



## EPA 202 Emission Using the Moffat Oven Model E35T6-26-P263

The EPA promulgated Method 202 in 1991 (56 FR 65433, December 17, 1991) to measure CPM (**Condensable particulate matter**) emissions from stationary sources. The CPM measurements were needed by state and local air pollution control agencies to include the full range of PM emissions in their State Implementation Plans (SIPs). Section 110 of the Clean Air Act, as amended in 1990 (42 U.S.C. 7410), requires state and local air pollution control agencies to develop, and submit for EPA approval, SIPs that provide for the attainment, maintenance, and enforcement of the NAAQS in each air quality region (or portion thereof) within each state. The NAAQS pollutants include PM and its components, filterable PM and CPM.

The industry standard for measuring grease-laden vapor is EPA test method 202 which measures vapor at an air flow rate of 500 cubic feet per minute (CFM). The maximum test emission rate should not exceed 100 mg/ min. (**5mg/m<sup>3</sup>**) of grease vapor.

***The IMC standard is what most cities use as standard for determining if a hood is required in a commercial setting when operating a commercial oven.***

### **507.2 Where required.**

A Type I or Type II hood shall be installed at or above all commercial cooking appliances in accordance with ASHRAE standard 154. Where any cooking appliance under a single hood requires a Type I hood, a Type I hood shall be installed. Where a Type II hood is required, a Type I or Type II hood shall be installed.

#### **507.2.1 Type I hoods.**

Type I hoods shall be installed where cooking appliances produce grease or smoke as a result of the cooking process. Type I hoods shall be installed over medium-duty, heavy-duty, and extra-heavy-duty cooking appliances. Type I hoods shall be installed over light-duty cooking appliances that produce grease or smoke. The duty classifications of cooking appliances served by Type I hoods shall be in accordance with Table 507.2.1.

***Exception: A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m<sup>3</sup> or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m<sup>3</sup> /s) in accordance with Section 17 of UL 710B.***



**The EPA Test was done on E35T6-26-P263 and the results were as below:**

The test was conducted using the Moffat, Model E35T6-26-P263, rated 208 V, 11.2 KW, 3 ph, 60 Hz. Model E35T6-26-P263 **also considered representative of Moffat model E31, E32, and E33 since the models with rated less than 11.2 KW and they are smaller in size and has less food throughput.** The test media, food load and oven programming as shown in Appendix A were taken from UL 710B, section 59. The results are considered to comply with UL710B, Section 59, formerly Section 14 of UL 197, Eighth Edition, Supplement SB, and NFPA96, paragraph 4.1.1.2 when tested with the specified food load and maximum cook times since the total amount of grease-laden effluents collected was **0.82 mg/m<sup>3</sup>, which is less than 5 mg/m<sup>3</sup> limit.**

### **RESULTS**

The results are considered acceptable because there was no visible smoke emitted from the exhaust of the hood during the normal cooking operation. There was no noticeable amounts of smoke accumulated in the test room after 8 hours of continuous cooking.

The total amount of grease-laden effluents collected by the sampling equipment was found to be **0.82 mg/m<sup>3</sup>**, which is [less] [more] than 5 mg/m<sup>3</sup>.

This means our ovens would fall under the hood exceptions, **as not needing a hood.** According to the test this is also a representation of our other models since they fall under 11.2KW.

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