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TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT

STARTUP TEST MANUAL

3-STM-001

REVISION 2

PREPARED BY: K. PINSON

PHONE: 3113

RESPONSIBLE ORGANIZATION: REACTOR ENGINEERING

APPROVED BY: J. L. LEWIS

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REVISION LOG

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Description of Change:

- General revision to reflect the latest changes in organization and responsibilities. STM-3.0 and STM-4.0 were cancelled due to changes in restart test program methodology. STM-12.0 was cancelled due to change in methodology for control of system boundaries for Unit 3 Return to Service. STM-5.0 and STM-6.0 were added to provide an internal method for satisfying SSP-8.50 and SSP-12.55 program requirements.

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STM-1.0

USE AND CONTROL OF THE STARTUP MANUAL

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1.0 PURPOSE

The purpose of this instruction is to delineate the use and control of the Startup Test Manual, 3-STM-001. This manual contains organizational instructions necessary for the execution of the integrated test plan for unit recovery.

2.0 SCOPE

This instruction provides guidance for use of, and defines the control mechanism for the Startup Test Manual (STM).

3.0 INSTRUCTIONS

3.1 Use and Control of the Startup Test Manual

NOTE: The STM provides instructions on the conduct of test activities related to unit recovery, and the manner in which requirements of other approved site procedures are executed. The STM neither deviates from, nor authorizes deviations from those other site documents.

3.1.1 The STM addresses the following aspects of the test organization internal activities:

- ° Use and control of the STM.
- ° System Test Specifications.
- ° Tracking and trending Test Deficiencies.
- ° System Readiness for Testing Assessment.
- ° Test Section files.

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3.1 Use and Control of the Startup Test Manual (Continued)

- 3.1.2 The STM derives its authority from SSP-8.50 "Restart Test Program".
- 3.1.3 The STM is divided into major sections, devoted to each major topic, "Use and Control of the Startup Manual", System Test Specifications", etc. Each section carries its own number, STM-1.0, STM-2.0, etc.
- 3.1.4 The STM is controlled in accordance with the site procedures process. Changes/revisions to the STM will be made in accordance with SSP-2.3, "Administration of Site Procedures", with the following specific guidance:
 - 3.1.4.1 The Joint Test Group (JTG) approves the initial issue of the STM.
 - 3.1.4.2 Subsequent Changes/Revisions to the STM are approved by the Restart Test Program (RTP) Manager, following performance of an Independent Qualified Review (IQR), 10 CFR 50.59 Review and any required affected section reviews.
 - 3.1.4.3 The format of each section of the STM will be similar to that identified for SSP's in SSP-2.2 "Writing Procedures".

3.2 General Description of the Integrated Test Program

- 3.2.1 The Unit 3 Recovery will include an Integrated Test Program, involving different organizations, and having elements stemming from different requirements. The principal elements include:
 - 3.2.1.1 The Design Baseline Verification Program - This program is comprised of system tests specified by the Engineering organization necessary to confirm the Safe Shutdown capability of the plant. The requirements are issued in document form as individual Baseline Test Requirements Documents (BTRDs), which are then used to develop Restart Test Requirements. SSP-8.50, "Restart Test Program" describes the test program conducted to satisfy these test requirements.

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3.2 General Description of the Integrated Test Program (Continued)

3.2.1.2 Plant Modifications - Modifications to the Unit are accomplished in accordance with two key procedures, both of which address test requirements, and the performance of post modification testing. SSP-9.3, "Plant Modification and Design Change Control", describes the Design Change Notice (DCN) process, including identification of test requirements. SSP-8.3, "Modification Test Program", describes the process used in determining those test requirements, how they are divided up into static and dynamic installation testing, and additional Post Modification Testing, and also provides details for the administration of this testing.

3.2.1.3 Other testing arises as a result of evaluations of system and/or component performance by the Technical Support organization, or to close open Punchlist items against the system. These test requirements will generally be satisfied by Technical Instructions, or special tests.

