DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	G. A. Ritter	Date 11/21/94
Project Title/Work Order		EDT No. 605835
Acceptance Test Procedure, 241-SY-101 Flexible Receiver System, Phase III Testing		ECN No. NA

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
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NOV 29 1994 (21) Sta. 21

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT 605835

2. To: (Receiving Organization)	3. From: (Originating Organization)	4. Related EDT No.:
See Distribution List	Nuclear Analysis and Characterization	NA
5. Proj./Prog./Dept./Div.:	6. Cog. Engr.:	7. Purchase Order No.:
241-SY-101	G. A. Ritter	NA
8. Originator Remarks: See attached Acceptance Test Procedure for the 241-SY-101 Flexible Receiver System Phase III Testing for your approval.		9. Equip./Component No.: NA
		10. System/Bldg./Facility: 241-SY-101
11. Receiver Remarks:		12. Major Assm. Dwg. No.: NA
		13. Permit/Permit Application No.: NA
		14. Required Response Date: ASAP

15. DATA TRANSMITTED

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1.	WHC-SD-WM-ATP-093	All	0	Acceptance Test Procedure, 241-SY-101 Flexible Receiver System, Phase III Testing	SQ	1		

16. KEY

Impact Level (F)	Reason for Transmittal (G)	Disposition (H) & (I)
1, 2, 3, or 4 (see MRP 5.43)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Impact Level for required signatures)

(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.
1	1	Cog.Eng.	GA Ritter	11/22/94	H0-38						
1	1	Cog. Mgr.	CE Hanson	11/25/94	H5-09						
1	1	QA	ML McElroy	11/28/94	S1-57						
1	1	Safety	LS Krogsrud	11/28/94	R3-08						
		Env.									
1	1	Proj/Prog.	JW Lentsch	11/28/94	R2-78						
1	1	Other	MJ Ostrom	11/28/94	H5-68						

18. G. A. Ritter 11/22/94
Signature of EDT Originator — Date

19. C. E. Hanson 11/25/94
Authorized Representative for Receiving Organization — Date

20. H. Toffer 11/23/94
Cognizant/Project Engineer's Manager — Date

21. DOE APPROVAL (if required) Ltr. No.
[] Approved
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[] Disapproved w/comments

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Document Title:	Acceptance Test Procedure, 241-SY-101 Flexible Receiver System, Phase III Testing
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This document was reviewed following the procedures described in WHC-CM-3-4 and is:

APPROVED FOR PUBLIC RELEASE

WHC Information Release Administration Specialist:

Niki L. Solis — 11/29/94

Niki L. Solis

11/29/94
KN

SUPPORTING DOCUMENT

1. Total Pages 31

2. Title	3. Number	4. Rev No.
Acceptance Test Procedure, 241-SY-101 Flexible Receiver System, Phase III Testing	WHC-SD-WM-ATP-093	0

5. Key Words

Phase III
mitigation
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6. Author

Name: G. A. Ritter

G. A. Ritter 11/22/94
Signature

Organization/Charge Code 8D520/N2B2K

7. Abstract

This Acceptance Test Procedure is for the 241-SY-101 Flexible Receiver System, Phase III Testing. This procedure will test the sealing integrity of the Flexible Receiver System to ensure that release of waste and aerosols will be minimized during the removal of the test mixer pump from tank SY-101.

8. RELEASE STAMP

OFFICIAL RELEASE BY WHC
DATE NOV 29 1994
Sta. 21

CONTENTS

ACCEPTANCE TEST PROCEDURE
241-SY-101 FLEXIBLE RECEIVER SYSTEM
PHASE III TESTING

1.0 INSTRUCTION SECTION

1.1 PURPOSE/SCOPE

The purpose of this acceptance test procedure is to provide a means of verifying that the 101-SY Flexible Receiver System (FRS) is capable of performing its intended function adequately by meeting specified test criteria. This procedure will test the sealing integrity of the flexible receiver system to ensure that the release of waste and aerosols will be minimized during the removal of the test mixer pump from tank SY-101. This test procedure encompasses test requirements for the Phase III test as defined in WHC-SD-WM-TP-257, *Test Plan for Qualification Testing of the 241-SY-101 Flexible Receiver System.*

