

# SERVICE AND APPLICATION NOTES

September 28, 1993

ACC-93-11

## FLOOD DAMAGED HEATING & A/C EQUIPMENT

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In the event Lennox HVAC equipment has been flood damaged or rendered inoperable due to a severe storm, the following steps should be taken before returning the equipment to operation. Lennox recommends that **all** inspection, service and replacement work on flooded equipment be performed by qualified heating and cooling technicians.

- Any unit that is or has been partially or completely submerged must have the electrical power supply disconnected immediately. The fuel supply to gas or oil burning equipment must be shut off.
- Complete equipment service must be performed on the equipment by qualified heating and cooling technicians. Safe and proper operation of the equipment must be verified. Failure to do so can cause further property damage and/or personal injury.
- The extent of the damage will depend on the depth of the flood water, water type (fresh, brackish, etc) and the length of time that the unit was submerged.

### Gas or Oil Furnaces & Heating Sections of Residential Package Units

- 1- Ensure the electrical power supply to the equipment is off.
- 2- The equipment must be thoroughly cleaned. This may require removal and disassembly dependent upon depth of water and length of time submerged.
- 3- All electrical and safety components, such as those listed below, that have been under water must be removed and replaced with a new part:
  - a. Ignition control
  - b. Gas valve
  - c. Primary and secondary limits
  - d. Flame rollout switch
  - e. Combustion air inducer and pressure switch
  - f. Igniter
  - g. Blower motors
- 4- Burners that have been under water must be thoroughly cleaned and/or replaced.
- 5- Equipment insulation is secured to the cabinet with water-soluble glue. If insulation has been under water, it must be replaced with insulation of the same type, density and thickness as the original.
- 6- Clean and thoroughly dry all electrical connections and any damaged wiring must be replaced.
- 7- After repairs have been completed, an operational safety check must be performed on the equipment. The correct operation of all safety devices must be verified.



## **Air Conditioning or Heat Pump Systems & Refrigerant Sections of Residential Package Units**

If the refrigerant circuit is damaged resulting in a refrigerant leak or is open to the atmosphere and has been under water, the complete system - (outdoor unit, refrigerant lines and evaporator or air handler) must be replaced.

If the refrigerant circuit is NOT open to the atmosphere, the following steps must be taken:

- 1- Ensure the electrical power supply to the system is off.
- 2- The equipment must be thoroughly cleaned, including the outdoor coil and evaporator in a furnace or air handler installation. This may require removal and disassembly dependent upon depth of water and length of time submerged.
- 3- All electrical and safety components, such as those listed below, that have been under water must be removed and replaced with a new part: (this applies to both the indoor and outdoor equipment)
  - a. Electronic controls, defrost controls or electric heat controls and sequencers
  - b. Contactors
  - c. Motors
  - d. Refrigerant Pressure Switches (non-hermetically sealed)
- 4- Equipment insulation is secured to the cabinet with water-soluble glue. If insulation has been under water, it must be replaced with insulation of the same type, density and thickness as the original.
- 5- Clean and thoroughly dry all electrical connections and compressor terminals. Any damaged wiring must also be replaced.
- 6- After repairs have been completed, an operational safety check must be performed on the equipment. The correct operation of all safety devices must be verified.

## **System Accessories**

All system accessories, such as thermostats, air filters, indoor air quality equipment, electrical devices and the air distribution system, should be evaluated using the guidelines listed above.

## **Warranty**

Flood damaged components are not covered by the Lennox limited warranty. New replacement parts carry a one-year limited warranty. Lennox further suggests making a thorough evaluation of the necessary repairs (labor and parts) in order to provide an accurate estimated the cost to the consumer. The estimate should also include an estimate for replacement equipment so the consumer can evaluate the options available and make the best decision for their situation and needs.