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7. Abstract This test procedure is the documentation for the testing of the 4 fire alarm bells which rewired during the remodeling of the Emergency Operations Center in the Richland, Washington, Federal Office Building.		
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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:

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V.L. Birkland

1/6/95

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TEST TITLE Fire Alarm SystemLOCATION Building 0700PROJECT NUMBER L-205WORK ORDER ER3176PROJECT TITLE EOC Integration

Prepared By
Kaiser Engineers Hanford Company
Richland, Washington

For the U.S. Department of Energy
Contract DE-AC06-87RL10900

PROCEDURE APPROVAL

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Emergency Prep

NEW
ORIGINAL

EXECUTION AND TEST APPROVAL

EXECUTED BY

_____	_____	_____	_____
Test Director/Organization	Date	Test Operator/Organization	Date

_____	_____
Recorder/Organization	Date

WITNESSES

_____	_____	_____	_____
Witness/Organization	Date	Title III Inspector	Date

_____	_____	_____	_____
Witness/Organization	Date	Witness/Organization	Date

A-E APPROVAL

Kaiser Engineers Hanford Company

Without exceptions _____	With exceptions resolved _____	With exceptions outstanding _____
--------------------------	--------------------------------	-----------------------------------

_____	_____	_____	_____
Acceptance Inspection	Date	Design Engineer	Date

_____	_____
Project Manager	Date

TEST APPROVAL AND ACCEPTANCE

Westinghouse Hanford Company

Without exceptions _____	With exceptions resolved _____	With exceptions outstanding _____
--------------------------	--------------------------------	-----------------------------------

_____	_____	_____	_____
(Title or Department)	Date	(Title or Department)	Date

_____	_____	_____	_____
(Title or Department)	Date	(Title or Department)	Date

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NOTE: At completion of test, enter pages added during performance of test to this Table of Contents.

1 PURPOSE

This Acceptance Test Procedure (ATP) has been prepared to demonstrate that the modifications to the Fire Protection system function as required by project criteria.

2 REFERENCES

2.1 DRAWINGS

H-7-3020, Sh 1, Rev 0 Fire Protection - Alarm and Detection, Partial Ground Floor Plan

2.2 SPECIFICATIONS

L-205-C1, Rev 0 Construction Specification

2.3 ENGINEERING CHANGE NOTICES (ECN)

Prior to final test approval, enter ECNs written against this ATP.

3 RESPONSIBILITIES

3.1 GENERAL

Each company or organization participating in this ATP will designate personnel to assume the responsibilities and duties as defined herein for their respective roles. The designees shall become familiar with this ATP and the systems involved to the extent that they can perform their assigned duties.

3.2 WHC PROJECT ENGINEER

3.2.1 Designates a Test Director.

3.2.2 Coordinates testing of fire detection and alarm systems with the Richland Fire Department and GSA.

3.2.3 Acts as liaison between the participants in acceptance testing.

3.2.4 Distributes the approved testing schedule before start of testing.

3.2.5 Schedules and conducts a pretest kickoff meeting with test participants when necessary.

3.2.6 Notifies the persons performing and witnessing the test 2 days before the start of testing.

3.2.7 Schedules a dry run of the ATP (pre-test).

- 3.2.8 Notifies concerned parties when a change is made in the testing schedule.
- 3.2.9 Signs Execution and Test Approval page when test is approved and accepted.
- 3.2.10 Takes necessary action to clear exceptions to the test.
- 3.2.11 Signs Exception form when exception has been resolved.
- 3.2.12 Provides a distribution list for the approved and accepted ATP.

3.3 TEST DIRECTOR

- 3.3.1 Coordinates and directs acceptance testing.
- 3.3.2 Confirms that field testing and inspection of the system or portion of the system to be tested has been completed.
- 3.3.3 Stops any test which, in his or her judgment, may cause damage to the system until the problem has been resolved.
- 3.3.4 After verifying there is no adverse impact, may alter the sequence in which systems or subsystems are tested.
- 3.3.5 Ensures that required environmental conditions are maintained.
- 3.3.6 If a test is to be suspended for a period of time, ensures that the system is left in a safe mode.
- 3.3.7 Before restarting suspended test, re verifies the test prerequisites.
- 3.3.8 Initiates ECNs to document required changes to the ATP.
- 3.3.9 Reviews recorded data, discrepancies, and exceptions.
- 3.3.10 Obtains information or changes necessary to clear or resolve objections during the performance of the test.
- 3.3.11 Signs Execution and Test Approval page when test has been performed.
- 3.3.12 Signs Exception form when exception has been resolved.
- 3.3.13 Obtains required signatures on the ATP Master prior to reproduction and distribution.
- 3.3.14 Notifies the Richland Fire Department before each testing day that the tests will begin on time or that the tests will be delayed. Gives the expected time of delay when possible.