SSP-2.1, "Site Procedures Program" describes the different types of procedures described above. SSP-2.3, "Administration of Site Procedures" describes requirements applicable to all site procedures.

3.2.2 Test requirements are captured in the System Test Specification (STS) prepared by Technical Support in accordance with STM-2.0, "System Test Specifications".

3.2.3 All testing is performed in accordance with the requirements of SSP-8.1, "Conduct of Testing". However, there may be special test conduct requirements, depending on the type of test being performed. For example, SSP-8.3 delineates additional conduct of test requirements for the performance of Post Modification tests.

3.2.4 All individuals participating in test activities are responsible for ensuring that they are certified for the activities they perform. Test Directors are assigned in accordance with SSP-8.1, Conduct of Testing.

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4.0 DOCUMENTATION RECORDS

No records are generated by STM-1.0.

5.0 DEFINITIONS

Startup Test Manual (STM) - A document (3-STM-001) which contains the test organization instructions for execution of the integrated test plan for unit recovery.

System Test Specification (STS) - A document specifying the required testing to be performed on selected systems for return to service.

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6.0 REFERENCES

6.1 Requirements

SSP-8.50, Restart Test Program.

6.2 Interface Documents

SSP-2.1, Site Procedures.

SSP-2.3, Administration of Site Procedures.

SSP-2.2, Writing Procedures.

SSP-9.3, Plant Modifications and Design Change Control.

SSP-8.3, Modification Test Program.

STM-2.0, System Test Specifications.

SSP-8.1, Conduct of Testing.

SSP-8.4, Special Tests.

SSP-12.55, Unit 3 System Preoperability Checklist.

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2.0

SYSTEM TEST SPECIFICATIONS

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Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The number of transformed cells was determined by the number of colonies obtained on the selective medium. The results are the mean of three independent experiments. Error bars represent standard deviation.

1.0 PURPOSE

The purpose of this instruction is to describe the method by which System Test Specifications (STS) are prepared, reviewed, and approved to track the testing required for BFN Unit 3 Return to Service (RTS).

2.0 SCOPE

System Test Specifications are used to define the test requirements, their bases, and the test instructions which will be used to satisfy the test requirements, for RTS of selected BFN systems. The STS is intended to encompass all functional testing beyond the scope of installation and Minor Post Maintenance testing, for system return to service. Preventive maintenance items such as instrument calibrations are not included within the STS scope. Likewise, operability SI's performed after system return to service are not included.

Attachment A provides a listing of systems which require an STS for Unit 3 RTS. It is intended that each system subjected to the system pre-operability checklist (SPOC) process will have an STS.

The STS will be utilized as follows:

- ° Tracking of all testing required for system RTS.
- ° Elimination of duplicate testing.
- ° Combining test requirements where feasible to reduce the number of tests which must be written and performed.

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3.0 INSTRUCTION

3.1 STS Format and Content

An example STS format is shown in Attachment B. Each STS shall have a unique designation as follows; Unit-STIS-System Number.

For example, 3-STIS-001 is the system test specification for the Main Steam System on Unit 3. A description of the required contents of each column of the STS is provided in the following steps.

- 3.1.1 Test Requirement - Provide a narrative description of the test requirement. Use wording consistent with the base document that originated the test requirement.
- 3.1.2 Basis - List the origin of the test requirement, such as BTRD number or DCN number. If the base document contains numerous test requirements, specify the section or scoping document number. If the base document is a Retest Control Form (SSP-121) the DCN number will be provided for clarity.
- 3.1.3 Test Procedure - List the plant instruction to be used to accomplish the test requirement. If a Post Modification Test Package (PMTF) is being developed to satisfy the test requirement, the PMTF number may be listed in lieu of the individual plant instructions. If applicable, list the specific section of the test instruction which satisfies the test requirement.
- 3.1.4 Completion Date - As tests are completed, fill in the completion date.
- 3.1.5 Comments - Provide any necessary amplifying remarks.

