

ENVIRONMENTAL PROTECTION AGENCY PUBLIC HEARINGS
ON PROPOSED EMISSION CONTROL STANDARDS
FOR ASBESTOS, BERYLLIUM AND MERCURY --

LOS ANGELES, ~~REDACTED~~ FEBRUARY 15, 1972

STATEMENT OF MR. WARREN DARRELL, DIRECTOR
OF MANUFACTURING, INDUSTRIAL PRODUCTS DIVISION,
GAF CORPORATION

My name is Warren Darrell and I am Director of Manufacturing for the Industrial Products Division of GAF Corporation. I have ~~complete line~~ responsibility for the operation of 15 of our company manufacturing operations in a variety of different product lines, encompassing mining, papermaking, rock crushing and textile type operations.

Two of the plants in our division are directly related to asbestos fibres, one being our asbestos mining and milling operation just north of Hyde Park, Vermont, and one being our asbestos paper manufacturing facility in Erie, Pennsylvania. ~~Since 1946, I have had direct supervisory responsibility in various plants utilizing asbestos fibres as a raw material and, since 1968, I have had corporate responsibility for the operations of asbestos mining and milling facilities.~~ *I am here to discuss EPA's emission control standards ~~and~~ for asbestos and the hazardous nature of asbestos.* *unresolved*

The proposed national emissions standards on asbestos, if enacted, would affect 14 GAF plants nationwide. As Mr. Fraser has pointed out, GAF feels it can comply with the proposed EPA regulations at all the plants, with some exceptions at the Hyde Park, Vermont, asbestos mining and milling facility. ~~We believe that in order to insure compliance the~~

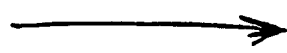
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~~definitions as outlined in the testimony of Johns-Manville Corporation
need to be adopted.~~

Hyde Park is a key GAF plant. Not only does it produce material for ~~10% of~~ our domestic customers ~~and 2% foreign~~; but also produces the asbestos fiber required in many of the products we manufacture ourselves. I would like to discuss this mine in light of the proposed standards since it is representative of other asbestos mines in the United States.

The largest single source of air borne emissions there is from the ore dryer exhaust. About two years ago, we installed a dust collecting device that has reduced those emissions by over 600 per cent. We are striving for even more improvement and, in fact, have engaged engineering consultants for recommendations.

~~We suggest that additional studies be made by the government to determine
first of all whether~~



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We have completed a study of what else is required by EPA. We feel we have the known technology to overcome all but the following emissions:

1. The emissions which come from the depositing of material on the tailings pile from the conveyor.
2. The wind-blown emissions from the unconsolidated portions of the tailings pile.
3. The emissions involved with the building up and feeding to the mill of the wet rock which has been through the primary crushing operation.

Judging by what we have been able to determine from our own studies and from contacts with the major chrysotile asbestos producers in Canada, there is no known technology to ~~accomplish this~~ ^{cause of which}. Therefore, we suggest WST that additional studies be made by the government to determine first of all whether a real hazard exists. If these findings are substantiated GAF, of course, would cooperate in any further studies to learn how the problems can be technically resolved.

Meanwhile, through research and tests we are striving to increase our knowledge of asbestos. For example, at one of our laboratories we are investigating what we call "vegetative stabilization," a process to stabilize mountains of tailings pile. With grass or some other ^{as yet unknown} sub-

I would now like to discuss briefly the emissions which emanate
As we transport fresh tailings pile to new locations,
from the tailings pile. ~~As we transport the older, undisturbed tailings pile,~~
become consolidated and inert and project no fibrous problem.
tailings pile, ~~thereby causing no problem~~
~~to develop as that in which emissions emerge from these older portions.~~

In the area of the pile where fresh tailings are being deposited, this consolidation
does not develop until another location on the pile is used for
depositing the tailings.

Last year GAF installed equipment at Hyde Park which was designed to
increase the extraction of asbestos fibre in the host rock. Some of the
asbestos fibre separates from the host rock and is in a free fibre form,
but the majority of fibre has not been separated and clings to that rock
rather tenaciously. ^{SINCE THE NEW EQUIPMENT} Our tests indicate that the amount of asbestos fibre
that goes out with the rock to the tailings pile dump constitutes less than
one-half of one per cent of the total material.

Further, our observations indicate that because of the loose and
gravelly nature of much of the material going to the tailings dump, rain
and melting snow leach much of this free fibre down below the surface so
that it is not available for emissions.

~~You might be interested to know that
four inches of snow covered the area in pretty much every week.~~
In fact, during the winter season last year 104 inches of snow covered the area.

Although we have no measurement of the amount of asbestos fibre
content in a given quantity of air at any point from the tailings and out
to our property line, our judgment is that the amount of asbestos fibre in
the emissions is quite small and well below the newly adopted Federal
Occupational Health and Safety Act (OSHA) standards of five fibres per
militer. In addition, we feel that the visible emissions are primarily

rock dust from the host rock rather than asbestos fibres. This rock-dust constitutes 99 per cent or more of the material going to the tailings pile.

Should it develop that technology cannot be found to control the visible emissions from the tailings pile, we will then ~~be forced to~~ ^{H&P} evaluate the future of ^{our} Hyde Park mine. Our overriding concern, after all, is with the health of our employees. If it is shown that in the best interest of our environment and people that operations should cease, ~~then~~ there is no question what will occur.

