

MEMORANDUM

SUBJECT: Carbon Adsorbers used with Azeotropic Control Systems for Compliance with National Emission Standards for Hazardous Air Pollutants for Perchloroethylene Dry Cleaning Facilities

FROM: John S. Seitz, Director  
Office of Air Quality Planning and Standards (MD-10)

TO: See Addressees

National emission standards for hazardous air pollutants (NESHAP) for perchloroethylene (perc) dry cleaning facilities were promulgated on September 22, 1993. All dry cleaning facilities using perc are required to be in compliance with the NESHAP by September 22, 1996, three years following promulgation. For those dry cleaning facilities that must install emission control equipment, the NESHAP requires the use of a refrigerated condenser, or, if installed before promulgation of the NESHAP, a carbon adsorber may be used instead of a refrigerated condenser.

Recently the Agency received a letter from the Neighborhood Cleaners Association raising the question of whether Azeotropic control systems operating with carbon adsorbers were considered carbon adsorbers within the meaning of this term under the NESHAP. As stated in the December 9, 1991 Federal Register proposal notice, Azeotropic control systems, by themselves, are not equivalent in emission control performance to a refrigerated condenser or a carbon adsorber; however, as also stated in the proposal notice, combined Azeotropic control/carbon adsorber systems are equivalent, in terms of emission control performance, to carbon adsorbers.

While the carbon adsorber used with an Azeotropic control system is smaller than a "stand-alone" carbon adsorber, it is a carbon adsorber nonetheless and test data confirms that a combined azeotropic control/carbon adsorber is capable of

achieving the same level of performance in reducing emissions of perc as a stand-alone carbon adsorber. Consequently, combined azeotropic control/carbon adsorbers are considered carbon adsorbers and they are subject to the same requirements and restrictions as stand-alone carbon adsorbers under the NESHAP.

As with stand-alone carbon adsorbers, combined azeotropic/carbon adsorbers can only be used to comply with the carbon adsorber provisions of the NESHAP if the carbon adsorber portion of the combined azeotropic control/carbon adsorber system was installed prior to promulgation of the NESHAP. In addition, the system must be tested weekly to ensure that it is operating properly. As with stand-alone carbon adsorbers, combined azeotropic control/carbon adsorber systems are considered to be operating properly under the NESHAP, if the exhaust vent gases from the carbon adsorber portion of the combined system contains less than 100 parts per million of perc.

If you need further clarification on this matter, please contact George Smith at (919) 541-1549 or Fred Porter at (919) 541-5251.

Addressees:

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