of this surveillance is to demonstrate Chemical and Volume Control System check valve operability.

1.2 This surveillance will perform exercise open and exercise close testing as required by ASME/ANSI OMa-1988, Part 10.

1.3 This procedure satisfies Chemical and Volume Control check valve operability surveillance requirements of Technical Specification 4.0.5.

2.0 **DISCUSSION**

2.1 **Scope**

2.1.1 Check valves will be demonstrated operable by verifying disk travels to safety function position.

2.2 **Precautions, Limitations And Acceptance Criteria**

2.2.1 **Precautions**

2.2.1.1 If testing is to be performed during Modes 4, 5 or 6 refer to Technical Specification 3.1.2.3 for CCP Operability Requirements.

2.2.1.2 [3.11] Centrifugal Charging Pump "A" should not be operated for greater than 30 minutes at less than 175 gpm total flow (including 60 gpm recirc.) due to low flow cavitation considerations. **IF** PBG05A is operated at less than 175 gpm, **THEN** complete Attachment 1 of Standing Orders and Special Orders, Minimum Flow Requirements Within Regions of Low Flow Cavitation Pump Operations.

2.2.1.3 [3.11] Centrifugal Charging Pump "B" should not be operated for greater than 30 minutes at less than 173 gpm total flow (including 60 gpm recirc.) due to low flow cavitation considerations. **IF** PBG05B is operated at less than 173 gpm, **THEN** complete Attachment 1 of Standing Orders and Special Orders, Minimum Flow Requirements Within Regions of Low Flow Cavitation Pump Operations.

2.2.1.4 When shifting between centrifugal charging pumps, refer to SYS BG-201, "Switching between Positive Displacement and Centrifugal Charging Pumps".

2.2.2 Limitations

2.2.2.1 Report any irregularities or component malfunctions to SS/SO immediately.

2.2.2.2 Check valve exercise testing is required to be performed quarterly.

2.2.2.3 Testing of Alternate Charging Line Check Valves shall be done only in Modes 5 or 6. See the caution prior to Step 6.1.28. The balance of test is not mode dependent.

2.2.2.4 Flanges when removed, will be identified and secured in immediate area.

2.2.2.5 Use of separate gauges for Steps 6.1.4 and 6.1.56 will expedite performance of procedure.

2.2.3 **Acceptance Criteria**

2.2.3.1 Check valve exercise open testing is performed by verifying check valve disk will travel to open position by passing maximum required accident condition flow. Check valve partial exercise open testing is performed by verifying valve will permit flow in the proper direction. Check valve exercise closed testing is performed by verifying valve disk will travel promptly to its seat on cessation or reversal of flow. **IF** required change of valve disk position is not obtained, **THEN** valve shall be declared inoperable and corrective action shall be initiated using ADM 01-057, "Work Request" and ADM 02-024, "Technical Specification Operability".

3.0 **REFERENCES**

3.1 ADM 01-300, "Surveillance Testing"

3.2 ADM 05-200, "ASME Code Testing Of Pumps And Valves

3.3 ADM 01-057, "Work Request"

3.4 ADM 02-024, "Technical Specification Operability"

3.5 PIR TS 92-0490

3.6 PIR TS 92-0493

3.7 PIR TS 92-0491

3.8 PIR TS 92-0485

3.9 PDR TS 91-0238

3.10 PIR OP 92-0320

3.11 IE Bulletin 88-04, "Low Flow Cavitation"

3.12 ITIP 1349, Westinghouse Infogram: Switchover of CVCS Flow to Alternate Charging Path

3.13 ASME/ANSI OMa-1988, Part 10, "Inservice Testing Of Valves In Light Water Reactor Power Plants"

3.14 WCOP-02, "Inservice Testing Program For Pumps And Valves"

3.15 Generic Letter 89-04, "Guidance On Developing Acceptable Inservice Testing Programs"

3.16 PIR OP 92-462

4.0 **TEST EQUIPMENT**

NOTE: If equivalent test equipment is used, justification shall be provided in "Comments" section of procedure and accuracies noted.

NOTE: All readings may be taken using only one gauge. However, it is more expedient to use two gauges. If only one gauge is used then N/A 4.2.

4.1 0-3000 psig test gauge +.025% full scale accuracy with bleed valve (see Figure 1).

Gauge Number: WC15379
Gauge Cal. due date: 3/29/95

INIT/DATE

4.2 0-3000 psig test gauge +.025% full scale accuracy with bleed valve (see Figure 1).

