PLAINTIFF'S
EXHIBIT
FD-127

December 13, 1971

TO: AIR QUALITY COMMITTEE

In the December 7, 1971 Federal Register (Vol 36, No. 235), EPA announced proposed emission standards for three hazardous air pollutants--asbestos, beryllium, and mercury.

Hazardous pollutants are defined as substances which may threaten public health and whose release to the atmosphere must be carefully controlled.

The Clean Air Amendments of 1970 permit the Administrator to establish emission standards for these pollutants even though their current ambient levels do not constitute a dangerous threat.

The proposed standards apply to facilities for producing, manufacturing, or using these substances. There is no mention of asbestos from clutches, or brake linings in the proposed standards. However, the Administrator noted that information on many possible sources of these pollutants is not available in sufficient detail to permit the establishment of emission standards on all sources. Investigations are underway and the standards may be modified in the future on the basis of the findings.

EPA is required to hold public hearings and set forth standards within 180 days of this announcement unless the pollutants are clearly demonstrated to be not hazardous. A notice of the date, time and location of public hearings will be announced within 30 days and written comments will be received for 90 days. The Administrator specifically requested scientific information on the levels of these pollutants which constitute a risk to public health and the extent to which these emission standards would be of benefit to the public health.

The standards for the three pollutants are:

Asbestos

There is no standardized method of measuring asbestos emission levels; so, the proposed standards are not

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numerical values but are expressed in terms of required control practices that will limit emissions to an acceptable level. These practices include:

1. Use of filters to clean gases from mining, milling, manufacturing, and fabrication of asbestos-containing materials

2. Eliminate visible emissions from all sources related to asbestos.

3. Prohibit the spraying of asbestos for fire-proofing and insulation except where the spraying is done under controlled conditions.

The basic processing of asbestos is done in nine mills within the United States. It is estimated that the cost of complying in these mills will average about 0.9% per ton.

Manufacturing facilities to be controlled include asbestos-cement products, asbestos-containing floor tile, asbestos-reinforced friction material, asbestos paper, and asbestos textiles. An average increase in product price of 0.3% for all manufacturers of asbestos containing products is estimated. The most significant increase will be 2.6% for asbestos paper products.

The prohibition of spray applications of asbestos for insulating and fire-proofing is regarded as having no major impact on the price of asbestos. Substitute materials may increase raw material cost as much as 15%, but no due equipment or extensive retraining of personel will be required.

Beryllium

The proposed beryllium standards are:

30 day-	0.01 $\mu g/m^3$
30 minutes-	25 $\mu g/m^3$

The beryllium emission standards will be applied to extraction plants, machine shops, foundries, ceramic plants, repellent plants, and incinerators designed to dispose of toxic substances. The sources may elect to comply with either the 30 day ambient air standard listed above, or an emission standard of no more than 10 grams of beryllium per 24 hour day. If the former control is chosen, the source must measure air concentrations using a sampling network proved by EPA. If the later is chosen, the source

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must periodically test emissions, and report the results to EPA.

The extreme toxicity of beryllium has long been recognized, so most sources already have the emission controls in place to comply with these standards. The beryllium collected in the control equipment can be resold to primary extraction plants, and the cost of control will be almost entirely offset.

Mercury

The mercury emissions standards were developed to insure ambient air concentration of less than 1 $\mu g/m^3$ averaged over 30 days. The proposed standard, which apply to plants manufacturing chlorine and alkalide caustic, as well as, primary mercury mines, limit emissions from each facility to not more than 5 pounds of mercury during any 24 hour period.

It is estimated that the cost of controlling mercury emissions is equal to approximately 2.5-3.5% of the total product worth. Partial recovery of these costs can be expected from the resale of recovered mercury.

The hazardous air pollutants standards must be met by any existing source 90 days after the final regulations are published. However, a waiver of up to two years is possible if the facility cannot be controlled immediately and if steps are taken to assure that the public health will be protected from the immediate risks of significant harm. The President may grant a two year exception if he finds that the technology required is not available and the operation of the source is necessary for the national security.

The existing sources to which the standards apply are required to report to EPA giving information about operations and emissions control systems. New constructions or modification of existing sources can only be undertaken with approval of EPA. A fee will be charged to defray all or part of the cost of reviewing applications for approval of due construction or plant modification.

A copy of the proposed regulation is attached.

