

Don Associates

33 EAST MAIN STREET
P.O. BOX 517
HUDSON, OHIO 44136
(216) 656-2148

INDUSTRIAL CONSULTANTS

September 26, 1979

Ajax Magnothermic Corporation
1745 Overland Ave. N.E.
Warren, Ohio 44483

Attn: Mr. Don Flink, Maintenance Supervisor

Dear Mr. Flink:

This report and attached laboratory analysis covers the air samplings taken on August 17th to determine employee exposure to asbestos fibers and silica dust.

The asbestos is not used in a pure fiber form, but is encapsulated in the transite, compressed into sheets of various thicknesses and cut to specified sizes and further machined by drilling and grinding.

As a review of the attached analysis reveals, the sawing, drilling, and milling operations release relatively small amounts of asbestos, well below the allowable limits of 2 fibers/cubic centimeter, as indicated in samplings #1 and #3. Sample #2, however, would exceed allowable limits if operations exceeded one hour of exposure.

This operator set up a short time simulated operation for sampling purposes. I feel this exposure is caused by the grinding operation which releases sufficient airborne fibers fine enough to become respirable during this process. This could be best controlled by providing a properly designed exhaust hood at the grinding wheel to pick up the fibers during grinding operations.

Personal air samplings for silica were also taken in the ramming department where Harbison Walker Castolast is used. Analysis of the filter indicates a high percentage of free quartz which is then used in a formula to determine the total dust and TLV concentrations. Results here indicate that total dust concentrations of silica bearing dusts exceed the allowable limits of 1.21 mg/cubic meter.

I would recommend that an exhaust hood be installed where the mixing operation occurs to effectively remove the airborne particulate from the operator's breathing zone. This could probably be tied into the existing exhaust system for the sand blasting unit.

I would recommend that once the exhausts at the grinder and the mixing hood are installed, samplings should again be made to determine the

-2-

effects to employee exposures.

Although concentrations were well within allowable limits for Joel Pamifilie, the exhaust on the milling machine should be relocated from the back to the front to more efficiently remove particles generated during the milling operation.

Keep this report and attached laboratory analysis on file for future reference and if you have any questions, please call.

Yours truly,

David T. Hutton
David T. Hutton
Safety Engineer

DTH/kg
Encl.

INDUSTRIAL HYGIENE AIR SAMPLING - September 24, 1979

Location: Ajax Magnothermic Corp.
1745 Overland Ave., N.E.
Warren, Ohio

Objective: Conduct air sampling to determine airborne concentrations of asbestos and percent silica.

Equipment: Bendix Micronair Air Samplers

Technique: The air samples were taken at a location considered representative of the general work area. The equipment was properly calibrated before the survey. The air sampler checked frequently during the sampling period to assure proper operation.

Results:

<u>Location</u>	<u>Sample Parameters</u> <u>Rate, L/Min</u>	<u>Time</u> <u>Min.</u>	<u>Airborne Asbestos Concentration</u> <u>Fibers/cc. 5 u</u>
#1 Joel Pamifilie, Class 2 Machinist	1.7	330	0.14
#2 Frank Bodnar, Class 1 Transformer man	1.5	10	7.27
#3 Robert M ^C Fall, Class 1 Coil Man	1.8	240	0.35

OSHA allowable limit for asbestos is 2 Fibers/cc. 5 u for a TWA and 10 Fibers/cc. for a 15 minute ceiling limit.

<u>Location</u>	<u>Dust Concentration</u> <u>mg/M³</u>	<u>Percent Silica</u>	<u>TLV</u> <u>mg/M³</u>
#4 Bob Walters, Ramming operator	8.19	21.6	1.21

G. L. Hess
G. L. Hess
Industrial Hygienist

GLH/mjh

AIR SAMPLING DATA SHEET

Ajax Magnothermic Corporation
1745 Overland Ave., N.E.
Warren, Ohio 44483

Date of Samplings: August 17, 1979

Sample #1 - Personal sample, calibration 1.7 liters/min.
Joel Pamifilie, Class 2 Transformer
Pump on: 8:45 AM Off: 2:15 PM
Operations consisted of milling and drilling
transite and cleanup.

