DOW CHEMICAL U.S.A.

January 7, 1976

MIDLAND, MICHIGAN 48640

24 - Asbestos Regulatory Stds.

Bill Caines, Oyster Creek
W. B. Crummett, 674
R. L. Daniel, B101, Freeport
R. R. Langner, 1803
C. F. MacGowan, Washington, D.C.
R. D. Olson, 607
V. K. Rowe, 1803

cc: F. D. Hoerger, 2030
D. J. Roberts, 2030

PROPOSED OSHA STANDARD - ASBESTOS

According to the Dow input I have received on OSHA's asbestos proposal, our major concern is the possibility of regulated areas in or around chlorine cells. (Donna Roberts, Dow U.S.A Legal, believes that maintenance operations are not covered by this standard).

It seems to me we have two options in our written comments:

1. Push for no regulated area. Since this is a key control concept in the OSHA approach to carcinogens, I doubt we could be successful.

2. Argue for regulated areas at some level above 0.5 fibers/cc, based on the ubiquitous nature of asbestos and the imprecision of field monitoring.

I have enclosed a rough draft of my comments supporting a regulated area at the ceiling level of 5 fibers/cc over a 15 minute sampling period. Please review this draft, strengthen with additional data or discussion, and return it to me as soon as possible. Also, add any other comments on the OSHA proposal that you deem appropriate. I would like to circulate a final draft of the Dow comments by the week of January 26.

Jim

James W. Conder
Health and Environmental Research

Attch.

pl

Specific comments regarding the OSHA proposal for asbestos:

(d) Regulated Areas

We strongly object to the requirement for establishing a regulated area where a person "may" be exposed to airborne concentrations of asbestos in excess of either the permissible exposure or the ceiling concentration. There are several reasons for this objection:

1. Asbestos is a ubiquitous material[1] and its presence cannot be ~~proscribed~~ prohibited by designating "clean" and "dirty" areas. For this same reason, we expect no gain in employee health from requirements for specially constructed change rooms, showers and lavatories in areas which "may" exceed a level as low as 0.5 fibers per cubic centimeter.

2. Field monitoring techniques lack the precision needed for determining the location of regulated areas at concentrations as low as 0.5 fibers per cubic centimeter. The expense of constructing and maintaining regulated areas based on such determinations is unwarranted, especially considering that the standard deviation of the monitoring technique equals the prescribed TWA[2].

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[1] A recent EPA study found over 10,000,000 fibers per ounce of dust on roadways in the Washington, D.C. area. (The Washington Post, Dec. 19, 1975).

[2] A recent statistical analysis of asbestos fiber counting reported that, under field conditions, the standard deviation varied between 0.4 and 1.2 fibers/ml. (G. S. Rajhans and G. M. Bragg, "A Statistical Analysis of Asbestos Fiber Counting in the Laboratory and Industrial Environment". AIHA Journal, Dec., 1975.)

3. The term "may be exposed" is too subjective for determining the need for expensive and cumbersome regulated areas. If OSHA insists on the questionable practice of ~~such~~ regulated areas for a ubiquitous material, the delineation of "clean" and "dirty" areas should be technically and semantically demonstrable.

We recommend that the first sentence of this section be changed as follows:

> Any work area where a person may reasonably be expected to be exposed to airborne concentrations of asbestos fibers in excess of the ceiling concentration shall be designated a regulated area.

ST0511004

(f)(6) Mechanical Ventilation

The requirement to test system effectiveness after "any change in production process or control which might result in any change in employee exposure" is needless. We recommend that the system tests be conducted after any change which might result in an increase in employee exposure.

(h) Personal Protective Clothing

This section calls for the employer to provide personal protective clothing. According to a recent court ruling[3], provision for such equipment by either the employer or the employee is consistent with the Act.

(O)(2)(ii) Observation of Monitoring

This section allows the employees or their representatives to observe measurements and record the results obtained. We recommend deleting all reference to recording the results, since the monitoring procedure is an indirect reading and the fibers are counted in an analytical laboratory.

[3]Budd Company versus OSHARC, 2 OSHA 1698 (3rd Cir., 1975).

ASBESTOS INFORMATION ASSOCIATION
NORTH AMERICA
1660 L Street, N.W. / Washington, D.C. 20036 / (202) 223-4885

12 December 1975

Mr. C. B. Branch
Chairman
Dow Chemical Company
Midland, Mich. 48640

Dear Mr. Branch:

I am writing with regard to the proposal of the Department of Labor (OSHA) to reduce the eight-hour time weighted average exposure of five fibers per cc to 0.5 fibers per cc of air. The proposed standard would apply to all work places where occupational exposure to asbestos is present except the construction industry for which a separate standard is to be developed.

