

Environmental Protection Agency, Washington, D.C. 20480

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FOR RELEASE AFTER 10:00 A.M., FRIDAY, DECEMBER 3, 1971

STANDARDS PROPOSED FOR THREE HAZARDOUS POLLUTANTS

William D. Ruckelshaus, Administrator of the Environmental Protection Agency, announced today that proposed emission standards for three hazardous air pollutants will be published in the Federal Register on Tuesday, December 7, 1971.

The hazardous pollutants - asbestos, beryllium, and mercury - were the first to be identified as such under the 1970 Clean Air amendments. As required by those amendments, they were initially listed in the Federal Register on March 31, 1971.

"Listing these three contaminants as hazardous air pollutants under the 1970 Clean Air Amendments," Ruckelshaus said, "does not necessarily mean that current levels in the air are dangerous. But inhalation of asbestos, beryllium, or mercury may threaten human health, and release of these substances to the air must be carefully controlled."

The proposed standards would apply to various types of facilities producing, manufacturing, or using these substances or products containing them. Both existing and new plants would be covered.

The Administrator said that, in many cases, information on possible sources of these hazardous pollutants is not available in sufficient detail to permit the establishment of emission standards covering all sources. Investigations are underway to fill these gaps in knowledge, and the results of these investigations may require modification of the standards and inclusion of additional source categories for these pollutants.

Under the 1970 Amendments, EPA has 180 days in which to hold public hearings and set final emission standards, unless information presented at the public hearings demonstrates that the pollutants clearly are not hazardous.

The EPA Administrator urged anyone having scientific information on whether asbestos, beryllium, and/or mercury are hazardous within the meaning of the 1970 Amendments or on what levels constitute a risk to public health, to present such information by testi-

fyng at the hearings or by submitting it for the hearing record. He also asked that any interested persons present information on the extent to which setting these emission standards would be of benefit to the public health.

EPA said that a notice of the date, time, and place of the public hearings will be announced within 30 days. Additionally, interested persons may submit written comments within 90 days on all aspects of the proposed regulations, including economic and technological issues and on the proposed test methods. Comments, in triplicate, should be addressed to the Environmental Protection Agency, Office of Air Programs, Division of Compliance, Research Triangle Park, North Carolina 27711.

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NOTE: The proposed standards, and related background information are attached.

PRESS BRIEFING: PROPOSED HAZARDOUS AIR EMISSION STANDARDS

TIME: 10:00 A.M., Friday, December 3, 1971

PLACE: State Department Building
Room 1912
22nd and C Streets, N.W.
Room is reserved from 9:30 to 11:30 A.M.

PARTICIPANTS: William D. Ruckelshaus
Dr. John Middleton
Vaun Newill
Dale Slaughter of Durham, N.C.

FEDERAL REGISTER: Anticipated publication date of Tuesday,
December 7, 1971

BACKGROUND INFORMATION ON PROPOSED STANDARDS FOR HAZARDOUS AIR POLLUTANTS

ASBESTOS

Routine, standardized methods for testing asbestos emission levels are not available. Thus, the proposed standards are not in terms of numerical emission values but, rather, are in terms of required control practices that will limit emissions to an acceptable level. In part, control would be achieved by:

1. Using filters to clean gases from mining, milling, manufacturing, and fabrication of asbestos-containing materials.
2. Eliminating visible emissions from a variety of sources related to the mining, manufacturing, and fabrication processes.
3. Prohibiting the spraying of asbestos fireproofing and insulation, except where spraying is done indoors under conditions where the air that would be released to the atmosphere can be cleaned.

The inhalation of asbestos fibers has been linked to a number of human diseases. Occupational exposures have been related to asbestosis, bronchogenic carcinoma, and mesothelioma. Non-industrial exposures have been related to the latter two, although the dosage relationship has not been established. Although a quantitative definition of the asbestos air pollution problem cannot be made at this time, available evidence clearly implicates asbestos as a serious air pollution threat. Asbestos fibers enter the air from a wide variety of sources, such as mining and milling, manufacture of products containing asbestos, and the use of asbestos for insulation, fireproofing and in structural materials. More than 3000 products contain commercial asbestos, and asbestos is frequently emitted to the air when they are used.

Asbestos mining and milling produce much larger quantities of asbestos emissions than any other source category, and would be regulated by these standards. The basic processing of domestic asbestos ores is done in nine mills, which produce about one-sixth of the total U.S. consumption. The

estimated cost of complying with the proposed standards ranges from zero to 6.7 percent of the average 1969 selling price of a ton of domestically produced asbestos, with the average being 0.9 percent per ton.