Sample #2 - Personal sample, calibration 1.5 liters/min.
Frank Bodnar, Class 1 Transformer
Pump on: 9:10 AM Off: 9:20 AM
Operations consisted of band saw cutting, grinding
and drilling transite.

Sample #3 - Personal sample, calibration 1.8 liters/min.
Robert McFall, Class 1 Coil Man
Pump on: 9:20 AM Off: 1:20 PM
Operations consisted of band saw cutting and
drilling transite.

Sample #4 - Personal sample, calibration 1.8 liters/min.
Bob Walters, Ramming Mechanic
Pump on: 11:42 AM Off: 2:55 PM
Operations consisted of mixing ramming material
and packing material.

ROUGH DRAFT

DECEMBER 17, 1979

SAFETY MEETING 2:15 P.M.

REFERENCE: Mr. Carmen W. Pompeii, Industrial Hygienist
Report of Asbestos Survey - November 14, 1979

ATTENDING:	J. Fell	T. Scott
	D. Flink	J. Ughrin
	J. Maher	F. Williams

Don Flink is to get Mr. Carmen W. Pompeii in to monitor Coil - Disassembly and Silica Refractory.

Mr. J. Maher explained his position on the report issued by the Department of Industrial Relations, administered by Mr. Carmen W. Pompeii on November 14, 1979.

1. The Company will get the employees x-rayed for Asbestos, but not every (6) six months.
2. The Company is buying equipment to vacuum the floor and machine tool.
3. The Company is purchasing equipment to protect the employee when they mix silica refractory in the Refractory Department.
4. The Company is purchasing equipment to collect dust and asbestos is the Transformer Department.
5. The Company is purchasing equipment to improve the dust and asbestos dust collectors in the Coil Department.
6. The Company is trying to eliminate the use of asbestos in its product line.
7. The Company did purchase the proper type respirator cartridge for asbestos, they soon will be available in the Personnel Department.

INDUSTRIAL HYGIENE SURVEY

Ajax Magnathermics Corporation
1745 Overland Avenue
Warren, Ohio

December 27, 1979

January 4, 1980

Prepared By:

Richard Zapko

Richard Zapko
Industrial Hygienist

RE: Ajax Magnathermics Corp.
1745 Overland Ave.
Warren, Ohio

Risk #220145

On December 27, 1979, and January 4, 1980, visits were made to the above company to investigate possible health hazards associated with the removing of support boards on induction melting coils and the spreading of the coils after oven burning. Of particular interest was the airborne concentrations of asbestos particles to which employees may be exposed from using transite boards which contain asbestos and portland cement. The visits were requested by company management.

Contacted at Ajax Magnathermics was Mr. Don Flink, Maintenance Supervisor.

The company employs approximately 150 plant personnel in the production of induction heating and melting equipment.

Representative time-weighted average samples and ceiling concentration samples were obtained on three support board removers who were working with the transite on December 27, 1979. Representative time-weighted average samples and ceiling concentration samples were also obtained on January 4, 1980, on two coil men who were spreading and cleaning a coil that had already been in the oven, one coil man who was not cleaning or spreading this coil, but was located in the area where this work was being performed, and finally, two coil men who were removing transite boards located beneath the support boards of the coil prior to the coil being placed in the oven. Sampling on both days was conducted with the use of personal sampling pumps equipped with open-faced mixed cellulose ester membrane filters. Following are the results of microscopic asbestos fiber counts on these filters, expressed as the number of fibers, longer than 5 micrometers, per cubic meter of air:

December 27, 1979

<u>Employee</u>	<u>Job</u>	<u>Exposure</u>		<u>OSHA TLV</u>	
		<u>TWA</u>	<u>Ceiling</u>	<u>TWA</u>	<u>Ceiling</u>
M. Popp	- Support Board Remover	0.13	0.05	2.00	10.00
M. Popp	- Support Board Remover	0.37		2.00	10.00
T. Scott	- Support Board Remover	0.09	0.23	2.00	10.00
W. Spann	- Support Board Remover	0.49	0.10	2.00	10.00

