**DRAFT Test Assertions for VVSG 1.0 Section 7.5.5**

**August 24, 2015**

**Requirement 7.5.5**

**VVSG 1.0 Requirement 7.5.5:**

If the voting system provides access to incomplete election returns and interactive inquiries before the completion of the official count, the system shall:

1. Be designed to provide external access to incomplete election returns (for equipment that operates in a central counting environment), only if that access for these purposes is authorized by the statutes and regulations of the using agency. This requirement applies as well to polling place equipment that contains a removable memory module or that may be removed in its entirety to a central place for the consolidation of polling place returns
2. Design voting system software and its security environment such that data accessible to interactive queries resides in an external file or database created and maintained by the elections software under the restrictions applying to any other output report:
   1. The output file or database has no provision for write access back to the system
   2. Persons whose only authorized access is to the file or database are denied write access, both to the file or database, and to the system

**Test Assertions**

**TA755a-1:** IF the voting system meets the following ***preconditions***, then these ***sub-assertions*** apply:

**PRECONDITIONS:**

1. Voting process is in an operational state before the completion of the official count.
2. Voting system provides access to incomplete election returns AND
3. Voting system provides access to interactive inquiries AND
   1. Voting equipment operates in a central count environment OR
   2. Voting equipment operates in a polling place environment with equipment that contains a removable memory module OR that may be removed in its entirety to a central place for the consolidation of polling place return).

**SUBASSERTIONS:**

**TA755a-1-1:** IF external access to incomplete election returns is authorized by the statutes and regulations of the using agency THEN the voting system SHALL be designed to provide external access to incomplete election returns.

**TA755b-1:** IF the voting system provides access to incomplete election returns AND the voting system provides access to interactive inquiries before the completion of the official count, THEN voting system software SHALL be designed such that data accessible to interactive queries reside in an external file OR that data reside in a database created and maintained by the elections software under the restrictions applying to any other output report.

**TA755b-2:** IF the voting system provides access to incomplete election returns AND the voting system provides access to interactive inquiries before the completion of the official count, THEN voting system software’s security environment SHALL be designed such that data accessible to interactive queries reside in an external file OR that data reside in a database created and maintained by the elections software under the restrictions applying to any other output report.

**TA755bi-1:** The output file or database SHALL NOT have any provision for write access back to the system.

**TA755bii-1:** Persons whose only authorized access is to the file SHALL be denied write access, to the file.

**TA755bii-2:** Persons whose only authorized access is to the file SHALL be denied write access, to the voting system.

**TA755bii-3:** Persons whose only authorized access is to the database SHALL be denied write access to the database.

**TA755bii-4:** Persons whose only authorized access is to the database SHALL be denied write access to the voting system.