Enclosed is a memorandum from Guy G. Gabrielson, Jr., Chairman of the Board, Nicolet Industries, Inc., who is serving as the task force chairman of the Asbestos Information Association/North America for an industry response to the OSHA proposal. Mr. Gabrielson outlines the work the Association is undertaking on behalf of the asbestos industry.

We hope that you will participate in this vital effort through membership in the Association. An application form and a pamphlet describing the Association (but not including all present members) is enclosed. As Mr. Gabrielson points out, it is planned to submit an industry response on behalf of all those companies and unions who indicate their willingness to participate in the development of data whether or not members of the Association. Your membership in the Association is solicited, but if for whatever reason you elect not to become a member of AIA/NA, we hope that you will support the program outlined by Mr. Gabrielson by participation in the development of the presentation and through your financial support.

It is possible that you have already been in contact with AIA/NA following correspondence from our membership chairman, or from member companies who have encouraged their associates to consider membership in the Association. What is proposed in Mr. Gabrielson's memorandum, fully endorsed by the AIA/NA membership, specifically addresses our plan for an industry response to OSHA, AIA/NA member or not.

I urge your earliest consideration of the attached memorandum.

Tom Dougherty

Thomas A. Dougherty
President
Enclosures

403172

AIA NORTH AMERICA ASBESTOS INFORMATION ASSOCIATION
1660 L Street, N.W. / Washington, D.C. 20036 / (202) 223-4885

M E M O

12 December 1975

TO: U.S. Manufacturers of Asbestos Products

FROM: G. G. Gabrielson, Jr., Chiarman, AIA/NA Industry Regulation Task Force

SUBJECT: Proposed OSHA Regulation, Occupational Exposure to Asbestos, 29 CFR Part 1910 (Copy Enclosed)

ST0514007

A very limited informal sampling of opinion within the asbestos manufacturing industry indicates that the 0.5 fibers per cc. standard for factory air specified in the proposed revision of the OSHA asbestos standard may not be feasible technologically and could have a severe, if not disastrous, adverse economic impact on the industry. This and other problems raised by the proposed revision were carefully considered by the Board of Directors of the Asbestos Information Association/North America at its meeting on December 11th.

It is the opinion of the members of the Board that an industry response to the proposal which endeavors to limit the number and extent of individual dissents might avoid the damage to credibility which recently has resulted from uncoordinated and conflicting presentations offered by companies in other industries faced with proposed regulations for the protection of the health of their employees. The Board recognizes, however, that the very short period of time within which the asbestos industry must act does not permit the use of the conventional committee method of achieving an industry consensus. (It is our expectation that the AIA/NA request for an extension of time within which to comment upon the proposed regulation will be granted, but only for 60 days beyond the original December 8th deadline, and that the extension will have been announced by the time you receive this memorandum.) The issue for consideration, then, is: how can we act expeditiously and still present a credible industry position to which individual companies, and possibly their unions, conscientiously can adhere?

The Executive Committee of the AIA/NA proposed to the full Board and on December 11th, it approved the following general outline of an emergency plan of action:

403173

(1) The Association will announce that it intends to develop an industry response to the proposed new OSHA asbestos regulation and that it has authorized initial funding for the project of $75,000.

(2) The Association will invite non-member companies to participate in the development of this industry response by providing relevant data or opinion and contributing to the cost of the project, if they are willing; or by providing relevant data and opinion alone, if they do not choose financial support. Participating companies and their unions will be asked to join in the final preparation of a joint recommendation to OSHA, each participant reserving to itself the unqualified right to refuse to endorse the presentation or to file a dissenting or supplementary statement.

(3) The Association will ask its Medical Advisor, Dr. Hans Weill, to prepare a report summarizing the results of all significant scientific studies relating to asbestos and health and detailing the full range of responsible opinions which have been or may be drawn from those studies (see supplementary note attached).

(4) The Association will enter into a contract with an independent consulting firm, Roy F. Weston, Inc. of West Chester, Pennsylvania, to gather data and opinion from participating companies and to prepare a report on the feasibility of the 5.0 fiber, 2.0 fiber and 0.5 fiber standards and on the economic impact of each such standard on each of the segments of the asbestos manufacturing industry (see supplementary note attached).

(5) Participating companies will submit in writing to the Executive Director of the AIA/NA before January 15, 1976 any comments or recommendations which they may choose to make on any phase of the proposed regulation (because of time constraints some participating companies may not be visited or contacted by our independent consultant).