Gauge Number: 15378
Gauge Cal. due date: 10-28-94

4.3 Non-intrusive check valve monitoring device.

WC Number: Y See Comment Sheet
Cal. due date: Y

5.0 PREREQUISITES

5.1 Consult with SS/SO and review following required prerequisites prior to performance of surveillance:

SS/SO PERFORMER

5.2 PBG05A, Centrifugal Charging Pump 'A', and PBG05B, Centrifugal Charging Pump 'B' are operable and aligned for NORMAL operation in accordance with SYS BG-120 if in Modes 1, 2 or 3. ☐ N/A

5.3 If Section 6.1 is to be done first, PBG05A is supplying RCS Charging and RCP Seal Water as necessary. ☑

5.4 If Section 6.2 is to be done first, PBG05B is supplying RCS Charging and RCP Seal Water as necessary. ☐ N/A

5.5 Required Precautions, Limitations and Acceptance Criteria have been reviewed.

INIT/DATE

6.0 PROCEDURE

6.1 Charging System Check Valve Testing With CCP "A" Running

NOTE: Section 6.1 will exercise test following check valves:

STROKE DIRECTION	VALVE TEST	VALVE DESCRIPTION
OPEN	CVP-O BG8481A	PBG05A DISCH CK
CLOSE	CVT-C BGV0589	CCP "B" DISCH CK TO SEAL WTR INJ FILTERS
OPEN	CVT-O BGV0590	CCP "A" DISCH CK TO SEAL WTR INJ FILTER
OPEN	CVT-O BGV0591	CHARGING TO SEAL INJ FILTERS CK
CLOSE	CVT-C BG8497	PDP DISCH TO CHG HDR
OPEN	CVT-O BBV0118	RCP PBB01A LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0120	RCP PBB01A LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0121	RCP PBB01A LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0148	RCP PBB01B LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0150	RCP PBB01B LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0151	RCP PBB01B LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0178	RCP PBB01C LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0180	RCP PBB01C LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0181	RCP PBB01C LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0208	RCP PBB01D LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0210	RCP PBB01D LABYRINTH SEALS CHG HDR CK
OPEN	CVT-O BBV0211	RCP PBB01D LABYRINTH SEALS CHG HDR CK
CLOSE	CVT-C BB8379A	CVCS ALT CHG DWNSTRM CK
CLOSE	CVT-C BB8379B	CVCS ALT CHG UPSTRM CK
CLOSE	CVT-C BB8378A	CVCS NORM CHG DWNSTRM CK
CLOSE	CVT-C BB8378B	CVCS NORM CHG UPSTRM CK

		INIT/DATE
6.1.1	If in Modes 5 or 6, perform steps 6.1.1.1 and 6.1.1.2, otherwise N/A steps 6.1.1.1 and 6.1.1.2.	☑
6.1.1.1	Install non-intrusive check valve test equipment on BB-8378A, CVCS Normal Charging to Loop 1 Check Valve.	☑
6.1.1.2	Install non-intrusive check valve test equipment on BB-8378B, CVCS Normal Charging to Loop 1 Check Valve.	☑
6.1.2	At panel RL001, verify PBG05B, Centrifugal Charging Pump 'B', is not running by observing green indicating light is illuminated for handswitch BG HIS-2A.	☑
6.1.3	If in Modes 4, 5 or 6, at panel RL001, verify BG HIS-2A is in PULL-TO-LOCK. (If not in Mode 4, 5 or 6 N/A this step).	☑
	NOTE: Place gauge so that it can be read while operating EM-V151.	
6.1.4	Install 0-3000 psig test gauge at test connection downstream of EM-V143, BIT Bypass Line Test Connection Iso.	☑
6.1.5	Open EM-V087, BIT Bypass Line Test Connection Iso.	☑
6.1.6	Open EM-V143, BIT Bypass Line Test Connection Iso.	☑
6.1.7	Verify locked open BG-8483A, PBG05A Discharge Header FCV-121 Inlet Iso.	☑
6.1.8	Unlock and close BG-8483C, PGB05B Discharge Header FCV-121 Inlet Iso.	☑
6.1.9	Open BG-V090, BG PI-118 Iso.	☑

