1.2. Smoke Control System

1.2.44. Network Modeling.

Network modes consist of representing each rooms in a building as a node, and shafts as a series of vertical nodes. Each node is at one pressure and temperature. The nodes are connected by flow paths that represent leakages such as construction cracks in walls and floors, gaps around doors, and open doors. A computer program is used to solve for the flows and pressure differences throughout a building.

1.2.45. Plugholing.

The condition in which air from below the smoke layer is pulled through the smoke layer into the smoke exhaust due to a high exhaust rate.

1.2.46. Sprinkler Controlled Fire.

A fire that has a constant or decaying heat release rate due to the action of sprinkler spray.

1.2.47. Steady Fire.

A fire that has a constant heat release rate.

1.2.48. Transition Zone.

The layer between the smoke layer interface and the first indication of smoke in which the smoke layer temperature decreases to ambient.

1.2.49. T-squared (t^2) Fire.

A fire that has a heat release rate that grows proportionally to the square of time from ignition.

1.2.50. Unsteady Fire.

A fire that has a heat release rate that varies with respect to time.

1.2.51. Ventilation Limited Fire.

A fire where every object in the fire compartment is fully involved in fire and the heat release rate depends on the airflow through the openings to the fire compartment.

1.2.52. Backdraft Damper.

A device allowing airflow in one direction only.

1.2.53. Pressure Relief Damper

A device having an adjustable start-open pressure, that is capable of maintaining a relatively constant pressure at various airflows and which closes upon a decrease in differential pressure.

1.2.54. Motorized Pressure Regulating Damper

A device having an adjustable start-open pressure, that is capable of maintaining a relatively constant pressure at various airflows and which closes upon a decrease in differential pressure.