(6) The Association will reproduce the medical and feasibility-economics reports and then will draft a summary of both reports, together with a proposed industry recommendation, all three documents to be presented to a meeting of representatives of participating companies and unions in the Washington, D. C. area during the first week of February 1976. If we can achieve at that meeting substantial agreement to the combined report (the medical report, the feasibility-economics report and the summary and recommendations), it will be formally submitted in writing to the Department of Labor on behalf of all those companies and unions (whether or not members of AIA/NA)who there vote to endorse it.

(7) If there is later a hearing on the proposed regulation, the AIA/NA and participating non-members will consider offering testimony in support of their joint recommendations.

It is most important to note, at this juncture, that the British asbestos industry has formed a committee to provide, through AIA/NA information and assistance, to the U.S. asbestos industry in the development of its response to the proposed OSHA regulation. This help should be of great value.

You also should be advised that the Department of Labor has entered into a contract with a Pittsburgh consulting firm, CONSAD Research Corp., to prepare for it a study of the projected inflationary impact of an implementation of its proposed new regulation. Your company may be contacted by CONSAD to supply data for their study.

It is my privilege to invite you to join with us in the preparation and presentation of an industry response to OSHA's proposal. If you decide to participate, will you please:

(1) Write to me in care of AIA/NA signifying your intention to support the program and cooperate in the development of an industry position.

(2) Designate in your letter a senior official of your organization who will be a member of the Industry Regulation Task Force and who will be responsible for supplying data and information from your company. (This individual should be in a position to attend our February meeting in Washington and should have authority to represent your company and to vote for or against endorsement of the industry presentation there to be considered.)

(3) Indicate in your letter whether or not you are willing to contribute funds to the development of an industry response.

(4) Proceed immediately to assemble the data and form the opinions which will be required to complete the feasibility-economics report described in the note attached.

(5) Submit to the Executive Director, AIA/NA, prior to January 15, 1976 your individual written comments or recommendations concerning any aspect of the proposed new asbestos regulation.

(6) Meet with each local union representing your employees to suggest that it:

> (a) petition its international union to express in writing to the Secretary of Labor its opposition to the proposed asbestos standard and to participate in the development and presentation of an industry reponse to the standard as proposed; or, in the alternative,

(b) simply take the same action as a local union. (At least one company has had favorable responses to such overtures to its locals.)

If you wish to discuss this matter personally either before or after joining us, I would be delighted to have you call me at my office in Ambler, Pennsylvania, telephone (215) 646-4000. Prompt and concerted action is essential if we are to have any chance of mitigating the damage which the proposed regulation may do to our businesses.

Guy George Gabrielson Jr.

Enclosures

NOTE

Medical Report

It is anticipated at this time that Dr. Weill will review recently published studies concerning asbestos and health and unpublished studies on the subject to which he may have access (including, in particular, those to which reference is made in the proposed OSHA regulation); that he will correspond with or interview by telephone or in person such experts in the field of asbestos and health as he may choose for the purpose of eliciting additional information which might aid in the interpretation of the studies and for the purpose of defining conclusions or inferences which have been or may be drawn from the studies; and that he will prepare a report which will describe briefly the present body of knowledge concerning asbestos and health and which will list the different conclusions which have been expressed by recognized scientists concerning the meaning and significance of that body of knowledge. Typical differences of opinion which appropriately might be described in Dr. Weill's report are those concerning such questions as:

(1) Is asbestos a carcinogen, a co-carcinogen or merely a vehicle for transporting carcinogens into the lung and holding them there?

(2) Do the different varieties of asbestos have different impacts upon the health of exposed individuals?

(3) Is the geometry of the fiber the important health consideration, and, if so, are all inorganic fibers within a certain range of sizes equally dangerous?

(4) Is there a threshold limit below which asbestos exposure is not threat to human health and where might that limit be?

(5) Are there differences in individual susceptibility to the harmful effects of asbestos on health and therefore, possibly, a different threshold limit for each individual person?