- 3.4 WITNESSES (Provided by Participating Organizations. One witness shall be a Title III acceptance inspector and one witness shall be provide by Contractor.)
- 3.4.1 Witness the tests.
 - 3.4.2 Review results of testing.
 - 3.4.3 Assist the Test Director when requested.
 - 3.4.4 Sign Execution and Test Approval page when test has been performed.
 - 3.4.5 Sign Exception form when exception has been resolved.
- 3.5 RECORDER (Provided by KEH)
- 3.5.1 Prepares a Field copy from the ATP Master.
 - 3.5.2 Records names of all designated personnel on Field copy of ATP prior to start of testing.
 - 3.5.3 Records test instrument identification numbers and calibration expiration dates.
 - 3.5.4 Initials and dates every test step on the Field copy as it is completed next to the step number or on a data sheet, when provided. Records test data. On data sheets where there is not room for both the initial and date, date may be entered at bottom of column.
 - 3.5.5 Records objections and exceptions on an Exception form. Uses additional Exception forms as needed. Notifies the Test Director at time the objection is made.
 - 3.5.6 Signs Execution and Test Approval page when test has been performed.
 - 3.5.7 After test is finished, assigns alpha numeric page numbers to added data sheets and Exception forms. Records page numbers in the Table of Contents.
 - 3.5.8 Transfers Field copy entries for each step to the Master in ink or type, signs, and dates. Transmits the completed Master to the Test Director for approval signature routing. Transmits the Field copy to Construction Document Control for inclusion in the official project file.
 - 3.5.9 Signs Exception form when exception has been resolved and transmits to Test Director.
- 3.6 TEST OPERATOR (Provided by Contractor)
- 3.6.1 Performs test under direction of the Test Director.

- 3.6.2 Provides labor, equipment, and test instruments required for performing tests which have not been designated as being provided by others.
- 3.6.3 Requests in writing from the Test Director those services, materials, or equipment that have been designated as being supplied by others.
- 3.6.4 Confirms that all equipment required for performing test will be available at the start of testing.
- 3.6.5 Signs the Execution and Test Approval page.

3.7 ACCEPTANCE INSPECTION, DESIGN ENGINEER, AND PROJECT MANAGER (Provided by KEH)

- 3.7.1 Evaluate results.
- 3.7.2 Sign for A-E Approval on Execution and Test Approval page.

4 CHANGE CONTROL

Required changes to this ATP must be processed on ECNs in accordance with company procedures. If a need for change is discovered in the course of running the test, the test shall be stopped until the ECN is approved. However, this does not prevent the running of another portion of the test unaffected by the change.

5 EXECUTION

5.1 OCCUPATIONAL SAFETY AND HEALTH

Individuals shall carry out their assigned work in a safe manner to protect themselves and others from undue hazards and to prevent damage to property and environment. Facility line managers shall assure the safety of activities within their areas to prevent injury, property damage, or interruption of operation. Performance of test activities shall always include safety and health aspects.

5.2 PERFORMANCE

- 5.2.1 Conduct testing in accordance with KEH Procedure CON 3.5 (Performance and Recording of Acceptance Test Procedures).
- 5.2.2 Perform test following the steps and requirements of this procedure.

6 EXCEPTIONS

6.1 GENERAL

Exceptions to the required test results are sequentially numbered and recorded on individual Exception forms. This enables case-by-case resolution and approval of each exception.

Errors/exceptions in the ATP itself shall NOT be processed as test exceptions (see Section 4.0).

6.2 RECORDING

- 6.2.1 Number each exception sequentially as it occurs and record it on an Exception form (KEH-428), sample appended.
- 6.2.2 Enter name and organization of objecting party for each exception.
- 6.2.3 Enter planned action to resolve each exception when such determination is made.

6.3 RETEST/RESOLUTION

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

- 6.3.1 When action taken results in an acceptable retest, sign and date Retest Execution and Acceptance section of the Exception form.
- 6.3.2 When action taken does not involve an acceptable retest, strike out the Retest Execution and Acceptance section of the Exception form.

