

MINUTES OF THE MEETING

of the

ASBESTOS STUDY COMMITTEE

Thursday, January 19, 1978 at 9:30 A.M.

Institute Office, E-210 Route 4, Paramus, N.J.

PLAINTIFF'S
EXHIBIT

119770

PLAINTIFF'S
EXHIBIT

WV-06170

MEMBERS PRESENT

H. Wagner, Chairman

G. Nicholson (for B. J. Iwarsson)

D. E. Stone

I. H. Weaver

J. Dunderdale

J. W. Armstrong

Carlisle Corporation

Abex Corporation

Bendix Corporation

Raybestos-Manhattan, Inc.

Royal Industries Brake Products

Bendix Corporation

OTHERS PRESENT

M. R. Cole, Attorney

E. W. Drislane, Secretary

R. J. Lavery

J. F. Reis

E. M. Fenner

Gorman & Cole

Friction Materials Standards Institute

Royal Industries Brake Products

Johns-Manville Corporation

Johns-Manville Corporation

The meeting was called to order by Mr. Wagner, Chairman, at 9:30 A.M.

MINUTES OF PREVIOUS MEETING

The minutes of the meeting held March 28, 1977 had been distributed. These minutes were reviewed and a motion for their acceptance was made.

Mr. Weaver advised that while the minutes reported what was stated at the meeting, the second paragraph on page 4 concerning the Raybestos slide program was incorrect. Section 8 of the program dealt with asbestos control. That section was not 8 minutes long.

Upon motion duly made, seconded and unanimously passed, it was;

RESOLVED: To accept the minutes of the March 28, 1977 meeting as written.

COMMITTEE MEMBERSHIP

The Secretary advised that Mr. J. W. Armstrong of the Bendix Corporation, Southfield, Michigan, was invited to serve on the Asbestos Committee. Mr. Armstrong accepted and was present at this meeting.

WORK PRACTICES MANUAL FOR THE FRICTION MATERIALS INDUSTRY

The Secretary had been in contact with Mr. Reis of Johns-Manville Corporation concerning the possibilities of the Institute preparing a work practices manual for workers in the friction materials industry. Mr. Reis sent the Institute copies of work that the Asbestos Cement Pipe Producers Association had done in this area. One booklet by the A/C Pipe people was entitled, "Recommended Work Practices for A/C Pipe." They also published a booklet, "A/C Pipe and Health." This discussed the risks in use of asbestos in A/C Pipe. It mentioned studies that had been made with animals, and surveys of people exposed to asbestos in A/C Pipe. It concluded that there was no evidence that the proper use of asbestos cement pipe poses a hazard to health by reason of ingestion of asbestos fibers.

It was suggested that the Institute might consider working on a booklet on work practices for those in brake repair shops using asbestos containing friction materials. Perhaps the FMSI could develop work practices and distribute them to users. Government agencies might rely on or adapt such a program if the industry had a work practices manual in use.

Mr. Reis presented a slide program with audio prepared by the A/C Pipe Producers Association and which supplemented their booklets. This slide program covered respirable and ingested asbestos and minimized the risk to the public from ingestion of asbestos from A/C Pipe. A/C Pipe would be entirely satisfactory where the water is not aggressive (aggressiveness has to do with the hardness and the pH value of the water). The slide program concentrated on risks and minimized the public's risk from exposure to water carried in A/C Pipe. The slide program did not touch on work practices as such. The A/C Pipe Producers Association was aiming this program at larger users of A/C Pipe such as water-works, utilities and the general public.

It was stated that the first concern for FMSI would be a work practices manual rather than a study of the overall risk from exposure to asbestos from friction materials. It was also stated that Dr. Jacko of Bendix had addressed the risk to the general public from asbestos in friction materials in a paper prepared in 1973. A question was asked as to how difficult it would be for the FMSI to set up a program similar to the A/C Pipe Producers Association. Mr. Reis indicated that Johns-Manville would be willing to help in preparation of such a manual. It was stated that the objective for such a manual would be the users in the replacement market. Original equipment users are generally large organizations aware of the asbestos problem and can plan do their own work in controlling asbestos in their work places. Original equipment manufacturers might be involved where dealing with car dealers. It was stated that General Motors is working on a program for their dealers in this area.

It was stated that there were two tasks at hand: (1) work practices in the friction materials manufacturers' factories and (2) work practices in the customers' brake repair shops. The Asbestos Information Association had addressed the problem of work practices in factories and rebuilders in their work practices booklet entitled, "Fabrication and Use of Asbestos Friction Materials." There is information in these books concerning the OSHA standard, exhaust and dust collection, and methods for making fiber counts. The main target for an FMSI work practices manual would be the brake repair shops rather than manufacturers or rebuilders. It was stated that there would be little progress without management commitment. If the shop foreman is not behind the program there is unlikely to be true progress in asbestos control. It was

suggested that a work practices manual should not be lengthy, and perhaps can be consolidated to four or six pages. Mr. Fenner indicated that color would add to the value of a work practices manual. If the manual is directed towards management and supervisors it will have to explain why it's important to put these practices into effect. For information directly to the worker, a simpler and perhaps shorter message should be used. The Institute had earlier published one page "Recommended Procedures for Reducing Asbestos Dust During Brake Servicing." This was inserted in Institute catalogs, distributed in loose form and was sent to the trade press.

A member questioned whether the Institute would support preparation of a work practices manual. The Secretary indicated that if the committee endorses these recommendations he believed that the Board of Directors would concur. Mr. Fenner indicated that FMSI would have to write the manual. Some of the material already prepared can be of help. It was stated that it was better that a manual of this type come from FMSI rather than from an individual manufacturer. Mr. Fenner indicated that in addition to help from J-M, the Asbestos Information Association Technical Committee should be willing to help. He pointed out that information is available and the questions are "How will it be written?" and "How will it be circulated?"

Upon motion duly made, seconded and unanimously passed it was:

RESOLVED: That the Asbestos Study Committee recommends that the Institute prepare and circulate a work practices booklet for users of friction materials in auto repair and industrial shops.