NOTE

Feasibility - Economics Report

The feasibility-economics report should include, at minimum:

(1) a statement of monies already spent and projected to be spent on dust control in each segment of the asbsestos manufacturing industry,

(2) a record of the improvements achieved to date in dust counts at each production step in each segment of the industry,

(3) a statement of operating costs presently being incurred in each segment of the industry to control asbestos dust, to monitor dust conditions and employee health, to keep mandated records and otherwise to comply with present regulations,

(4) a statement of the consensus of the range of responsible opinions as to the feasibility of each of the three fiber standards (5.0,2.0, and 0.5) at each production step in each segment of the industry,

(5) a statement of the range of estimates made, in each segment of the industry, of the capital and operating costs of compliance with each of the three fiber standards (assuming, for this purpose, that they are feasible),

(6) a statement of the range of estimates made in each segment of the industry, as to the date upon which compliance with each of the three fiber standards might be achieved at each step of its manufacturing process (the estimated dates may include "now" and "never"),

(7) a statement of the range of estimates of selling price increases to be expected for each major product or product line of the industry as a consequence of the adoption and enforcement of each of the three fiber standards (assuming, again, that they are feasible) and

(8) a statement of the range of estimates made, in each segment of the industry, of loss of markets which may be anticipated as a result of the adoption and enforcement of each of the three fiber standards, plus an extrapolation of each range of estimates of market loss into a range of estimates of loss of jobs.

The Standards and Technical Committee of AIA/NA already is at work aiding members of the Association in identifying and gathering information on current progress toward dust reduction, opinions concerning feasibility of the three fiber standards and estimates of current and projected capital and operating costs. This committee and its individual members will constitute a valuable

resource for our independent consultant. However, it is emphasized that specific data responsive to the task force objective will be sent directly to our consultant, not the Committee. This procedure will insure that information provided by participating companies will remain confidential and avoid questions of anti-trust liability. Moreover, at the conclusion of the feasibility-economic study our consultant will destroy its index of company names and all call reports. Their files thereafter will show companies only by number, so that the data and opinion there recorded cannot be attributed to any participant.

Because converters, applicators, and other users of asbestos products are numerous, it is anticipated that data pertaining to them will have to be obtained by contacting only a representative sample. Some contacts may have to be made by telephone.

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DOW CHEMICAL U.S.A.

OYSTER CREEK DIVISION
POST OFFICE BOX 88
FREEPORT, TEXAS 77541

December 29, 1975

24- Asbestos Reg. Stds.

J. W. Conder
Health and Environmental Research
2030 Dow Center
Midland

cc: W. H. Caines
S. F. Edquist
E. P. Edwards
J. B. Graham
D. A. Rikard
H. V. Wait
R. M. Webb
J. F. Willging

ST0514014

OSHA PROPOSED RULE MAKING-OCCUPATIONAL EXPOSURE TO ASBESTOS

Asbestos is used or handled in the Chlor-Alkali related facilities in the Louisiana, Michigan, Oyster Creek, Texas and Western Divisions in the U.S. Area. These locations have been contacted to find out if they wished to make comments on the OSHA proposed changes to their standard for Occupational Exposure to Asbestos. A number of comments were received. A brief summary of the comments is as follows:

SUMMARY OF COMMENTS FROM EACH DIVISION

Louisiana

Louisiana Division can meet the reduction to 0.5 fibers/cc without too much difficulty. More data is needed for the ceiling concentrations. Regulated areas for the facilities would be a problem. The Cell Services Department has a high rate of employee turn-over.

Michigan

Previous monitoring indicates that there are areas where asbestos levels are above the proposed limits. Results of recent monitoring have not been received by the plant.

Administrative costs will increase by a substantial amount.

The turn-over rate for employees in asbestos-related areas is very high.

Additional costs will result from changes to storage and unloading building, pulp shack revisions, additional ventilation, separate shower facilities, regulated areas, and laundry facilities.

The monitoring and medical procedural changes will cause an additional increase in costs.

Oyster Creek

At Cathode Cleaning, the area may meet the proposed asbestos limits. Results from recent monitoring indicate there will not be a problem meeting the proposed limits. The change room will probably need to be revised.

At the Chlor-Alkali facilities, the TWA will probably be below the proposed limit. The new cell services facilities to be constructed may be a problem area.

Russellville is evaluating the standard and will let us know to what extent they may be affected.

Texas

Monitoring data indicates that some areas exceed the proposed asbestos limits. The conclude that they could comply by procedural changes. It will probably require some regulated areas.

Western

Monitoring indicates that all operations will be below the proposed limits. The regulated areas could be a problem, especially if roads were designated a regulated area. The daily roster for the street and cell block would be a difficult problem.

If clothing is required, it will double this cost. It is not clear whether underwear must be also provided.

Separate shower room, locker room, and laundry may be required and this would be the most troublesome part.

From the comments received, and in reviewing the proposed changes, there are parts of the standard that are a cause for concern, and will certainly add to the cost of operation.