Manufacturing facilities for a variety of asbestos-containing products also would be subject to the proposed standards. These include such industries as producers of asbestos-cement products, asbestos-containing floor tile, asbestos-reinforced friction materials, asbestos paper, and asbestos textiles. For the major categories of these industries, it is estimated that to meet the standards would require an annualized cost of 0.3 percent of the output product value. This would result in an average product price increase of 0.3 percent, with the most significant being 2.9 percent for asbestos paper products.

Of the many end uses of asbestos-containing products, relatively few have been singled out as significant contributions to the overall air pollution problem. The field fabrication of asbestos-bearing products -- particularly insulating materials and the spray application of asbestos fireproofing -- are two specific end uses that would be controlled by the proposed standards. Prohibition of spray applications would have no major impact on the price of asbestos or upon asbestos producers since this use represents only about 0.5 percent of the annual domestic consumption. Increased costs for substitute materials range from zero to a maximum of 15 percent, and the use of such substitutes does not require new equipment or extensive retraining of personnel.

BERYLLIUM

The proposed beryllium standards are designed to protect the public from exposure to an atmospheric concentration greater than an average of 0.01 micrograms per cubic meter of air over a 30-day period, or a short term exposure of 25 micrograms per cubic meter of air for a maximum of 30 minutes.

Beryllium emission standards are being proposed for extraction plants, machine shops, foundries, ceramic plants, propellant plants, and incinerators designed to dispose of toxic substances, as follows:

- either, no more than 10 grams of beryllium may be emitted per 24-hour day;
- or, there can be no emissions that will cause atmospheric concentrations of beryllium to exceed an average of 0.01 micrograms per cubic meter of air for 30 days.

A source may elect to comply with one or the other standard. If they select the former, they must periodically test emissions and report the results to EPA. If they select the latter, they must measure air concentrations using a sampling network approved by EPA, and retain the results for inspection by EPA.

Beryllium emission standards are being proposed for rocket-motor test facilities as follows:

- There can be no emissions that will cause atmospheric concentrations of beryllium to exceed 75 micrograms-minutes per cubic meter of air within the limit of 10 to 60 minutes, accumulated during any two consecutive weeks, measured any where beyond the source property line, or at the nearest place of human habitation.

("Microgram-minutes are obtained by multiplying the concentration in micrograms per cubic meter of air times the length of exposure in minutes.)

- If combustion products of motors containing beryllium propellant are fired into a closed tank, emissions from the tank shall not exceed two grams per hour, with a maximum of ten grams per day.

The adverse effects of airborne beryllium on human health were first recognized in 1940. Acute chemical pneumonitis largely occurs only in cases of occupational exposure. The chronic lung disease, berylliosis, has been observed in persons who have not been occupationally exposed.

Approximately 300 operations such as machine shops, ceramics plants, propellant plants, extraction plants, and foundries make up the major beryllium users that could cause emissions to the atmosphere. Most potential emissions would result from alteration of a beryllium product by burning, grinding, cutting, or other similar means.

Because of the long recognition of the extreme toxicity of beryllium, the major portion of the industry already has the emission controls needed to comply with the proposed standards. Because of this, and because the beryllium collected in the control equipment can often be sold to the primary extraction plants for reprocessing, the proposed emission standards are expected to have little economic impact on the industry.

MERCURY

The proposed standards are intended to protect the general public from adverse health effects caused by inhalation of mercury in the air. The standards were developed to ensure that atmospheric concentrations of one microgram per cubic meter of air averaged over 30 days will not be exceeded. The proposed standards will apply to mercury-cell chlor-alkali plants, which manufacture chlorine and alkali caustic, and to primary mercury mines. The proposed standards:

- Would limit emissions from each facility of these two industries to not more than 5 pounds of mercury during a 24-hour period.

Chronic exposure to airborne mercury can produce symptoms indicating adverse effects on the central nervous system. Common symptoms are tremor and psychological disturbances; loss of appetite, loss of weight, and insomnia also have been reported.

Mercury and its compounds enter the air as vapors and particulates from industry and by evaporation from soil and water. Once in the air it is widely spread by wind currents. Eventually it settles to earth and is washed to the ground by rainfall. The mercury returning to earth does not penetrate deeply into the soil so it can re-enter the air by evaporation or wash off into lakes and streams. Mercury, in other words, is extremely mobile in the environment. Accordingly, it is not only a local air pollution hazard but also can contribute to contamination of food and drinking water.