A member stated that car dealers and national brake service shops such as Penney's, Goodyear and Sears may or may not have equipment for drilling and grinding brake shoes. In most cases their lined shoes are purchased finished ground ready for installation. Most of these shops would have drum and rotor lathes for re-surfacing those parts, but most would not grind, drill or otherwise machine the brake lining. However, it is likely that some of these shops have grinding, and perhaps drilling equipment that would have to be properly exhausted for collection and disposal of dust. A point was made that if at all possible these shops should not grind or drill linings but should purchase linings lined to shoes or ready for installation on shoes. In heavy equipment, most blocks can be bought with several oversizes (X, XX, XXX). There will be more grinding of segments in heavy duty. It is recommended that shops avoid grinding if at all possible, and purchase blocks and segments to the thickness needed ready for installation from the brake lining manufacturer. Where special bevels or other cutting must be done the shop must follow specific recommendations as regards dust collecting and dust disposal. While some heavy duty brake shops will mount and rivet or bolt blocks to shoes, most will not grind at this particular point. However, these shops would probably have capabilities for grinding, and recommendations will have to be made for keeping dust levels to a minimum in these shops.

It was suggested that rather than one or two or even three different series of work practices for different level shops, it might be better to have one all encompassing work practices manual. From this complete manual, the authors could highlight certain sections and indicate which would be applicable. If the customer grinds or machines the product in any way, he will generate dust and will need proper dust collection equipment. Not only will the OSHA regulations be applicable but EPA regulations on disposal of asbestos waste will also apply. An incentive to purchase materials finished and ready for

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Installation would be that if a shop does not machine the products most requirements of these regulations will not apply. For example, if they install materials directly to the shoes without cutting, drilling or grinding, dust levels would likely be low enough that regular monitoring, protective clothing and change room requirements would not apply. The Secretary suggested that it would be well to set up a task force to study the problems of a work practices manual to get this particular project started. He indicated that it is not possible for a full committee to sit down and write a manual. Mr. Weaver stated that Raybestos will be proceeding with a work practices manual on their own and will not be able to wait for the Institute to produce theirs. The Secretary indicated that in his recent conversation with Mr. Marsh he understood that Raybestos wanted the Institute to proceed with a work practices manual. Mr. Weaver indicated that while the Secretary may have discussed this more recently with Mr. Marsh, it was his understanding that Raybestos was going to proceed on its own because of the fact that they feel to be a very urgent requirement to have such a work practices manual.

Mr. Reis and Mr. Fenner both indicated that Johns-Manville will be most willing to help with art work and graphics if someone would tell them what art work and illustrations would be required. The problem is not so much the mechanical part of getting the manual printed and distributed, as it is getting a write-up and a decision to proceed with the manual.

The Secretary suggested that he and the Chairman contact Mr. Marsh at Raybestos to determine the Raybestos position. Committee members suggested appointment of a small task force to include not only Mr. Wagner and Mr. Drislane, but Mr. Weaver to go over this question with Mr. Marsh, and find out exactly what the Raybestos plans are as regards a work practices manual. If the Institute would be proceeding with a manual, they could outline the concept of a work practices manual. Decisions could be made as to whether one manual should be prepared, or two or three manuals: heavy duty applications, light duty (passenger car and light truck) applications, and other applications such as industrial and construction shops which tailor friction materials to order.

A question arose as to how such a manual would be distributed to the field. It was suggested that marketing groups of the various members would have to see that work practice manuals were distributed to the user. It was pointed out that there might be a few areas of special emphasis such as those working with clutch facings and those working with roll lining. It was stated that while a manual would have to address the worst possible conditions, it could help foster a trend towards less machining in the user's shops.

Mr. Armstrong commented about the two distinct approaches taken by the Asbestos Cement Pipe Association. One booklet, the Work Practices Booklet, indicated that there is a problem and here's what we should do about it. The other booklet discussed the risk of exposures to water carried in A/C Pipe and indicated that the facts force a conclusion that there is not a problem with A/C Pipe with non-aggressive waters. Should the Institute similarly address two areas and indicate that we have a work practices booklet and also a booklet to indicate that exposure to asbestos in friction materials is not a real problem in the brake shop? The question of the type of pamphlets or booklets to be published by the Institute would have to be worked out by the task force. The Secretary was directed to contact Mr. Marsh to set up a meeting to go over Raybestos plans as regards a work practices manual. Mr. Wagner and Mr. Weaver will join the Secretary in any contact with Mr. Marsh.

COMMUNICATIONS WITH EMPLOYEES AND USERS OF FRICTION MATERIALS

The Secretary distributed to the Committee members copies of Raybestos "Do's and Don't's" as regards asbestos. They include this as an insert in their brake lining packages. It has a brief statement on how to minimize problems with asbestos in the workshop.

IMPORTANT

ASBESTOS DUST HAZARD

Do not breathe dust.

Do not use air hose for cleaning.

Do not machine without dust collection equipment.

Do use vacuum or wet cleaning methods.

Do dispose of dust in sealed container.

Do wear mask if unable to avoid dust.

It was stated that this was a good condensed set of instructions which might get the message across. A lengthy one page or longer report would probably not be of much use at this point. It was suggested that other members might use such an insert for distribution with their brake linings, blocks, and clutch facings.

Mr. Weaver showed a part of a Raybestos slide program aimed at brake personnel. The section on asbestos was but one section of an eight section slide program (with audio) on brake servicing. The slides were in the form of a question and answer program to indicate good practices in control of asbestos dust in the brake shop. These slides were Section 8 of the Raybestos brake clinic program.

It was suggested that perhaps the Institute should make a public relations release on work that industry is doing to control asbestos both in their own shops and in their customer's shops. Perhaps communications with employees and users might be supplemented with communications with the general public and the media. It was stated that this might be better done if the Institute had a work practices manual and could then make it known that such a manual was available. Were the Institute to attempt coverage in the general media it is more likely Dr. Selikoff and others would get the last word and early releases by the Institute would be of no positive value. The general media is more likely to accept statements by groups such as Mount Sinai and might minimize or distort any contribution of industry. It was suggested that releases might be made in automotive trade publications. The Secretary indicated that when the Institute published the "Recommended Procedures for Reducing Asbestos Dust During Brake Servicing" releases were made and published in several magazines for the automotive trade.

