

# information bulletin



## Direct Gas-Fired Heater Safety

Gas appliance safety has for many years been advocated by the American gas industry. The American Gas Association (AGA) was founded in 1925, long before national product safety regulations became commonplace. AGA provided design certification for gas-fired appliances until 1993. International Approval Services (IAS), a joint venture of the American Gas Association and the Canadian Gas Association, was formed in 1993 as the successor to the AGA Laboratories. In 1998, AGA transferred its ownership interest in the appliance testing and certification program of IAS to the Canadian Standards Association (CSA). IAS has been a wholly owned subsidiary of CSA since 1997 and is now known as CSA-US.

CSA-US is the principal product testing, certification and standards development organization serving the gas industry. CSA's Blue Star mark is the *most recognized, most trusted and most used gas appliance certification mark in the U.S.*

CSA is recognized as a Nationally Recognized Testing Laboratory (NRTL) by the U.S. Occupational Safety and Health Administration (OSHA), American National Standards Institute (ANSI) and the Standards Council of Canada (SCC). This means CSA can test and certify products for both the U.S. and Canadian markets.

The CSA certifying process includes examination, testing and follow-up inspection to ensure the product complies with applicable standards. Cambridge S-Series industrial space heaters and M-Series industrial make-up air heaters are certified by CSA-US to meet the ANSI Z83.4•CSA3.7-M99 Standard for Direct Gas-Fired Industrial Air Heaters. Major items checked under these standards include: raw materials and purchased components; burner specifications and operating characteristics; electrical components; and instructional material including O & M manuals, unit markings and labels. An item of critical importance is the testing of combustion by-products produced by the burner at the maximum and minimum airflow and multiple firing rates. According to the standard, the heater cannot produce more than 5 parts per million of carbon monoxide and 0.5 parts per million of nitrogen dioxide throughout its firing range.

Through each phase of the design and manufacturing process Cambridge heaters undergo extensive individual checks and test procedures. This ensures that they meet or exceed American National Standards Institute specifications and CSA requirements. Cambridge is one of very few manufacturers who actually have a CSA approved testing laboratory on site. It is equipped with a gas calorimeter; calibration gases; carbon monoxide and nitrogen dioxide analyzers; voltage, amp and dielectric meters; gas meters; digital thermometers, and other technologically sophisticated peripheral testing equipment.

Cambridge is committed to providing a safe, high quality product that has been design certified by the most demanding testing procedures.