

evaluation that maintains periodic inspection of production of labeled equipment or materials and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

**PREMIXING** – A power burner in which all or nearly all of the air for combustion is mixed with the gas as primary air.

**PUMP, OIL OR FUEL TRANSFER** – An oil or fuel pump, automatically or manually operated, that transfers oil or fuel through continuous piping from a supply tank to an oil or fuel-burning appliance or to an auxiliary tank, and that is not designed to stop pumping automatically in case of total breakage of the oil or fuel supply line between the pump and the appliance.

**TANK, AUXILIARY** – A tank having a capacity of not over sixty (60) gallons listed for installation in the supply piping between a burner and its main fuel supply tank. It may be included as an integral part of an automatic pump or a transfer pump, or it may be a separate tank.

**TANK, GRAVITY** – A supply tank from which the oil or fuel is delivered directly to the burner by gravity.

**TANK, INTEGRAL** – A tank that is furnished by the manufacturer as an integral part of an oil- or fuel-burning appliance.

**TANK STORAGE** – A separate tank that is not connected to the oil- or fuel-burning appliance.

**TANK SUPPLY** – A separate tank connected directly or by a pump to the oil- or fuel-burning appliance.

**TANK, VACUUM OR BAROMETRIC** – A tank not exceeding five (5) gallons capacity that maintains a definite level of oil or fuel in a sump or similar receptacle by barometric feed. Fuel is delivered from the sump to the burner by gravity.

**VALVE, MANUAL OIL, GAS, OR FUEL SHUTOFF** – A manually operated valve in a fuel line for the purpose of turning on or completely shutting off the fuel supply to the burner.

**VALVE, OIL, GAS, OR FUEL CONTROL** – An automatically or manually operated device consisting essentially of a fuel valve for controlling the fuel supply to a burner.

**C.2.0 Standards and Accepted Practices.** The installation, testing, and repair of oil- or liquid-fuel-burning equipment systems must comply with this section, the appropriate standards listed in Chapter 17, and other information outlined in the UMC such as, but not limited to, combustion air, flue and breeching requirements, room clearances and dimensions, and control requirements.

**C.3.0 Approval of Equipment.** Oil- or liquid-fuel-burning equipment must be approved.

**C.4.0 Placing Equipment in Operation.** After completion of all installations, the installer shall test all safety and operating controls and venting before placing the burner in service. The correct input of liquid fuel must be determined and the fuel-to-air ratio set. Each oil or liquid fuel burner must be adjusted to its proper input according to the manufacturer's instructions. Overrating the burners or the appliance is prohibited. The input range must be appropriate to the appliance.

- (1) For conversion burners installed in hot water (liquid) boilers or warm-air furnaces, the rate of flow of the oil or liquid fuel in btu/h must be adjusted to within plus or minus 5 percent of the design load, not to exceed the design rate of the appliance.
- (2) For conversion burners installed in steam boilers, the oil or liquid fuel hourly input demand must be adjusted to meet the steam load requirements. The oil or liquid fuel input demand necessitated by an oversized boiler must be established and added to the input demand for load requirements to arrive at a total input demand.

**C.5.0 Pilot Operation.** Igniter or pilot flames must be effective to ignite the oil or liquid fuel at the main burner or burners and must be adequately protected from drafts. Pilot flames must not become extinguished during the pilot cycle when the main burner or burners are turned on or off in a normal manner either manually or by automatic controls.

**C.6.0 Burner Operation.** In making tests to determine compliance with the requirements of this section, care must be exercised to prevent the accumulation of unburned liquid fuel in the appliance that might result in an explosion or fire.

- (1) The flames from the burner must freely ignite the liquid fuel when operating at the lowest firing position.
- (2) Burner flames must not flash back when the liquid fuel is turned on or off by an automatic control mechanism.
- (3) Main burner flames must ignite freely from the pilot when the pilot flame is reduced to a minimum point that will actuate the pilot safety device.
- (4) When ignition is made in a normal manner, the flame will not flash outside the appliance.