		INIT/DATE
6.1.10	Unlock and open EM-V247, CCP "B" BIT 1" Bypass Line Iso.	☑
6.1.11	Open or verify open EM-V120, SI Test Header to RHUT Iso.	☑
6.1.12	Close or verify closed BN-V004, SI Test Header to RWST Iso.	☑
6.1.13	At panel RL017, open EM HV-8964, SI System Test Line Outside Containment Iso., using handswitch EM HIS-8964.	☑
6.1.14	At panel RL017, open EM HV-8871, SI System Test Line Inside Containment Iso., using handswitch EM HIS-8871.	☑
6.1.15	At panel RL018, open EM HV-8843, Boron Injection Upstream Test Line Iso., using handswitch EM HIS-8843.	☑
6.1.16	Unlock and open EM-V151, BIT Bypass Iso., to bleed off pressure.	☑
6.1.17	Close EM-V151, BIT Bypass Iso.	☑
6.1.18	At panel RL001, open or verify open BG HV-8146, Regenerative HX to RCS Loop 1 Cold Leg Iso., using handswitch BG HIS-8146.	☑
6.1.19	At panel RL001, close or verify closed BG HV-8147, Regenerative HX to RCS Loop 4 Cold Leg Iso., using handswitch BG HIS-8147.	☑

INIT/DATE

6.1.20 Record seal water injection flow in table below as indicated on BG FI-215A, located on RL001, and verify required indication by circling either SAT or UNSAT. TA / 10/20/94

BG-V591 Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FI-215A	37	≥24 GPM	(SAT) / UNSAT

6.1.21 Record RCP 'A' seal water injection flow as indicated by Computer Point BGF0145A or BG FR-157, in table below and verify required indication by circling either SAT or UNSAT. TA / 10/20/94

BB-V118, BB-V120 and BB-V121 Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION (Circle Indication used)	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FR-157 or BGF0145A	7.95	≥8 GPM	(SAT) UNSAT

6.1.22 Record RCP 'B' seal water injection flow as indicated by Computer Point BGF0144A or BG FR-156, in table below and verify required indication by circling either SAT or UNSAT. TA / 10/20/94

BB-V148, BB-V150 and BB-V151 Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION (Circle Indication used)	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FR-156 or BGF0144A	11.88	≥8 GPM	(SAT) UNSAT

INIT/DATE

6.1.23 Record RCP 'C' seal water injection flow as indicated by Computer Point BGF0143A or BG FR-155, in table below and verify required indication by circling either SAT or UNSAT. TA / 1/24/94

BB-V178, BB-V180 and BB-V181 Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION (Circle Indication used)	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FR-155 or BGF0143A	7.67	≥6 GPM	SAT UNSAT

6.1.24 Record RCP 'D' seal water injection flow as indicated by Computer Point BGF0142A or BG FR-154, in table below and verify required indication by circling either SAT or UNSAT. TA / 1/24/94

BB-V208, BB-V210 and BB-V211 Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION (Circle Indication used)	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FR-154 or BGF0142A	12.91	≥6 GPM	SAT UNSAT

6.1.25 Maximize charging and letdown to 120 gpm. ☑

6.1.26 Record charging flow in table below as indicated by BG FI-121A, located on panel RL002, and verify required indication by circling either SAT or UNSAT. TA / 1/24/94

BG-8481A Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FI-121A	123	>120 GPM	SAT UNSAT

INIT/DATE

CAUTION: **Due to thermal cycling of the alternate charging line nozzle and piping, testing of the alternate charging check valves in steps 6.1.27 through 6.1.38 shall only be performed during Modes 5 or 6. Otherwise, N/A steps 6.1.27 through 6.1.37.**

6.1.27 With the plant in Mode 5 or 6, shift RCS Charging from normal to alternate flow path by performing the following:

6.1.27.1 At panel RL001, open BG HV-8147, using handswitch BG HIS-8147. ☑

6.1.27.2 At panel RL001, close BG HV-8146, using handswitch BG HIS-8146. ☑

6.1.27.3 Stabilize charging flow at 120 gpm as indicated by BG FI-121A. ☑

6.1.28 Record test results for BB-8378A in table below and verify required indication by circling either SAT or UNSAT. TA 10.24.94

BB-8378A Exercise Closed Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
Non-intrusive check valve test equipment	disc moved to closed position	disk moved to closed position	(SAT) UNSAT

6.1.29 Record test results for BB-8378B in table below and verify required indication by circling either SAT or UNSAT. TA 10.24.94