~~As you know, the lack of a definite procedure for determining asbestos content is a problem in the proposed rules. The emissions from a fabricating or manufacturing operation are limited to the amount which would be emitted if the exhaust were passed through a specific fabric filter. There is no method specified, however, to determine whether an emission from a manufacturing site is below or above the value for the cloth filtration unit.~~

Incidentally, we think the lack of a definite procedure for determining asbestos content is a problem in the proposed rules. ^{AS YOU KNOW} The emissions from a ^{UNDER THESE STANDARDS} fabricating or manufacturing operation are limited to the amount which would be emitted if the exhaust were passed through a specific fabric filter. There is ^{no} method specified, however, to determine whether an emission from a manufacturing site is below or above the value for the cloth filtration unit.

How can ^{you} prove that an effluent from a plant which has a visible emission of non-asbestos fumes (plasticizer or asphalt), which ^{are} ~~are~~ liberated from an asbestos felt operation, falls within the accepted limits? In other words, if we process an asbestos felt which in itself does not liberate a

exposure.

From what we read, apparently there are non-occupational connections with crocidolite fibre such as that produced in South Africa. We mill and mine chrysotile fibre in a sparsely inhabited section of Vermont. We know of no non-occupational connected medical problems due to emissions from this mining and milling operation.

Recent regulations promulgated by OSHA allow a concentration of five fibres of a given length per millimeter of air for the environment in which an occupation can be conducted without the use of respirators and other devices of that type. It is to be assumed that this allowable concentration has been determined by the authorities to be safe. We would judge that the concentration of asbestos fibres in the wind-blown emissions from our tailings pile would be less than that which has been adopted by OSHA. ~~Thus it would seem that if the technology for controlling emissions from tailings pile is not developed and that regulation is adopted, we might be forced to close operations for contributing to the environment with less of a concentration than is permissible for occupational activity.~~

A similar situation exists in connection with the wet rock storage pile. Therefore, in addition to the changes in definition requested by Mr. Edmund Fenner of Johns-Manville Corporation, we request that Section 6122, Par. b(1) of Sub Part B not be applicable to asbestos ore dumps, open storage areas or tailings dumps. Further, we recommend that studies be made of these

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areas to determine the existence or non-existence of a real hazard. We also recommend that before regulations are adopted studies be made of chrysotile asbestos fibers to determine whether there is a health problem in relation to human beings.

Another of ~~EPA's~~ proposed regulations merits comment. Paragraph 61.23 (d) of Sub Part B defines the fabric filters to be utilized as "woven cotton fabrics having airflow permeabilities not exceeding 20 cubic feet per minute." Some GAF plants manufacture non-woven filtration media from fibres other than cotton. We believe that ~~the~~ filter media ~~we manufacture~~ is of excellent quality and can be employed so that it is at least equally as effective as woven cotton media. We suggest that the regulations be rewritten so as not to exclude these ~~smaller~~ types of filtration media from the asbestos emissions field.

As stated, GAF agrees with Johns-Manville that all references to material and/or particulate matter in the definition should be worded "asbestos containing material."

As in waste products, we recommend an additional definition of this phrase. For example, "waste products mean any asbestos containing material which is intended to be ~~discarded~~ and not reprocessed or reused in any way."

Also, a slight change could clarify the definition of visible emissions

(61.21 (j)) by adding, "any emission containing asbestos that is visually detectable."

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We further question the wording of Section 61.22 (e) (1,2) which states: "The spraying of any product which contains asbestos on any portion of a building or structure or an area directly open to the atmosphere is prohibited."

This, we feel, is too broad a ~~restriction~~ because it eliminates the spray application of bituminous roof coatings and adhesives that contain asbestos fiber. Both asphalt cutback coatings and cements as well as asphalt and tar emulsions that contain from three to ten per cent of thoroughly wetted and dispersed asbestos in the liquid binder are used extensively in roofing and waterproofing service.

Modern methods call for applying these materials by a spray nozzle which in no way produces hazardous emissions of asbestos fiber. These are not atomizing sprays that form fine mist particles, but they deliver a sheath or solid liquid fan which does not create emissions to the atmosphere. Once the fluid is on the building, the material dries and the asbestos is entrapped in a bituminous matrix that prevents it from entering the atmosphere. We think there is no technical justification for imposing a restriction on the method of application.

Of course, we concur with limitations on spraying of asbestos containing compositions that have the potential to liberate asbestos particles that become airborne. But, for now, we suggest that an alternate wording be provided for Section 61.22 (e) (1,2) that will permit fluid applications of paints, coatings, and adhesives, ~~such as the following:~~

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In conclusion, GAF reiterates its recognition of the desirability and necessity for effective emissions control. With the exceptions I have discussed, we support EPA's national emissions standards on asbestos.

We suggest that the tailings pile section and mine road section be deleted until modern engineering offers an answer to these problems.

In any event, GAF will continue its own search for practical ~~environmental~~ environmental controls at all plants.

Thank you.

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gaf memo:

FROM: Bob Bettis

1/26/72

To: Paul Weiner

Here's a draft of Mr. Darrell's
EPA testimony.

When it is typed, please have
two copies sent over to me.

Bob

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