It was stated by one member that an avenue that is open and should be used, and that he personally had used, was that individuals should give Congressmen points of view from industry. Letters to the editor and to legislators may help in arriving at some balance before decisions are made. A Committee

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pointed out that there was a recent release from OSHA concerning the industry which was less than complimentary to the American foundry. In any public relations encounter in the general media it is most probable that the industry position will come in second best. In the communications with employees, Mr. Stone indicated that the Bendix Materials Division used the Johns-Manville slide and audio program titled, "Working with Asbestos," and showed it to new employees. This program available in cassette and slide form from Johns-Manville in Denver, Colorado. Bendix program, they added their own slides with pictures of presses and grinding equipment showing dust collecting equipment added to control dust levels in the work place. The slide was narrated by a Bendix Safety Director and particularly mentioned names and described the operations of employees. This program was tailored well to its audience, and it was noted that other members might wish to use the Johns-Manville "Working with Asbestos" program in similar fashion. It was suggested that no "canned" program can work satisfactorily for all members, and by tailoring J-M's program to their own employees as Bendix did, it may be a valuable tool for indoctrinating employees.

and further communications with users of friction materials, it was noted that a work practices manual could serve as an outline for preparation of a slide program. Mr. Fenner indicated that he would be happy to help put together a slide program if he could receive input as regards what should be on the slides. Based on a work practices manual as an outline, Fenner felt that it would be a reasonable job to prepare a slide program. Fenner could arrange for him to take slides either in one of their own plants or in a customer's work place. With photographs developed in this manner, J-M could tie a slide program into a work practices manual.

ABT ASSOCIATES—OSHA TRAINER'S GUIDE

Secretary indicated that this item was made an agenda item as the agenda was prepared in December 1977. Subsequent to preparing the agenda, the committee assembled a critique of the Abt Associates work for OSHA. The committee replied to Abt Associates on December 28, 1977. The comments by the committee were based on material prepared by the Secretary and comments by Mr. Wagner and Mr. Weaver. In addition to the comments by the committee, the Asbestos Information Association replied. Also Mr. Armstrong, for the Bendix Corporation and Johns-Manville forwarded comments. Comments by Dr. Kotin.

generally commented that the Abt Associates Trainer's Guide appeared to be an amateurish presentation which had not been researched sufficiently to establish the facts. It was felt that industry had responded to this, and that if their comments are considered it will have benefited all concerned.

DRAFT FOR PROPOSED AIA PAMPHLET (L.H. WEAVER)

In November 1976 Mr. Weaver prepared a draft for a pamphlet for AIA entitled, "Asbestos Dust Hazards and Brake Lining and Clutch Service Operations." Mr. Weaver distributed copies of this recommendation to several parties and no comments were received. Based on a follow-up by Mr. Weaver, the Secretary noted Mr. Weaver's suggestions and made comments concerning various sections.

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of his write-up. This was covered in his memo to the Asbestos Study Committee on January 11, 1978. Mr. Weaver felt that most of the comments in the Secretary's critique were valid but that he didn't agree concerning removal of the second sentence concerning mesothelial tumors in persons involved with automobile brake servicing.

It was stated that this pamphlet would assumingly be no longer viable if the FMSI is to work on writing up a work practices manual. It is unlikely that the Asbestos Information Association will put out a pamphlet on this subject if the Institute prepares a work practices manual. However, information in this write-up would be of value in writing up a work practices manual. It was suggested that anyone using the introductory section of Mr. Weaver's draft be particularly careful of the wording. No further action is contemplated as concerns this draft pending action taken as regards the Institute preparation of a work practices manual.

CONSUMER PRODUCT SAFETY COMMISSION--RECALL PROCEDURES

The Secretary advised that he had been contacted by Mr. Adrian Comins of the Auto Friction Corporation concerning the Consumer Product Safety Commission and its procedures for recall. He was particularly concerned that if in the future the Consumer Product Safety Commission were to ban the sale of asbestos-containing friction materials, that disastrous costs would be incurred in a major recall. Mr. Comins expressed his concern in a letter that he wrote to the Consumer Product Safety Commission on procedures used during the Tri- recall. Mr. Comins wrote indicating his concern that the economic burden of any recall should be borne equally by all members of the distribution chain. He wrote this as a private citizen on his own letterhead and did not bring in the subject of friction materials. The Secretary indicated to Mr. Comins that he did not want to raise the question of banning the friction materials for fear it would put the idea into motion.

The Secretary recently wrote Mr. Comins when CPSC banned the use of artificial emberizing materials and patching compounds. The Consumer Product Safety Commission issued the regulations under the Consumer Product Safety Act (CPSA) rather than under the Federal Hazardous Substance Act (FHSA). By promulgating under CPSA the regulations do not require the re-purchase of products by manufacturers, distributors and retailers. Mr. Comins feels that individuals in the Friction Materials Standards Institute should make their concern known to the Consumer Products Safety Commission by writing them directly. He does not feel that the Institute or Corporations should be involved at this time. He indicated that he was asking the Institute to make a recommendation to its members concerning recall procedures by CPSC. At this point the Committee members indicated that they endorsed the idea of encouraging individuals to write the Consumer Product Safety Commission concerning recall procedures and to advocate that the burden be borne equally. This would be the case if any such regulation were to take place under the Consumer Products Safety Act rather than under the Federal Hazardous Substance Act.

Mr. Penner indicated that there is a question as to whether friction materials can be considered a consumer product. There is an effort on hand now to expand the definition of a consumer product. There is a litigation involving the Anaconda Corporation concerning wiring used in the residential housing. This has to do with the susceptibility to fires under certain installation conditions with aluminum wire vs. copper wire. This issue is now being

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litigated as to whether aluminum wire in residential housing can be regulated by the Consumer Product Safety Commission. In addition, Mr. Fenner pointed out that the study which is now under way by W. T. Kearney Associates is examining the question of asbestos products that may be considered consumer products. The Institute had been called by Mr. Strickland of Kearney Associates concerning whether asbestos was used in various friction devices used on equipment other than automotive brakes. This included such items as typewriters, X-ray machines, bicycle brakes, tape recorders and so forth. At that time, Mr. Strickland indicated that his firm was working on a study for the Consumer Product Safety Commission where asbestos was used in consumer products. It was suggested that the Institute take no action as regards the Consumer Product Safety Commission until the Kearney report has been completed.