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Attachment
Copies to:
Industrial Plant Pollution Control Committee Company
Counsel - J2

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entitled to protection as trade secrets of such person, the Administrator shall consider such records, reports, or information, or particular part thereof, confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such records, reports, or information, or particular part thereof, may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out the provisions of the Act or when relevant in any proceeding under the Act.

§ 61.14 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

(a) Adopting and enforcing any emission standard or limitation applicable to a stationary source provided that such emission standard or limitation is not less stringent than the national emission standard for hazardous air pollutants applicable to such source.

(b) Requiring the owner or operator of a stationary source to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such source.

Subpart B—National Emission Standards for Asbestos

§ 61.20 *Applicability.*

The provisions of this subpart are applicable to the following sources of atmospheric asbestos:

Asbestos mines;
Asbestos mills;
Buildings, structures, or facilities within which manufacturing or fabricating operations involving the use of commercial asbestos are carried on;
Buildings or structures which have been or will be constructed or modified using asbestos insulating products;
Roadway facilities which would be surfaced or resurfaced using asbestos tailings.

§ 61.21 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given in the Act and in Subpart A of this part.

(a) "Asbestos" means any of six naturally occurring, hydrated mineral silicates: Actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite.

(b) "Commercial asbestos" means any variety of asbestos which is produced by the concentration of asbestos ore.

(c) "Asbestos mine" means any facility engaged in the extraction of asbestos ore from the earth for the purpose of recovering commercial asbestos.

(d) "Air flow permeability" means the volumetric rate of air flow in cfm, produced by a pressure decrease of 0.5 in. w.g. across a new, clean filtering fabric, divided by the area of the fabric in ft^2. The test air stream is maintained at nominal atmospheric pressure and temperature.

(e) "Dry drilling" means the process of drilling holes in the earth in the absence of an applied liquid stream, mist-containing stream or air stream.

(f) "Air-swept drilling" means the process of drilling holes in the earth in the presence of a forced or induced air stream, but not a liquid stream or mist-containing stream.

(g) "Wet drilling" means the process of drilling holes in the earth in the presence of a forced liquid stream or mist-containing stream.

(h) "Particulate matter" means any material, other than uncombined water, which exists in a finely divided form as a liquid or solid.

(i) "Asbestos tailings" means any solid waste product of asbestos mining or milling operations which contains asbestos.

(j) "Visible emission" means, for the purpose of this subpart, any emission which is visually detectable.

(k) "Asbestos mill" means any facility engaged in the conversion of asbestos ore into commercial asbestos.

(l) "Manufacturing operation" means the processing of commercial asbestos or the production of any product containing commercial asbestos.

(m) "Fabricating" means the cutting, shaping, assembly, mixing or other altering of any manufactured product containing commercial asbestos.

§ 61.22 Emission standards for asbestos.

(a) Emissions to the atmosphere from asbestos mines shall be limited as follows:

(1) Emissions of particulate matter from air-swept or dry drilling operations shall not exceed those which would be emitted from an air-swept or dry drill, respectively, equipped with a fabric filter device for collection of dust generated from drilling, as described in § 61.23(a).

(2) Emissions of particulate matter from wet drilling operations shall not exceed those which would be emitted from a wet drill equipped with a cyclone gas cleaning device for collection of dust or mist generated from drilling as described in § 61.23(b).

(3) Visible emissions of particulate matter from any mine road surfaced with asbestos tailings are prohibited.

(b) Emissions to the atmosphere from asbestos mills shall be limited as follows:

(1) Visible emissions of particulate matter from asbestos ore dumps, open storage areas for asbestos-containing materials, external conveyors for asbestos-containing materials, or asbestos-containing tailings dumps are prohibited.

(2) Emissions of particulate matter from asbestos ore dryers shall not exceed those which would be emitted from asbestos ore dryers equipped with fabric filter installations as described in § 61.23(e).

(3) Emissions of particulate matter from air streams used to process asbestos ores or for exhausting particulate matter resulting from milling operations shall not exceed the amounts which would be emitted if such air streams were treated in fabric filter installations as described in § 61.23(d).

(4) Emissions of particulate matter from any milling operation which continuously generates visible emissions shall not exceed the amounts which would be emitted if such air streams were treated in fabric filter installations as described in § 61.23(d).