6.4 APPROVAL AND ACCEPTANCE

The customer Project Engineer provides final approval and acceptance of exceptions by checking one of the following on Exception form:

- 6.4.1 Retest Approved and Accepted: Applicable when Retest Execution and Acceptance section is completed.
- 6.4.2 Exception Accepted-As-Is: Requires detailed explanation.
- 6.4.3 Other: Requires detailed explanation.

The customer Project Engineer signs and dates the Exception form and obtains other customer internal approvals, if required.

6.5 DISTRIBUTION

A copy of the approved Exception form is distributed to each participant. The signed original is attached to the ATP Master.

7 PREREQUISITES AND ABBREVIATIONS

7.1 PREREQUISITES

The following conditions shall exist at the start of the testing for that portion of the system being tested.

- 7.1.1 Systems have been inspected for compliance with construction documents.
- 7.1.2 Reference documents (including this ATP) have been verified for correct revision number and outstanding ECNs.
- 7.1.3 Power is available.
- 7.1.4 Voice communications are available between the building lobby and the EOC.
- 7.1.5 Test has been coordinated with the Richland Fire Department and GSA.

7.2 ABBREVIATIONS

ECN	Engineering Change Notice
FCP	Fire Alarm Control Panel
GSA	General Services Administration

PREPARATION

8.1 Perform the following steps.

8.1.1 Verify all prerequisites of Subsection 7.1 have been met.

8.1.2 Notify Fire Department.

8.1.3 Notify Building Emergency Director.

8.1.4 Notify GSA. Request GSA disable the FCP from transmitting signals to the Fire Department.

8.1.5 Notify building occupants that a fire alarm test is in progress; evacuation is not required.

NOTE: Keep appropriate personnel informed as to test status.

END OF SECTION 8

CIRCUIT SUPERVISION: This test will verify supervision of indicating appliances and circuits.

9.1 **Indicating Appliances:** Record the following steps for the indicating appliances shown on data sheet 9.1.

NOTE: Indicating appliance circuits in the Federal Building may not be supervised. If circuits are not supervised, enter NA for each entry in Data Sheet 9.1.

9.1.1 Lift one wire at indicating appliance.

9.1.2 Verify FCP trouble light is ON.

9.1.3 Replace wire lifted on Step 9.1.1.

9.1.4 Verify FCP trouble light is OFF.

END OF SECTION 9

DATA SHEET 9.1

STEP	PERFORM/VERIFY	INDICATING APPLIANCE		
		G1	G2	G3
9.1.1	Wire lifted			
9.1.2	Trouble light is ON			
9.1.3	Wire replaced			
9.1.4	Trouble light is OFF			

GENERAL ALARM FUNCTIONS

10.1 Audibility Test: This test will verify that indicating appliances are adequate for the areas covered.

Perform the following steps.

_____ 10.1.1 Trip a manual pull station.

_____ 10.1.2 Verify indicating appliances are sounding and their signals are clearly heard throughout the area with doors closed.

_____ 10.1.3 Reset manual pull station and request GSA reset and restore the FCP.

END OF SECTION 10

SECURE FROM TEST

- 11.1 Perform the following steps.
- 11.1.1 Verify FCP is in NORMAL condition and secured.
 - 11.1.2 Notify fire department testing is complete.
 - 11.1.3 Notify building occupants and Building Emergency Director testing is complete.

END OF SECTION 11

EXCEPTION NO.		Project No.		ATP No.		Rev.		
Recorded by			Organization		Date Recorded		ATP Page No.	
Step No.		Requirement						
Description of Problem								
Objector 1 (Name/Organization)				Objector 2 (Name/Organization)				
Planned Action								
Action Taken								
RETEST EXECUTION AND ACCEPTANCE								
Retest Installation Contractor		Date		Recorder		Date		
Witness 1 (Name/Organization)		Date		Witness 2 (Name/Organization)		Date		
Field Engineering		Date		Test Director (Name/Organization)		Date		
Design Engineering (Author of ATP)		Date		A-E Project Engineer		Date		
APPROVAL AND ACCEPTANCE – OPERATING CONTRACTOR								
☐ Retest Approved and Accepted ☐ Exception Accepted-as-is* ☐ Other*								
* Explanation								
Approver 1		Date		Approver 2		Date		
Approver 3		Date		Approver 4		Date		