



June 25<sup>th</sup>, 2005

## Request for Tentative Interim Amendment (TIA) to NFPA 96

**Emergency nature:** Several local jurisdictional authorities have withheld approvals for various projects due to confusion generated by an email (attachment 1) sent by NFPA to a fire code authority in New Jersey.

### **Background:**

The attached email indicates that any "appliance that produces smoke or grease vapor" falls within the scope of NFPA 96. "Appliances" do not produce smoke and grease vapor...it's the thermal processing of animal proteins and plant foods (in food heating equipment) wherein the rates of effluent production are specific to their processes. A countertop hot food well holding soup emits SOME grease vapor, yet clearly requiring a Type I hood and fire suppression is overly restrictive and a restraint to trade without any offsetting increment to public health and safety. Similarly, a two slice toaster can generate smoke but again the amount of smoke and combustible particulate emitted are insignificant and requiring a Type I hood and fire suppression would be overly restrictive and a restraint of innovation and trade.

TIA 04-01 NFPA96 (excerpts next page) goes a certain distance to clarify the core of this issue. It acknowledges that when specific food/equipment processes have been tested and data confirms effluent production rates of condensable particulate below the threshold limit value (TLV) expressed in EPA 202 (test method for condensable particulate) of 5mg/m<sup>3</sup>, then the process does not require fire extinguishment equipment. But it ties this reasonable, scientifically sound threshold to other criteria found within UL710B which is a performance test for recirculating hood systems with internal devices designed to reduce particulate emissions to safe levels; eg, EPA 202's aforementioned TLV. But TIA 04-01 fails to articulate that when a process without any specific grease removal device emits the same or less effluent into the occupied space as that emitted by listed recirculating hood systems that the process is at a minimum, equivalently safe. I maintain that such applications are in fact safer than any UL710B listed equipment/menu process, as the rate of effluent emissions into the space is not dependent upon secondary systems.

Many major multi-unit operators (chain restaurants, etc) have "signature" menu processes where every corporate or franchise location is required by contract to stick with the published menu/process. The process encompasses the appliance, its settings for time/temp, and the specific food item, its preparation and loading.

When specific "signature" processes are tested by a recognized third party testing laboratory (such as the Foodservice Technology Center at PGE in San Ramon, CA) using EPA 202 protocol and the **TOTAL** particulate measured is reported as less than the TLV for condensable particulate in EPA 202, then equivalency has been met and fire extinguishment equipment should not be required.



## **NFPA 96 Section 4.1.1 currently reads:**

4.1.1 Cooking equipment used in processes producing smoke or grease-laden vapors shall be equipped with an exhaust system that complies with all the equipment and performance requirements of this standard.

## **NFPA 96 TIA 04-01 revised it to read:**

4.1.1.1\* Cooking equipment that has been listed in accordance with UL197 or an equivalent standard for reduced emissions is not required to be provided with an exhaust system.

4.1.1.2 The listing evaluation of cooking equipment covered by 4.1.1.1 shall demonstrate that the grease discharge at the exhaust duct of a test hood placed over the appliance shall not exceed 5 mg/m<sup>3</sup> when operated with a total airflow of 0.236 cubic meters per second (500 cfm).

## **I recommend the following:**

4.1.1.1\* Cooking and food heat treatment processes that have been tested by recognized third party testing laboratories and found to produce less total particulate emissions than allowed in referenced test methods found in UL710B or an equivalent standards for processes that generate reduced grease emissions are not required to be provided with an exhaust system.

4.1.1.2 The evaluation of cooking processes covered by 4.1.1.1 shall demonstrate that the grease discharge at the exhaust duct of a test hood placed over the appliance shall not exceed 5 mg/m<sup>3</sup> when operated with a total airflow of 0.236 cubic meters per second (500 cfm).

## **Please respond to:**

Thomas Johnson  
President, JDP, Inc.  
Appellant Representative Services  
1408 Northland Dr. #407  
Mendota Heights, MN 55120  
(651-)686-8499 x101

Thank you!

**Tracy Kilmer**

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**From:** "Lake, Jim" <jlake@NFPA.org>  
**To:** "Tracy Kilmer" <tkilmer@boroughofpalmyra.com>  
**Cc:** "Caron, Maureen" <mcaron@NFPA.org>  
**Sent:** Thursday, February 17, 2005 11:37 AM  
**Subject:** RE: NFPA 96

You are correct, NFPA 96 does not establish any threshold on the amount of grease laden vapor produced. Therefore any appliance that produces grease laden vapor would fall under the scope of NFPA 96. The EPA standard is an environmental standard not a fire safety standard. Allowable grease laden vapor production under the EPA standard has no bearing on NFPA 96.

Best Regards  
James D. Lake  
Senior Fire Protection Specialist  
NFPA

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----- Original Message -----

**From:** Tracy Kilmer  
**To:** [NFPAdocumentnumber@nfpa.org](mailto:NFPAdocumentnumber@nfpa.org)  
**Cc:** Brad Regn  
**Sent:** Thursday, February 17, 2005 10:45 AM  
**Subject:** NFPA 96

From: Tracy Kilmer ID# 217569  
Fire Sub-Code Official  
Borough of Palmyra  
20 W. Broad St.  
Palmyra, NJ 08065  
(856)829-1096

Dear NFPA:

I have a sub shop installing a specially made hood exhaust system (not suppressed). In the specifications for the exhaust system it states: "that their food product produces an *allowable amount of grease laden and smoke vapor*". **Question:** In NFPA 96 (current edition) and the New Jersey State Uniform Fire Code it doesn't state that any allowable amount of grease is acceptable. They do not want to install a suppression system stating that the amount of grease laden vapors is allowable in accordance to EPA 202 standards. It is my opinion that if they produce ANY amount of grease they need a hood system. Could you please submit your opinion if this system is in compliance with NFPA 96 standards if it is not suppressed.