NOTICE OF ADOPTION OF FINAL RULE

Department of Environmental Protection

NOTICE IS HEREBY GIVEN PURSUANT TO THE AUTHORITY VESTED IN THE COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION by Section 1403 (c) of the New York Charter and Sections 24-105 and 24-149.5 of the New York City Administrative Code, that the Department of Environmental Protection has amended its rules to require control devices to reduce emissions from new cook stoves. These amendments were proposed and published in the City Record on March 9, 2017 and no comments were received. A public hearing was held on April 12, 2017. No testimony was given at the hearing.

Statement of Basis and Purpose

Local Law Number 38 for the year 2015 amends Title 24 of the Administrative Code of the City of New York by adding a new Section 24-149.5, which provides that cook stoves used at food service establishments shall be equipped with an emission control device for odors, smoke and particulates that meets the requirements of rules established by the department.

DEP promulgates these rules, as required by Section 24-149.5, with the goal of reducing particulate matter released into the environment, which is a known cause of asthma and other respiratory complications. In accordance with Section 24-105 of the Administrative Code, an advisory committee has been consulted in the development of these rules, which includes representatives from the restaurant and related industries, representatives of the environmental protection and environmental justice communities, and persons with expertise in the health effects of pollutants associated with cooking devices.

Newly installed cook stoves must comply with this rule as soon as it takes effect. Existing cook stoves (those installed before May 6, 2016) do not have to install emission control devices until January 1, 2020.

This rulemaking sets forth DEP's determination as to emission controls that must be used to comply with section 24-149.5.

Consistent with the above, DEP promulgates the following new Rule, to be found at 15 RCNY Chapter 38.

The Rule is authorized by Section 1043 of the Charter of the City of New York and section 24-105 and 24-149.5 of the Administrative Code.

The text of the Rule follows.

Section 1. Title 15 of the Rules of the City of New York is amended by adding a new Chapter 38, to read as follows:

Chapter 38

Emissions Reduction Technologies for New Cook Stoves

§38-01 Definitions

Access point means that which enables a device, appliance or equipment to be reached by ready access or by a means that first requires the removal or movement of a panel, door or similar obstruction.

Air filtration device means a device composed of fibrous materials which removes solid particulates.

CFM means cubic feet per minute.

Cook stove means any wood fired or anthracite coal fired appliance used primarily for cooking food for onsite consumption at a food service establishment, as such term is defined in section 81.03 of the New York city health code.

Discharge point means the point at which particulate matter is released from a stack into the open air.

Electrostatic Precipitator (ESP) means a filtration device that removes fine particles, like dust and smoke, from a flowing gas using the force of an induced electrostatic charge minimally impeding the flow of gases through the unit. An ESP is a type of emissions control device.

Emissions control device means equipment that is installed on a cook stove to reduce particulate matter emissions.

Existing means installed before May 6, 2016.

New means installed on or after May 6, 2016.

NFPA means National Fire Prevention Association.

Optical particle counter means an instrument based on the principle of light scattering from particles. It is a real time instrument that is used to measure particles above 0.05 micrometers in diameter.

Particulate matter or PM means any air or gas-borne material, except water, that exists as a liquid or solid.

Peak load means the addition of twenty percent to the amount of solid fuel that is normally used for cooking in the cook stove.

RH correction function means a function related to relative humidity correction. When this function is enabled, the particle growth effect due to high humidity is corrected by computing the mass concentration based on the original dry environment particle population.

Smoke means small gas borne and airborne particulate matter arising from a process of combustion in sufficient quantity to be visible.

Stack means any duct, control equipment exhaust or similar apparatus, which vents gases and/or particulate matter into the open air.

Test port plate means a template cover that is designed to prevent any of the air stream from escaping when the existing access plate is removed and which has an opening for the test probe to fit securely.

Total suspended particulates (TSP) means small airborne particles with diameters measuring less than 100 micrometers.

Treated firewood shall have the same meaning as set forth in subdivision 13 of section 192.5 of title 6 of the New York Code Rules and Regulations.

UL means Underwriters Laboratories.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from an indirect heat exchanger to control emissions of particulate matter (PM).

§38-02 Control Devices to Reduce Emissions from New Cook Stoves

(a) No person shall install a new cook stove without installing an emissions control device that is either a wet scrubber, electrostatic precipitator, or air filtration device as follows:

(1) The emission control device must reduce total PM by 75 percent or greater.

(2) Wet scrubbers and air filtration devices must comply with UL 1978 and be correctly sized for the cooking appliance as specified by the manufacturer of the cook stove.

(3) Electrostatic precipitators must comply with UL 867 or 710, must have a certificate of approval from the Fire Department, and must be correctly sized for the cooking appliance as specified by the manufacturer.

(b) Compliance Requirements:

(1) Cook stoves must comply with all applicable laws and rules, including applicable provisions in the New York City Construction Codes, New York City Fire Code and Fire Department rules.

(2) Only treated firewood, as defined in this rule, shall be used in any new cook stove where the fuel source for the cook stove is wood.

(c) Testing Requirements for Emissions Control Devices. Testing that meets the requirements of this subdivision must be performed on an emissions control device that is installed on a cook stove. Testing may be performed in the field using the procedures specified in paragraph 1 of this subdivision or may be performed by a laboratory as specified in paragraph 2 of this subdivision.