The Phase III test consists of two parts. Part one consists of a water leak test of the seal between the blast shield and mock load distribution frame (LDF) to ensure that significant contamination of the pump pit and waste interaction with the aluminum impact-limiting material are prevented during the pump removal operation. The second part of this acceptance test will be an air leak test of the assembled flexible receiver system. This test is intended to verify that the release of hazardous aerosols will be minimized if the tank dome pressure becomes slightly positive during the wash down of the pump. All parts of this test must be completed before the FRS is either rejected or accepted. The test will be performed three times and the maximum leak volume or leak rate will be used to determine the acceptability from this test. Testing is scheduled to begin in early-December, 1994 and will take approximately 7 - 10 days to complete.

1.2 REFERENCES

WHC, 1994a, *Test Plan for Qualification Testing of the 241-SY-101 Flexible Receiver System*, WHC-SD-WM-TP-257, Westinghouse Hanford Company, Richland, Washington.

WHC, 1994b, *Flexible Receiver Drawing Tree*, drawing H-2-821385, Rev. 0, Draft, Westinghouse Hanford Company, Richland, Washington.

WHC, 1994c, *Flexible Receiver Assembly*, drawing H-2-821386, Rev. 0, Draft, Westinghouse Hanford Company, Richland, Washington.

WHC, 1994d, *Flexible Receiver Bag Assembly*, drawing H-2-821391, Rev. 0, Draft, Westinghouse Hanford Company, Richland, Washington.

WHC, 1994e, *Flexible Receiver Installation*, drawing H-2-821392, Rev. 0, Draft, Westinghouse Hanford Company, Richland, Washington.

WHC, 1994f, *Flexible Receiver Pump Cap*, drawing H-2-821393, Rev. 0, Draft, Westinghouse Hanford Company, Richland, Washington.

WHC, 1994g, *Flexible Receiver Mock Pump Top*, drawing H-2-821394, Rev. 0, Draft, Westinghouse Hanford Company, Richland, Washington.

DOE-RL, 1992, *Hanford Site Hoisting and Rigging Manual*, DOE-RL-92-36, U.S. Department of Energy Field Office, Richland, Washington.

1.3 RESPONSIBILITIES

1.3.1 Equipment Removal System Cognizant Manager

- Responsible for overall control of the Equipment Removal System (ERS), including the testing of the FRS.
- Assigns responsibilities related to the ERS, which includes the FRS.

1.3.2 Equipment Removal System Project Engineer

- Identifies and specifies requirements for the ERS.
- Approves test procedures and criteria changes as required.
- Provides technical expertise during testing of the FRS.
- Approves acceptability of test activities and results.

1.3.3 FRS Cognizant Engineer

- Responsible for preparing test specifications and procedures.
- Identifies equipment and facilities for the acceptance test.
- Acts as a liaison between the participants in FRS testing.
- Ensures informal testing and inspection is complete.
- Provides guidance and technical expertise during the acceptance test.
- Designates a recorder for this ATP.
- Takes necessary action to clear exceptions to this ATP.
- Approves acceptability of test activities and results.

1.3.4 Quality Assurance Manager

- Assigns and manages Quality Assurance representatives to participate in the FRS testing.

1.3.5 Quality Assurance Representative

- Approves Acceptance Criteria changes.
- Witnesses the acceptance test.
- Evaluates results of testing and approves field changes and exceptions to the ATP.
- Assists in maintenance and control of test records.

1.3.6 Safety Engineering

- Reviews the test procedure and specifications for safety conformance.
- Provides test facility inspection and support as needed to conduct testing within the safety standards of WHC.

1.3.7 Equipment Development Group Manager

- Assigns personnel to perform this acceptance test.
- Responsible for training of personnel who will be performing the test.