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Yakima, Washington, June 1, 1900

3.2 Test Requirement Determination

The STS will be used to identify test requirements resulting from the following:

- ° Design Baseline Verification Program.
- ° Plant Modifications.
- ° Licensing Commitments.
- ° CAQ Program.
- ° Maintenance History Review.
- ° Unit 2 Test Program Review.

In addition, tests identified by the Post Maintenance Test Process, Operations, and Technical Support may be included in the STS. The objective is to capture all functional testing required for system RTS so that it can be scheduled and performed in an integrated manner, thereby eliminating redundancy, and allowing test requirements to be combined into fewer test procedures.

3.2.1 Design Baseline Verification Program (DBVP)

The DBVP is a design engineering program established to ensure configuration control for BFN unit recovery. As part of this program, baseline test requirements are generated to demonstrate safe shutdown requirements for the affected systems. All test requirements identified by the DBVP for a given system will be included in Section I of the STS for that system. There may be cases where a particular DBVP test requirement can be satisfied by testing identified for another system. Should this situation occur, the test requirement will be listed in both systems' STS, with amplifying remarks in the comments to explain the situation. All DBVP test requirements shall be included on a Restart Test Requirement Form (Form SSP-215).

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3.2 Test Requirement Determination (Continued)

3.2.2 Plant Modifications

Test requirements resulting from plant modifications are determined in accordance with SSP-8.3, Modification Test Program. As part of the ECN/DCN approval process, a Retest Control Form (SSP-121) is generated by the Technical Support Engineer, delineating the testing required as a result of that modification. The test requirements specified in Sections III and IV of the SSP-121 (Dynamic Installation Testing and Post Modification Testing) shall be included in Section II of the System Test Specification.

3.2.3 Unit 2 Test Program

Testing performed for Unit 2 RTS shall be reviewed for applicability to Unit 3. In particular the Unit 2 STS and RTP should be reviewed in detail, and justification provided for any tests excluded from the Unit 3 STS. Applicable test requirements identified by this review should be included in Section III of the STS.

3.2.4 Site Master Punchlist (SMPL)

The SMPL for the system shall be reviewed for items requiring resolution by test. The Technical Support System Engineer should be consulted if any questions arise from this review. Any applicable testing shown in SMPL that is not addressed elsewhere in the STS should be included in Section IV of the STS.

3.2.5 MPAC Data Base

The MPAC system contains maintenance history/status. A review of this data base should be performed to determine any testing necessary due to repetitive equipment failures or problems. Post Maintenance Testing which interfaces with other planned return to service testing may also be identified. Any testing identified by this review that is not addressed elsewhere in the STS should be included in Section V of the STS.

3.2.6 Additional Test Requirements

Any test requirements identified in addition to the above categories should be included in Section VI of the STS.

The comments section should be utilized to clarify the origin/reason for additional test requirements.



3.3 STS Review and Approval

The STS is a "Living Document" that will require updating and statusing throughout the RTS effort. For that reason, STS approval is accomplished in two (2) phases; (1) Concurrence with testing planned for system return to service, and (2) concurrence with testing performed for system return to service.

3.3.1 Concurrence with Testing Planned For System Return To Service

In conjunction with system preoperability checklist (SPOC) Phase I per SSP-12.55, the STS shall be reviewed and approved by the Technical Support Engineer and the System Supervisor. This shall be documented on the STS cover sheet (similar to example shown in Attachment B). This approval consists of concurrence with the planned system testing.

3.3.2 Concurrence with Testing Performed For System Return To Service

This function is performed during STS closure as outlined in Section 3.5.

3.3.3 Restart Test Program

Per the requirements of SSP-8.50, system test specifications which contain restart test program requirements shall be submitted for information in the joint test group review packages for the RTP test requirements Form (SSP-215) approval and the RTP test results package approval.

3.3.4 Following initial approval per 3.3.1 above, a master copy of the STS shall be placed in the system file. The official working copy shall be maintained by the assigned Technical Support engineer.

