

Dominion Possum Point Simulator

Designed by Microfusion



Dominion's Possum Point Station located about 15 miles south of Washington D.C., supplies electricity to the Northern Virginia suburbs of Washington D.C.

Possum Point Unit 4 is a gas fired 239 MW Generator. The turbine is a single-shaft General Electric machine with single reheat and a hydrogen-cooled generator. The boiler is a converted gas fired unit. The operating designs are 1,487,000 lbs/hr steam at 2,400 psig and 1,005 degrees F.

DeltaV is the DCS used in controlling the operation of the unit.

Dominion Operator Training Program

Dominion has developed a comprehensive training program based on the Unit 4 Simulator that demonstrates and instructs in the following essential systems and concepts:

- Natural gas burner light-offs, ramping, malfunctions,, and shutdowns
- Complete combustion theory and dynamics
- Casualty response and damage control situations, including loss of parasitic load power supplies, loss of condenser vacuum and equipment failures
- Complete turbine-generator set operation, control, design and safety, including heat soaks, rotor warming, roll-offs, casualty situations and shutdowns
- Balance of plant cycles, including the condensate system, feed water system, turbine extraction systems, auxiliary steam systems and water chemistry control systems

Unit 4 Simulator DeltaV Network Design

