NYC GREEN CODES
LEGISLATION AT A GLANCE

GCTF Proposal
Phase Out Dirty Boiler Fuels

Implemented
DEP: Rules NYC Title 15, Ch. 2

Summary
Boilers that use #4 and #6 fuel oils emit a substantial portion of the city’s air pollution.

The Department of Environmental Protection is amending Rules of the City of New York to phase out the use of dirtier residual fuel oil (grades 4 and 6) in heat and hot water boilers.

New Requirements or Changes

Effective: This rule was issued on May 23, 2011. Some provisions took effect immediately; others will take effect on July 1, 2012 and thereafter.

Amendments to Chapter 2 of Title 15 of the Rules of the City of New York will phase out the use of fuel oil grades 4 and 6 in heat and hot water boilers and burners

- For rules (below) permitting only a particular fuel (that is, natural gas or #2 oil or #4 oil), the specified fuel must be used unless the applicant demonstrates that a proposed fuel (#4 or #6 oil) will emit the same or less particulate matter (PM) and oxides of nitrogen (NOx) as the permitted fuel on an annual basis. The requirements for demonstration are on the DEP web site.
- Effective July 1, 2012, no new Certificates of Operation will be issued for #6 oil. Certificates will only be issued for natural gas, #2 oil, or #4 oil. Since a Certificate has a three-year life, this means that no buildings will be burning #6 oil after July 1, 2015.
- Effective immediately, for new installations, applications for a Work Permit must specify the use of #2 fuel oil and/or natural gas. So as burners are replaced, #4 oil will be phased out.
- As of January 1, 2030, all burners must use #2 fuel oil and/or natural gas to receive a new or renewed Certificate of Operation. No further use of #4 oil will be permitted.
- There are special provisions for buildings with existing work permits and for large owners to develop a customized schedule for compliance in consultation with the DEP.

Enforcement

The Department of Environmental Protection will enforce these rules through the management and issuance of Work Permits and Certificates of Operation for heat and hot water boilers and burners. Standard Department of Buildings construction permits will also apply, and the two departments are working together to streamline the process.
Implementation

Although the rule includes an option to demonstrate that burning #4 or #6 oil would result in emissions as low as or lower than gas or #2 oil, this will in practice be a difficult criterion, and the rule will be met by conversion to gas or #2 oil in almost all cases.

ALL COSTS BELOW ARE EXEMPLARY ESTIMATES. ONLY CONTRACTORS AND UTILITIES CAN PROVIDE ACCURATE COSTS.

Conversion from #4 oil to #6 oil is relatively simple, and in most cases will cost under $10,000, including permits and engineering. Under Local Law 43 of 2010, EF 17 (see on this site), #4 oil now meets stringent new sulfur limits, and emissions reductions will be near 50% from current levels, which are due largely to #6 oil combustion.

Conversion to #2 oil and natural gas will be more costly unless the boiler is already equipped with a multi-fuel burner. Additional costs will be incurred bringing larger gas pipes into many buildings. These costs will vary unpredictably among buildings, but could range from $10,000 to $50,000. In addition, in order to burn gas, many older buildings will require a chimney liner at a cost of about $10,000 per floor. This will still be a cost-effective conversion, since natural gas is considerably cheaper than oil and is likely to remain so. When conversion to gas and #2 oil is widespread, the reduction in pollution will be comparable to what would occur if all cars and trucks were removed from New York City permanently.

According to National Grid and Con Ed, the additional demand for natural gas will only increase current natural gas use by approximately 17% and should be met without difficulty. However, the distribution system within the city is uneven and will require substantial upgrades in some areas. There is currently a backlog of applications for gas conversions at Con Edison, but with a new department focused on this issue they expect to provide timely service in the near future.

Links
In addition to the Green Codes Task Force work, Urban Green Council co-wrote an early report on this issue with the Environmental Defense Fund (EDF). Visit www.edf.org/article.cfm?contentID=10068 for that report and useful fact sheets.