January 4, 1980

<u>Employee</u>		<u>Exposure</u>		<u>OSHA TLV</u>	
		<u>TWA</u>	<u>Ceiling</u>	<u>TWA</u>	<u>Ceiling</u>
W. Spann	Coil Spreading & Cleaning	0.06(Morning)	0.16	2.00	10.00
W. Spann	Coil Spreading & Cleaning	0.35(Afternoon)		2.00	10.00
R. Jeffco	Coil Spreading & Cleaning	0.02(Morning)		2.00	10.00
R. Jeffco	Coil Spreading & Cleaning	0.38(Afternoon)	0.99	2.00	10.00
G. Ash	Working in area nead Coil Spreading & Cleaning	0.01		2.00	10.00
M. Popp	Support Board Remover	0.01		2.00	10.00
R. McFall	Support Board Remover	0.08	0.08	2.00	10.00

TWA - Time-Weighted Average

TLV - Threshold Limit Value

Although the above sample results indicate that the concentrations of asbestos fibers are within the current limits established by OSHA, it is suggested that, if at all possible, the company seek a practical substitute for the transite material, thereby removing exposure to a hazardous material from the work place. Asbestos is a very dangerous material which in sufficient quantities can cause asbestosis, a disabling lung condition with symptoms similar to silicosis. In addition, asbestos is widely recognized as a cancer-causing agent. Deaths resulting from cancer of the lungs, the lining of the chest, and the intestinal tract are much more common with asbestos workers than the general population.

The National Institute for Occupational Safety and Health (NIOSH), the agency which suggests new standards to OSHA, has proposed that the allowable concentrations of asbestos fibers be reduced to a TLV of 0.1 fibers, longer than 5 micrometers, per cubic meter of air, with a ceiling limit of 0.5 fibers, longer than 5 micrometers, per cubic meter of air. Several of the time-weighted average samples obtained at Ajax Magnathermics would exceed this standard if it is adopted.

To insure complete compliance with the OSHA asbestos regulation, it would be beneficial for company representatives to become familiar with section 1910.1001 of OSHA's General Industry Standards. In addition to permissible exposures to airborne concentrations, the standard covers items such as monitoring intervals, waste disposal, and the maintenance of records of monitoring.

Also sampled on January 4, 1980, for respirable dust, which may contain free silica, was a coil man who was mixing refractories in the coil department. Personal sampling pumps with pre-weighed polyvinyl chloride filters, preceded by a miniature cyclone, were used to collect respirable dust samples for free silica analysis. Sample results as reported by the laboratory are as follows:

<u>EMPLOYEE</u>	<u>JOB</u>	<u>EXPOSURE</u> <u>TWA mg/M³</u>	<u>ACGIH</u> <u>TLV mg/M³</u>	<u>% SiO₂</u>
H. Turnage	Coilman	0.245	1.355	5.38

TWA - Employee Exposure, Time-Weighted Average
 TLV - Threshold Limit Value
 ACGIH - American Conference of Governmental Industrial Hygienists
 mg/M³ - milligrams per cubic meter of air.

$$TLV (mg/M^3) = \frac{10^{-1} mg/M^3}{\% \text{ Respirable quartz} + 2}$$

A review of the preceding sample result indicates that exposure for the coilman, who was mixing refractories, to respirable dust was below the suggested TLV of the ACGIH. Exposure to excessive dust which contains free silica may cause a pulmonary fibrosis called silicosis, one of the most common and serious of all pneumoconioses. Associated with silicosis is shortness of breath, emphysema, and reduced pulmonary capacity with ensuing disability.

Threshold Limit Values (TLV) refer to airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effects. Because of wide variations in individual susceptibility, however, exposure of an occasional individual at or even below current TLV may not prevent discomfort, aggravation of pre-existing conditions, or an occupational illness. Many TLVs are based on acute exposures and do not necessarily represent prolonged exposures after many years of working.

January 9, 1980

Ajax Magnothermic Corporation
1745 Overland Ave. N.E.
Warren, OH 44483

Attn: Mr. Jim Mahar
V.P. Manufacturing

Dear Mr. Mahar:

I have reviewed my report on the asbestos sampling and laboratory results and feel the following facts should be brought up:

1. All of the samplings were taken under "simulated" conditions, due to the fact that there were no scheduled like operations on the day of the tests.
2. The samples were taken only during the simulated operation to determine the greatest possible exposure if the employee were engaged over a full workshift which, as I understand it, does occasionally occur.
3. The results should be interpreted as the highest exposure that would be possible over a full workshift.
4. Nowhere in the report is it stated that medical surveillance should be instituted, but only that (a) exposure is well below the allowable limits with the exception of the grinding operation, which lacked an exhaust hood at the grinding wheel, and (b) exhaust hoods should be provided and additional samples taken to determine the effects and efficiency of the hoods in reducing exposure.