(1) Field Testing

i. Emissions reduction standard. Field test data must show that the emissions control device has reduced the cook stove's total PM emissions by 75 percent or more.

ii. General Requirements. Field testing shall be performed during peak load, using an Optical Particle Counter for Total Suspended Particulates (TSP). Peak load assumes that unburnt wood is introduced at the start of the testing and that the same composition of unburnt wood and embers is maintained during the testing. Sampling shall be performed with the emissions control device on and off.

iii. Air Filtration Devices and ESPs.

A. For air filtration devices and ESPs, readings must be taken from within the clean out access point downstream of the device, or at the discharge point when the unit is on. When taking samples while the unit is off, samples may be taken upstream or downstream of the emissions control device.

B. Remove the access plate and replace with a test port plate and place the sampling probe inside a precut hole, or place the sampling probe directly within the discharge point.

C. Samples must be taken using the Optical Particle Counter (OPC), and shall be taken for ten minutes at 2 liters per minute pump speed, twice with the unit on and twice with the unit off. If the OPC is equipped with a filter assembly, a new glass fiber filter shall be used for each test. If the OPC is equipped with RH correction function, it should be enabled when the humidity is expected to exceed 50 percent.

iv. Wet Scrubbers.

A. For wet scrubbers, samples must be taken from within the clean out access point or discharge point.

B. Remove the access plate and replace with a test port plate and place the sampling probe inside through a precut hole, or place the sampling probe directly within the discharge point.

C. A 20 liter sample shall be drawn into a 37mm glass fiber filter. The sample should be drawn for ten minutes at 2 liters per minute pump speed, twice with the unit on and twice with the unit off. Filters should be changed for each test.

D. Except as otherwise expressly provided in this subparagraph (iv), samples shall be taken in accordance with the following sections of NIOSH Method 0500, Issue 2, August 15, 1994: "Equipment" Section (except that a 37mm glass fiber filter should be used), "Preparation of Filters" Section, "Sampling" Section (except that the total sample volume shall be 20 liters), and "Sample Preparation" Section.

E. The filters must then be collected and the weight of the filters shall be determined by an Industrial Hygienist in an Environmental Protection Agency (EPA) accredited laboratory.

(2) Laboratory Testing

Laboratory testing shall be performed in a National Environmental Laboratory Accreditation Conference (NELAC) or New York State Department of Health Environmental Laboratory Approval Program (ELAP) certified laboratory and shall follow EPA Method 5, Appendix A-3 to 40 CFR Part 60, or EPA Method 202, Appendix M to 40 CFR Part 51, for particulate matter. During each test, samples must be collected from the outlet of the control device. Laboratory test data must show that the emissions control device has reduced the cook stove's total PM emissions by 75 percent or more.

(d) Reporting Requirements.

(1) The results of the testing required by this section must be submitted on forms prescribed by the department available on the department's website and must include the following information:

i. Name and address of the manufacturer of the cook stove, brand name, trade name, model number of the cook stove, any additional equipment installed to enhance or support the operation of the emissions control device, the maximum air flow rate, and other relevant operating conditions during the test, as specified by the department.

ii. A description of the emissions control device used on the cook stove model being certified.

iii. A statement that testing has been conducted in accordance with the requirements of this section.

(2) Additional reporting requirements for field testing conducted in accordance with paragraph one of subdivision c of this section. For air filtration devices and ESPs, the installer of the

emissions control device must submit a print out to the Department with the readings of Total Suspended Particulates (TSP), and also submit pictures of the filter with the unit on and off. For wet scrubbers, complete laboratory results shall be submitted to the Department to document the reduction in PM.

Section 38-03 Emissions Control Device Maintenance

(a) Any emissions control device installed or operated under this chapter shall be operated, cleaned, and maintained in accordance with the manufacturer's specifications.

(b) Notwithstanding subdivision (a) of this section, every emissions control device installed or operated pursuant to this chapter must comply with Section FC 609.4.1 of the New York City Fire Code. Emissions control devices must be cleaned by a person holding a FDNY Certificate of Fitness for commercial cooking system and precipitator cleaning.

(c) Notwithstanding subdivision (a) of this section, the cooking exhaust system shall be cleaned in accordance with the rules of the Fire Department and as frequently as necessary to maintain the system free of grease accumulations in accordance with NFPA 96 Chapter 14.

Section 38-04 Emissions Control Device Certification

(a) The manufacturer of an emissions control device may seek department certification by submitting documentation that field testing has been conducted in accordance with the applicable procedures in Section 38-02(c)(1) and that such device meets the requirements of Section 38-02. Such documentation must be submitted in accordance with the requirements of Section 38-02(d) of this title.

(b) Additionally, the manufacturer or owner of an emissions control device may seek department certification by submitting documentation from an independent testing laboratory that tests in accordance with an EPA accredited laboratory testing method that the emissions control device has been tested in accordance with the applicable procedures set forth in Section 38-02(c)(2) and that such device meets the requirements of Section 38-02. Such documentation must be submitted in accordance with the requirements of Section 38-02(d) of this title.

(c) The department will maintain a list of approved certified emissions control devices for use with particular models of cook stoves on the department's website and will update the list periodically as necessary.

Section 38-05 Records

(a) Recordkeeping

(1) On or after the effective date of this section, any person who owns or operates a new cook stove must maintain records showing all maintenance work performed on the emissions control device, including the date, time, and a brief description of maintenance work performed.

(2) On or after the effective date of this section, any person who owns or operates a new cook stove must maintain records regarding the date of installation and replacement of any emissions control device installed.

(3) For purposes of this subdivision, maintenance includes, but is not limited to, preventative maintenance, breakdown repair, and cleaning performed on the emissions control device

(b) Retention of Records. All records required by this section must be retained for at least one year and must be made available to the Department upon request.