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3.4 STS Changes and Revisions

The STS may require changes, additions, and updates throughout the life of the document. Since the STS is a living document, it is not required to carry a revision number. Changes to the STS are controlled as follows:

- 3.4.1 Changes to Section I (Design Baseline Verification Program) must be based on an approved Form SSP-215, and do not require additional STS review or approval.
- 3.4.2 Changes to Section II (Plant Modifications) must be based on a new or revised Form SSP-121, and do not require additional STS review or approval.
- 3.4.3 Changes to any other section of the STS shall be made by rewriting the STS and submitting it for review and approval in accordance with Section 3.3.
- 3.4.4 The individual responsible for changing an STS shall:
 - A. OBTAIN the master file copy, make the necessary changes, and obtain any necessary approvals per the above requirements and
 - B. Insert approved changes into the official working copy of the STS.

3.5 STS Closure

When all test requirements contained in the STS have been satisfactorily completed, including approval of the test results, the STS can be closed. Normally this will coincide with the completion of the system pre-operability checklist per SSP-12.55.

- 3.5.1 Upon completion of the test requirements, the STS shall be updated to show all completion dates. The completion date entered for each test requirement should be the date of test results approval.
- 3.5.2 The STS shall be signed by the Technical Support Engineer and Systems Supervisor, and submitted to the Restart Test Manager for approval. The Restart Test Manager shall indicate approval by signature and date on the STS cover sheet.
- 3.5.3 A copy of the closed STS shall be transmitted to the Technical Support System Engineer. The original shall be maintained in the system files until completion of the program.

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4.0 DOCUMENTATION RECORDS

System Test Specifications shall be treated as QA records. Retention shall be until completion of the Integrated Test Program. They shall be maintained in the System Files per STM-7.0.

5.0 DEFINITIONS

System Test Specification - A document used to outline the testing required for return to service of critical BFN systems.

6.0 REFERENCES

SSP-6.50, Post Maintenance Testing.

SSP-8.3, Modification Test Program.

SSP-8.50, Restart Test Program.

SSP-12.55, Unit 3 System Pre-Operability Checklist.

7.0 ATTACHMENTS AND FORMS

Attachment A - Unit 3 Systems Requiring STS.

Attachment B - STS Example Format.

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ATTACHMENT A

UNIT 3 SYSTEMS REQUIRING SYSTEM TEST SPECIFICATIONS

SYSTEM NO	DESCRIPTION	STS NO
01	Main Steam	3-ST5-001
02	Condensate/Demineralizers	3-ST5-002
03/46	Reactor Feedwater/Feedwater Control	3-ST5-003
05	Extraction Steam	3-ST5-005
06	Heater Drains and Vents	3-ST5-006
10	RPV Vents and Drains	3-ST5-010
12	Auxiliary Boiler	3-ST5-012
20	Central Lube Oil	3-ST5-020
23	RHR Service Water	3-ST5-023
24	Raw Cooling Water	3-ST5-024
25	Raw Service Water	3-ST5-025
27	Condenser Circulating Water	3-ST5-027
30	Diesel/Reactor Building Ventilation	3-ST5-030
32	Control Air	3-ST5-032
33	Service Air	3-ST5-033
34	Vacuum Priming	3-ST5-034
35	Generator Hydrogen Cooling	3-ST5-035
37	Gland Seal Water	3-ST5-037
39	CO ₂ Storage and Fire Protection	3-ST5-039
40	Building Drains	3-ST5-040
43	Sampling and Water Quality	3-ST5-043
44	Building Heating	3-ST5-044
47	Turbine/Generator Control (EHC)	3-ST5-047
50	Sodium Hypochlorite	3-ST5-050
53	Demineralizer Backwash Air	3-ST5-053
55	Sequential Events Recorder/Annunciator	3-ST5-055
56	Temperature Monitoring	3-ST5-056
57-2	120V AC Inst. and Control Power	3-ST5-057-2
57-3	250V DC Distribution	3-ST5-057-3
57-4	480V AC Distribution	3-ST5-057-4
57-5	4KV Distribution	3-ST5-057-5
57-6	500KV/161KV Offsite & Misc Distr.	3-ST5-057-6
63	Standby Liquid Control	3-ST5-063
64A	Primary Containment	3-ST5-064A
64B	Containment Ventilation	3-ST5-064B
64D	Primary Containment Isolation	3-ST5-064A