The variances in the Industrial Commission report and my report are not significantly different. My report is based on maximum possible exposure, while theirs is based on the full workshift and gives results which are more likely to be average exposures, but entirely dependent on the work scheduled for these operations involving transite on any given day.

I feel my report is much more meaningful, as it indicates the maximum potential exposure that could occur rather than exposures that could vary dependent on the work schedule. A series of eight hour samples would have to be taken to obtain a reliable average daily exposure. I firmly believe in working along the principles of maximum possible exposures.

My report should have been posted along with the State report, explaining that my report gives maximum potential exposure and the State report indicates average exposures.

This is like a broker selling stock based on a corporation's best quarterly earnings report and lacks creditability.

I recommended verbally in the meeting that medical examinations be given based on exposure which could exceed the action level of 0.1 fibers, and which you had previously indicated you would do.

Employees are naturally concerned, since a number of them have been involved in the transite fitting operation for a number of years. It is good employee relations as well as good corporate policy.

Your remarks related to creditability for having to refer to the data sheets does not meet with my own personal views. I can always believe the person who takes time to refer to a report before making a statement. He has to be right, and I can verify it if necessary. I can never be sure about the number or statement if it comes out of the person's head. In my mind, he has about a 30% chance of being right, or he could have the wrong figure or a figure that suits his purposes at the moment. The average person resents a genius or know-it-all.

I trust this will clear the air somewhat, relative to the reports.

Yours truly,

David T. Hutton
Safety Engineer

DTH/kg
cc: Mr. Don Flink ✓
Maintenance Supervisor



The Industrial Commission
Of Ohio
Division Of Safety & Hygiene
246 N. High St., Cal., O. 43215

May 12, 1980

Mr. Don Flink
Maintenance Supervisor
Ajax Magnathermics Corporation
1745 Overland Avenue
Warren, Ohio

Dear Mr. Flink:

Attached please find a report relative the Industrial Hygiene surveys conducted at your facility on December 27, 1979 and January 4, 1980, by Mr. Richard Zapko, Industrial Hygienist with this Organization.

The courtesy extended Mr. Zapko was very much appreciated, and we look forward to assisting you in the future.

If this Division can be of further assistance to your company at any time on Industrial Hygiene problems, please feel free to contact us. Our toll-free number is 1-800-282-3045, ext. 5563.

Respectfully submitted,

Louis Gergely
Manager
Industrial Hygiene Department

LG/ng



The Industrial Commission
Of Ohio
Division Of Safety & Hygiene
246 N. High St., Col., O. 43215

June 11, 1980

Mr. Don Flink
Maintenance Supervisor
Ajax Magnathermics Corporation
1745 Overland Avenue
Warren, Ohio

Dear Sir:

Attached please find a revised version of the report detailing the Industrial Hygiene survey conducted at your facility by Mr. Richard Zapko. The revision involves deletion of information relative the potential hazards associated with exposure to a hazardous substance when the levels are below the mandated permissible exposure limit.

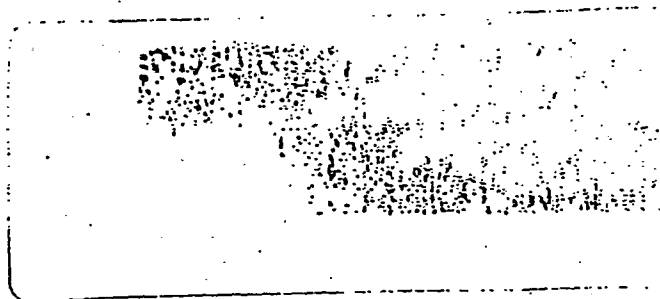
The information originally included was based on sound and prudent practice and is being deleted based on considerations other than the validity of the information as originally written.

As noted in my original letter, the Division stands ready to assist your company and it's workers in any Industrial Hygiene related matter.