(c) Emissions to the atmosphere from buildings, structures, or facilities within which any fabricating or manufacturing operation is carried on shall be limited as follows:

(1) Emissions, in direct forced gas streams, of particulate matter resulting from manufacturing or fabricating operations shall not exceed the amounts which would be emitted if such forced exhausts were treated in fabric filter installations as described in § 61.23(d) or, where approved by the Administrator because of special process conditions, in wet collectors as described in § 61.23(f).

(2) Emissions of particulate matter from any manufacturing or fabricating operation which continuously generates visible emissions shall not exceed the amount which would be emitted if the air containing such emissions were treated in fabric filter installations as described in § 61.23(d) or, where approved by the Administrator because of special process conditions, in wet collectors as described in § 61.23(f).

(3) Visible emissions of particulate matter from any manufacturing or fabricating operations in an area directly open to the atmosphere are prohibited.

(d) Visible emissions to the atmosphere of asbestos particulate matter resulting from the repair or demolition of any building or structure, other than a single-family dwelling are prohibited.

(e) The spraying of asbestos is limited as follows:

(1) The spraying of any product which contains asbestos on any portion of a building or structure is prohibited.

(2) The spraying of any product which contains asbestos in an area directly open to the atmosphere is prohibited.

(3) Emissions of particulate matter from spraying of any product which contains asbestos, if such spraying is not specifically prohibited in subparagraphs (1) or (2) of this paragraph, shall not exceed the amounts which would be emitted if the air containing such emissions were treated in fabric filter installations as described in § 61.23(d) or, where approved by the Administrator because of special process conditions, in wet collectors as described in § 61.23(f).

(f) The surfacing or resurfacing of any roadway with asbestos tailings is prohibited.

§ 61.23 Referenced equipment specifications.

(a) Fabric filters referred to in § 61.22 (a)(1) are equipped with fabrics having airflow permeabilities not exceeding 40 cfm/ft^2.

(b) Cyclone collectors referred to in § 61.22(a)(2) are operated at not less than 7 in. w.g. pressure decrease as measured from the cyclone inlet to the outlet.

(c) Fabric filters referred to in § 61.22 (b)(2) are equipped with fabrics having airflow permeabilities not exceeding 30 cfm/ft^2.

(d) Fabric filters referred to in § 61.22 (b) (3) and (4), (c) (1) and (2), and (e)(3) are equipped with woven cotton fabrics having airflow permeabilities not

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exceeding 20 cfm/ft². No bypass devices are utilized, and provisions are made for emptying the collection hoppers without creating visible emissions of particulate matter.

(e) Fabric filter devices do not meet the descriptions in paragraphs (a), (c), and (d) of this section if any of the following conditions exist:

(1) Leakage of gases, containing particulate matter, from the control system prior to filtration.

(2) Torn or ruptured bags.

(3) Improperly positioned bags.

(4) Badly worn or threadbare bags.

(f) Wet collectors referred to in § 61.22(c) (1) and (2) and (c)(3) are of the high-energy venturi type operated with a minimum gas pressure decrease across the venturi throat of 40 inches w.g.

(g) Wet collectors do not meet the description in paragraph (f) of this section if any of the following conditions exist:

(1) Leakage of gases containing particulate matter from the control system prior to filtration.

(2) Operation at less than 40 inches w.g. pressure decrease.

(3) Operation at a scrubbing medium flow rate less than specified by the manufacturer for optimum collection efficiency.

§ 61.24 Substitute devices for the attainment of equivalent emission control.

(a) Compliance with any applicable standard of this subpart which refers to a control equipment specification in § 61.23 shall be demonstrated in accordance with this section if the referenced control equipment is not used.

(b) The owner or operator of the emission source shall make available to the Administrator sufficient information as may be required to demonstrate that the substitute equipment will provide the degree of control which, in the judgment of the Administrator, is at least as stringent as that which would be achieved by using the equipment specified in the applicable standard. To the maximum extent practicable, the determination of equivalent degree of emission control will be based upon operation at the actual conditions at which the substitute device is or will be operated on the emission source. Factors which will be considered include, but are not limited to, collection efficiency, reliability, and maintenance practices associated with proper operation of the substitute device.

(c) The owner or operator of the emission source shall submit to the Administrator performance data including, but not limited to, total mass collection efficiency of the substitute control device under actual operating conditions or conditions which are representative of those of the existing or planned operating conditions.