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ATTACHMENT A (Continued)

SYSTEM NO	DESCRIPTION	STS NO
66	Offgas/Recombiner/Charcoal	3-STIS-066
67	Emergency Equipment Cooling Water	3-STIS-067
-68/96	Reactor Water Recirculation/Recirc Flow Control	3-STIS-068
69	Reactor Water Cleanup	3-STIS-069
70	Reactor Bldg Closed Cooling Water	3-STIS-070
71	Reactor Core Isolation Cooling	3-STIS-071
73	High Pressure Coolant Injection	3-STIS-073
74	Residual Heat Removal	3-STIS-074
75	Core Spray Cooling	3-STIS-075
76	Containment Inerting	3-STIS-076
77	Radwaste	3-STIS-077
78	Fuel Pool Cooling & Cleanup	3-STIS-078
79	Fuel Handling	3-STIS-079
80	Primary Containment Cooling	3-STIS-080
84	Containment Air Dilution	3-STIS-084
85	Control Rod Drive	3-STIS-085
90	Radiation Monitoring	3-STIS-090
92	Neutron Monitoring	3-STIS-092
94	Traversing Incore Probe	3-STIS-094
99	Reactor Protection	3-STIS-099
100/101	Penetrations and Sleeves/Fire Barriers	3-STIS-100
247	240V Lighting Emergency Lighting	3-STIS-247
260	Security/Fire Rated Doors	3-STIS-260
261	Plant Computer	3-STIS-261
303	Buildings and Structures	3-STIS-303

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ATTACHMENT B

STS EXAMPLE FORMAT

STS COVER SHEET

3-STIS-_____

Prepared By _____ Date _____

I concur with the testing as currently planned for return to service of this system.

Technical Support Engineer Date _____

Systems Supervisor Date _____

I concur with the testing performed for return to service of this system.

Technical Support Engineer Date _____

Systems Supervisor Date _____

Restart Test Manager Date _____

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ATTACHMENT B (Continued)

3-ST5-_____

Page ____ of ____

<u>TEST REQUIREMENT</u>	<u>BASIS</u>	<u>TEST PROCEDURE</u>	<u>COMPLETION DATE</u>	<u>COMMENTS</u>
<u>I. RESTART TEST REQUIREMENTS</u>				
1. LPCI INITIATION AND AUTOMATIC REALIGNMENT	3-BFN-BTRD-074 Att. A	3-SI-4.2.B-45A(B)(I)	_____	
		3-SI-4.2.B-45A(B)(II)	_____	
		3-SI-4.2.B-45A(C)(I)	_____	
		3-SI-4.2.B-45A(C)(II)	_____	
2. DEMONSTRATE DRYWELL SPRAY MODE OF CONTAINMENT COOLING	Att. B	<u>3-SI-4.5.A.1</u>	_____	
<u>II. MODIFICATION TEST REQUIREMENTS</u>				
1. VERIFY RHR PUMP FLOW RATES	DCN XXXX	<u>3-PMTP-BF-074.085</u> *(<u>3-SI-4.5.A.1</u>)	_____	RHR PUMP IMPELLER REPLACEMENT
2. VERIFY SYSTEM VIBRATION ACCEPTABLE	DCN YYYY	<u>PMT-222</u>	_____	V-NOTCH DISK REPLACEMENT

* Individual Plant Instructions are not required to be listed.

STM-3.0

THIS STM SECTION HAS BEEN CANCELLED

REASON: SSP-8.50, Restart Test Program, was revised to delete preparation and review of test procedures. All testing will be conducted using site instructions.

