

## **NOTICE OF PUBLIC HEARING**

**Subject:** Opportunity to Comment on Proposed Amendments to Chapter 2 of Title 15 of the Rules of the City of New York Pertaining to Emissions from the Use of #4 and #6 Fuel Oil in Heat and Hot Water Boilers and Burners.

**Date / Time:** February 28<sup>th</sup> 2011, 10AM – 12PM

**Location:** New York City Department of Environmental Protection  
59-17 Junction Boulevard  
6<sup>th</sup> Floor  
Flushing, NY 11373

**Contact:** Belinda Pantina  
(718) 595-6555

### **Proposed Rule Amendment**

Pursuant to the authority vested in the Commissioner of Environmental Protection by Section 1043 and 1403(c) of the Charter of the City of New York and Sections 24-105, 24-125, and 24-128 of the Administrative Code, the Department of Environmental Protection proposes to introduce rules regarding emissions from the use of #4 and #6 fuel oil in heat and hot water boilers and burners. The proposed rules were not listed in the Department's fiscal year 2010 Regulatory Agenda. Please note that the proposed rules are new and therefore the text is underlined.

### **Instructions**

Prior to the hearing, you may submit written comments about the proposed amendment by mail to

New York City Department of Environmental Protection  
Office of Legal Affairs  
Attention: Erin Callahan, Esq.  
59-17 Junction Boulevard  
19<sup>th</sup> Floor, Flushing, NY 11373

or electronically through NYC RULES at [www.nyc.gov/nycrules](http://www.nyc.gov/nycrules) by February 28<sup>th</sup>, 2011.

To request a sign language interpreter or other form of reasonable accommodation for a disability at the hearing, please contact Belinda Pantina at the phone number shown above by February 28<sup>th</sup>, 2011.

Summarized copies of the written and oral comments received at the hearing will be available one week after the hearing between the hours of 9:00 A.M. and 5:00 P.M. at the

Department of Environmental Protection  
Office of Legal Affairs  
59-17 Junction Boulevard  
19<sup>th</sup> Floor  
Flushing, NY 11373

### **Statement of Basis and Purpose**

#### *Statutory Authority*

Section 24-102 of the Administrative Code of the City of New York declares that it is the public policy of the City to preserve, protect, and improve the air resources of the City because every person is entitled to air that is not detrimental to life, health, and enjoyment of property. Specifically, the section declares that the emission into the open air of harmful or objectionable substances, including substances resulting from the use of fuel burning equipment, is a menace to the health, welfare, and comfort of the people of the City and a cause of extensive damage to property and that it is the public policy to actively regulate and reduce such emissions.

Section 1403(c) of the Charter of the City of New York and Section 24-105 of the Administrative Code authorize the Commissioner to regulate and control the emission of harmful air pollutants into the open air. Additionally, the Administrative Code provides that the issuance of Work Permits and Certificates of Operation are contingent upon the use of equipment, and by extension fuel, that will satisfy the Commissioner as to their emission of contaminants. Section 24-125(b) of the Administrative Code states that in order to reduce the emission of air contaminants and to insure optimum combustion in fuel burning equipment, the Commissioner will not issue a Work Permit unless the equipment is shown to the satisfaction of the Commissioner to burn appropriate fuel. Similarly, section 24-128 of the Administrative Code provides that the Commissioner will not grant a Certificate of Operation unless the Commissioner is satisfied that the equipment satisfies the standards of section 24-125 and, if the equipment uses residual fuel oil, that it uses emissions controlling devices as determined by the Commissioner.

#### *Summary of Provisions*

In order to improve the air quality of the City, the Department of Environmental Protection proposes to amend Chapter 2 of Title 15 of the Rules of the City of New York to prohibit the use of fuel oil grade numbers 4 and 6 in heat and hot water boilers and burners, unless it can be demonstrated that the emissions of Particulate Matter (PM) and Oxides of Nitrogen (NOx) are equivalent to or cleaner than set fuel types.