INSTITUTE SPONSORSHIP OF ASBESTOS SEMINAR

The Chairman indicated that in response to a suggestion by Mr. Messier, President of the Institute, it was considering sponsoring a seminar similar to that which was held in 1975 on the asbestos problem. At that seminar, the Institute had a presentation by Johns-Manville Sales Corporation with a featured appearance by Mr. Byung Kwon of OSHA. This particular seminar was well received because it was held within six to eight weeks after OSHA had made proposals to revise the asbestos standard in October, 1975.

Mr. Wagner indicated that he had talked with Ferro Tech and they would be happy to make a presentation at such a seminar. Mr. Wagner indicated that Mr. Kwon who spoke at our December 1975 Seminar is no longer with OSHA. In response to Mr. Wagner's inquiry to OSHA they indicated that perhaps they could provide a speaker for an FMSI seminar. Mr. Wagner had contacted Mrs. Helen Farrington at OSHA. Mr. Fenner indicated that if we were to hold such a seminar he would recommend that Mr. Grover Wrenn, OSHA's Director of the Office of Health Standards Development be invited to address those attending. He stated that Mr. Wrenn is a personable and interesting talker. The Secretary advised that he had contacted companies such as Amco Tools, Nilfisk of America, Per-Lux Inc. and Tempo Products Company. These companies sell equipment used in the brake shop and some have devices for exhausting dust from the work area and from brake assemblies. It was suggested that the seminar be planned around the brake repair shop rather than the manufacturing plant. It was suggested that Mr. Jerry Cusamano be invited to such a seminar. Mr. Cusamano is a consultant on dust collection. The Chairman asked if Johns-Manville would help with the presentation. Mr. Fenner indicated that if such a seminar were held they would be happy to assist in some fashion.

It was stated that a seminar at this point might detract from the Committee's work on the work practices manual. It was suggested that the Institute not dilute the Committee's efforts by scheduling a seminar at this time. As there has been nothing further on OSHA plans a seminar might be premature. Also, it was suggested that if the Institute prepares a work practices manual it might be well at that time to schedule a seminar to introduce the work practices manual. At such a seminar the Institute could promote the idea of using this work practices manual in brake service shops. Reporters from trade magazines could be invited. It was generally agreed that it would be well to hold up on the idea of a seminar until the Institute has taken action on the work practices manual. At completion of the work practices manual a seminar might be the proper place to promote the work practices booklet. No action will be taken on a Seminar at this time.

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STATUS OF OSHA REGULATIONS ON ASBESTOS

The Asbestos Information Association has advocated the work practices approach as a means of controlling asbestos dust for the construction industry standard. The construction industry is different than the manufacturing industry because of the transient work force and other such characteristics. There is some possibility that OSHA may possibly go with a work practices oriented regulation for the construction industry standard. If a contractor was using certified work practices it might relax the need for other control procedures.

As regards the manufacturing standard, no public hearing has been held and none has been scheduled. It is possible that the construction industry standard might be part of any public hearing where OSHA is considering further action on the manufacturing standard. Mr. Fenner indicates that to his knowledge nothing has been done on the construction standard and he does not foresee any action in 1978. The proposed changes in the manufacturing standard that were made in 1975 are awaiting evaluation in a study by a group contracted for by OSHA. Consad has yet to complete a study of the economic impact of the proposals which were in the October 1975 proposals for the manufacturing segment of the industry. Further, the Research Triangle Institute was to make an economic study for the construction industry. Drafts of these studies will not be ready before April 1978. In summary, there appears to be little action that can be expected in the near future as regards either the construction standard or the manufacturing standard.

OSHA "GENERIC" STANDARD--SUBSTANCES POSING AN OCCUPATIONAL CARCINOGENIC RISK

The proposed "generic" standard for identification, classification and regulation of toxic substances posing a potential occupational carcinogenic risk was published in October 1977. These proposals are referred to as the "generic" standard. The proposal is to have a basic standard written, and then the blanks could be filled in depending upon the particular suspected carcinogen. Any comments concerning this generic standard were to be in by January 31, 1978. (Subsequently postponed to February 28, 1978.) This proposed "generic" standard is a major step by OSHA and apparently is the thinking of the new Assistant Secretary of Labor, Eula Bingham. The main target of this generic standard would be the chemical industry. Industry has set up a group to present their viewpoints as regards this generic standard. Several manufacturers formed the American Industrial Health Council (AIHC). As asbestos will still be regulated under the earlier asbestos regulations there is no action that the Institute could take at this time. It is, of course, a standard which could have a most substantial impact on all industry.

UAW PETITION FOR EMERGENCY ASBESTOS STANDARD

In July 1977 Mr. Douglas Fraser, President of United Automobile Workers petitioned the Honorable Ray Marshall, Secretary of Labor, to establish an emergency standard for exposure to asbestos, in line with the proposed changes OSHA made on September 30, 1975. There was a question as to the status of this petition. The UAW's petition for an emergency standard was denied by the Department of Labor. The Department of Labor politely denied the petition because there was an existing standard in effect, and the issues raised by the proposed revisions to the standard had not been resolved.

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NIOSH CONTRACT--INVESTIGATION OF HEALTH HAZARDS IN BRAKE LINING REPAIR SHOPS

On January 5, 1978 there was a meeting held at Mount Sinai Hospital concerning the NIOSH contract for investigation of health hazards in brake lining repair shops. This was a session with industry, NIOSH and Mount Sinai people to review the progress of this particular study. Mount Sinai Hospital received a \$180,000 contract from NIOSH for this study. The Secretary attended this session along with several members of this committee including Mr. B.J. Ivarsson, I. H. Weaver and Dr. E. Stone. Also attending were Mr. Marsh from Raybestos, Mr. Chase from Johns-Manville, and Mr. Marenness from the Asbestos Information Association. Two representatives from NIOSH hardly participated in the session. The session was controlled by both Dr. Selikoff and Dr. Nicholson of Mount Sinai. A brief report was written on the session in which some questions were raised about the impossibility of locating a cohort exposed to short fibers only who would not also have been exposed to longer fibers. Also there were several comments concerning the use of workers in New York Municipal garages. From the comments made by the union representative there is considerable difficulty in not only locating the garages but in locating the workers and knowing the types of exposures to which they are subjected. This discussion was apparently held in line with instructions when the contract was issued. As indicated, there was no actual report from NIOSH as to the progress of the study.