1.3.8 Equipment Development Group Technicians

- Responsible for transporting equipment to the test facility.
- Responsible for equipment set-up and instrument calibration, if necessary.
- Assists the FRS cognizant engineer in performing this acceptance test.

1.3.9 Test Recorder

- Observes test, records test data using black ink, and maintains Test Log (Appendix D).
- Records names of all designated personnel on the Test Execution sheet (Appendix E) on the Test Control copy of the ATP prior to testing.
- Initials and dates every test step on the Test Control copy as it is completed, next to the step number or on a table, when provided.
- Records authorized field changes to the ATP.

- Records exceptions and test steps that are not performed on a Test Exception sheet (Appendix C). Additional Exception sheets will be reproduced as needed.

- Assigns page numbers to Test Data sheets and Test Exceptions sheets after the ATP is complete, and submits the completed Test Control copy of the ATP for approval signatures.

1.4 SYSTEM DESCRIPTION

The FRS is one of six major components of the Equipment Removal System, which has been designed to retrieve, transport, and store the existing mixer pump that may require removal from Tank 241-SY-101. The FRS is designed to function as a waste/aerosol-containment device during the removal and handling of the mixer pump prior to insertion of the pump into the storage container.

The FRS consists of a containment bag, pump cap, blast shield, and gamma detector system. The containment bag is a long cylindrical fiber-reinforced plastic bag that is slipped over the pump as it is lifted from the tank. The bag is 1.7 m (67 in.) in diameter, and approximately 17.4 m (57 ft.) long. A manually operated cinching mechanism closes the bag bottom and pulls it up to one side of the pump. The pump cap is a two-piece sheet-metal cap that is used to seal off the top of the pump above the mounting flange and provides a sealing interface between the bag and pump. The blast shield is a large diameter steel cylinder that provides a sealing surface to the load distribution frame (LDF) and contains the spray water from the high pressure nozzles located in the LDF. The blast shield protects the containment bag from the impingement of the wash water blast and also supports the containment bag prior to the pump removal. The gamma detector system is mounted to the base of the blast shield to measure dose rates as the pump is lifted from the tank.

Other equipment associated with the FRS includes the lifting yoke, the yoke brace, and the aluminum stages. The lifting yoke is a below-the-hook lifting device that is used to lift the test mixer pump. It attaches to the two lugs on the pump mounting flange. The yoke brace secures the yoke to the upper pump column so that the crane can be disconnected from the yoke and the FRS can be lowered over the yoke and onto the LDF. The aluminum stages serve as access platforms for rigging and manual manipulation of attachment hardware.

1.5 TEST CONDITIONS AND EQUIPMENT REQUIRED

The Phase III test will be conducted at the 300 Area in Building 306E. Part one of this acceptance test consists of a water leak test for the seal between the blast shield and a mock LDF. The FRS water leak test will be performed by setting the blast shield on the mock LDF and engaging the blast shield latches. The blast shield and mock LDF assembly will then be filled with water to obtain several different static pressures on the seal between the blast shield and the mock LDF. A catch basin that is built into the mock LDF will be used to collect water that leaks through the seal. The volume of water that leaks through the seal during a 1 hour time period will be measured

and recorded for each pressure. This process will be repeated for a total of three tests.

This part of the acceptance test does not have specific test criteria. During the actual pump removal, administrative controls will be in place to prevent water accumulation inside the blast shield. A static head of water on this seal will result only if the controls fail. Therefore, the results from this part of the test are for information only.

Part two of this acceptance test consists of an air leak test of the assembled FRS. The intent of this test is to assemble the FRS in the same manner as would be done in preparation for an actual pump removal. The bag will be assembled on the blast shield and sealed to the blast shield by pressurizing the inflatable seal. The blast shield will be set on the mock LDF and the latches will be engaged and tightened. The pump cap assembly will be attached to a test fixture that mocks up the top of the pump and this test fixture will be suspended by an overhead crane. Finally, the bag will be attached to the pump cap and sealed using band clamps.

