

Wayne Hunter

The DYNA-THERM Corporation

598 WEST AVENUE 28, LOS ANGELES, CALIFORNIA 90065

CABLE: DYNATHERM



(213) 223-2415

May 3, 1973

Al, this is reply by Dynatherm to
my letter for interpretation of Federal Register.

Also PHOTOS CONCERNING TESTS.

You SHOULD HAVE LAB REPORT
ALREADY + COPY OF MY LETTER

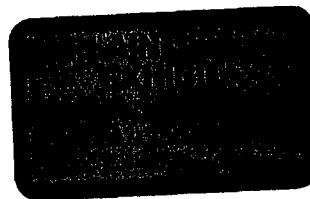
J. Genter
5/9/73

Bob Johnson

6-17-73

Mr. W. D. Steindorf, Buyer,
Point Comfort Operations,
Aluminum Company of America,
Point Comfort, Texas. 77978

Dear Mr. Steindorf:



I am enclosing the copies of the photographs requested by Mr. Genter. I'm sorry they were not available earlier, but it took some time to obtain the negatives and have prints made. I hope they will be of assistance to you.

With regard to the reference made by Mr. Genter to Volume 38 of The Federal Register No. 66, dated April 6, 1973, we have the following comments:

1. It is our understanding that the effective date of these regulations with respect to asbestos has been moved ahead and they presumably will go into effect in October of this year.
2. We feel that the intent of the regulation is described on page 8821 (enclosed) where it states "The promulgated standard applies to those uses of spray-on asbestos materials which could generate major emissions of particulate asbestos material." Since the tests we have had performed have shown no emissions of asbestos fibers occurring in the application and use of Flamemastic 71A, we are of the opinion that the use of the material falls under those sections of the presently existing Rules and Regulations cited in our previous letter.
3. The spray-on materials referred to in the regulations are undoubtedly the fragile low-density fibrous insulations applied to a thickness of two to four inches on steel beams in high-rise buildings and factories. These materials do produce major particulate emissions both in their application and when such installations are demolished. Flamemastic 71A is not basically an insulation material due to

Continued.....

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Mr. W. D. Steindorf

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the de-rating problems inherent in the insulation of power cables, and therefore it has little in common with the above-mentioned materials.

This is our interpretation of the existing and proposed Rules and Regulations. We would appreciate any comments you may have.

Very truly yours,

THE DYNA-THERM CORPORATION

A handwritten signature in cursive script, reading "Roger L. Peterson".

Roger L. Peterson,
Assistant to the President/Research.

/cr
Enclosures

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material's, demolition operations, and the surfacing of roadways with asbestos tailings. The Administrator will continue to investigate other existing and new sources of asbestos emission and if any of them are found to be major sources, the standard will be revised to cover them.

As applied to mines, the proposed standard would have limited the emissions from drilling operations and prohibited visible emissions of particulate matter from mine points surfaced with asbestos tailings. The Bureau of Mines has prescribed health and safety regulations (30 CFR 55.5) for the purpose of protecting life, the promotion of health and safety, and the prevention of accidents in open pit metal and nonmetallic mines. As related to asbestos mines, these regulations prohibit persons working in a mine from being exposed to asbestos concentrations which exceed the threshold limit value adopted by the American Conference of Governmental Industrial Hygienists. The regulations specify that respirators shall not be used to prevent persons from being exposed to asbestos where environmental measures are available. For drilling operations, the regulations require that the holes be collared and drilled wet. The regulations recommend that haulage roads, rock transfer points, crushers, and other points where dust (asbestos) is produced sufficient to cause a health or safety hazard be wetted down as often as necessary unless the dust is controlled adequately by other means. In the judgment of the Administrator, implementation of these regulations will prevent asbestos mines from being a major source which must be covered by the standard promulgated herein. Furthermore, the public is sufficiently removed from the mine work environment that their exposure should be significantly less than that of the workers in the work environment. Accordingly, the promulgated standard does not apply to drilling operations or roadways at mine locations.

For asbestos mills, the proposed standard would have applied to ore dumps, open storage areas for asbestos materials, millings dumps, ore dryers, air for processing ore, air for exhausting particulate material from work areas, and any milling operation which continuously generates implant visible emissions. The promulgated standard prohibits visible emissions from any part of the mill, but does not apply to dumps of asbestos millings or open storage of asbestos ores. The Bureau of Mines' regulations previously referenced and regulations issued by the Occupational Safety and Health Administration (20 CFR 1910.93a) protect workers from the hazards of air contaminants in the work environment. The Occupational Safety and Health Administration regulations were promulgated June 7, 1972. The regulations are intended to protect the health of employees from asbestos exposure by means of engineering controls (i.e. isolation, enclosures, and dust collection) rather than by personal protective equipment. It is the judgment of the Administrator that

measures taken to comply with the Bureau of Mines and Occupational Safety and Health Administration regulations to protect the health of persons who work in proximity to dumps and open storage areas will prevent the dumps and storage areas from being major sources of asbestos emissions.