QUEBEC PROPOSALS FOR ASBESTOS MANUFACTURING INDUSTRY

Mr. Reis felt it might be of interest to know the outcome of a recent study concluded by the Province of Quebec, with input from among others Arthur D. Little Company. Quebec is attempting to bring more manufacturing jobs involving asbestos into the Province rather than just shipping asbestos outside the area. This study indicated that at best there were three areas where Quebec might participate in asbestos products manufacturing. Those were: (1) Asbestos cement sheets, (2) Molded friction materials, and (3) Flooring felts. It was indicated that at most 400 jobs might be created in these manufacturing areas in Quebec. It was apparently Quebec's hope that considerably more manufacturing jobs might be opened up in that Province.

* * * * *

The Chairman of the Committee and the Members expressed their thanks to Mr. Reis and Mr. Fenner for their offers of help in preparation of a work practices manual. They also extended the Committee's thanks for their participation in this meeting.

There being no other business brought to the attention of the Committee, upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To adjourn.

Adjourned: 2:40 P.M.

E. W. Drislane
Executive Director

ALLIED SIGNAL EXHIBITS

DATE: 1/19/78

SUMMARY Minutes of the ASC meeting as they discuss creating a work practice manual for workers in the friction materials industry dealing with asbestos and they agree to have a task force look into it. Talk about Raybestos' warning insert in their asbestos products. May do an asbestos seminar like last year. Discuss OSHA.

AUTHENTICATION: FMSI letterhead, Stone and Armstrong of Bendix are there. Armstrong added to the committee.

COMMENTS: Not a good exhibit. Members discuss various means of informing customers and employees about working with asbestos and its dangers. Only good statement is that the Secretary advises Weaver to remove a line in a proposed AIA pamphlet about meso tumors in brake servicers and Weaver disagrees. Brunt of exhibit is about steps they are taking or may take to tell people about asbestos.

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E. Wagner, Chairman	Carlisle Corporation
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M. R. Cole, Attorney	Gorman & Cole
E. W. Drislane, Secretary	Friction Materials Standards Institute
R. J. Lavery	Royal Industries Brake Products
J. F. Reis	Johns-Manville Corporation
E. M. Fenner	Johns-Manville Corporation

Meeting was called to order by Mr. Wagner, Chairman, at 9:30 A.M.

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Mr. Armstrong accepted and was present at this meeting.

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Mr. Reis presented a slide program with audio prepared by the A/C Pipe Producers Association and which supplemented their booklets. This slide program covered respirable and ingested asbestos and minimized the risk to the public from ingestion of asbestos from A/C Pipe. A/C Pipe would be entirely satisfactory where the water is not aggressive (aggressiveness has to do with the hardness and the pH value of the water). The slide program concentrated on risks and minimized the public's risk from exposure to water carried in A/C Pipe. The program did not touch on work practices as such. The A/C Pipe Producers Association was aiming this program at larger users of A/C Pipe such as waterworks, utilities and the general public.

It was stated that the first concern for FMSI would be a work practices manual rather than a study of the overall risk from exposure to asbestos from friction materials. It was also stated that Dr. Jacko of Bendix had addressed the risk to the general public from asbestos in friction materials in a paper prepared in 1973. A question was asked as to how difficult it would be for the FMSI to set up a program similar to the A/C Pipe Producers Association. Mr. Reis indicated that Johns-Manville would be willing to help in preparation of such a manual. It was stated that the objective for such a manual would be the users in the replacement market. Original equipment users are generally large organizations aware of the asbestos problem and can plan do their own work in controlling asbestos in their work places. Original equipment manufacturers might be involved where dealing with car dealers. It was stated that General Motors is working on a program for their dealers in this area.

It was stated that there were two tasks at hand: (1) work practices in the friction materials manufacturers' factories and (2) work practices in the customers' brake repair shops. The Asbestos Information Association had addressed the problem of work practices in factories and rebuilders in their work practices booklet entitled, "Fabrication and Use of Asbestos Friction Materials." There is information in these books concerning the OSHA standard, dust and dust collection, and methods for making fiber counts. The main focus for an FMSI work practices manual would be the brake repair shops rather than manufacturers or rebuilders. It was stated that there would be little progress without management commitment. If the shop foreman is not behind the program, there is unlikely to be true progress in asbestos control. It was

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suggested that a work practices manual should not be lengthy, and perhaps can be consolidated to four or six pages. Mr. Fenner indicated that color would be the value of a work practices manual. If the manual is directed towards plant and supervisors—it will have to explain why it's important to put these practices into effect. For information directly to the worker, a simpler and perhaps shorter message should be used. The Institute had earlier published one page "Recommended Procedures for Reducing Asbestos Dust During Brake Servicing." This was inserted in Institute catalogs, distributed in loose form and was sent to the trade press.

member questioned whether the Institute would support preparation of a work practices manual. The Secretary indicated that if the committee endorses these recommendations he believed that the Board of Directors would concur. Mr. Fenner indicated that FMSI would have to write the manual. Some of the material already prepared can be of help. It was stated that it was better that a manual of this type come from FMSI rather than from an individual manufacturer. Mr. Fenner indicated that in addition to help from J-M, the Asbestos Information Association Technical Committee should be willing to help. He pointed out that information is available and the questions are "How will it be written?" and "How will it be circulated?"

on motion duly made, seconded and unanimously passed it was:

RESOLVED: That the Asbestos Study Committee recommends that the Institute prepare and circulate a work practices booklet for users of friction materials in auto repair and industrial shops.

It was stated that car dealers and national brake service shops such as Wynn's, Goodyear and Sears may or may not have equipment for drilling and grinding brake shoes. In most cases their lined shoes are purchased finished and ready for installation. Most of these shops would have drum and rotor lathes for re-surfacing those parts, but most would not grind, drill or otherwise machine the brake lining. However, it is likely that some of these shops have grinding, and perhaps drilling equipment that would have to be properly exhausted for collection and disposal of dust. A point was made that if at all possible these shops should not grind or drill linings but should purchase linings lined to shoes or ready for installation on shoes. In heavy equipment, cast blocks can be bought with several oversizes (X, XX, XXX). There will be grinding of segments in heavy duty. It is recommended that shops avoid grinding if at all possible, and purchase blocks and segments to the thickness needed ready for installation from the brake lining manufacturer. Where special levels or other cutting must be done the shop must follow specific recommendations as regards dust collecting and dust disposal. While some heavy duty brake shops will mount and rivet or bolt blocks to shoes, most will not grind at this particular point. However, these shops would probably have capabilities for grinding, and recommendations will have to be made for keeping dust levels to a minimum in these shops.