The rule:

- For owners with an existing Work Permit, requires boilers to use fuel oil grade #2, #4 and/or natural gas in order for applicants to receive a renewed Certificate of Operation. Boilers that use fuel oil grade #6 will not receive a renewed Certificate of Operation unless the applicant demonstrates that the fuel oil grade #6 that will be used will emit the same or less PM and NOx than fuel oil grade #4 on an annual basis.
- For new installations, applications for a Work Permit must specify that the equipment uses fuel oil grade #2 and/or natural gas, unless the applicant demonstrates that the fuel oil grade #4 and/or #6 to be used will emit no more PM and NOx than fuel oil grade #2 on an annual basis.
- As of January 1, 2030, requires boilers to use fuel oil grade #2 and/or natural gas in order for applicants to receive a new or renewed Certificate of Operation, unless the applicant demonstrates that the fuel oil grade #4 and/or #6 to be used will emit no more PM and NOx than fuel oil grade #2 on an annual basis. This schedule will provide owners with time to convert to fuel oil grade #2, or its equivalent, or natural gas, while ensuring more rapid transition from the most polluting fuel oil.
- Allows owners of a great number of buildings who convert to cleaner fuels and/or convert or replace boilers to use cleaner fuels to apply to the Commissioner of Environmental Protection for additional time if the owner can show that earlier compliance would not be possible or would cause an undue hardship. In this case, the Commissioner may reach an agreement with an owner detailing a timeline for compliance with the rule.
- Similarly, allows an owner of fewer buildings who must convert to apply to the Commissioner of Environmental Protection for additional time if the owner can show that earlier compliance would cause an undue hardship. In this case, the Commissioner may reach an agreement with such an owner detailing a timeline for compliance with the rule. This provision recognizes that in certain cases owners may incur higher than expected costs, and that it may be possible for such owners to progress directly to the use of cleaner fuels, #2 fuel oil or natural gas, at an earlier date than would otherwise be required.
- Prevents an owner of a currently-installed boiler and/or burner, who holds a Certificate of Operation, from filing a new application for functional equipment that remains at the premises. This provision codifies an existing policy. This restriction prevents an owner from inappropriately pursuing tax benefits through obtaining a new Certificate of Operation or Work Permit for existing equipment.

### *Statement of Purpose*

The emission of Particulate Matter is associated with negative health impacts, including decreased lung function, aggravated asthma, respiratory symptoms and premature death. See United States Environmental Protection Agency, Health and Environmental Effects on Particulate Matter, Fact Sheet, July 17, 1997. Oxides of Nitrogen create ozone and smog, which reduces lung function and induces respiratory inflammation. See New York City Department of Health and Mental Hygiene, "Asthma Facts," 2d ed., May 2003.

The following table shows the level of PM and NOx produced from natural gas and fuel oil grade #2, #4, and #6. The figures in the table have been derived from the Office of Air Quality Planning and Standards, United States Environmental Protection Agency, AP-42, Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (5th ed. 1995).

	NOx (lb./MMBTU)	PM (lb./MMBTU*)
Natural Gas	0.10	0.008
#2 Oil	0.14	0.024
#4 Oil	0.29	0.041
#6 Oil	0.37	0.050

\*A standard unit of measurement that provides a basis for comparing the energy content of various grades of natural gas and other fuels. It represents one million British Thermal Units.

The table shows that the emissions levels from the use of cleaner burning fuels, such as #2 fuel oil and/or natural gas, are significantly lower than the emission levels from the use of #4 and #6 fuel oil, unless there are emission controls or changes made to the fuel. The New York City Community Air Survey found higher levels of air pollutants such as PM, NOx, and nickel in neighborhoods with many boilers that use #4 and #6 fuel oil. In neighborhoods with high densities of boilers that use #4 and #6 fuel oil, the survey found and 4 times the concentrations of nickel in fine particles as compared to neighborhoods with a low density of such boilers. See New York City Department of Health and Mental Hygiene “New York City Community Air Survey: Results from Winter Monitoring 2008-2009”, December 2009. Degradation of air quality due to emissions from boilers using #4 and #6 fuel oil is especially great in densely populated neighborhoods where such boilers are the most prevalent. These rules therefore would decrease the levels of harmful pollutants emitted into the air and inhaled by many people.