The assembled system will then be pressurized to 250 Pa (1.0 in. H_2O) using the 306E building standard air supply. The system's internal pressure will be monitored and the flow rate required to maintain the system steady-state pressure at 250 Pa (1.0 in. H_2O) will be measured and recorded. This process will be repeated three times, and the maximum flow (leak) rate will be used to determine the acceptability of the test. If the results of the three tests vary by more than 25% from lowest to highest flow rates, the test shall be repeated until the test witnesses concur that the results are satisfactorily consistent. If the measured maximum leak rate through the system is less than 2.4×10^{-3} m^3/s (5 ft^3/min) at 250 Pa (1.0 in. H_2O) internal pressure, then the FRS will be functioning as intended and the test shall be considered satisfactory.

The following equipment will be required for this ATP:

- Containment bag approximately 17.4 m (57 ft.) in length
- Pump-cap assembly
- Blast shield assembly
- Test fixture to mock up the top of the pump (pump flange and lifting lugs)
- Mock LDF with spray-ring housing and catch basin with a minimum capacity of 18.9 L (5 gal)
- Crane with a minimum 3-m (10-ft) lift height and 900-kg (1-ton) lift capacity or other support structure for suspending the test fixture and bag
- Dry compressed-air source with assorted hoses and connections
- Flow meter with a minimum range of 0 to 4.7×10^{-3} m^3/s (0 to 10 ft^3/min) and a minimum precision of $\pm 2.35 \times 10^{-4}$ m^3/s (0.5 ft^3/min).

- One pressure transducer with a minimum range of 0 to 500 Pa (0 to 2 in. H_2O) and a minimum precision of ± 25 Pa (0.1 in. H_2O)
- Water source with assorted hoses and connections
- Minimum 1.5-m- (5-ft-) long tape measure for measuring depth of water in blast shield and catch basin
- Graduated cylinder with minimum precision of 0.4 L (0.1 gal.) for measuring water leak volume.

1.6 ACCEPTANCE TEST

The test is to be performed per the following sequence of step-by-step instructions.

1.6.1 Preliminary Conditions

The following shall be satisfactorily completed before performing Section 1.6.2.

____ **1.6.1.1** All equipment (listed in Section 1.5) required for the test is located at the test site.

____ **1.6.1.2** The containment bag has been inspected for workmanship and for compliance with design.

____ **1.6.1.3** The blast shield assembly and pump cap assembly have been inspected for workmanship and for compliance with design.

____ **1.6.1.4** All rigging meets the inspections requirements in the *Hanford Site Hoisting and Rigging Manual*, DOE-RL-92-36.

____ **1.6.1.5** All nameplates, equipment tags, etc. are installed/attached.

____ **1.6.1.6** All test instruments requiring calibration have a currently valid calibration stamp attached that indicates a calibration traceable to the National Institute of Standards and Testing.

____ **1.6.1.7** Personnel responsible for directing and witnessing the performance of the test described in this ATP have read and understand their roles.

____ **1.6.1.8** A representative from the 300 area Industrial Health and Safety has performed a job walk down, a Pre-Job Safety Meeting has been conducted, and a Hanford Job Hazard Analysis Checklist and a 306E Specific Job Hazard Analysis have been completed.

____ **1.6.1.9** All personnel have hard hats, safety glasses, and safety shoes with steel or fiberglass toes to be worn during crane operation.

1.6.2 Blast Shield Water Leak Test Setup

____ **1.6.2.1** Verify that all of the steps in section 1.6.1 are complete.

____ **1.6.2.2** Place the mock LDF with catch basin on a support framework (such as wood blocks) so that water can be easily drained from the LDF catch basin.

____ **1.6.2.3** Using a waterproof marker, mark elevations of 2.5 cm (1 in.), 7.6 cm (3 in.), and 25.4 cm (10 in.) above the blast shield

bottom gasket on the inside of the blast shield for future reference.

____ 1.6.2.4 Attach rigging to the blast shield and lift onto the LDF. Engage and tighten the four latches between the blast shield and the mock LDF per the FRS cognizant engineer's directions. Refer to drawing H-2-821392. Verify that the gasket between the blast shield and LDF is in its proper seating location.