The proposed standard would lower the permissible exposure limits for an 8-hour time weighted average to 0.5 fibers per cubic centimeter and the ceiling concentration to .5 fibers per cubic centimeter.

Some of the locations indicate that their monitoring results are low enough to be below the proposed limits. Other locations have areas that exceed these limits on the TWA or ceiling concentration or both.

More monitoring is being done by some locations. These results, when available, will give a better definition of the problem areas at present.

Most locations feel that reductions in exposure levels can be made. There will be areas which will exceed the proposed limits. It is not known at this time how much improvement can be achieved with engineering and work practice controls. These changes will be expensive.

The section on regulated areas is a cause of concern. It is written as follows:

(d) REGULATED AREAS. Any work area where a person may be exposed to airborne concentrations of asbestos fibers in excess of either the limits imposed by paragraph (c) of this section, shall be designated a regulated area. Only authorized persons may be allowed to enter such an area. A daily roster of all persons entering a regulated area shall be made and maintained.

ST0514016

It is difficult to determine how the "may be" in the above paragraph will be interpreted. This probably means that a compliance officer will establish this. Therefore, this may not be done uniformly throughout the United States. The wording should be changed so regulated areas are only designated when workers are exposed in excess of either limit.

It should include a provision to "deregulate" areas where exposures can be reduced below the established limits and maintained below the limits.

It is desirable to have no, or at least very few, "regulated areas". Unless the regulated areas are better defined, plant roadways may be designated as "regulated areas". This would be well-night unenforceable.

Many of the requirements in the standard are based on regulated areas. A large portion are applicable only when the limits are exceeded.

(e) MONITORING

(2) Frequency. Monthly monitoring is required if employee is exposed above either limit. This is six times the present frequency and result in a six-fold increase in monitoring costs for exceeding the limits. This would result in an additional $100 per year for each employee that had to be monitored.

(f) METHODS OF COMPLIANCE

(3) Particular tools. Tools which may release fibers in excess of limits shall be provided with local exhaust ventilation system. This should be required only for tools which do exceed limits.

(g) RESPIRATORY PROTECTION

(3) (iv) Part which states "with the same seniority, status, and rate of pay", has nothing to do with employee's health and should be deleted.

(h) PERSONAL PROTECTIVE CLOTHING

(4) The employee shall assure that all protective clothing and equipment is removed only in change rooms required by paragraph (i)(1) of this section.

There may be respiratory equipment worn even though the exposure levels of asbestos are well below the proposed limits. Will it be necessary in this case to go to the change room to remove it? The change rooms are a considerable distance from working areas and it seems unreasonable to go to the change room to remove respiratory equipment in this case.

(i) HYGIENE FACILITIES AND PRACTICES

(2) Showers. Employees working in regulated areas shall be required to shower before leaving at the end of the work shift.

It would be preferable to change the wording to state "to shower just before leaving the premises".

(4) Arrangement of Shower Facilities. Clothes lockers and shower facilities shall be arranged so as to separate regulated areas and uncontaminated areas.

This regulation is potentially one of the most troublesome. This is especially true if the interpretation of regulated areas covers more than areas that exceed the exposure limits. If this results in practice similar to those in handling of radioactive or carcinogenic materials, it could mean extensive revisions to locker rooms and perhaps construction of additional facilities. Some areas have separate clothing lockers, but they are adjacent and in the same room. Most locations have one shower room and one laundry. It may be necessary to provide a separate shower room, locker room, and laundry. These changes would be very expensive.

(6) Prohibition of Activities in Regulated Areas.

There is a typographical error and "prohibit" should be replaced by products.

(j) MEDICAL SURVEILANCE.

This is certainly more comprehensive than the practice in some areas. The medical department should comment on this section. This would probably be interpreted to include every employee as it includes each employee in an area exposed to airborne concentrations of asbestos fibers. There is no limit established which makes interpretation very difficult if it does not include every employee.

(n) RECORD KEEPING

Exposure records, medical records, and rosters must be maintained for at least 40 years or for the duration of the personnel's employment plus 20 years, whichever period is longer. This could be about 65 years.

The roster alone for each regulated area could be a minimum of 14,600 pages. This is at least three file drawers full of records.

(p) APPENDICES

II. B. The word "not" was omitted after employees.

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(p) APPENDICES

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Administrative costs will be quite high for this proposed standard. There are areas that utilize asbestos where large numbers of employees work and these areas have a high rate of employee turn-over.

R. H. Ellett
Chlor-Alkali
Technology Center

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