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Section 1. Section 2-02 of Chapter 2 of Title 15 of the Rules of the City of New York is amended by adding the following definitions in alpha-numeric order:

**#2 Oil.** “#2 Oil” means fuel oil grade No. 2 as classified by ASTM Standard D396-05 and available for sale and purchase in the City of New York.

**#4 Oil.** “#4 Oil” means fuel oil grade No. 4 as classified by ASTM Standard D396-05 and available for sale and purchase in the City of New York.

**#6 Oil.** “#6 Oil” s means fuel oil grade No. 6 as classified by ASTM Standard D396-05 and available for sale and purchase in the City of New York.

**AP-42.** “AP-42” means the United States Environmental Protection Agency publication AP-42, Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (fifth edition, 1995).

**Boiler.** “Boiler” has the same meaning as it does in §24-104(9) of the Administrative Code, provided that the boiler is used to heat a building or to provide hot water to the occupants of a building.

**Burner.** “Burner” means an apparatus for burning fuel that is used to heat a building or to provide hot water to the occupants of a building.

**Certificate of Operation.** “Certificate of Operation” means an operating certificate as defined in §24-104(12) of the Administrative Code.

**In-Kind Replacement.** “In-Kind Replacement” means the replacement of a boiler and/or burner with equipment of the same make and model number.

**Natural Gas.** “Natural Gas” means a mixture of methane and other gases with an odorant as supplied by the local utility serving the premises.

**NOx.** “NOx” means the pollutant Oxides of Nitrogen which is the term used to describe the sum of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>) and other oxides of nitrogen.

**PM.** “PM” means the pollutant Particulate Matter which is the term for a mixture of solid particles and liquid droplets found in the air.

**Work Permit.** “Work Permit” means an installation or alteration permit issued by the Commissioner according to §24-120 of the Administrative Code, which may be converted into a Certificate of Operation after the applicant has satisfied the appropriate provisions of the Administrative Code.

§2. Section 2-03 of Chapter 2 of Title 15 of the Rules of the City of New York is amended by adding a new subdivision e to read as follows:

(e) Prohibition of applications for currently installed equipment. The Commissioner will not approve an application for a Work Permit or a Certificate of Operation where a Certificate of Operation has been issued at a premises and remains in effect and both the installed boiler and burner remain intact at the premises. However, the existing Certificate of Operation issued for the installed boiler and burner may be renewed.

§3. Chapter 2 of Title 15 of the Rules of the City of New York is amended by adding a new section 2-15 to read as follows:

### **§2-15 Performance Standards for the Continued Use of #4 Oil and #6 Oil in Heat and Hot Water Boilers.**

#### (a) General Provisions.

(1) The Commissioner will not issue a Work Permit or a Certificate of Operation for a boiler and/or burner that uses #4 oil or #6 oil unless the applicant demonstrates to the satisfaction of the Commissioner that the PM and NOx emissions of the #4 oil and/or #6 oil meets the equivalency standards described in this section.

(2) An owner who holds a Certificate of Operation for a boiler and/or burner that uses #4 oil may file an Amendment, to be submitted by either a Professional Engineer or Registered Architect licensed under Education Law §§7202 or 7302, to convert the boiler and/or burner to use #2 oil and/or natural gas. An owner who holds a Certificate of Operation for a boiler and/or burner that uses #6 oil may file such an Amendment to convert the boiler and/or burner to use #2 oil, #4 oil and/or natural gas. An Amendment pursuant to this paragraph shall not require the replacement of a boiler and/or burner.

(3) The Commissioner will not approve any Amendment for a previously issued Work Permit or Certificate of Operation to convert a boiler and/or burner

from using #2 oil, #4 oil and/or natural gas to using #6 oil or from using #2 oil and/or natural gas to using #4 oil.

(4) The equivalency levels of PM and NOx as set forth in this section must be demonstrated through the submission by either a Professional Engineer or Registered Architect licensed under Education Law §§7202 or 7302 of a form set by the Department that provides detailed calculations to verify the equivalency levels.