____ 1.6.2.5 Connect the water hose to the water supply.

1.6.3 Blast Shield Water Leak Test Procedure

____ 1.6.3.1 Verify that all steps in section 1.6.2 are complete.

____ 1.6.3.2 Fill the LDF and blast shield assembly with water to the 25.4 cm (10 in.) mark on the inside of the blast shield.

____ 1.6.3.3 Record the current time on the test data sheet after the water level above has been reached.

____ 1.6.3.4 Observe seal for water leakage and record comments on the test data sheet and/or Test Log (Appendix D).

____ 1.6.3.5 At the end of 1 hour, drain the water from the blast shield to below the seal elevation and record current time on test data sheet.

____ 1.6.3.6 Drain the water (if any) from the catch basin and measure the volume using a graduated cylinder. Record the volume of water that leaked on the test data sheet.

____ 1.6.3.7 If leakage occured during the test, repeat steps 1.6.3.2 through 1.6.3.6 inclusive for a blast shield water level of 7.6 cm (3 in.). If leakage occurs for a water level of 7.6 cm (3 in.), then repeat steps 1.6.3.2 through 1.6.3.6 inclusive for a water level of 2.5 cm (1 in.).

____ 1.6.3.8 Repeat steps 1.6.2.4 through 1.6.3.7 inclusive two more times for a total of three identical tests.

1.6.4 FRS Air Leak Test Setup

____ 1.6.4.1 Verify that all of the steps in section 1.6.3 are complete.

____ 1.6.4.2 Attach rigging to the blast shield and lift onto the LDF. Engage and tighten the four latches between the blast shield and the mock LDF. Verify that the gasket between the blast shield and LDF is in its proper seating location (NA if already completed).

____ 1.6.4.3 Seal the containment bag to the outside of the blast shield by pressurizing the inflatable seal to 240 ± 14 kPa (35 ± 2 psi). Refer to drawing H-2-821392.

____ 1.6.4.4 Install pump cap assembly on the mock pump test fixture by inserting and tightening the provided bolts per drawing H-2-821392.

____ 1.6.4.5 Attach containment bag to mock pump test fixture by connecting the bag cable assembly around the 0.4 m (16 inch) test fixture upper column per drawing H-2-821392.

____ 1.6.4.6 Seal the containment bag to the pump cap assembly using band clamp per drawing H-2-821392.

____ 1.6.4.7 Attach rigging to the mock pump test fixture and lift the pump cap and bag assembly to an elevation that will locate the top of the bag approximately 1.5 m (5 feet) above the top of the blast shield.

____ 1.6.4.8 The bag is equipped with two inflation/deflation valves: one for filling the assembly with air and the other for measuring internal pressure. Connect the hose from the building standard air supply to the flow meter and connect a hose from the flow meter to the bag fill valve. Connect the pressure transducer to the second bag valve and to the power supply/readout unit. Record the initial pressure transducer reading on the test data sheet.

____ 1.6.4.9 Lower and raise the mock pump test fixture approximately 1.5 m (5 feet) 5 times to simulate actual pump removal that could potentially loosen seals on the FRS. For the final position, locate the top of the bag approximately 1.5 m (5 feet) above the top of the blast shield.

1.6.5 FRS Air Leak Test Procedure

____ 1.6.5.1 Verify that all of the steps in section 1.6.4 are complete.

____ 1.6.5.2 Slowly open the valve from the building air supply and begin filling the flexible receiver assembly with air. Verify that the flow meter is functional and indicating flow. If not functional, close air supply valve, and inspect the flow meter for damage. Repair/replace as required.

____ 1.6.5.3 Fill system with air at a rate of approximately 2.4×10^{-3} m^3/s (5 ft^3/min). Assuming no major leaks, it should take less than 1 minute to pressurize the system to 250 Pa (1.0 in. H_2O) at this fill rate. Observe pressure transducer readout and close air supply valve when internal gage pressure reaches 250 Pa (1.0 in. H_2O).