BB-8378B Exercise Closed Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
Non-intrusive check valve test equipment	disc moved to closed position	disk moved to closed position	(SAT) UNSAT

INIT/DATE

6.1.30 Remove non-intrusive check valve test equipment from BG-8378A. ☑

6.1.31 Remove non-intrusive check valve test equipment from BG-8378B. ☑

6.1.32 Install non-intrusive check valve test equipment on BG-8379A. ☑

6.1.33 Install non-intrusive check valve test equipment on BG-8379B. ☑

6.1.34 Shift RCS charging from alternate to normal flow path by performing the following:

6.1.34.1 At panel RL001, open BG HV-8146 using handswitch BG HIS-8146. ☑

6.1.34.2 At panel RL001, close BG HV-8147 using handswitch BG HIS-8147. ☑

6.1.35 Stabilize RCS charging flow at 120 gpm. ☑

6.1.36 Record test results for BB-8379A in table below and verify required indication by circling either SAT or UNSAT. [illegible] / 12.24.94

BB-8379A Exercise Closed Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
Non-intrusive check valve test equipment	disk moved to closed position	disk moved to closed position	(SAT) UNSAT

INIT/DATE

6.1.37 Record test results by BB-8379B in table below and verify required indication by circling either SAT or UNSAT.

-JB / 10-27-94

BB-8379B Exercise Closed Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
Non-intrusive check valve test equipment	disc moved to closed position	disk moved to closed position	(SAT) UNSAT

CAUTION: If charging flow drops to <60 gpm, immediately open CCP "A" Mini-Recirc Flow Valve BG HV-8110.

6.1.38 At panel RL001, close BG HV-8110, using handswitch BG HIS-8110. ☑

CAUTION: [3.10] In step 6.1.39 RCP seal injection flow will bypass BG FE-121. When determining if letdown and charging are balanced, it will be necessary to add BG FI-121A and BG FI-215A to calculate total charging flow. When performing this procedure during solid plant operations where charging and letdown are manually controlled, RCS pressure should be closely monitored during the performance of this step to ensure that total charging flow (BG FI-121A plus BG FI-215A) and letdown remain balanced at approximately 120 gpm.

OTSC 94-0302
Page 2 of 6

INIT/DATE

6.1.39 Unlock and close BG-V100, Charging Pump Discharge Header to Seal Injection Iso., while simultaneously opening BG HV-8357A, CCP "A" Discharge to Seal Water Injection Filter Iso. using hand ~~controller~~ switch (HIS) BG ~~HCI~~-8357A on panel RL001, to obtain a flow of approximately 32 gpm as indicated by BG FI-215A. ☑

6.1.40 At panel RL001, using hand ~~controller~~ switch (HIS) BG ~~HCI~~-8357B, crack open BG HV-8357B, CCP "B" Discharge to Seal Water Injection Iso. ☑

6.1.41 Record seal water injection flow in table below as indicated by BG FI-215A, located on RL001, and verify required indication by circling either SAT or UNSAT.

9-1/16-22-94

BG-V590 Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FI-215A	32	≥24 GPM	(SAT) UNSAT

6.1.42 Record PBG05A discharge pressure as indicated by BG PI-118.

BG PI-118 2630 PSIG ☑

6.1.43 Determine the differential pressure across BG-V589 as follows:

6.1.43.1 **IF** pressure indicated by the test gauge at EM-V143 is <2000 psig, **THEN** record indicated pressure below and mark steps 6.1.43.2 and 6.1.43.3 N/A. **IF** pressure is >2000 psig, **THEN** mark this step N/A and perform steps 6.1.43.2 and 6.1.43.3.

EM-V143 Test gauge pressure 165 PSIG ☑

INIT/DATE

6.1.43.2 Open EM-V151, BIT bypass iso., until the pressure stabilizes and record indicated pressure below. Mark this step N/A if not performed.

