

PROPOSED RULES

Air pollutants, hazardous; national emission standards: Perchloroethylene emissions from dry cleaning facilities Meeting, 53900

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD-FRL-4791-4]

National Emission Standards for Hazardous Air Pollutants for Source Categories: Perchloroethylene Dry Cleaning Facilities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of public meeting.

SUMMARY: National emission standards for hazardous air pollutants (NESHAP) for perchloroethylene (PCE) dry cleaning facilities were promulgated in the Federal Register on September 22, 1993 (58 FR 49354). In order to gain additional understanding of indoor air pollution, ground water contamination and solid waste generation resulting from dry cleaning facilities, EPA will convene a public meeting in New York, New York. Information also will be sought on the environmental impacts associated with the operation of wastewater evaporators. The objective of this public meeting will be to gather information on the magnitude of these problems, as well as potential solutions to these problems.

DATES: Comments. Individuals wishing to submit written comments in lieu of attending this public meeting should forward their comments on or before November 21, 1993.

Public Meeting. The public meeting will be held on November 3-4, 1993 in New York, New York. The meeting will start on both days at 9 a.m. There will be an evening session on the first day starting at 7 p.m.

Request to Speak at Meeting. Individuals wishing to speak at this public meeting should contact Mrs. Julia Latta at (919) 541-5578 by October 27, 1993. Each speaker is asked to limit his or her remarks to 10 minutes or less, unless otherwise arranged. Those wishing to speak longer than 10 minutes should contact Mr. George Smith at (919) 541-1549 after contacting Mrs. Latta.

ADDRESSES: Comments. Comments should be submitted to Mr. Bruce Jordan, Director; Emission Standards Division (MD-13), Environmental Protection Agency, Research Triangle Park, NC 27711.

Public Meeting. The public meeting will be held in New York, New York in the Gold Ballroom of the Ramada Hotel Pennsylvania on 401 7th Avenue (West 33rd Street and 7th Avenue in Manhattan, across from Pennsylvania Station). A limited number of hotel rooms will be made available at a reduced rate from the Ramada Inn to those that make reservations by October 19, 1993. In order to receive the reduced rate, those making reservations must say they will be attending the EPA public meeting. Telephone numbers for the Ramada Inn are (800) 223-8585 and (212) 502-8161.

Docket. Docket No. A-88-11, containing information considered by the EPA in development of the promulgated standards, is available for public inspection between 8:30 a.m. and 3:30 p.m., Monday through Friday, excluding Federal holidays, at the EPA's Air Docket (LE-131), Waterside Mall, room M1500, 1st Floor, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For information concerning the standards, contact Mr. George Smith at (919) 541-1549 or Mr. Fred Porter at (919) 541-5251, Standards Development Branch, Emission Standards Division (MD-13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION: The promulgated NESHAP will achieve significant reductions in PCE emissions from new and existing dry cleaning facilities. There remain, however, several major issues associated with dry cleaning facilities that merit further attention. These include: (1) Indoor air pollution in residences located above dry cleaning facilities and (2) groundwater pollution resulting from dry cleaning facilities. These issues were brought to light following proposal of the NESHAP by the New York Study (indoor air pollution) and the California Study (groundwater pollution).

New York Study

The New York Study is an assessment of indoor air pollution in residences above dry cleaners performed by the State of New York. Many States and environmental groups referred to this study in their public comments on the NESHAP, and several commenters submitted copies of the study attached to their comments. They believed that the study shows the risk to public health from dry cleaners is significant and should be targeted for regulation. They mentioned that although the Act does not specifically address indoor air pollution, indoor air emissions eventually become ambient air emissions.

The New York Study focuses on dry cleaners located in Albany, New York. All 102 dry cleaners listed in the Albany telephone directory were contacted. Of these 102 dry cleaners, 67 cleaned or pressed clothes on the premises. Of these 67, 6 had occupied residences above them.

The levels of PCE in the indoor and outdoor air at residences located above the 6 dry cleaners were measured over a 24-hour period. Identical measurements were taken at the same time at 6 control residences located at least 100 meters (330 feet) away from each dry cleaner. The control residences were selected based on their similarity to the study residences in terms of building type, age, and neighborhood.

The study found indoor air concentrations of PCE ranging from 100 to 55,000 micrograms per cubic meter (mcg/m^3) [15 to 8,000 parts per billion (ppb)] in the 6 residences located above dry cleaners. The cancer risk estimate associated with these levels, based on the EPA's unit cancer risk estimate for PCE, is 1 in 100,000 to 1 in 100 (10^{-5} to 10^{-2}). Control residences had indoor air PCE concentrations ranging from 6 to 100 mcg/m^3 (1 to 15 ppb). The associated cancer risk associated with these levels is 1 in 1,000,000 to 1 in 100,000 (10^{-6} to 10^{-5}).