____ 1.6.5.4 Allow internal pressure to stabilize. Again slowly open air supply valve and adjust valve position until a steady-state

condition is obtained, i.e., the flow rate into the system equals the leak rate out of the system such that the internal gage pressure is maintained at a minimum 250 Pa (1.0 in. H_2O). Record final pressure transducer reading on test data sheet.

____ **1.6.5.5** Record the steady-state flow rate above on the test data sheet. Close air supply valve. Record comments from observations on the Test Log (Appendix D).

____ **1.6.5.6** Repeat steps 1.6.4.2 through 1.6.5.5 inclusive two more times for a total of three identical tests. If the maximum flow/leak rate of the three tests is less than 2.4×10^{-3} m^3/s (5 ft^3/min), then the FRS has met its acceptance criteria and the test shall be considered satisfactory.

____ **1.6.5.7** As the last step in this test, review the test to verify that all steps have been completed.

1.7 TEST DATA SHEETS

The Test Data Sheets are to provide a record of the test and to document any procedure steps requiring verification. Instructions for filling out the data sheets are provided below. The Test Data Sheets are provided in Appendix B.

1. Date: Record the date the test is performed.

2. Test Section Title: There are several sections of this acceptance test being performed, e.g., the preliminary conditions, equipment setup, etc.

3. Test Unit Number: Record the unit number of the test unit, if any.

4. Test Performed By: Print the name of the person performing the test.

5. Procedure Step Number: This column contains the test steps requiring verification.

6. Attribute: This column contains the item being verified or the parameter being measured/recorded.

7. Value: This column is for recording the quantitative or qualitative measure of the item being verified, i.e. a line voltage may have a value of 120V, whereas a pump may have a value of ON or OFF.

8. Range: This column indicates the anticipated value of the item being measured. If a value is recorded for later analysis, there may not be a tolerance associated with it.

9. Accept/Reject: Indicate whether the value obtained is acceptable in comparison with the Range. If a value is recorded for later analysis, the accept/reject decision may be determined later.

10. Comment: Provide any pertinent observations or comments. If the value is rejected, give a justification for denial.

11. Complete Sig/Init: Initial in this column to indicate the step has been completed.

1.8 TEST EQUIPMENT SHEETS

The Test Equipment Sheets provide a record of equipment used for the acceptance test. The Test Equipment Sheets are provided in Appendix A and can be copied as needed. Provide a description of the equipment used and record the equipment serial number. For instrumentation, record the calibration expiration date, if applicable.

2.0 CHANGE CONTROL AND EXCEPTIONS TO ACCEPTANCE TEST SECTION

Acceptance testing is to be conducted in accordance with the steps and requirements specified in this procedure. Any required field changes or other discrepancies must be recorded as an exception and resolved/approved following the method described in this section.

2.1 TEST EXECUTION

The acceptance test procedures detailed in Section 1.6 shall be performed in sequential steps starting with Section 1.6.1. As required by Section 1.3.9, the Recorder will initial and date every test step in the space provided on the Test Control copy of the ATP as each step is completed. Any step that requires verification must also be recorded on the Test Data Sheet. The Test Execution Sheet (Appendix E) will be completed per the following directions.

2.1.1 Without Exception

2.1.1.1 Check applicable space on the Test Execution Sheet (Appendix E) to show that the ATP has been performed and **no** exceptions have been recorded.

2.1.1.2 Sign and date in the spaced provided in the Test Execution and Test Approval and Acceptance sections of the Test Execution Sheet.

2.1.1.3 Distribute the Test Control copy of the ATP as required.

2.1.2 With Exception/Resolved

2.1.2.1 Check applicable space on the Test Execution Sheet to show that the ATP has been performed with exceptions recorded and resolved.

2.1.2.2 Sign and date in the spaced provided in the Test Execution and Test Approval and Acceptance sections of the Test Execution Sheet.

