

BPI-1200-S-201X: Standard Practice for Basic Analysis
of Buildings
Comments from the American Public Gas Association
November 18, 2013

INTRODUCTION

The American Public Gas Association (APGA) appreciates this opportunity to submit comments in response to the Building Performance Institute's (BPI) proposed BPI-1200-S-201X: Standard Practice for Basic Analysis of Buildings.

APGA is the national association for publicly-owned natural gas distribution systems. There are approximately 1,000 public gas systems in 37 states and over 700 of these systems are APGA members. Publicly-owned gas systems are not-for-profit, retail distribution entities owned by, and accountable to, the citizens they serve. They include municipal gas distribution systems, public utility districts, county districts, and other public agencies that have natural gas distribution facilities.

I. SUMMARY

The Proposed Standard discourages the use of natural gas appliances by developers and builders, by imposing undue technical requirements and unnecessary repeated tests on correctly installed natural gas appliances, as well as recommending the removal of atmospherically vented appliances without justification. Natural gas appliances are more much more efficient than electric appliances and cost the consumer far less to operate. APGA believes the technical requirements, installation procedures, and recommended tests already imposed by the American National Standards Institute (ANSI), the National Fuel Gas Code (NFGC), and the International Fuel Gas Code (IFGC) are sufficient to monitor the safety of natural gas appliances.

II. IMPOSED TESTS DISINCENTIVIZE THE USE OF NATURAL GAS APPLIANCES

The Proposed Standard requires that the auditing professional perform combustion appliance zone (CAZ) pressure tests, carbon monoxide (CO) tests and spillage tests on all combustion appliances venting into atmospheric chimneys, including fan assisted gas appliances (7.5). Additionally, the Proposed Standard requires that the auditing professional include a CO test on all sealed-combustion and power vented appliances (without atmospheric chimneys) (7.6) and test gas ovens and unvented appliances for CO (7.7). These tests are detailed in the above-mentioned BPI BAPS, incorporated by reference into the Proposed Standard in Annex A. However, while these tests are merely recommended, not required in the underlying BPI BAPS, the Proposed Standard imposes these tests as requirements.

These tests are unnecessary. The National Fuel Gas Code (NFGC) and the International Fuel Gas Code (IFGC), both ANSI approved codes, specify correct venting procedures, and malfunction testing for natural gas appliances. When properly followed and enforced, requirements within Section 9.3 of the NFGC and the Section 304 of the IFGC have never been shown to be deficient in delivering safe venting performance from gas-fired appliances. However, the CAZ test employed by the Proposed Standard is not based on data collected from the field, and has never been shown to produce equivalent results for code-compliant installations.

The NFGC and the IFGC still provide the essential requirements for providing adequate combustion and ventilation air and would be applicable in building retrofit or reinstalled situations. In all conceivable cases of applying the proposed standard compliance with NFGC Section 9.3 and its requirements for ventilation and combustion air to avoid excessive spillage and backdrafting would apply. As such, no new imposition of code requirements would take effect, and no reason beyond continuation of minimum code compliance would be

needed. As a result, performance testing provides no advantages and, in fact, penalizes use of combustion appliances by imposed a testing burden on the installer.

No performance testing is required of electric appliances in the Proposed Standard. BAPS requires the analyzing professional to apply these additional tests both at installation and once construction is complete. Imposing two additional testing requirements upon a building or developer disincentives them from choosing natural gas appliances. Builders and contractors will simply go with less efficient electric appliances because they require no performance testing.

Additionally, the Proposed Standard blatantly preferences electric appliances over gas-fired appliances. Section 7.21 recommends the “replacement of atmospherically vented equipment with equipment that meets or exceeds ENERGY STAR specifications.” This is inconsistent with ANSI and NFGC recommendations and requirements. Nowhere in the Proposed Standard is this unwarranted recommendation explained or justified. This provision deliberately and unfairly favors electric appliances.

III. IMPOSED TESTS ARE INCONSISTENT WITH DESIGN CERTIFICATIONS

The proscribed tests in BPI BAPS impose limits that are inconsistent and in conflict with gas-fired appliance standards for safety for product certification of these products (i.e., within the ANSI Z21 catalogue of standards). For example, the CO limits shown in the table “Combustion Safety Test Action Levels “fail” appliances at air-free emission levels well under 400 parts per million (ppm) CO whereas the Z21.10.1 standard for water heaters and the Z21.47 for central furnaces allow CO emission levels up to 400 ppm under normal operating (adjustment) conditions. The BPI procedures require service or replacement of an appliance operating well within its standard certification level of performance.

For another example, ANSI Z21.10.1 allows five minutes to establish positive venting for a combustion water heater when testing for CO, as does the NFGC. BPI’s Proposed Standard however, only allows two minutes – an arbitrarily shortened timeframe in conflict with the product certification standards for safety for that product.

These inconsistencies could result in an analyzing professional failing a natural gas appliance that was operating well within its design certification specifications. The potential for a failing result due to these inconsistencies proves a further disincentive for the use of energy efficient natural gas combustion appliances.

IV. HEALTH AND SAFETY RECOMMENDATIONS ARE BEYOND EXPERTISE OF BULDING PROFESSIONALS

The Proposed Standards requires the analyzing professional to provide advice on energy efficiency and health and safety matters to clients. The analyzing professional must identify and communicate situations that require health and safety remediation, and recommend solutions to mitigate the problem (Section 3 and 7.2). Such requirement is beyond the expertise of building professionals. The professionals who are installing and performing these tests are not qualified and should not be making unqualified recommendations regarding health and safety matters to clients. This jeopardizes the health and safety of the clients, as well as imposes an unfair burden on the building professional.

V. STANDARD IS IN CONFLICT WITH ANSI

Section 7.4 of the proposed standard is in conflict with ANSI Z223.1/NFPA 54 Section 9.1.10.1 by not allowing for storage tank water heaters listed as Flammable Vapor Ignition Resistant (FVIR). All storage tank water heaters below 75,000 Btu manufactured in conformance to ANSI Z21.10.1 are resistant to flammable vapors.

VI. ADDITIONAL CONCERNS

In section 7.2.2 of the proposed standard, the section fails to state that the CGD (Combustible Gas Detector) and CO (Carbon Monoxide Detector) shall be listed. In section 7.5.1.4, upon discovery of a gas leak the section fails to inform that the appliance should be shut off at the appliance stop. In section 7.7.1.13 regarding inspection of vent system, the section fails to provide direction to inspect the vent termination and vent cap.

Respectfully submitted,
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