It was suggested that rather than one or two or even three different series of work practices for different level shops, it might be better to have one encompassing work practices manual. From this complete manual, the authors will highlight certain sections and indicate which would be applicable. If a worker grinds or machines the product in any way, he will generate dust and will need proper dust collection equipment. Not only will the OSHA regulations be applicable but EPA regulations on disposal of asbestos waste will also apply. An incentive to purchase materials finished and ready for

collation would be that if a shop does not machine the products most requirements of these regulations will not apply. For example, if they install materials directly to the shoes without cutting, drilling or grinding, dust levels would likely be low enough that regular monitoring, protective clothing, and room requirements would not apply.

The Secretary suggested that it would be well to set up a task force to study problems of a work practices Manual to get this particular project started. He indicated that it is not possible for a full committee to sit down and write a manual. Mr. Weaver stated that Raybestos will be proceeding with a work practices manual on their own and will not be able to wait for the Institute to produce theirs. The Secretary indicated that in his recent conversation with Mr. Marsh he understood that Raybestos wanted the Institute to proceed with a work practices manual. Mr. Weaver indicated that while the Secretary may have discussed this more recently with Mr. Marsh, it was his understanding that Raybestos was going to proceed on its own because of the fact that they feel to be a very urgent requirement to have such a work practices manual.

Reis and Mr. Fenner both indicated that Johns-Manville will be most willing to help with art work and graphics if someone would tell them what art work and illustrations would be required. The problem is not so much the mechanics of getting the manual printed and distributed, as it is getting a write-up and a decision to proceed with the manual.

The Secretary suggested that he and the Chairman contact Mr. Marsh at Raybestos to determine the Raybestos position. Committee members suggested appointment of a small task force to include not only Mr. Wagner and Mr. Drislane, but Mr. Weaver to go over this question with Mr. Marsh, and find out exactly what Raybestos plans are as regards a work practices manual. If the Institute would be proceeding with a manual, they could outline the concept of a work practices manual. Decisions could be made as to whether one manual could be prepared, or two or three manuals: heavy duty applications, light duty (passenger car and light truck) applications, and other applications such as industrial and construction shops which tailor friction materials to order.

A question arose as to how such a manual would be distributed to the field. It was suggested that marketing groups of the various members would have to make that work practice manuals were distributed to the user. It was pointed out that there might be a few areas of special emphasis such as those working with clutch facings and those working with roll lining. It was stated that if a manual would have to address the worst possible conditions, it could help foster a trend towards less machining in the user's shops.

Armstrong commented about the two distinct approaches taken by the Asbestos Cement Pipe Association. One booklet, the Work Practices Booklet, indicated that there is a problem and here's what we should do about it. The other booklet discussed the risk of exposures to water carried in A/C Pipe and indicated that the facts force a conclusion that there is not a problem with A/C Pipe with non-aggressive waters. Should the Institute similarly address two areas and indicate that we have a work practices booklet and also a booklet to indicate that exposure to asbestos in friction materials is not a problem in the brake shop? The question of the type of pamphlets or booklets to be published by the Institute would have to be worked out by the Institute. The Secretary was directed to contact Mr. Marsh to set up a meeting to go over Raybestos plans as regards a work practices manual. Mr. Wagner and Mr. Weaver will join the Secretary in any contact with Mr. Marsh.

COMMUNICATIONS WITH EMPLOYEES AND USERS OF FRICTION MATERIALS

Secretary distributed to the Committee members copies of Raybestos "Do's and Don't's" as regards asbestos. They include this as an insert in their lining packages. It has a brief statement on how to minimize problems with asbestos in the workshop.

IMPORTANTASBESTOS DUST HAZARD

Do not breathe dust.

Do not use air hose for cleaning.

Do not machine without dust collection equipment.

Do use vacuum or wet cleaning methods.

Do dispose of dust in sealed container.

Do wear mask if unable to avoid dust.

was stated that this was a good condensed set of instructions which might carry the message across. A lengthy one page or longer report would probably not be of much use at this point. It was suggested that other members might use such an insert for distribution with their brake linings, blocks, and disc facings.

Slaver showed a part of a Raybestos slide program aimed at brake personnel. A section on asbestos was but one section of an eight section slide program (with audio) on brake servicing. The slides were in the form of a question and answer program to indicate good practices in control of asbestos dust in the brake shop. These slides were Section 8 of the Raybestos brake clinic program.

was suggested that perhaps the Institute should make a public relations release on work that industry is doing to control asbestos both in their own shops and in their customer's shops. Perhaps communications with employees and users might be supplemented with communications with the general public and the media. It was stated that this might be better done if the Institute had a work practices manual and could then make it known that such a manual was available. Were the Institute to attempt coverage in the general media it is more likely Dr. Selikoff and others would get the last word and early releases by the Institute would be of no positive value. The general media is more likely to accept statements by groups such as Mount Sinai and might minimize or distort any contribution of industry. It was suggested that releases might be made in automotive trade publications. The Secretary indicated that when the Institute published the "Recommended Procedures for Reducing Asbestos Dust During Brake Servicing" releases were made and published in several magazines for the automotive trade.

stated by one member that an avenue that is open and should be used, which he personally had used, was that individuals should give Congressmen different points of view from industry. Letters to the editor and to legislators may help in arriving at some balance before decisions are made. A Committee

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inted out that there was a recent release from OSHA concerning the industry which was less than complimentary to the American foundry industry. In any public relations encounter in the general media it is most likely that the industry position will come in second best.

regards communications with employees, Mr. Stone indicated that the Bendix Iron Materials Division used the Johns-Manville slide and audio program titled, "Working with Asbestos," and showed it to new employees. This program available in cassette and slide form from Johns-Manville in Denver, Colorado. In the Bendix program, they added their own slides with pictures of presses setting equipment showing dust collecting equipment added to control dust levels in the work place. The slide was narrated by a Bendix Safety Director and particularly mentioned names and described the operations of an employee. This program was tailored well to its audience, and it was stated that other members might wish to use the Johns-Manville "Working with Asbestos" program in similar fashion. It was suggested that no "canned" program can work satisfactorily for all members, and by tailoring J-M's program to their own employees as Bendix did, it may be a valuable tool indoctrinating employees.

regard further communications with users of friction materials, it was stated that a work practices manual could serve as a outline for preparation of a slide program. Mr. Fenner indicated that he would be happy to help put together a slide program if he could receive input as regards what should be on the slides. Based on a work practices manual as an outline, Mr. Fenner felt that it would be a reasonable job to prepare a slide program. A member could arrange for him to take slides either in one of their own work places or in a customer's work place. With photographs developed in this manner, J-M could tie a slide program into a work practices manual.