2.1.2.3 Distribute the Test Control copy of the ATP as required.

2.1.3 With Exception/Outstanding

2.1.3.1 Check applicable space on the Test Execution Sheet to show that the ATP has been performed with exceptions recorded, part or all of which are presently outstanding, unresolved.

2.1.3.2 Sign and date in the spaces provided in the Test Execution section of the Test Execution Sheet.

2.1.3.3 Distribute the Test Control copy of the ATP as required.

2.1.3.4 After all outstanding exceptions have been resolved, sign and date in the spaces provided in the Test Approval and Acceptance section of the Test Execution Sheet.

2.2 RECORDING AND RESOLVING EXCEPTIONS

2.2.1 GENERAL

Exceptions to the ATP are sequentially numbered and recorded on individual Exception Sheets (Appendix C). This enables case-by-case resolution, recording, approval, and distribution of each exception.

2.2.2 RECORDING

2.2.2.1 Number each exception sequentially as it occurs and record it on an Exception Sheet.

2.2.2.2 Enter name and organization of objecting party for each exception.

2.2.2.3 Enter planned action to resolve each exception when such determination is made.

2.2.3 RETEST/RESOLUTION

2.2.3.1 Record the action taken to resolve each exception. Action taken may not be the same as planned action.

2.2.3.2 When action taken results in an acceptable retest, complete Retest Execution section of the Exception Sheet.

2.2.3.3 When action taken does not involve an acceptable retest, strike out the Retest Execution and Acceptance section of the Exception Sheet. Resolve exception per section 2.2.4 below.

2.2.4 APPROVAL AND ACCEPTANCE

2.2.4.1 The Cognizant Engineer is responsible for resolving exceptions to the ATP and obtaining final approval and acceptance of exceptions by checking one of the following on the Exception Sheet:

- Acceptable Retest Performed: Applicable when Retest Execution and Acceptance section is completed.
- Exception Accepted-As-Is: Requires detailed explanation.
- Other: Requires detailed explanation.

2.2.4.2 The Cognizant Engineer signs and dates the Exception Sheet and obtains other approvals, if required.

2.2.5 DISTRIBUTION

Attach completed Exception Sheets to the Test Control copy of the ATP and distribute for final approval.

APPENDIX A - TEST EQUIPMENT SHEET
(Copy as needed)

TEST EQUIPMENT

Serial Number	Description	Calibration Exp. Date

APPENDIX B - TEST DATA SHEETS

TEST DATA SHEET

Date of test:			Test Unit Number:			
Test Section Title: Blast Shield Water Leak Test #1 Test Performed By:			R = Recorder E = Cognizant Engineer Q = Quality S = Safety O = Other Defined: _____			
Procedure Step Number	Attribute	Value	Range	Accept/ Reject	Comment	Complete Sig/Init
1.6.2.1	Section 1.6.1		Completed (yes)			E Q
1.6.3.1	Section 1.6.2		Completed (yes)			E Q
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 10 in. water head		Record	NA		E Q
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 3 in. water head		Record	NA		E Q
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 1 in. water head		Record	NA		E Q

TEST DATA SHEET

Date of test:			Test Unit Number:			
Test Section Title: Blast Shield Water Leak Test #2 Test Performed By:			R = Recorder E = Cognizant Engineer Q = Quality S = Safety O = Other Defined: _____			
Procedure Step Number	Attribute	Value	Range	Accept/ Reject	Comment	Complete Sig/Init
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 10 in. water head		Record	NA		E Q
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 3 in. water head		Record	NA		E Q
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 1 in. water head		Record	NA		E Q

TEST DATA SHEET

Date of test:			Test Unit Number:			
Test Section Title: Blast Shield Water Leak Test #3			R = Recorder E = Cognizant Engineer Q = Quality S = Safety O = Other Defined: _____			
Test Performed By:						
Procedure Step Number	Attribute	Value	Range	Accept/ Reject	Comment	Complete Sig/Init
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 10 in. water head		Record	NA		E Q
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 3 in. water head		Record	NA		E Q
1.6.3.3	Current time		Record	NA		E Q
1.6.3.5	Current time		Record	NA		E Q
1.6.3.6	Leak volume for 1 in. water head		Record	NA		E Q