Controlling emissions to meet the proposed standards will present an annualized cost to mercury mines of 2.4 to 3.4 percent of the total product worth. Partial recovery of operating costs, however, will be obtained from the value of the recovered mercury. For chlor-alkali plants, the annualized control costs as a percentage of total product worth will vary from 0.3 to 0.9 percent.

ADMINISTRATION OF STANDARDS

These standards are proposed under Section 112 of the Clean Air Act, as amended. Under that section, on March 31, 1971, EPA listed asbestos, beryllium, and mercury as an initial list of hazardous air pollutants that, in the judgment of the Administrator, may cause, or contribute to, an increased in mortality or an increase in serious irreversible, or incapacitating reversible, illness.

The Act requires that public hearings be held on these proposed standards. A notice of the date, time, and place for the hearings will be published in the Federal Register within 30 days.

Within 180 days, EPA must set final standards unless the Administrator finds, on the basis of information presented at the public hearings, that the pollutants clearly are not hazardous. Therefore, anyone having scientific information on whether asbestos, beryllium, and/or mercury are hazardous within the meaning of the Act, or on what levels constitute a risk to public health, are urged to testify at the hearings or present their information for the hearing record. In addition, all interested persons are specifically asked to present information as the extent which setting of these standards will be of benefit to the public health.

The Act provides for delegation of authority to the States to enforce these proposed regulations. Procedures for carrying out such delegation are not being proposed at this time, although EPA tends to encourage the States to assume the principal responsibility for enforcing these standards. Procedures for delegating authority will be established early next year, after the States have submitted their plans for implementing the national ambient air quality standards.

The hazardous air pollutant standards must be met by any existing source 90 days after final regulations are set. However, EPA may grant a waiver of up to two years, if it is not possible to bring a facility under complete control immediately and if steps can be taken to make certain that the health of persons will be protected from any immediate risk of significant harm.

In any case, under the Act, a two-year exception may be granted by the President if he finds that technology to implement the standards is not available and that the operation of the source is required for reasons of national security.

Any existing source to which the standards apply would be required to register with EPA and report various information about its operation and any emission control systems.

The proposed regulations require application to EPA for approval to construct or modify any source to which any of the emission standards would apply. A fee would be charged to defray part or all of the costs of reviewing the application.

For sources of beryllium emissions, operators will be required to conduct periodic tests of emissions, or take air samples around the plant, and report results to EPA. For sources of mercury emissions, emissions tests will be required. Such testing cannot be required at present for asbestos sources as appropriate testing methods are not available.

PROPOSED NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

A brief summary of the changes in the proposed standards follows:

1. A notice of public hearing will be published within 30 days of the proposed date. This replaces an earlier interpretation that the hearings must begin within 30 days.
2. The definition of particulate matter is being omitted.
3. An abbreviations section has been added.
4. A sentence has been deleted that required assurance the applicant would provide any additional information requested. This requirement is implicit in the law.
5. Procedures for denial of approval of construction or modification are spelled out. The Administrator will furnish the applicant a notice of the information and findings on which a denial is based and a notice of opportunity for the applicant to present additional information, orally or in writing, before the denial is final.
6. The term "Source Registration" has been changed to "Source Reporting," and a requirement that EPA issue a written notice of registration has been dropped. The purpose of this section is to ease EPA's information-gathering problems, and the simple report required satisfies this purpose. EPA's administrative burden also is eased since EPA does not need to return a written notice of registration.
7. The visible emission definition was changed to omit any use of Ringelmann number or opacity measurement in determining that an emission is visible. Ringelmann numbers or

opacity are not applicable to the purpose of determining that an emission is visible. Any emission of asbestos which can be seen is a hazardous emission.

8. The prohibition of spray application of asbestos was divided into three parts for clarity. Spraying of asbestos on any portion of a building or structure is prohibited, as is the spraying of asbestos in an area directly open to the atmosphere. The spraying of asbestos on process equipment in a completed structure is specifically authorized provided ventilation air is treated to remove asbestos in it.

9. The definition of a beryllium "extraction plant" was modified by applying the definition to chemical processing only. There is no intent to cover physical beneficiation of ore containing beryllium, as no danger to public health is recognized from this type of operation.

10. The allowable outplant concentration of beryllium is now 0.01 microgram per cubic meter, not 0.010. The third decimal place was eliminated since it appears that accuracy beyond two decimal places for 72-hour samples is questionable and also since the 0.01 microgram reading provides a sufficient margin of safety to protect public health.

11. The test methods and procedures section covering beryllium and mercury have been rewritten to conform to the rewritten test procedures in the appendix.