ABT ASSOCIATES—OSHA TRAINER'S GUIDE

Secretary indicated that this item was made an agenda item as the agenda prepared in December 1977. Subsequent to preparing the agenda, the committee assembled a critique of the Abt Associates work for OSHA. The committee replied to Abt Associates on December 28, 1977. The comments to Abt Associates were based on material prepared by the Secretary and reviewed by Mr. Wagner and Mr. Weaver. In addition to the comments by the committee, the Asbestos Information Association replied. Also Mr. Armstrong replied for the Bendix Corporation and Johns-Manville forwarded comments received by Dr. Kotin.

It is generally commented that the Abt Associates Trainer's Guide appeared to be an amateurish presentation which had not been researched sufficiently to establish the facts. It was felt that industry had responded to this criticism, and that if their comments are considered it will have benefited all concerned.

DRAFT FOR PROPOSED AIA PAMPHLET (I.H. WEAVER)

In November 1976 Mr. Weaver prepared a draft for a pamphlet for AIA entitled, "Asbestos Dust Hazards and Brake Lining and Clutch Service Operations." Mr. Weaver distributed copies of this recommendation to several parties and no

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of his write-up. This was covered in his memo to the Asbestos Study Committee on January 11, 1978. Mr. Weaver felt that most of the comments in the Secretary's critique were valid but that he didn't agree concerning removal of the second sentence concerning mesothelial tumors in persons involved with automobile brake-servicing.

It was stated that this pamphlet would assumingly be no longer viable if the FMSI is to work on writing up a work practices manual. It is unlikely that the Asbestos Information Association will put out a pamphlet on this subject if the Institute prepares a work practices manual. However, information in this write-up would be of value in writing up a work practices manual. It was suggested that anyone using the introductory section of Mr. Weaver's draft be particularly careful of the wording. No further action is contemplated as concerns this draft pending action taken as regards the Institute preparation of a work practices manual.

CONSUMER PRODUCT SAFETY COMMISSION--RECALL PROCEDURES

The Secretary advised that he had been contacted by Mr. Adrian Comins of the Auto Friction Corporation concerning the Consumer Product Safety Commission and its procedures for recall. He was particularly concerned that if in the future the Consumer Product Safety Commission were to ban the sale of asbestos-containing friction materials, that disastrous costs would be incurred in a major recall. Mr. Comins expressed his concern in a letter that he wrote to the Consumer Product Safety Commission on procedures used during the Iris recall. Mr. Comins wrote indicating his concern that the economic burden of any recall should be borne equally by all members of the distribution chain. He wrote this as a private citizen on his own letterhead and did not bring in the subject of friction materials. The Secretary indicated to Mr. Comins that he did not want to raise the question of banning the friction materials for fear it would put the idea into motion.

The Secretary recently wrote Mr. Comins when CPSC banned the use of artificial emberizing materials and patching compounds. The Consumer Product Safety Commission issued the regulations under the Consumer Product Safety Act (CPSA) rather than under the Federal Hazardous Substance Act (FHSA). By promulgating under CPSA the regulations do not require the re-purchase of products by manufacturers, distributors and retailers. Mr. Comins feels that individuals in the Friction Materials Standards Institute should make their concern known to the Consumer Products Safety Commission by writing them directly. He does not feel that the Institute or Corporations should be involved at this time. He indicated that he was asking the Institute to make a recommendation to its members concerning recall procedures by CPSC. At this point the Committee members indicated that they endorsed the idea of encouraging individuals to write the Consumer Product Safety Commission concerning recall procedures and to advocate that the burden be borne equally. This would be the case if any such regulation were to take place under the Consumer Products Safety Act rather than under the Federal Hazardous Substance Act.

Mr. Fenner indicated that there is a question as to whether friction materials can be considered a consumer product. There is an effort on hand now to expand the definition of a consumer product. There is a litigation involving the Anaconda Corporation concerning wiring used in the residential housing. This has to do with the susceptibility to fires under certain installation

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litigated as to whether aluminum wire in residential housing can be regulated by the Consumer Product Safety Commission. In addition, Mr. Fenner pointed out that the study which is now under way by W. T. Kearney Associates is examining the question of asbestos products that may be considered consumer products. The Institute had been called by Mr. Strickland of Kearney Associates concerning whether asbestos was used in various friction devices used on equipment other than automotive brakes. This included such items as typewriters, X-ray machines, bicycle brakes, tape recorders and so forth. At that time, Mr. Strickland indicated that his firm was working on a study for the Consumer Product Safety Commission where asbestos was used in consumer products. It was suggested that the Institute take no action as regards the Consumer Product Safety Commission until the Kearney report has been completed.

INSTITUTE SPONSORSHIP OF ASBESTOS SEMINAR

The Chairman indicated that in response to a suggestion by Mr. Messier, President of the Institute, it was considering sponsoring a seminar similar to that which was held in 1975 on the asbestos problem. At that seminar, the Institute had a presentation by Johns-Manville Sales Corporation with a featured appearance by Mr. Byung Kwon of OSHA. This particular seminar was well received because it was held within six to eight weeks after OSHA had made proposals to revise the asbestos standard in October 1975.

Mr. Wagner indicated that he had talked with Ferro Tech and they would be happy to make a presentation at such a seminar. Mr. Wagner indicated that Mr. Kwon who spoke at our December 1975 Seminar is no longer with OSHA. In response to Mr. Wagner's inquiry to OSHA they indicated that perhaps they could provide a speaker for an EMSI seminar. Mr. Wagner had contacted Mrs. Helen Farrington at OSHA. Mr. Fenner indicated that if we were to hold such a seminar he would recommend that Mr. Grover Wrenn, OSHA's Director of the Office of Health Standards Development be invited to address those attending. He stated that Mr. Wrenn is a personable and interesting talker. The Secretary advised that he had contacted companies such as Amoco Tools, Nilfisk of America, Per-Lux Inc. and Tempo Products Company. These companies sell equipment used in the brake shop and some have devices for exhausting dust from the work area and from brake assemblies. It was suggested that the seminar be planned around the brake repair shop rather than the manufacturing plant. It was suggested that Mr. Jerry Cusamano be invited to such a seminar. Mr. Cusamano is a consultant on dust collection. The Chairman asked if Johns-Manville would help with the presentation. Mr. Fenner indicated that if such a seminar were held they would be happy to assist in some fashion.

