FIRE CODE REQUIREMENTS FOR RECIRCULATING (VENT LESS) HOOD SYSTEMS

The system shall comply with Chapter 13 of NFPA 96 (2001 Edition) as a recirculating system. This includes:

1) Clearance from combustible materials per 4.2. This requires 18 inches of clearance to combustible materials and 3 inches to limited combustible materials.

2) Air movement shall comply with 8.2.1.2 and 8.2.2.3.

3) The use and maintenance requirements of Chapter 11 shall be met.

4) A recirculating system shall not use cooking equipment that exceeds that system's labeled maximum limits for that type of equipment, stated in maximum energy input, maximum cooking temperature, and maximum square area of cooking surface or cubic volume of cooking cavity. The fryer used shall be recognized for use with this hood. 13.2.6

5) The listing label shall show the type(s) of cooking equipment tested and the preceding maximum limits specified in 13.2.6. and 13.2.7

6) The fire damper shall be constructed of at least the same gauge as the shell. 13.2.9

7) The actuation device for the fire damper shall have a maximum temperature rating of 375 degrees F. 13.2.10

8) Listing evaluation shall include the following:

* Capture and containment of vapors at published and labeled airflows.
* Grease discharge at the exhaust outlet of the system not to exceed an average of 5mg/m3 of exhausted air sampled from that equipment at maximum amount of product that is capable of being processed over a continuous 8 hour test per EPA Test Method 202, Determination of Condensable Particulate Emissions for Stationary Sources, with the system operating at its minimum listed airflow.
* Listing and labeling of clearance to combustibles from all sides, top, and bottom.
* Electrical connection in the field in accordance with NFPA 70, National Electric Code.
* Interlocks on all removable components that lie in the path of airflow within the unit to ensure that they are in place during operation of the cooking appliance. 13.2.12

9) An airflow switch or transducer shall be provided after the last filter component to ensure that a minimum airflow is maintained. 13.3.5.1

10) The location of recirculating systems shall be approved by the Bureau of Fire Prevention. Items to be reviewed in the fire risk assessment shall include, but not be limited to, life safety, combustibility of surrounding, proximity to air vents, and total fuel load. 13.4.1 and 13.4.2

11) If a fire alarm is present, activation of the fire suppression system shall activate the fire alarm system. 10.6.2

12) A Class K portable fire extinguisher shall be provided. NFPA 10, 5.7.1

13) The system shall be tested and inspected and shall be approved by the Bureau of Fire Prevention. NFPA 17A, 6.4

14) A signed and dated log of maintenance as performed in accordance with 13.6.4 and 13.6.5 shall be available on the premise for review by the Bureau of Fire Prevention.

15) Fire suppression equipment complying with Chapter 10.

16) A permit for the fire suppression system shall be applied for from the Bureau of Fire Prevention by a licensed fire extinguishing company.

17) A permit for the recirculating hood system shall be applied for from the Mechanical Division of Building and Safety Department.

After all of the above requirements have been met, contact the Bureau of Fire Prevention 402-441-7791, for a final inspection prior to the use of any recirculating systems.

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