# Appendix E: Acceptance Test Requirements

## Acceptance Tests

The Department of Energy requires three types of acceptance tests: user acceptance, performance and reliability. The proposed Acceptance Test Plan (ATP) should address all three types of acceptance tests. After the successful completion of each test, DOE will notify the Proposer in accordance with task completion requirements in the Statement of Work.

## User Acceptance Testing Requirements

User Acceptance Testing occurs before system cutover. The Proposer will provide functional test scripts that test all contracted functionality. DOE can add additional scenarios and tests to test site-specific workflows. The Proposer will be responsible for mapping the test scripts to the requirements to demonstrate that all contracted functionality will be tested.

DOE and Proposer will work together to confirm all System functionality. Each specific System function agreed to as part of the final Contract should be tested and tracked from original documentation (e.g., proposal to Contract to Acceptance Testing) by the Contractor.

During the User Acceptance Test, the Contractor will demonstrate the operation of each proposed or required feature, function, and interface based on the test plan that will be approved by DOE prior to contract signing.

## Performance Testing Requirements

The purpose of the Performance Test is to demonstrate and document, as necessary, the performance requirements as stated in Appendix D.

The Performance Test will be conducted after the successful implementation and functional testing of the System, and again in a live integrated environment after system cutover to ensure that performance standards are maintained when all public safety systems are in use.

As described below under Reliability Testing Requirements, the System must demonstrate that it can conform to the performance requirements for 90 days after System cutover in the operational and integrated environment. If the System fails to meet the performance criteria for any reason, the problem will be corrected by the Proposer and the Acceptance Period will restart upon correction.

## Reliability Testing Requirements

The purpose of the Reliability Test is to demonstrate the operational capability and reliability of the System, and to test the ability of the System to adhere to the performance standards in a live environment over time.

Reliability Testing will be conducted for 90 consecutive days after cutover/turnover.

During Reliability Testing, errors will be classified and remedied as described in the following paragraphs:

* Level 1 Error —Error affects multiple users, critical operations and/or database functionality. Level 1 Errors result in data loss, data corruption, prevented productive use of System, inoperative servers or systemic workstation failures. Contractor will have 24 hours to fix and test the problem. Once problem is resolved, a new acceptance test period will begin. Once the System operates for the total number of intended consecutive days without a Level 1 Error, the Reliability Test will be completed for that System Component or the System.
* Level 2 Error — Error affects productive use and operations of the System Component or System, or System or System Component does not meet performance or availability standards. A procedural work-around is not available. Contractor will have 24 hours to fix and test the problem. Once problem is resolved, a new acceptance test period will begin. Once the System Component or System operates for the total number of intended consecutive days without a Level 2 Error, the Reliability Test will be completed for that System Component or the System.
* Level 3 Error — System or functionality does not work as expected, resulting in an incomplete, unintended or erroneous operation. Productive use of the System is not significantly impacted and a procedural work-around is available. Contractor will attempt to fix the error during the Reliability Test period. If Contractor is not able to fix the error during the Reliability Test period, the Contractor and DOE will develop a mutually acceptable plan to remedy the error in a future fix release.
* Level 4 Error — System contains minor errors that do not impact productive use of the system or module. The Contractor and DOE will develop a mutually acceptable plan to remedy the error in a future fix release, and System will be accepted.

During the Reliability Test period, the System must be available 99.95 percent of the time.

If availability degradation is discovered, DOE may choose to stop use of the system or use whatever operational portion may be available. DOE will determine an acceptable error level and Contractor will remedy as per the above error classifications.

## Final System Acceptance

Final System Acceptance will occur after the completion of the overall System 90-day Reliability Test and a mutually agreeable plan to remedy Level 3 and Level 4 errors has been developed.