**MOD-026-1:** Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions

MOD-026-1 R6:

**6.1.** The excitation control system or plant volt/var control function model initializes to compute modeling data without error,

**6.2.** A no-disturbance simulation results in negligible transients, and

**6.3.** For an otherwise stable simulation, a disturbance simulation results in the excitation control and plant volt/var control function model exhibiting positive damping.

**MOD-027-1:** Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions

MOD-027-1 R5:

**5.1.** The turbine/governor and load control or active power/frequency control function model initializes to compute modeling data without error,

**5.2.** A no-disturbance simulation results in negligible transients, and

**5.3.** For an otherwise stable simulation, a disturbance simulation results in the turbine/governor and load control or active power/frequency control model exhibiting positive damping.

**Testing Guidelines:**

To meet MOD-026-1 R6.1 and MOD-027-1 R5.1 the generator models for the test unit should initialize in a dynamic flat start case without errors. Use PSSe log file during initialization to demonstrate.

To meet MOD-026-1 R6.2 and MOD-027-1 R5.2, perform a no-disturbance simulation. Use plots of the test unit angles to demonstrate no/negligible transients.

To meet MOD-026-1 R6.3 and MOD-027-1 R5.3, perform contingency analysis. Select dynamic contingencies located near the test unit to simulate and verify the stability of the unit(s) after a disturbance. Monitor generator angle, real power output, reactive power output, terminal voltage, EFD, mechanical power, and system frequency to verify positive damping and stability for each selected contingency. Use plots to demonstrate acceptable results.