



# ICBO Evaluation Service, Inc.

A subsidiary corporation of the International Conference of Building Officials

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## ACCEPTANCE CRITERIA FOR UNVENTED DECORATIVE GAS LOGS

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### PREFACE

Evaluation reports issued by the ICBO Evaluation Service, Inc. (ICBO ES), are based upon performance features of the *Uniform Building Code*<sup>™</sup>, *ICBO Uniform Mechanical Code*<sup>™</sup> and related codes. Section 104.2.8 of the Uniform Building Code is the primary charging section upon which evaluation reports are issued. Section 104.2.8 reads as follows:

The provisions of this code are not intended to prevent the use of any material, alternate design or method of construction not specifically prescribed by this code, provided any alternate has been approved and its use authorized by the building official.

The building official may approve any such alternate, provided the building official finds that the proposed design is satisfactory and complies with the provisions of this code and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation.

The building official shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the files of the code enforcement agency.

The attached acceptance criteria for the general code sections noted have been issued to provide all interested parties with guidelines on implementing performance features of the codes. The attached acceptance criteria were developed and adopted following public hearings conducted by the Evaluation Committee. These criteria may be revised from time to time as the need dictates.

ICBO ES may consider alternate criteria, provided the proponent submits valid data demonstrating that the alternate criteria are at least equivalent to the attached criteria and otherwise meet the applicable performance requirements of the codes. Notwithstanding that a material, type or method of construction, or equipment, meets the attached acceptance criteria, or it can be demonstrated that valid alternate criteria are equivalent and otherwise meet the applicable performance requirements of the codes, if the material, product, system or equipment is such that either unusual care with its installation or use must be exercised for satisfactory performance, or malfunctioning is apt to cause unreasonable property damage or personal injury or sickness relative to the benefits to be achieved by the use thereof, ICBO ES retains the right to refuse to issue or renew an evaluation report.

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# ACCEPTANCE CRITERIA FOR UNVENTED DECORATIVE GAS LOGS

## 1. SCOPE

The purpose of these criteria is to establish requirements for an ICBO ES evaluation report on unvented decorative gas logs and fireplaces as alternates under Section M-1601 of the 1992 CABO One and Two Family Dwelling Code.

## 2. DEFINITIONS

**2.1** Unvented decorative gas logs are unvented fuel-gas-burning appliances designed for connection to the dwelling fuel supply system. They generally include, but are not limited to, gas valves and regulators, an oxygen depletion safety shut-off system, a gas burner or burners, a metal frame or base supporting a simulated log or logs designed to simulate the aesthetic appearance of a natural burning material such as wood. Unvented decorative gas logs are designed to furnish heat to the space in which they are installed, directly from the appliance without duct connection. Unvented decorative gas logs are fitted into solid-fuel-burning, code-complying masonry fireplaces, listed factory-built fireplaces approved for use with unvented decorative gas logs or unvented decorative fireplaces when tested and listed with specific unvented decorative gas logs.

**2.2** Unvented decorative fireplaces are factory-built fireplaces designed for permanent installation in walls or other building structures and are used to accept unvented decorative gas logs.

**2.3** Oxygen depletion safety shut-off system is a listed device designed to shut off the gas supply if the oxygen concentration in the room is lower than a predetermined amount.

## 3. BASIC INFORMATION

The following information is necessary:

**3.1** General information on the manufacturing process.

**3.2** Dimensioned drawings and details noting size, configuration and installation instructions.

**3.3** Product identification.

**3.4** Installation instructions.

**3.5** Test reports in accordance with Section 6.

**3.6** Quality control manual in accordance with Section 7.

## 4. PERFORMANCE REQUIREMENTS

**4.1** Unvented decorative gas logs and fireplaces must comply with ANSI Z21.11.2-1992, entitled "Gas-Fired Room Heaters, Volume II, Unvented Room Heaters."

**4.2** The oxygen depletion safety shut-off system installed in unvented decorative gas logs shall be designed to shut off the gas supply to the pilot and main burners if the oxygen in the surrounding atmosphere is depleted from its normal levels to a minimum of 18.0 percent. The oxygen depletion safety shut-off system shall not incorporate field adjustment features capable of changing the set point at which the system acts to shut off the gas supply.

## 5. INSTALLATION REQUIREMENTS

Unvented decorative gas logs must comply with the following:

**5.1** They must be factory-equipped with a listed oxygen depletion safety shut-off system.

**5.2** They must be permanently installed within a room.

**5.3** They must be listed by an approved quality assurance agency for compliance with all applicable standards.

**5.4** They may only be installed in a room which has an alternate primary source of heat.

**5.5** They are prohibited from use in bathrooms or bedrooms.

**5.6** They shall only be installed in a room with a free air volume equal to or greater than 50 cubic feet per 1000 Btu/h of the aggregate input rating of all appliances within the room. Adjacent rooms with permanent nonclosing openings into the room where the unvented decorative gas logs are located can be included in these calculations.

**5.7** They are restricted to use only with fuel gases as recognized in their listing.

**5.8** They are restricted to use only in solid-fuel-burning code-complying masonry fireplaces, listed factory-built fireplaces approved for use with unvented decorative gas logs or unvented decorative fireplaces tested and listed with specific unvented decorative gas logs.

**5.9** The input rating of unvented decorative gas logs shall not exceed 40,000 Btu/h.

**5.10** The logs shall not be equipped with any automatic ignition or shut-off device other than the oxygen depletion sensor except when permitted by the listing.

**5.11** Each unit shall be accompanied by printed instructions specifying that installations must conform with local codes. Printed instructions and diagrams must be adequate for proper field assembly, installation and safe operation and shall specify minimum clearances to combustible materials.

**5.12** All identification shall be on materials that are noncorrosive. Identification shall be legible at all times.

## 6. TEST REPORTS

**6.1** All tests must be conducted by an independent testing agency accredited by the ICBO ES or recognized in a National Evaluation Service report.

**6.2** Test report must comply with the ICBO ES Acceptance Criteria for Test Reports.

## 7. QUALITY CONTROL

Unvented decorative gas logs and fireplaces must be manufactured under a quality control program with periodic inspection by an independent agency recognized in an ICBO ES or NES report. A quality control manual complying with the ICBO ES Acceptance Criteria for Quality Control Manuals is necessary.

## 8. IDENTIFICATION

Each unit must be identified as follows:

**8.1** Manufacturer's name.

**8.2** Reference to installation instructions.

**8.3** Name or logo of the approved quality control agency.

**8.4** ICBO ES evaluation report number.

**8.5** Type of gas for which the unit is equipped.

**8.6** Identification in accordance with ANSI Z21.11.2-1992.

## 9. REFERENCES

**9.1** ANSI Z21.11.2-1992, Gas-Fired Room Heaters, Volume II, Unvented Room Heaters.

**9.2** CABO One and Two Family Dwelling Code, 1992 edition, published by the Council of American Building Officials.