

INSTALLATION AND TESTING OF OIL (LIQUID)
FUEL- FIRED EQUIPMENT

C.9.0

- (1) One (1) approved manual shut-off valve lever handle.
- (2) One (1) approved fuel oil filter, installed on the supply piping.
- (3) Two safety shutoff valves in series, one with proof of closure, with a combined flame failure response and valve closing time not to exceed two (2) seconds with strainer directly before the valves.
- (4) Programmed electronic flame safeguard including proven low fire start, manual reset lockout, 100 percent shutoff (both pilot and main burner), and a separately supervised and proven pilot.
- (5) A high-oil-temperature interlock for oil or liquid fuel requiring preheating.
- (6) A separate firing rate control valve.
- (7) The burner oil pump must automatically not operate or rotate while the alternate fuel is firing.
- (8) A pressure-relief valve must be provided between safety shutoff valves and between pump and safety valves if an integral valve is used with a pump.
- (9) A separate relief device is required on each transfer pump.
- (10) One (1) low-oil or liquid-fuel pressure interlock, reset from flame safeguard or manually.
- (11) Burners with automatic controls, prepurge, proof-of-closure, modulation, or postpurge shall not use relays external to the flame safeguard to accomplish these functions.

Note:

Flame-sensing systems utilizing a UV scanner must prove pilot and interrupt ignition spark prior to main burner valves being energized.

- (5) Two (2) controls, one (1) operating and one (1) high limit, activated by temperature or pressure, as appropriate.
- (6) All burners relying on mechanical means to provide air for combustion must have actual proof-of-air interlock device.
- (7) Power burners must include proven prepurge of at least sixty (60) seconds at high fire damper settings. This prepurge must occur before every burner cycle, regardless of reason.
- (8) Installations with dampered combustion air openings must prove damper open position before trial for burner ignition.
- (9) Vent dampers and flue dampers must be properly interlocked to prevent burner ignition unless safely open.
- (10) One (1) high-oil or liquid-fuel pressure interlock; reset from flame safeguard or manually.
- (11) A manual firing cock.
- (12) If hot water or steam, two (2) low water cut-offs.
- (13) An atomizing medium proving switch.
- (14) A low-oil-temperature switch for oil or liquid fuel requiring preheating.
- (F) Shutoff Valve. All oil or liquid-fuel burner installations must include a non-electric shutoff valve that is held open by a fusible link designed to close at 165°F (79°C), installed near the burner in the same room as the burner. This must prevent the flow of oil or liquid fuel to the burner through the supply pipe. A check valve is required in the return line if the tank is higher than the burner.