The proposed standard would have applied to buildings, structures, or facilities within which any fabricating or manufacturing operation is carried on which involves the use of asbestos materials. Comments received on the proposed standard indicated that the requirements for fabricating and manufacturing operations were confusing. Much of the confusion was created by the use of terms such as "any," "continuously," and "forced gas streams." The promulgated standard is more definitive as to applicability of the provisions. The promulgated standard prohibits visible emissions from the mine manufacturing operations which, in the judgment of the Administrator, are major sources of asbestos. The promulgated standard does not cover fabrication operations. Of all fabrication operations, only those operations at new construction sites are considered to be major sources of asbestos emissions. The Occupational Safety and Health Administration regulations specify that all hand- or power-operated tools (i.e. saws, scorers, abrasive wheels, and drills) which produce asbestos dust be provided with dust collection systems. In the judgment of the Administrator, implementation of these regulations will prevent fabrication operations from being a major source which must be covered by the standard promulgated herein.

The proposed standard would have prohibited visible emissions of asbestos particulate material from the repair or demolition of any building or structure other than a single-family dwelling. Comments indicated that the no visible emission requirement would prohibit repair or demolition in many situations, since it would be impracticable, if not impossible, to do such work without creating visible emissions. Accordingly, the promulgated standard specifies certain work practices which must be followed when demolishing certain buildings or structures. The standard covers institutional, industrial, and commercial buildings or structures, including apartment houses having more than four dwelling units, which contain friable asbestos material. This coverage is based on the National Academy of Sciences' report (53) which states, "In general, single-family residential structures contain only small amounts of asbestos insulation. Demolition of industrial and commercial buildings that have been fireproofed with asbestos-containing materials will prove to be an emission source in the future, requiring control measures." Apartment houses with four dwelling units or less are considered to be equivalent to single-family residential structures. The standard requires that the Administrator be notified at least 30 days prior to the commencement of demolition.

The proposed standard would have limited emissions from a number of sources by stipulating that such emissions could not exceed the amount which would be emitted from the source if the source were equipped with a fabric filter, or, in some cases, a wet-collection air-cleaning device. This would have required a standardized emission-measuring technique, which is not currently available. The promulgated standard prohibits visible emissions which contain asbestos and provides the option of using specified air-cleaning methods. The existence of particulate asbestos material in a gas stream vented to the atmosphere can be determined by collecting a sample on a filter and analyzing it by microscopy techniques. The proposed standard stated that the air-cleaning requirement would not be met if a number of listed faults, e.g., broken bags, leaking gases, threadbare bags, existed and it required that collection hoppers on some baghouses be emptied without generating visible emissions. Comments received suggested that this negative approach tended to make the quality of air-cleaning operations dependent upon the ability of EPA to anticipate and to include in the standard all the factors which would constitute improper methods. Since the intent was, and is, to require high quality air-cleaning operations, the promulgated standard requires proper installation, use, operation, and maintenance without precisely defining the means to be used.

The proposed standard would have prohibited the spraying of any material containing asbestos on any portion of a building or structure, prohibited the spraying of any material containing asbestos in an area directly open to the atmosphere, and limited emissions from all other spraying of any material containing asbestos to the amount which would be emitted if specified air-cleaning equipment were used. Comments received pointed out that this standard would: (1) Prohibit the use of materials containing only the trace amounts of asbestos which occur in numerous natural substances, (2) prohibit the use of materials to which very small quantities of asbestos are added in order to enhance their effectiveness, and (3) prohibit the use of materials in which the asbestos is strongly bound and which would not generate particulate asbestos emissions. The promulgated standard applies to those uses of spray-on asbestos materials which could generate major emissions of particulate asbestos material. For those spray-on materials used to insulate or fireproof buildings, structures, pipes, and conduits, the standard limits the asbestos content to no more than 1 percent. Materials currently used contain from 10- to 80-percent asbestos. The intent of the 1-percent limit is to ban the use of materials which contain significant quantities of asbestos, but to allow the use of materials which would: (1) Contain trace amounts of asbestos which occur in numerous natural substances, and (2) include very small quantities of asbestos (less than 1 percent) added to enhance the material's effectiveness. Although a

SUMMARY STATEMENT

The \$30,000 requested will be used to apply a flame retardant coating to cable trays in vulnerable areas of the Alumina and Chemicals Plant. Such a program has been recommended by the Pittsburgh Electrical Engineering Division.