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STM-4.0

PROCEDURE REVIEW

THIS STM SECTION HAS BEEN CANCELLED

REASON: SSP-8.50, Restart Test Program, was revised to delete conduct of test requirements. All testing will be conducted using site instructions and in accordance with SSP-8.1, Conduct of Testing.

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STM-5.0

TRACKING AND TRENDING OF TEST DEFICIENCIES

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1.0 PURPOSE

The purpose of this instruction is to identify the method used for tracking and trending test deficiencies associated with Restart Test Program (RTP) test requirements.

2.0 SCOPE

The Restart Test Program is governed by SSP-8.50. Test requirements identified within this program are satisfied by performance of site instructions, such as SI's, TI's, Post Modification Tests, etc. Test deficiencies (TD's) encountered during the performance of these tests which fall within the scope of testing performed to satisfy RTP test requirements will be tracked to ensure proper closure with consideration of the RTP, and trended to provide an assessment of the overall effectiveness of the RTP.

3.0 INSTRUCTIONS

- 3.1 Plant instructions used to satisfy RTP requirements are identified on Form SSP-215 in accordance with SSP-8.50. The RTP Manager/Systems supervisor will assign a Technical Support Engineer to review the test results of these instructions as they are completed for adequacy as Restart Test Results.
- 3.2 The assigned Technical Support Engineer will evaluate any test deficiencies generated during the test for affect on the test results as they apply to the RTP.
- 3.3 The assigned Technical Support Engineer will make copies of all TD's related to RTP required testing (open or closed) and forward them to the RTP Manager for tracking and trending purposes. Any Documentation related to TD disposition or closure contained in the test package should also be copied and forwarded with the TD. The Technical Support Engineer should ensure that all open TD's are identified on the Site Master Punchlist (SMPL).
- 3.4 The RTP Manager shall assign an individual to perform TD tracking and trending activities as detailed below:
 - A. Ensure open TD's appear on SMPL.
 - B. Code all TD's in accordance with Appendix A.
 - C. Log all TD's in accordance with Appendix A.

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1. The first part of the document is a list of names and addresses. The names are: John Doe, Jane Doe, and John Doe. The addresses are: 123 Main St, 456 Main St, and 789 Main St.

- 3.5 The RTP Manager will evaluate any trends identified from the coding process of Step 3.4.C for further corrective action per SSP-3.4. A matrix of all TD's and their corresponding codes shall be maintained in a format similar to Appendix B.
- 3.6 The RTP Manager will produce periodic reports to site management during the RTP Program implementation detailing the overall status and the program results to date. An assessment of TD trending will be included in these reports.
- 3.7 The RTP Test Deficiency Log shall be updated as TD status changes to provide an accurate account of open and closed TD's.

4.0 DOCUMENTATION RECORDS

4.1 QA Records

None.

4.2 Non-QA Records

Reports generated in accordance with this instruction are non-QA records, and shall be retained until completion of the Restart Test Program.

5.0 DEFINITIONS

None.

6.0 REFERENCES

6.1 Source Documents

SSP-8.50, Restart Test Program.

6.2 Developmental References

SSP-8.1, Conduct of Testing.

SSP-3.4, Corrective Action Program.

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1. *Chlorophyll a* (Chl *a*) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum.

APPENDIX A
RTP TEST DEFICIENCY CODES

INSTRUCTIONS

- A. Categorize each test deficiency affecting an RTP test requirement per the table below.
- B. Assign the corresponding code number to the test deficiency.
- C. Log the instruction, TD number, code assignment, date assigned and status in the RTP Test Deficiency Log. An example log sheet is shown on Page 2 of this appendix.