EM-V143 test gauge pressure with EM-V151 open_____PSIG ☒ N/A

6.1.43.3 Close EM-V151, BIT bypass Iso. ☒ N/A

6.1.44 Calculate differential pressure across BG-V589.

(BG PI-118) 2630 - (EM-V143 temp gauge) 165 = 2465 ΔP ☑

6.1.45 Record the differential pressure across BG-V589 in table below and verify required indication by circling either SAT or UNSAT. 10:24:94

BG-V589 Exercise Close Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG PI-118 MINUS EM V143 TEMP GAUGE	2465	ΔP≥50 PSID	(SAT) UNSAT

6.1.46 At panel RL001, close BG HV-8357B using hand ~~controller~~ switch BG ~~HCV~~ HIS-8357B.

10:24:94 1st

10-24-94 2nd

		INIT/DATE
6.1.47	Open BG-V100 while simultaneously closing BG HV-8357A, using hand ~~controller~~ switch BG ~~HCI~~ HIS-8357A (at RL001) to maintain RCP seal flow >32 gpm as indicated by BG FI-215A.	☑
6.1.48	At panel RL001, open BG HV-8110 using handswitch BG HIS-8110.	~~JW~~ / 10-24-94 1st JW / 10-24-94 2nd
6.1.49	Open and lock BG-V100, Charging Pump Disch HDR to Seal Wtr Injection Filters Iso.	JW 10-24-94 1st JW 10-24-94 2nd
6.1.50	At panel RL001, close BG HV-8357A using hand ~~controller~~ switch BG ~~HCI~~ HIS-8357A.	~~JW~~ / 10-24-94 1st JW / 10-24-94 2nd
6.1.51	Close and lock EM-V247, CCP B BIT 1" Bypass Line Iso.	JW / 10-24-94 1st JW 10-24-94 2nd
6.1.52	At panel RL001, close or verify closed BG HV-8109, PDP Recirc Iso, using handswitch BG HIS-8109.	
6.1.53	Remove blind flange and install a 0-3000 psig test gauge with bleed valve (shown in Figure 1) at PP and flush connection downstream of BG-V013, PDCP Discharge PP/Flush Connection.	☑

		INIT/DATE
6.1.54	Open BG-V013, PDCP Discharge PP/Flush Conn.	☑
6.1.55	Open bleed valve on test gauge assembly installed dowrstream of BG-V013 to bleed off pressure.	☑
6.1.56	Close bleed valve on test gauge assembly.	☑
6.1.57	Maximize charging and letdown to 120 gpm.	☑
6.1.58	Record PBG05A discharge pressure as indicated on BG PI-118. BG PI-118 2550 psig	☑
6.1.59	Record pressure indicated by temporary test pressure gauge installed at BG-V013! BG-V013 test pressure gauge 40 psig	☑
6.1.60	Close BG-V013, PDCP Disch PP/Flush Conn.	1st 10-24-94 2nd 10-24-94
6.1.61	Determine differential pressure across BG-8497. (BG PI-118) 2550 - (BG-V013 temp gauge) 40 = 2510 ΔP	☑

INIT/DATE

6.1.62 Record differential pressure across BG-8497 in table below and verify required indication by circling either SAT or UNSAT. 10-24-94

BG-8497 Exercise Close Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG PI-118 MINUS BG V013 TEMP GAUGE	2516	ΔP≥50 PSID	(SAT) UNSAT

6.1.63 Remove 0-3000 psig test gauge installed at BG-V013. ☑

6.1.64 Install blind flange downstream of BG-V013, PDCP Disch PP/Flush Conn.. 10-24-94 1st 10-24-94 2nd

6.1.65 Record lot number of gasket installed in 6.1.64.

Gasket lot no. 136158 ☑

6.1.66 **IF** train "B" is to be tested, **THEN** shift from PBG05A to PBG05B in accordance with SYS BG-201. **IF** testing on RCS charging is to be terminated, **THEN** reduce charging flow to normal as necessary for plant conditions, align charging as directed by the Shift Supervisor in accordance with SYS BG-201, and proceed to Restoration Section 7.0. ☑

INIT/DATE

6.2 **Charging System Check Valve Testing With CCP "B" RUNNING**

NOTE: **Section 6.2 will exercise test following check valves:**

STROKE DIRECTION	VALVE TEST	VALVE DESCRIPTION
OPEN	CVT-O BG-8481B	PBG05B DISCH CK
OPEN	CVT-O BG-V589	CCP "B"DISCH CK TO SEAL WTR INJ FILTERS
CLOSED	CVT-C BG-V590	CCP "A" DISCH CK TO SEAL WTR INJ FILTERS

6.2.1 At panel RL001, verify PBG05A, Centrifugal Charging Pump 'A', is not running by observing green indicating light is illuminated for handswitch BG HIS-1A. ☑