The New York study indicates that PCE emissions can accumulate in residences located above dry cleaning facilities, leading to increased public exposure to PCE. While not definitive, in the EPA's opinion, based on various observations included in the New York study, it appears the major contributor to the elevated PCE levels measured in the residences located above these dry cleaners is fugitive emissions.

California Well Investigation Program

The California Well Investigation Program is an assessment of ground water contamination undertaken by the State of California. The study contends that PCE contaminated discharges into sewer lines by dry cleaning facilities has contaminated ground water in several areas.

The California Study focuses on wells in the Central Valley Region, which supply drinking water to municipal water systems. Water drawn from 215 out of some 2,000 wells tested contained detectable levels of PCE. Of these 215 wells, water drawn from 47 wells contained levels of PCE above the maximum contaminant level (MCL) of 5 parts per billion (ppb) in the National Revised Primary Drinking Water Regulations.

Soil gas surveys and ground water movement around 21 of the 47 wells with levels of PCE above the MCL indicate the source of PCE contamination in these wells to have originated from sewer lines. In 20 out of these 21 wells, dry cleaning facilities were identified as the sole users of PCE connected to the sewer lines. Soil gas surveys along the main sewer lines downstream from sewer laterals connecting the dry cleaners to the main sewer lines also showed relatively high concentrations of PCE. As a result, the study concludes that dry cleaning facilities are the source of the observed PCE contamination.

Recovery of PCE for reuse within the dry cleaning process generates wastewater contaminated with PCE. Most of the PCE contained in this wastewater is recovered in a water separator. Water from the water separator, however, is routinely discharged to the sewer at many dry cleaning facilities. Separator water generally contains about 150 ppm of PCE; but it may contain as much as 30 percent PCE if the water separator is poorly operated.

Dry cleaning machines that use a refrigerated condenser for process vent control generate about 190 liters (50 gallons) per year of separator water; those with no process vent control generate even less. Dry cleaning machines that use a carbon adsorber for process vent control, on the other hand, generate about 7,600 liters (2,000 gallons) per year of separator water-40 times that generated by a refrigerated condenser.

The California study concludes that PCE discharged to sewers from dry cleaning facilities can contaminate ground water. Whether the primary source of PCE discharged to sewers by dry cleaning facilities is the result of leaking equipment, accidental spills, or PCE contaminated wastewater

generated by dry cleaning or that generated by emission control equipment installed to control process vent emissions, however, is unclear.

The use of carbon adsorbers for process vent control significantly adds to the amount of PCE contaminated wastewater generated by dry cleaning facilities. While not conclusive, this suggests the use of carbon adsorbers for process vent control may be a primary contributor to ground water pollution resulting from dry cleaning facilities.

Public Meeting

The EPA believes, based on information received to date, that PCE contamination of indoor air and ground water are significant problems that may warrant additional Federal actions. The EPA considered seeking an extension of the court deadline for the final rule to deal fully with these issues. This course of action, however, would have postponed the health and environmental benefits of the rule for an extended period of time. The EPA determined that the best environmental protection would be achieved by issuing the final rule as expeditiously as possible, and deciding subsequently how to address remaining indoor air pollution and ground water contamination associated with PCE dry cleaners.

The final rule, while targeted primarily at reducing PCE contamination of outdoor air, may reduce indoor air contamination in some locations through requirements reducing fugitive and process vent emissions from dry cleaners. In addition, the rule requires uncontrolled machines to be controlled with refrigerated condensers, which will minimize generation of wastewater and solid waste.

In order to gain additional insight and understanding into the issues of indoor air pollution and ground water pollution associated with dry cleaning facilities, the EPA will convene a public meeting (see Public Meeting under ADDRESSES at the beginning of this preamble). The objective of this public meeting will be to gather additional information and solicit public comment on the magnitude and severity of the problems highlighted by the New York and the California studies, and potential solutions or approaches for dealing with these problems. Copies of the New York and California studies are included in Docket No. A-88-11 (see Docket under ADDRESSES). (The New York Study is Docket No. A-88-11, Item No. IV-D-5 with additional information in Item No. IV-J-40; the California Study is also part of Item No. IV-J-40.) The EPA also would like to be informed of other studies conducted by States (or others) that address the relative efficiency of carbon adsorbers and refrigerated condensers, and their impact on air emissions. Anyone wishing to speak and make presentations at the public meeting and/or wishing to submit written comments, please see the sections Requests to Speak at Meeting and Comments at the beginning of this notice.