(5) Notwithstanding any other provision in this section except for subdivision e of this section, the Commissioner will not issue a Work Permit or a Certificate of Operation for a boiler and/or burner that uses #2 oil, #4 oil, #6 oil and/or natural gas unless the PM and NOx emissions of such boiler and/or burner meets any binding emissions standard established by state and/or federal law or regulation.

(6) Nothing in this section may be interpreted as requiring the Department of Housing Preservation, when conducting an emergency repair in accordance with sections 27-2125 through 27-2129 of the Administrative Code, to convert a boiler and/or burner to use different fuel or to replace a boiler and/or burner with a boiler and/or burner that uses a different fuel.

(b) Existing Boilers (Renewal).

(1) The Commissioner may issue a renewal of a Certificate of Operation for a boiler and/or burner that uses #2 oil, #4 oil and/or natural gas in accordance with §24-122(d) of the Administrative Code.

(2) The Commissioner will not issue a renewal of a Certificate of Operation for a boiler and/or burner that uses #6 oil, unless the applicant demonstrates to the satisfaction of the Commissioner that the PM and NOx emissions of the #6 oil to be used in such boiler and/or burner shall be equivalent to or less than emissions from #4 oil as provided in AP-42.

(3) An owner who holds a Certificate of Operation for a boiler and/or burner that uses #2 oil, #4 oil, #6 oil and/or natural gas, and who seeks to make an in-kind replacement for use with #2 oil, #4 oil and/or natural gas is not required to file a new application for a Work Permit and a subsequent Certificate of Operation. The owner must provide on a form to be designated by the Commissioner the make, model and serial number of the replacement equipment. The previously issued Certificate of Operation may be renewed with the previously issued application number assigned by the Department upon approval of the Amendment by the Department.

(4) An owner who holds a Certificate of Operation for a boiler and/or burner and who seeks to replace the boiler and/or burner with equipment that is not of the same make and model number must file a new application for a Work Permit and a subsequent Certificate of Operation as provided in §2-03 of this Chapter. The previously issued Certificate of Operation for the previously installed equipment will be cancelled upon receiving the application. The Department will not accept an Amendment to the previously issued Certificate of Operation for such replacement of the equipment.

(c) New Installations (Replacement).

(1) All applications for a Work Permit for a boiler and/or burner must specify that the equipment uses #2 oil and/or natural gas, unless the applicant demonstrates to the satisfaction of the Commissioner that the PM and NOx

emissions of the #4 oil and/or #6 oil to be used in such boiler and/or burner shall be equivalent to or less than the emissions from #2 oil as provided in AP-42.

(2) In cases where a Work Permit has been issued prior to the effective date of this rule for a boiler and/or burner that uses #4 oil or #6 oil, but where a Certificate of Operation has not yet been issued, the owner of the equipment must file an Amendment specifying the use of #2 oil and/or natural gas, unless the owner demonstrates to the satisfaction of the Commissioner that the PM and NOx emissions of the #4 oil and/or #6 oil to be used in such boiler and/or burner will be equivalent to or less than the emissions from #2 oil as provided in AP-42.

(d) *Sunset Provision.*

Notwithstanding any other provision in this section except for subdivision e of this section, after January 1, 2030, all applications for a Work Permit or a Certificate of Operation for a boiler and/or burner must specify that the equipment uses #2 oil and/or natural gas, unless the applicant demonstrates to the satisfaction of the Commissioner that the PM and NOx emissions of the #4 oil or #6 oil to be used in such boiler and/or burner will be equivalent to or less than emissions from #2 oil as provided in AP-42.

(e) *Compliance Agreements.*

(1) An owner of fifty or more buildings with boilers and/or burners that use #4 or #6 oil may apply to the Commissioner for additional time to comply with subdivisions b or d of this section. If the owner can show that conversion or replacement of the boilers and/or burners, or demonstration of the required equivalency, within the time frames set forth in subdivisions b or d of this section, would not be feasible or would constitute an undue hardship, the Commissioner may enter into a compliance agreement with the owner.

(2) An owner of less than fifty buildings with boilers and/or burners that use #6 oil may apply to the Commissioner for additional time to comply with subdivision b of this section. If the owner can show that conversion within the time frames as set forth in subdivision b of this section, would be an undue hardship, the Commissioner may enter into a compliance agreement with the owner.