DETAILED STATEMENT

Much of the conductor insulation used at Point Comfort is PVC or cross-linked polyethylene. Both of these materials burn quite readily if sufficient heat is applied and are usually not self-extinguishing if installed in:

- a. Vertical cable ladders
- b. Horizontal cable ladders in confined spaces when the ambient temperature has been raised by an intense fire.

Serious raceway fires have occurred at Bauxite and Point Henry and have prompted studies and recommendations by Pittsburgh Electrical Engineering Division. The use of flame retardant spray coatings is preferred over the installation of fire-detection devices or the installing of CO₂ or foam fire-extinguishing systems and has been recommended for areas of vulnerability requiring protection.

A review of Point Comfort's Alumina and Chemicals Plant has resulted in determining initial priority in applying coatings to cable trays. All motor control centers and certain vulnerable areas at R-110 (cable vault, load center No. 4, etc.) and R-300 (certain trays in the cell room area) will be treated. Firestops will be made in several locations where tray exits buildings and on certain vertical risers. MCC's to be treated are R-25-3Y, R-30-5Y, R-32X, R-33-1Y, R-35T-4Y, R-35-5Y, R-42X, R-45-8Y, R-45-9Y, R-53X, R-55-5Y, R-55, R-60, R-70Y, R-73X, R-81X, R-81S, R-84X, R-84Y, R-84, R-300, R-301, R-327X, No. 4--R-110, No. 4 load center, R-110, and padding air building R-110. (See drawing G-006000-PC)

Flamemastic, a tradename by Dyna-Therm Corporation, is the material which will be used. Flamemastic is a non-flammable, water-base compound consisting of thermoplastic resinous binders, flame retardant chemicals, and inorganic incombustible reinforcing fibers. Application is by a heavy mastic pump and gun. MCC R-319X was sprayed in 1971 as a field test with Pittsburgh Engineering.

This project has been recommended by Pittsburgh Electrical Engineering Division and is programmed to be carried out throughout the company. This is the initial phase of the program at Point Comfort and additional applications to smelting MCC's and other areas will be made in the future.

FROM A. A. RAMBIKUR
ENVIRONMENTAL CONTROL

TO MR. WAYNE GENTER
ENGINEERING

cc: Mr. C. L. Green
Mr. C. F. Scott
Mr. T. Flores
Dr. P. R. Atkins - Pittsburgh

September 26, 1973

RE: SPRAYING CABLE TRAYS WITH FLAMEMASTIC FLAME RETARDANT

Considerable delay has been encountered in obtaining clarification as to whether EPA regulations permit use of Flamemastic for coating cable trays in Refining. The writer originally objected to use of Flamemastic on the basis of a paragraph in the Federal Register, Vol. 38, Number 66, April 6, 1973, Section 61.22(e):

"e. Spraying: There shall be no visible emissions to the outside air from the spray on application of materials containing more than 1 percent asbestos, on a dry weight basis, used to insulate or fire-proof equipment and machinery except as provided in paragraph (f) of this section. Spray-on materials used to insulate or fire-proof buildings, structures, pipes and conduits shall contain less than 1 percent asbestos on a dry weight basis."

It seemed that the last sentence was the pertinent one, "Spray on materials.....shall contain less than 1 percent asbestos....." Flamemastic contains 7% asbestos and was to be sprayed outdoors on cable trays.

However, we now have a copy of a letter from EPA's Region IX, San Francisco (attached), in which they state that our type of spraying "is included under the provisions.....for equipment and machinery" which requires that no visible emissions be generated. Since Dyna-Therm Corporation has supplied us with a report from an independent analytical laboratory stating there were no visible asbestos fibers found on the sample filter, the writer withdraws his objections to use of Flamemastic for fire retardation at Point Comfort Operations. It is suggested that all personnel in the immediate vicinity be supplied with respiratory protection and that the spraying be monitored to insure that there are no visible emissions. In addition, Mr. T. Flores, extension 277, should be notified when spraying is to occur so he may monitor the atmosphere with personnel samplers.

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A. A. RAMBIKUR



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

JUL 27 1973

Mr. Robert Groves, Senior Vice-President
The Dyna-Therm Corporation
11120 Sherman Way
Sun Valley CA 91352

Dear Mr. Groves:

This is in response of your request of June 25, 1973 for a determination of the applicability of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) to the spraying of material containing more than 1% asbestos for the purpose of providing fireproofing of electrical cables.

Section 61.22 (e) of the NESHAPS regulation applies to the spraying of asbestos for purposes of insulating and fireproofing. Spraying of electrical cables is included under the provisions of this section for equipment and machinery. Therefore, no visible emissions to the outside air are allowed from the spray on application of Flameastic 71A.

Questions regarding this determination may be directed to Mr. Stanley Zwicker of our Permits Branch (415-556-3450).

Sincerely,

Richard L. O'Connell
Director, Enforcement Division

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