ANSI/ASHRAE Addendum j to
ANSI/ASHRAE Standard 154-2016

Ventilation for
Commercial
Cooking Operations


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FOREWORD

Grease ducts for kitchen exhaust must be liquid-tight per building codes (IMC, NFPA 96, UMC) and must be tested to meet this requirement. It is the position of SSPC 154 and IKECA that the water test should be the method of execution to be conclusive, as experience shows the alternate light test is not as effective in determining leak locations and carries a high level of uncertainty.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum j to Standard 154-2016

Modify Section 5.2 as shown.

5.2 Duct Leakage Testing

5.2.1 Prior to the use or concealment of any portion of a grease duct system, a leakage test shall be performed to determine that all welded joints and seams are liquid tight. The leakage test shall consist of a light test, water pressure test, or an approved equivalent test. Ducts shall be considered to be concealed where installed in shafts or covered by coating or wraps that prevent the ductwork from being visually inspected on all sides. The permit holder shall be responsible to provide for providing the necessary equipment and for performing the test perform the grease duct leakage test. A water spray test shall be performed to determine that all welded joints are liquid tight.

5.2.1.1 Light Test. The light test shall be performed by passing a lamp having a power rating of not less than 100 W through the entire section of ductwork to be tested. The lamp shall be open so as to emit light equally in all directions perpendicular to the duct walls. No light from the duct interior shall be visible through any exterior surface.

5.2.1.2 Water Test. The water test shall be performed by use of a pressure washer operating at a minimum of 1500 psi (10.34 kPa), simulating cleaning operations. The water shall be applied directly to all areas to be tested. No water applied to the duct interior shall be visible on any exterior surface in any volume during the test. A water test shall be performed by simulating a grease duct cleaning operation by use of a pressure washer that is designed for grease duct cleaning and that operates at a pressure of not less than 1200 psi. The water shall be applied directly to all areas to be tested. Water applied to the duct interior surfaces shall not be visible on any exterior surfaces of the duct during the test.
ASHRAE is concerned with the impact of its members’ activities on both the indoor and outdoor environment. ASHRAE’s members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE’s short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its Handbook, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system’s intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE’s primary concern for environmental impact will be at the site where equipment within ASHRAE’s scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.
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Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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