It was stated that a seminar at this point might detract from the Committee's work on the work practices manual. It was suggested that the Institute not dilute the Committee's efforts by scheduling a seminar at this time. As there has been nothing further on OSHA plans a seminar might be premature. Also, it was suggested that if the Institute prepares a work practices manual it might be well at that time to schedule a seminar to introduce the work practices manual. At such a seminar the Institute could promote the idea of using this work practices manual in brake service shops. Reporters from trade magazines could be invited. It was generally agreed that it would be well to hold up on the idea of a seminar until the Institute has taken action on the work practices manual. At completion of the work practices manual a seminar might be the proper place to promote the work practices booklet. No action will be taken on a Seminar at this time.

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STATUS OF OSHA REGULATIONS ON ASBESTOS

The Asbestos Information Association has advocated the work practices approach as a means of controlling asbestos dust for the construction industry standard. The construction industry is different than the manufacturing industry because of the transient work force and other such characteristics. There is some possibility that OSHA may possibly go with a work practices oriented regulation for the construction industry standard. If a contractor was using certified work practices it might relax the need for other control procedures.

As regards the manufacturing standard, no public hearing has been held and none has been scheduled. It is possible that the construction industry standard might be part of any public hearing where OSHA is considering further action on the manufacturing standard. Mr. Fenner indicates that to his knowledge nothing has been done on the construction standard and he does not foresee any action in 1978. The proposed changes in the manufacturing standard that were made in 1975 are awaiting evaluation in a study by a group contracted for by OSHA. Consad has yet to complete a study of the economic impact of the proposals which were in the October 1975 proposals for the manufacturing segment of the industry. Further, the Research Triangle Institute was to make an economic study for the construction industry. Drafts of these studies will not be ready before April 1978. In summary, there appears to be little action that can be expected in the near future as regards either the construction standard or the manufacturing standard.

OSHA "GENERIC" STANDARD--SUBSTANCES POSING AN OCCUPATIONAL CARCINOGENIC RISK

The proposed "generic" standard for identification, classification and regulation of toxic substances posing a potential occupational carcinogenic risk was published in October 1977. These proposals are referred to as the "generic" standard. The proposal is to have a basic standard written, and then the blanks could be filled in depending upon the particular suspected carcinogen. Any comments concerning this generic standard were to be in by January 31, 1978. (Subsequently postponed to February 28, 1978.) This proposed "generic" standard is a major step by OSHA and apparently is the thinking of the new Assistant Secretary of Labor, Eula Bingham. The main target of this generic standard would be the chemical industry. Industry has set up a group to present their viewpoints as regards this generic standard. Several manufacturers formed the American Industrial Health Council (AIHC). As asbestos will still be regulated under the earlier asbestos regulations there is no action that the Institute could take at this time. It is, of course, a standard which could have a most substantial impact on all industry.

UAW PETITION FOR EMERGENCY ASBESTOS STANDARD

In July 1977 Mr. Douglas Fraser, President of United Automobile Workers petitioned the Honorable Ray Marshall, Secretary of Labor, to establish an emergency standard for exposure to asbestos, in line with the proposed changes OSHA made on September 30, 1975. There was a question as to the status of this petition. The UAW's petition for an emergency standard was denied by the Department of Labor. The Department of Labor politely denied the petition because there was an existing standard in effect, and the issues raised by the proposed revisions to the standard had not been resolved.

NIOSH CONTRACT--INVESTIGATION OF HEALTH HAZARDS IN BRAKE LINING REPAIR SHOPS

On January 5, 1978 there was a meeting held at Mount Sinai Hospital concerning the NIOSH contract for investigation of health hazards in brake lining repair shops. This was a session with industry, NIOSH and Mount Sinai people to review the progress of this particular study. Mount Sinai Hospital received a \$180,000 contract from NIOSH for this study. The Secretary attended this session along with several members of this committee including Mr. B.J. Ivarsson, I. H. Weaver and Dr. E. Stone. Also attending were Mr. Marsh from Raybestos, Mr. Chase from Johns-Manville, and Mr. Marenness from the Asbestos Information Association. Two representatives from NIOSH hardly participated in the session. The session was controlled by both Dr. Selikoff and Dr. Nicholson of Mount Sinai. A brief report was written on the session in which some questions were raised about the impossibility of locating a cohort exposed to short fibers only who would not also have been exposed to longer fibers. Also there were several comments concerning the use of workers in New York Municipal garages. From the comments made by the union representative there is considerable difficulty in not only locating the garages but in locating the workers and knowing the types of exposures to which they are subjected. This discussion was apparently held in line with instructions when the contract was issued. As indicated, there was no actual report from NIOSH as to the progress of the study.

QUEBEC PROPOSALS FOR ASBESTOS MANUFACTURING INDUSTRY

Mr. Reis felt it might be of interest to know the outcome of a recent study concluded by the Province of Quebec, with input from among others Arthur D. Little Company. Quebec is attempting to bring more manufacturing jobs involving asbestos into the Province rather than just shipping asbestos outside the area. This study indicated that at best there were three areas where Quebec might participate in asbestos products manufacturing. Those were: (1) Asbestos cement sheets, (2) Molded friction materials, and (3) Flooring felts. It was indicated that at most 400 jobs might be created in these manufacturing areas in Quebec. It was apparently Quebec's hope that considerably more manufacturing jobs might be opened up in that Province.

* * * * *

The Chairman of the Committee and the Members expressed their thanks to Mr. Reis and Mr. Fennar for their offers of help in preparation of a work practices manual. They also extended the Committee's thanks for their participation in this meeting.

There being no other business brought to the attention of the Committee, upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To adjourn.

Adjourned: 2:40 P.M.

E. W. Brislane
Executive Director