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STEPHEN D. COAN
STATE FIRE MARSHAL

MEMORANDUM

To: Heads of Fire Department

From: Stephen D. Coan
State Fire Marshal

Date: September 17, 2014

RE: **Restaurant Fires**

We continue to experience a significant number of fires in commercial cooking equipment in restaurants within the Commonwealth. Compliance with the requirements of 527 CMR 11 and its adopted reference NFPA 96, 2008 edition, relative to hood cleaning has lessened the severity of a number of these fires.

One area that continues to be a problem is the cleaning and maintenance of cooking appliances and the hood equipment. NFPA 96 (2008 edition) adopted by reference in 527 CMR 11, requires that cooking equipment (fryers, broilers, woks, grilles, salamanders) be inspected, maintained and cleaned on a regular basis. Restaurant operators should consult the equipment manufacturer's installation and maintenance manual for the required frequency. This section of NFPA requires, at a minimum, a yearly inspection and servicing of the cooking equipment.

11.7 Cooking Equipment Maintenance.

11.7.1 Inspection and servicing of the cooking equipment shall be made at least annually by properly trained and qualified persons.

11.7.2 Cooking equipment that collects grease below the surface, behind the equipment, or in cooking equipment flue gas exhaust, such as griddles or charbroilers, shall be inspected and, if found with grease accumulation, cleaned by a properly trained, qualified, and certified person acceptable to the authority having jurisdiction.

Table 11.4 Schedule of Inspection for Grease Buildup, is included in the code, as a basis for setting a minimum inspection schedule. There are instances when this schedule will be inadequate, such as 24 hr operations, high volumes. Based on this inspection, it may be necessary to increase the cleaning and inspection

Table 11.4 Schedule of Inspection for Grease Buildup

Type or Volume of Cooking	Inspection Frequency
Systems serving solid fuel cooking operations	Monthly
Systems serving high-volume cooking operations, such as 24-hour cooking, charbroiling, or wok cooking	Quarterly
Systems serving moderate-volume cooking operations	Semiannually
Systems serving low-volume cooking operations, such as churches, day camps, seasonal businesses, or senior centers	Annually

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The appendix of NFPA 96 provides additional information on the purpose of the inspection section.

A.11.4 The primary focus of an inspection for cleanliness is to establish whether the volume of grease buildup within the exhaust system warrants cleaning and to determine whether adequate access is available throughout the exhaust system to remove the grease buildup.

NFPA 96, section 11.6.2*, states: Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned to remove combustible contaminants prior to surfaces becoming heavily contaminated with grease or oily sludge.

The information contained in the appendix is: **A.11.6.2** Hoods, grease removal devices, fans, ducts, and other appurtenances should be cleaned to remove combustible contaminants to a minimum of 50 µm (0.002 in.). *When to clean:* A measurement system of deposition should be established to trigger a need to clean, in addition to a time reference based on equipment emissions.

The method of measurement is a depth gauge comb, shown in Figure A.11.6.2, which is scraped along the duct surface. For example, a measured depth of 2000 µm (0.078 in.) indicates the need to remove the deposition risk. The system would also include point measurement in critical areas. For example, 3175µm (0.125 in.) in a fan housing requires cleaning.

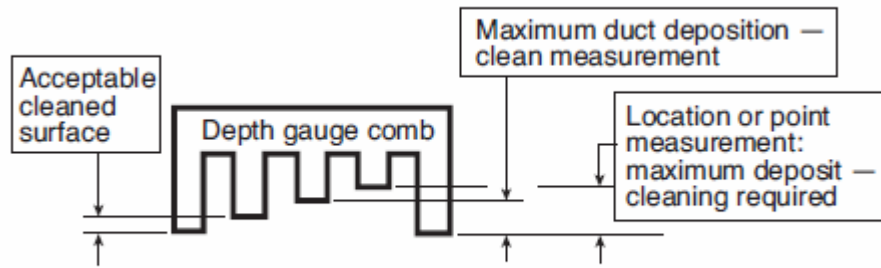


FIGURE A.11.6.2 Depth Gauge Comb.

This section is not enforceable at this time, but, as of January 1, 2015 this information has been adopted, as regulation with the NFPA 1, 2012 adoption and will be enforceable.

Fire service personnel conducting restaurant inspections should pay particular attention to surfaces beneath and behind cooking surfaces, as well as the flue gas exhaust for the buildup of grease.

Further assistance is always available from the Division of Fire Safety on this and similar issues. If you have further questions, please contact the Code Compliance and Enforcement Unit at (978) 567-3375 or in western Massachusetts at (413) 587-3181.