

WORKBOOK 14.3: LIMITED SCOPE PERFORMANCE TESTING

Purpose: To present examples of the different limited scope performance testing classes and the rating system used for results

Limited Scope Performance Testing Classes

There are different classes of limited scope performance testing that exist, which include the following:

- **Operability tests** are conducted daily by facility security personnel to ensure that the physical protection system equipment is operating properly. For example, the security inspection and validation team can observe the security force as they use the hand controller to move (pan, tilt, or zoom) a closed-circuit television over an area to be observed by the camera.
- **Performance tests** are conducted periodically to ensure that the sensitivity of the physical protection system equipment is high enough to support the assumed values of probability of detection used in the analysis models. For example, the security inspection and validation team can open a door that has a sensor attached to observe if the sensor activates in the security control center and if the security control center operator follows through with assessing the activation.
- **Post-maintenance tests** should be conducted if maintenance is performed on physical protection system equipment. Post-maintenance tests ensure the equipment is working correctly and at the desired level of sensitivity.
 - Using the previous performance test example, if the security inspection and validation team determined that the door sensor did not function properly, maintenance should be conducted to fix the problem.
 - Following the maintenance, the security inspection and validation team can perform additional post-maintenance tests by opening the same door again to ensure that the sensor activates and functions as required.
 - Post-maintenance tests should also be conducted after regularly scheduled routine maintenance to ensure that sensitivity levels have not changed as a result of the maintenance activities and that sensors are performing as prescribed.
- **Whole system and limited scope tests** are conducted by the facility to ensure large parts of the system are all working together, as assumed in the vulnerability analysis.
 - Some of the coordinated parts of the physical protection system that should be tested together might be detection with response and detection with delay.
 - For example, the security inspection and validation team can observe and record the amount of time it takes to detect an alarm and provide a response.
- **Evaluation tests** are periodic independent tests on the physical protection system to ensure that the vulnerability analysis is still valid and that the expected level of physical protection system effectiveness is being maintained.
 - The critical infrastructure site security office conducts these tests as a periodic self-assessment of the system.
 - External contract organizations specializing in specific security systems tests and evaluation can also conduct these tests.

Limited Scope Performance Testing Rating System

After performance testing, critical infrastructure may receive one of the following three ratings:

- **Satisfactory:**
 - A satisfactory rating is achieved when the protection afforded by program elements within a rated area meets identified protection needs or provides reasonable assurance that those protection needs will be met should they arise.
 - This means that all elements of the physical protection system are working effectively to maintain the expected level of security.
- **Marginal:**
 - A marginal rating is achieved when protection afforded by program elements within a rated area only partially meets identified protection needs or provides questionable assurance that those protection needs will be met should they arise.
 - This is a warning.
- **Unsatisfactory:**
 - An unsatisfactory rating is achieved when protection afforded by program elements within a rated area does not meet identified protection needs or does not provide adequate assurance that those protection needs will be met should they arise.
 - This means that the elements of the physical protection system are not functioning as designed and that the effectiveness has been reduced to the point of failure.