TEST DEFICIENCY CATEGORIES

<u>CODE</u>	<u>CATEGORY</u>
1.1	Equipment Malfunction (equipment does not operate or fails during operation)
1.2	Equipment Performance (equipment fails to meet design requirements)
2.1	Procedure Error (TD caused by error in procedure)
2.2	Procedure Performance (TD caused by improper procedure performance)
2.3	Plant Conditions (TD caused by unavailable equipment or support items)
3.1	Test Director Error (personnel error caused TD)
3.2	Support Personnel Error (personnel error)
4.0	Instrumentation Calibration (as found data out of tolerance)
5.0	Other Issues (miscellaneous)

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APPENDIX A (Continued)
RTP TEST DEFICIENCY CODES
TEST DEFICIENCY LOG

BTRD NO: _____

<u>INSTRUCTION</u>	<u>TD NO.</u>	<u>CODE</u>	<u>DATE</u>	<u>STATUS</u>
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APPENDIX B
TEST DEFICIENCY MATRIX

<u>SYSTEM</u>	<u>1.1</u>	<u>1.2</u>	<u>2.1</u>	<u>2.2</u>	<u>3.1</u>	<u>3.2</u>	<u>4.0</u>	<u>5.0</u>	<u>TOTAL</u>
001									
003									
010									
023									
024									
027									
27C									
032									
043									
047									
57-4									
57-5									
063									
64A									
64B									
64D									
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W. J.

.....STM-6.0

SYSTEM READINESS FOR TESTING

FOR INFORMATION ONLY



1.0 PURPOSE

The purpose of this instruction is to define the method for accepting test data to satisfy Restart Test (RTP) requirements for testing performed prior to Phase I SPOC of the affected system.

2.0 SCOPE

This instruction applies to all testing conducted prior to Phase I SPOC (as defined in SSP-12.55) which is to be used to satisfy an RTP test requirement (as defined in SSP-8.50).

The Phase I SPOC checklist provides an assessment of system readiness for testing. However, there are certain tests, such as instrument calibrations, dynamic work plan testing, ASME check valve inspections, etc., that are performed prior to the Phase I SPOC but are desirable for use in the RTP.

This instruction provides the method for evaluating these tests to ensure they were performed under conditions that make them acceptable as RTP test results, and to ensure that no field activities performed subsequent to testing but prior to Phase I SPOC affect the test results.

3.0 INSTRUCTIONS

3.1 An assessment of readiness for testing shall be performed for each test conducted prior to Phase I SPOC. This evaluation shall be documented in a format similar to Appendix A. The evaluation may be performed prior to or following the test. If it is performed following the test the conditions existing at the time of the test must be reconstructed from historical data. The following areas will be evaluated:

- A. Modification Status - List all current outage ECN's and DCN's affecting the equipment to be tested which are not closed (RIO) at the time of testing. This may be accomplished by listing affected Work Plans and their status. Provide a written justification that open modification work does not impact the test.

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3.1 (Continued)

- B. Maintenance Status - List all open Work Orders and Work Requests within the test boundary. Provide a written justification that open maintenance work does not impact the test.
- C. TACF Status - List any open TACF's within the test boundary. Provide a written justification that open TACF's do not impact the test.

3.2 The completed readiness assessment should be filed with the applicable Form SSP-215.

3.3 At completion of the Phase I SPOC checklist, the readiness assessment should be closed. This is accomplished by providing a determination that no field work or design document changes implemented after test completion but prior to Phase I SPOC invalidate the test results. This determination shall be documented on the readiness assessment form (Appendix A).

3.4 If it is determined that testing performed prior to Phase I SPOC is impacted by subsequent field work or documentation changes, that testing will not be used to satisfy any RTP test requirement.

3.5 The completed assessment shall be attached to the test data included in the RTP Test Results Package, prepared in accordance with SSP-8.50.

4.0 DOCUMENTATION RECORDS

4.1 QA Records

Readiness Assessments generated in accordance with this instruction shall be treated as QA records and included in the RTP test results package.

4.2 Non-QA Records

None.

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5.0 DEFINITIONS

Readiness Assessment - An evaluation performed to determine and document the acceptability of testing performed prior to Phase I SPOC to satisfy Restart Test Requirement.