(3) For purposes of paragraphs 1 and 2 of this subdivision, the Commissioner will consider several factors in considering whether to grant additional time to comply with subdivisions b or d of this section and enter into the compliance agreement, including but not limited to financial hardship, equity ownership, the presence of underground tanks that must be remediated because of the conversion in subdivision b of this section, prior good faith efforts to comply, the scale and timing of commitments to convert to the cleanest fuels, proximity to other boilers that use #4 and/or #6 oil, impacts on local air quality, the number of buildings affected, and the associated public health consequences of non-compliance, if any. The compliance agreement must include a schedule for the conversion and/or replacement of boilers and/or burners, and/or demonstration of the required equivalency, until the owner is in full compliance with the provisions of this section.

(4) An application for additional time to comply with subdivision b of this section must be filed by January 1, 2013 or the expiration date of the Certification of Operation in effect at the time of the effective date of this section, whichever is sooner.

(5) An application for additional time to comply with subdivision d of this section must be filed by January 1, 2020.

(6) An application filed according to this subdivision shall be sent to:

Director of the Division of Air and Noise Programs, Enforcement and Policy  
Bureau of Environmental Compliance  
New York City Department of Environmental Protection  
59-17 Junction Blvd.  
Flushing, NY 11373

(7) The Commissioner will publish in the City Record a written opinion no later than seven days after entering into a compliance agreement, stating the facts and reasons leading to his or her decision, as well as a copy of the compliance agreement.

(8) By December 31, 2013, and every year thereafter, the Commissioner will publish a report summarizing the number of compliance agreements applied for and granted. The report will also summarize the environmental impacts of such compliance agreements and the overall program on tons of PM and NOx in the air.

(9) Notwithstanding this specific compliance provision, Section 24-110 of the Administrative Code may apply.

§4. This rule shall take effect immediately, except that subdivisions b and d of section 2-15 of Chapter 2 of Title 15 of the Rules of the City of New York as added by section 3 of this rule shall take effect on July 1, 2012.

§5. If any provision of this rule or its application to any particular person or circumstance is held invalid, the remainder of this rule and its application to other persons and circumstances shall not be affected thereby.

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**THE CITY OF NEW YORK**  
**LAW DEPARTMENT**  
**100 CHURCH STREET, NEW YORK, NY 10007**  
**(212) 788-1087**

CERTIFICATION PURSUANT TO CHARTER §1043(d)

RULE TITLE: Use of Fuel Oil in Boilers

REFERENCE NUMBER: 2008 RG 113

RULEMAKING AGENCY: Department of Environmental Protection

I certify that this office has reviewed the above-referenced proposed rule as required by section 1043(d) of the New York City Charter, and that the above-referenced proposed rule:

(i) is drafted so as to accomplish the purpose of the authorizing provisions of law;



(ii) is not in conflict with other applicable rules;

(iii) to the extent practicable and appropriate, is narrowly drawn to achieve its stated purpose; and

(iv) to the extent practicable and appropriate, contains a statement of basis and purpose that provides a clear explanation of the rule and the requirements imposed by the rule.

Acting Corporation Counsel  
/s/ Steven L. Goulden

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**Mayor's Office of Operations**

**CERTIFICATION/ANALYSIS PURSUANT TO CHARTER SECTION 1043(d)**

**RULE TITLE:** Use of Fuel Oil in Boilers

**REFERENCE NUMBER:** DEP-1

**RULEMAKING AGENCY:** DEP

I certify that this office has analyzed the proposed rule referenced above as required by Section 1043(d) of the New York City Charter, and that the proposed rule referenced above:

- (i) Is understandable and written in plain language for the discrete regulated community or communities;
- (ii) Minimizes compliance costs for the discrete regulated community or communities consistent with achieving the stated purpose of the rule; and
- (iii) Does not provide a cure period because it does not establish a violation, modification of a violation, or modification of the penalties associated with a violation.

/s/ Craig Hosang \_\_\_\_\_  
Craig Hosang  
Mayor's Office of Operations

1/24/11 \_\_\_\_\_  
Date