The EPA will use the information received from the public meeting, as well as written comments, in deciding what additional actions should be taken to reduce health and environmental risks from dry cleaners. The EPA will, at a minimum, publish and distribute the information presented at the public meeting. The EPA may then use this information to develop guidance for States and local agencies, and/or develop additional regulations. At the meeting, the EPA will explore the desirability and feasibility of using a regulatory negotiation or other consensus-building approach to address these issues.

With respect to indoor air pollution, the EPA specifically requests States and the public to provide their views and any available information on:

- a. The number of dry cleaners collocated in buildings with residences or businesses.
- b. The extent and severity of indoor air contamination with PCE from dry cleaners, and the adequacy of existing data on this problem.
- c. The extent and severity of PCE contamination of fatty foods in residences, restaurants, and food stores that are collocated with or located near dry cleaners.
- d. The extent to which PCE indoor air contamination results from fugitive emissions or process vent emissions.
- e. The amount of fugitive emissions from different types of dry cleaning machines, and from the various pieces of ancillary equipment associated with the dry cleaning process.
- f. Methods for reducing PCE contamination of indoor air, including but not limited to:
 - (1) Improved maintenance involving the use of instruments to inspect dry cleaning equipment for leaks of PCE.
 - (2) Increased room ventilation and/or ducting of emissions outdoors.
 - (3) Collection of steam press emissions.
 - (4) The use of vapor barriers.
 - (5) Improved training of dry cleaning workers, or other information-dissemination activities.
 - (6) A phaseout of existing transfer machine systems (the final rule effectively bans new transfer machine systems but does not limit the period of time that existing transfer machine systems can remain in service).
 - (7) Other strategies, control technologies, and pollution prevention methods that can reduce fugitive emissions, especially at small dry cleaners.
- g. The extent to which evaporators are in use, and their impact on air quality as well as wastewater contamination.
- h. The relative performance of vented versus ventless machines in reducing perc emissions.

i. The relative effectiveness, cost, and affordability of the available options, as well as key advantages and drawbacks, including information on:

(1) The economic impact of a requirement to replace existing carbon adsorbers with refrigerated condensers.

(2) The economic impact of a requirement to replace existing transfer machines with dry-to-dry equipment.

j. The appropriate Federal role in encouraging or requiring steps to reduce PCE contamination of indoor air.

k. The proposition that the EPA should voluntarily conduct a residual risk analysis for area source dry cleaners, as well as a statutorily mandated risk analysis for major sources, to assess remaining health and environmental risks after installation of MACT and GACT technology. (Based on the results of this analysis, the EPA could assess whether more stringent, health-based standards are warranted); and

l. Examination of coin-operated dry cleaners exempt from the dry cleaning NESHAP to evaluate their potential contribution to indoor air pollution. With respect to ground water contamination and solid waste generation by dry cleaners, the EPA specifically requests that States and the public provide their views and any available information on:

(1) The extent and severity of contamination of ground water with PCE from dry cleaners, and the degree of health threat posed by this contamination;

(2) The relative contribution of wastewater discharges, accidental spills, equipment leaks, and improper hazardous waste disposal to this ground water contamination;

(3) Costs of treating well water contaminated with PCE to make it safe for drinking, and the costs and feasibility of cleaning up ground water contaminated with PCE;

(4) The degree of solid or hazardous waste generation associated with the prevention/control technologies, information on how these wastes are managed and their environmental impact.

(5) Potential measures to prevent or minimize further contamination of ground water with PCE, including but not limited to:

(a) Use of wastewater evaporators by dry cleaners.

(b) Required replacement of existing carbon adsorbers used for process-vent control with refrigerated condensers, perhaps through a gradual phaseout. (The EPA particularly solicits comment

on how the EPA could use its legal authorities to require a gradual phaseout, the environmental benefits of a phaseout, and the economic feasibility of potential phase-out schedules.);

(c) Improved maintenance of dry cleaning equipment through improved training of dry cleaning workers or other information-dissemination activities;

(d) Encouragement of emerging PCE emission control technologies that use adsorption but do not generate wastewater because regeneration is performed through heat desorption rather than steam stripping;

(e) Spill prevention and control measures; (f) A ban or limit on the discharge of PCE-contaminated wastewater to sewers;

(g) Disposal of dry cleaner wastewater at hazardous waste facilities;

(h) The practical use of dry cleaner wastewater in boilers; and

(i) The relative effectiveness, costs, and affordability of the available options, as well as key advantages and drawbacks.

(6) The appropriate Federal role in encouraging or requiring steps to reduce the threat of ground water contamination from dry cleaners.

Dated: October 8, 1993.

Michael H. Shapiro, Acting Assistant Administrator for Air and Radiation.

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