6.2.2 If in Mode 4, 5 or 6, at panel RL001, verify BG HIS-1A is in PULL-TO-LOCK. ☑

NOTE: **Place gauge so that it can be read while operating EM-V151.**

6.2.3 Install 0-3000 psig test gauge at test connection downstream of EM-V143, BIT Bypass Line Test Connection Iso. ☑

6.2.4 Open EM-V087, BIT Bypass Line Test Connection Iso. ☑

		INIT/DATE
6.2.5	Open EM-V143, BIT Bypass Line Test Connection Iso.	☑
6.2.6	Verify locked open BG-8483C, PBG05B Discharge Header FCV-121 Inlet Iso.	☑
6.2.7	Unlock and close BG-8483A, PGB05A Discharge Header FCV-121 Inlet Iso.	☑
6.2.8	Open BG-V094, BG PI-119 Iso.	☑
6.2.9	Unlock and open EM-V246, CCP "A" BIT 1" Bypass Line Iso.	☑
6.2.10	Open or verify open EM-V120, SI Test Header to RHUT Iso.	☑
6.2.11	Close or verify closed BN-V004, SI Test Header to RWST Iso.	☑
6.2.12	At panel RL017, open EM HV-8964, SI System Test Line Outside Containment Iso., using handswitch EM HIS-8964.	☑
6.2.13	At panel RL017, open EM HV-8871, SI System Test Line Inside Containment Iso., using handswitch EM HIS-8871.	☑

INIT/DATE

6.2.14 At panel RL018, open EM HV-8843, Boron Injection Upstream Test Line Iso., using handswitch EM HIS-8843. ☑

6.2.15 Unlock and open EM-V151, BIT Bypass Iso., to bleed off pressure. ☑

6.2.16 Close EM-V151, BIT Bypass Iso. ☑

6.2.17 Maximize charging and letdown to 120 gpm. ☑

6.2.18 Record charging flow in table below as indicated by BG FI-121A, located on RL001, and verify required indication by circling either SAT or UNSAT. 10-29-94

BG-8481B Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FI-121A	120	≥120 GPM	SAT UNSAT

CAUTION: If charging flow drops <60 gpm, immediately open BG HV-8111.

6.2.19 At panel RL001, close BG HV-8111, CCP "B" mini-flow valve, using handswitch BG HIS-8111. ☑

INIT/DATE

CAUTION: **In step 6.2.20, RCP seal injection flow will bypass BG FE-121. When determining if letdown and charging are balanced, it will be necessary to add BG FI-121A and BG FI-215A to calculate total charging flow. When performing this procedure during solid plant operations where charging and letdown are manually controlled, RCS pressure should be closely monitored during the performance of this step to ensure that total charging flow (BG FI-121A plus BG FI-215A) and letdown remain balanced at approximately 120 gpm.**
[3.10]

6.2.20 Unlock and close BG-V100, Charging Pump Discharge Header to Seal Injection Iso., while simultaneously opening BG HV-8357B, using handswitch BG HIS-8357B located on panel RL001, to obtain a flow of approximately 32 gpm as indicated by BG FI-215A. ☑

6.2.21 At panel RL001, using BG HIS-8357A, crack open BG HV-8357A, CCP "A" Discharge to Seal Water Injection Filter Iso. ☑

INIT/DATE

6.2.22 Record seal water injection flow in table below as indicated by BG FI-215A, located on RL001, and verify required indication by circling either are SAT or UNSAT. 1 10-27-94

BG-V589 Exercise Open Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG FI-215A	32	≥24 GPM	(SAT) UNSAT

6.2.23 Record PBG05B discharge pressure as indicated by BG PI-119.

BG PI-119 2620 PSIG

6.2.24 Determine the pressure upstream of BG-V590 as follows:

6.2.24.1 **IF** pressure indicated by test gauge at EM-V143 is <2000 psig, **THEN** record indicated pressure below and mark steps 6.2.24.2 and 6.2.24.3 N/A. If pressure is >2000 psig, mark this step N/A and perform steps 6.2.24.2 and 6.2.24.3.

EM-V143 Test gauge pressure 400 PSIG

6.2.24.2 Open EM-V151, BIT bypass iso., until the pressure stabilizes and record indicated pressure below. Mark this step N/A if not performed.