(d) In cases for which it is not reasonable, in the judgment of the Administrator, to require an owner or operator to submit performance data which are based upon actual operating conditions or conditions which are representative of those, the owner or operator shall make available to the Administrator performance data on comparative tests, using suitable standard test aerosols, on the substitute device and the device specified by the applicable standard. The performance data shall include, but not be limited to, the total mass efficiencies of the substitute device and the device specified by the applicable standard.

(e) The total mass efficiency of any substitute device for those specified by § 61.23 (a), (c), or (d) shall not be less than 99.9 percent.

(f) The total mass efficiency of any substitute device for that specified by § 61.23(b) shall not be less than 85 percent.

(g) The total mass efficiency of any substitute device for that specified by § 61.23(f) shall not be less than 99.5 percent.

Subpart C—National Emission Standards for Beryllium

§ 61.30 Applicability.

The provisions of this subpart are applicable to the following sources:

Machine shops;
Ceramic plants;
Propellant plants;
Foundries;
Extraction plants;
Incinerators designed or modified for disposal of toxic substances.

§ 61.31 Definitions.

As use in this subpart, all terms not defined herein shall have the meaning given them by the Act and in Subpart A of this part.

(a) "Beryllium" means the element beryllium excluding any associated elements.

(b) "Extraction plant" means a facility chemically processing beryllium ore to beryllium metal, alloy or oxide, or performing any of the intermediate steps in these processes.

(c) "Beryllium ore" means any material mined, hand cobbed, or gathered in any way specifically for its beryllium content.

(d) "Machine shop" means a facility performing cutting, grinding, turning, honing, milling, deburring, lapping, electrochemical machining, hot rolling, etching or other similar operations on beryllium metal, alloys or oxide.

(e) "Ceramic plant" means a manufacturing plant producing commercial ceramic stock forms, ware, or other items from beryllium oxide.

(f) "Foundry" means a facility engaged in the melting and/or casting of beryllium metal or alloy.

(g) "Propellant" means a fuel and oxidizer physically or chemically combined which undergoes combustion to provide rocket propulsion.

(h) "Beryllium alloy" means any metal to which beryllium is deliberately added and contains more than 0.1 percent beryllium by weight.

(i) "Propellant plant" means any facility engaged in the mixing, casting, or machining of propellant that contains beryllium.

(j) "Total emissions" means the emissions of beryllium in any form or any compound, from all points within a stationary source including emissions from the disposal of beryllium contaminated waste.

§ 61.32 Emission standards for beryllium.

A stationary source subject to this subpart shall, in accordance with the provisions of § 61.38, elect to comply with either paragraph (a) or (b) of this section.

(a) Total emissions to the atmosphere from sources subject to this subpart shall not exceed 10 grams of beryllium in a 24-hour day as measured in accordance with Method 3 in the appendix.

(b) Total emissions to the atmosphere from sources subject to this subpart shall not exceed amounts which result in an outplant concentration of 0.01 micrograms of beryllium per cubic meter of air averaged over a 30-day period, measured in accordance with a sampling network approved by the Administrator.

§ 61.33 Test methods and procedures—stack sampling.

Owners or operators electing to comply with § 61.32(a) shall comply with the requirements of this section and § 61.34.

(a) All beryllium emissions shall be transported through stacks or ducts which permit testing by the methods set forth in Method 3 in the appendix to this part.

(b) All tests shall be conducted to indicate the weight emitted per 24-hour day.

(c) Method 3 set forth in the appendix to this part shall be used as follows:

(1) The minimum sampling time shall be 2 hours, and the minimum sampling volume shall be 75 ft³ as measured by the gas meter. The total gas volume sampled at stack conditions shall be calculated.

(2) The velocity of the effluents shall be determined at stack conditions.

(3) For each repitition, beryllium emission expressed in grams per day shall be determined in accordance with Method 3.

§ 61.34 Periodic stack sampling and reports.

(a) All existing sources shall be tested within 3 months of the effective date of these regulations and at least once every 3 months thereafter.

(b) All sources constructed after the effective date of these regulations shall be tested immediately upon start-up of operations and at least once every 3 months thereafter.

(c) Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which would occur in a 24-hour period. In the case of cyclic operations, sufficient tests shall be made so as to allow accurate determination or calculation of the emissions which will occur over the duration of the cycle.

(d) All samples shall be analyzed, and beryllium emissions shall be calculated within 5 working days after collection of samples. A total emission exceeding the

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