



Innovative Liquid Vaporizing
and Gas Mixing Solutions

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Date: September 21, 2011

Subject: Vaporizer requirements for North Carolina

Dear Distributor,

It has come to our attention that the state of North Carolina considers all gas fired vaporizers, including water-bath and direct-fired types, to be "boilers" and as such requires them to be manufactured according to ASME Section I and be "S" code stamped. As boilers, these devices fall under the purview of the NCDOL (North Carolina Department of Labor). The NCDOL jurisdiction statement says that boilers convert liquid to vapor and that includes water and other liquids. The definition in the general statute reads, "The term "boiler" shall mean a closed vessel in which water is heated, steam is generated, steam is superheated, or any combination thereof, under pressure or vacuum by the direct or indirect application of heat. The term "boiler" shall also include fired units for heating or vaporizing liquids other than water where these units are complete within themselves." (G.S. 95.69.9(b)) More detail on the rules for NCDOL are in 13 NCAC 13 and can be found at:

<http://ncrules.state.nc.us/ncac/title%2013%20-%20labor/chapter%2013%20-%20boiler%20and%20pressure%20vessel/chapter%2013%20rules.html>.

LP-Gas vaporizers may be exempted from this requirement by submitting a letter requesting a variance to the Chief Inspector at the following address:

North Carolina Department of Labor
Boiler Safety Bureau
1101 Mail Service Center
Raleigh, North Carolina 27699-1101
Telephone (919) 807-2760
Fax (919) 807-2762.

The request for variance should include the following information and substantiation:

We respectfully request that the Chief Inspector grant a "NC

Special under 13 NCAC 13 .0421 NORTH CAROLINA SPECIAL” for the propane vaporizer located at (address and permit) to recognize the vaporizer as a device under NFPA 58. The substantiation is as follows:

1. Propane or LP-Gas vaporizers are covered under NFPA 58 including their installation and whole system impact with respect to the associated propane facilities;
2. NFPA 58 requires vaporizers to be manufactured under ASME Section VIII, Division 1 rather than ASME Section I;
3. In the US and Canada there are no commercially available propane vaporizers designed and manufactured in accordance with ASME Section I. The known manufacturers follow ASME Section VIII;
4. ASME Section I requires safety relief valves to be “S” stamped and to be marked and rated for the fluid under pressure – such devices are not readily available for propane as the propane industry manufactures safety relief valves under Section VIII and applies the “UV” stamp.
5. The vaporizers in this application, or request for variance, have been reviewed for safety and performance and are listed as propane vaporizers by a third party listing agency such as Factory Mutual or Underwriters Laboratories;
6. The National Board of Boiler and Pressure Vessel Inspectors does not recognize gas heaters or propane vaporizers as boilers and as such has stated that they should fall under ASME Section VIII. Direct fired vessels fall under UW-2(d).

Please inform your customers of this information that may be installing vaporizers in North Carolina. Should you have any questions please feel free to contact me directly at 1.206.789.5410 ext 111.

Sincerely,



Randy Ervin
President