EM-V143 test gauge pressure with EM-V151 open _____PSIG

INIT/DATE

6.2.24.3 Close EM-V151, BIT Bypass Iso. ☑

6.2.25 Calculate differential pressure across BG-V590.

(BG PI-119) 2620 - (EM-V143 temp gauge) 400 = 2220 ΔP ☑

6.2.26 Record the differential pressure across BG-V590 in table below and verify required indication by circling either SAT or UNSAT. ☑ / 10-24-94

BG-V590 Exercise Close Acceptance Criteria			
REFERENCE PARAMETER INDICATION	ACTUAL REFERENCE PARAMETER INDICATION	ACCEPTANCE CRITERIA	(circle one)
BG PI-119 MINUS EM V143 TEMP GAUGE	2220	ΔP≥50 PSID	(SAT) UNSAT

6.2.27 At panel RL001, close BG HV-8357A using hand ~~controller~~ switch BG ~~HCV~~ HIS-8357A.

☑ / 10-24-94 1st
☑ / 10-24-94 2nd

6.2.28 At panel RL001, open BG-V100 while simultaneously closing BG HV-8357B, using hand ~~controller~~ switch BG ~~HCV~~ HIS-8357B to maintain RCP seal flow >32 gpm as indicated by BG FI-215A. ☑

6.2.29 At panel RL001, open BG HV-8111 using handswitch BG HIS-8111.

☑ / 10-24-94 1st
☑ / 10-24-94 2nd

		INIT/DATE
6.2.30	Open and lock BG-V100, Charging Pump Disch HDR To Seal Wtr Injection Filters Iso.	10-24-94 1st 10-24-94 2nd
6.2.31	At panel RL001, close BG HV-8357B using hand ~~controller~~ switch BG ~~HCI~~ HIS 8357B.	10-24-94 1st 10-24-94 2nd
6.2.32	Close and lock EM-V246, CCP A BIT 1" Bypass Line Iso.	10-24-94 1st 10-24-94 2nd
6.2.33	**IF** train "A" is to be tested, **THEN** shift from PBG05B to PBG05A in accordance with SYS BG-201. **IF** testing on RCS charging is to be terminated, **THEN** reduce charging flow to normal as necessary for plant conditions, align charging as directed by the Shift Supervisor in accordance with SYS BG-201, and proceed to Restoration Section 7.0.	☑

7.0 RESTORATION

7.1	Close and lock EM-V151, BIT Bypass Iso.	10-24-94 1st 10-24-94 2nd

		INIT/DATE
7.2	Close EM-V143, BIT Bypass Line Test Conn.	1st 10-24-94 2nd 10-24-94
7.3	Close EM-V087, BIT Bypass Line Test Connection Iso.	1st 10-24-94 2nd 10-24-94
7.4	Remove 0-3000 psig test gauge from test connection EM-V143.	[
7.5	Replace cap downstream of EM-V143, BIT Bypass Line Test Connection.	1st 10/24/94 2nd 10/25/94
7.6	Open EM-V120, SI Test Header to RHUT Iso.	1st 10-24-94 2nd 10-24-94
7.7	Close BN-V004, SI Test Header to RWST Iso.	1st 10-24-94 2nd 10-24-94
7.8	At panel RL018, close EM HV-8843, Boron Injection Upstream Test Line Iso, using handswitch EM HIS-8843.	1st 10-24-94 2nd 10-24-94

INIT/DATE

7.9	At panel RL017, close EM HV-8871, SI System Test Line Inside Containment Iso, using handswitch EM HIS-8871.	1st / 10-24-94 2nd / 10-24-94
7.10	At panel RL017, close EM HV-8964, SI System Test Line Outside Containment Iso, using handswitch EM HIS-8964.	1st / 10-24-94 2nd / 10-24-94
7.11	Remove non-intrusive check valve test equipment from BB-8379A, CVCS Alt Chg Downstream CK Valve.	TB / 10/24/94 1st 2nd
7.12	Remove non-intrusive check valve test equipment from BB-8379B, CVCS Alt Chg Upstream CK Valve.	TB / 10/24/94 1st 2nd
7.13	Verify affected system and/or components have been aligned and/or returned to service per SS/SO's direction.	/ 10-24-94

COMMENTS:

* NON-INTRUSIVE TEST EQUIPMENT IS NOT INCLUDED IN WCNOC M&TE PROGRAM, HOWEVER, EQUIPMENT HAS BEEN CALIBRATED PER VENDOR, LIBERTY TECH, #Q1014 CAL'ED ON 9/1/94 DUE 3/1/95 THIS WAS QC'ED PRIOR TO TESTING WITH QUALITY CONTROL TB 10/24/94