TEST DATA SHEET

Date of test:			Test Unit Number:			
Test Section Title: FRS Air Leak Test #1 Test Performed By:			R = Recorder E = Cognizant Engineer Q = Quality S = Safety O = Other Defined: _____			
Procedure Step Number	Attribute	Value	Range	Accept/ Reject	Comment	Complete Sig/Init
1.6.4.1	Section 1.6.3		Completed (yes)			E Q
1.6.4.9	Initial gage pressure		Record	NA		E Q
1.6.5.1	Section 1.6.4		Completed (yes)			E Q
1.6.5.4	Final gage pressure		> 250 Pa			E Q
1.6.5.5	Flow/leak rate		< 5 cfm			E Q

TEST DATA SHEET

Date of test:			Test Unit Number:			
Test Section Title: FRS Air Leak Test #2 Test Performed By:			R = Recorder E = Cognizant Engineer Q = Quality S = Safety O = Other Defined: _____			
Procedure Step Number	Attribute	Value	Range	Accept/ Reject	Comment	Complete Sig/Init
1.6.4.9	Initial gage pressure		Record	NA		E Q
1.6.5.1	Section 1.6.4		Completed (yes)			E Q
1.6.5.4	Final gage pressure		> 250 Pa			E Q
1.6.5.5	Flow/leak rate		< 5 cfm			E Q

TEST DATA SHEET

Date of test:			Test Unit Number:			
Test Section Title: FRS Air Leak Test #3 Test Performed By:			R = Recorder E = Cognizant Engineer Q = Quality S = Safety O = Other Defined: _____			
Procedure Step Number	Attribute	Value	Range	Accept/ Reject	Comment	Complete Sig/Init
1.6.4.9	Initial gage pressure		Record	NA		E Q
1.6.5.1	Section 1.6.4		Completed (yes)			E Q
1.6.5.4	Final gage pressure		> 250 Pa			E Q
1.6.5.5	Flow/leak rate		< 5 cfm			E Q
1.6.5.7	Section 1.6		Completed (yes)			E Q

APPENDIX C - TEST EXCEPTION SHEET
(Copy as needed)

TEST EXCEPTION SHEET #___

Test Title: Acceptance Test Procedure, 241-SY-101 Flexible Receiver System Phase III Testing			Test Item Number:	
EXCEPTIONS			**RESOLUTION**	
Procedure Step Number	Date	Description	Planned Action	Action Taken

OBJECTING PARTY: _____ _____
Recorder Date

RETEST EXECUTION AND ACCEPTANCE:

Date of test:			Test Unit Number:			
Test Section Title:			R = Recorder E = Cognizant Engineer Q = Quality S = Safety O = Other Defined: _____			
Test Performed By:						
Procedure Step Number	Attribute	Value	Range	Accept/ Reject	Comment	Complete Sig/Init

CORRECTION APPROVAL:

____ ACCEPTABLE RETEST PERFORMED

____ EXCEPTION ACCEPTED AS-IS
EXPLAIN: _____

____ OTHER
EXPLAIN: _____

_____ _____
Quality Date Cognizant Engineer Date

_____
Safety Date

APPENDIX D - TEST LOG SHEET
(Copy as needed)

TEST LOG

DATE/TIME	COMMENTS

APPENDIX E - TEST EXECUTION SHEET

TEST EXECUTION SHEET

Date: Document Number: WHC-SD-WM-ATP-093, Rev. 0

Test Unit Number:

TEST PERSONNEL

Cognizant Engineer: Recorder:

Safety: Quality:

Others:

TEST EXECUTION

_____ Without Exception _____ With Exception/Resolved _____ With Exception/Outstanding

_____ _____

Cognizant Engineer Date Recorder Date

_____ _____

Safety Date Quality Date

TEST APPROVAL AND ACCEPTANCE

_____ _____

Cognizant Engineer Date Quality Date

_____

Safety Date