6.0 REFERENCES

6.1 Source Documents

SSP-8.50, Restart Test Program.

6.2 Developmental References

SSP-12.55, Unit 3 System Preoperability Checklist.

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APPENDIX A
READINESS ASSESSMENT

TEST INSTRUCTION _____ BTRD _____

I. SYSTEM READINESS FOR TESTING EVALUATION

MODIFICATION STATUS (List open ECN's and DCN's)

Justification

MAINTENANCE STATUS (List open Work Orders and Work Requests)

Justification

TACF STATUS (List open TACF's)

Justification

PREPARED BY _____ / _____
Technical Support Date

II. DETERMINATION OF ACCEPTABILITY OF TEST RESULTS

THE STATUS ABOVE HAS BEEN COMPARED TO THOSE AT PHASE I SPOC CHECKLIST
COMPLETION. NO SUBSEQUENT WORK OR DOCUMENTATION CHANGES INVALIDATE THIS
TEST.

Technical Support / Date

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A 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

STM-7.0

TEST SECTION FILES

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1.0 PURPOSE

The purpose of this instruction is to describe the method of maintaining Test Section files. These files are used by Technical Support to status, track, and manage unit recovery activities.

2.0 SCOPE

The requirements of this STM apply to the files maintained by the Restart Test Manager, and do not apply to personal files maintained by individuals within any group. The Test Section files are categorized into three areas; general files, system files, and record files.

Based on expected recovery work scope, the minimum list of systems for which system files will be maintained is indicated in Attachment A of STM-2.0.

3.0 INSTRUCTION

3.1 File Administration

3.1.1 The RTP Manager shall appoint an individual who shall be responsible to maintain Test Section files.

3.1.2 Each Technical Support System Engineer will assist in maintaining the files for his assigned systems.

3.2 General Files

3.2.1 A set of general files shall be maintained, to include such items as:

- Joint Test Group Minutes/Correspondence.
- Restart Test Program Correspondence.
- Post Modification Test Number Issue Log.
- Progress Reports.
- Internal Organization Correspondence.

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3.3 System Files

3.3.1 For each system listed in Attachment A of STM-2.0, a set of files is maintained, which will be used to store items such as the following:

- ° Baseline Test Requirements Document (BTRD).
- ° System Test Specification (STS).
- ° Document Review Comments (OPTIONAL).
- ° Restart Test Requirements Forms (Form SSP-215).
- ° Post Modifications Tests (OPTIONAL).
- ° Other items as deemed necessary by the Technical Support Engineer.

3.3.2 Plant Modifications Documentation (SSP-75 packages, SSP-83, SSP-92, SSP-121, ETC.) shall be maintained in a file by DCN number.

3.3.3 Information Copies of Design Change Notices (DCNs) shall be maintained in a file by DCN number.

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3.4 Records Files

3.4.1 Originals of Test Personnel Qualification records, completed test data, and records of tests in progress must be handled in accordance with the Temporary Storage Controls of SSP-2.9, "Records Management".

3.4.2 As soon as possible after final approval of a test data package, the original of the package shall be transmitted to RM for storage of permanent records, in accordance with SSP-2.9. A copy may be placed in the System Files.

4.0 DOCUMENTATION RECORDS

4.1 The General and System Files are non-QA, as they are generally copies of QA documents, or non critical correspondence.

4.2 Original test data packages are permanent QA records stored in accordance with SSP-2.9.

4.3 Retention of all other Test Section files shall be until completion of the Restart Test Program.

5.0 DEFINITIONS

System Boundary Drawing (SBD) Package - A group of drawings marked up to indicate the extent of a system as defined for activity required to return that system to service.

6.0 REFERENCES

SSP-2.9, Records Management.

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STM-12.0

SYSTEM BOUNDARY DRAWINGS

THIS STM SECTION HAS BEEN CANCELLED

REASON: Identification of Systems for Unit 3 Return to Service activities are controlled within the System Preoperability Checklist process per SSP-12.55.

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