Respectfully,

Louis Gergely
Manager
Industrial Hygiene Department

LG/ng



The Industrial Commission
Of Ohio
Division Of Safety & Hygiene



PRINTED UNDER THE ADMINISTRATION OF
HON. JAMES A. RHODES, GOVERNOR

THE INDUSTRIAL COMMISSION OF OHIO

WILLIAM W. JOHNSTON
CHAIRMAN

RAYMOND A. CONNOR
VICE-CHAIRMAN

LEONARD T. LANCASTER
MEMBER

THE DIVISION OF SAFETY AND HYGIENE

PHILIP A. WORKMAN
SUPERINTENDENT

BOB RILEY
ASSISTANT SUPERINTENDENT

The Industrial Commission of Ohio
Division of Safety and Hygiene
246 North High Street
Columbus, Ohio 43215

TOLL-FREE 1-800-282-3045

RE: Ajax Magnathermics Corp.
1745 Overland Ave.
Warren, Ohio

Risk #220145

On December 27, 1979, and January 4, 1980, visits were made to the above company to investigate possible health hazards associated with the removing of support boards on induction melting coils and the spreading of the coils after oven burning. Of particular interest was the airborne concentrations of asbestos particles to which employees may be exposed from using transite boards which contain asbestos and portland cement. The visits were requested by company management.

Contacted at Ajax Magnathermics was Mr. Don Flink, Maintenance Supervisor.

The company employs approximately 150 plant personnel in the production of induction heating and melting equipment.

Representative time-weighted average samples and ceiling concentration samples were obtained on three support board removers who were working with the transite on December 27, 1979. Representative time-weighted average samples and ceiling concentration samples were also obtained on January 4, 1980, on two coil men who were spreading and cleaning a coil that had already been in the oven, one coil man who was not cleaning or spreading this coil, but was located in the area where this work was being performed, and finally, two coil men who were removing transite boards located beneath the support boards of the coil prior to the coil being placed in the oven. Sampling on both days was conducted with the use of personal sampling pumps equipped with open-faced mixed cellulose ester membrane filters. Following are the results of microscopic asbestos fiber counts on these filters, expressed as the number of fibers, longer than 5 micrometers, per cubic meter of air:

December 27, 1979

<u>Employee</u>	<u>Job</u>	<u>Exposure</u>		<u>OSHA TLV</u>	
		<u>TWA</u>	<u>Ceiling</u>	<u>TWA</u>	<u>Ceiling</u>
M. Popp	- Support Board Remover	0.13	0.05	2.00	10.00
M. Popp	- Support Board Remover	0.37		2.00	10.00
T. Scott	- Support Board Remover	0.09	0.23	2.00	10.00
W. Spann	- Support Board Remover	0.49	0.10	2.00	10.00

Ajax Magnathermics Corp.
Warren, Ohio
page 2

January 4, 1980

Employee	Job	Exposure	Ceiling	OSHA TLV	
		TWA		TWA	Ceiling
W. Spann	Coil Spreading & Cleaning	0.06(Morning)	0.16	2.00	10.00
W. Spann	Coil Spreading & Cleaning	0.35(Afternoon)		2.00	10.00
R. Jeffco	Coil Spreading & Cleaning	0.02(Morning)		2.00	10.00
R. Jeffco	Coil Spreading & Cleaning	0.38(Afternoon)	0.99	2.00	10.00
G. Ash	Working in area near Coil Spreading & Cleaning	0.01		2.00	10.00
H. Popp	Support Board Remover	0.01		2.00	10.00
R. McFall	Support Board Remover	0.08	0.08	2.00	10.00

TWA - Time-Weighted Average
TLV - Threshold Limit Value

The National Institute for Occupational Safety and Health (NIOSH), the agency which suggests new standards to OSHA, has proposed that the allowable concentrations of asbestos fibers be reduced to a TLV of 0.1 fibers, longer than 5 micrometers, per cubic meter of air, with a ceiling limit of 0.5 fibers, longer than 5 micrometers, per cubic meter of air. Several of the time weighted average samples obtained at Ajax Magnathermics would exceed this standard if it is adopted. *Are we in compliance now - if so say so.*

To insure complete compliance with the OSHA asbestos regulation, it would be beneficial for company representatives to become familiar with section 1910.1001 of OSHA's General Industry Standards. In addition to permissible exposures to airborne concentrations, the standard covers items such as monitoring intervals, waste disposal, and the maintenance of records of monitoring.

Also sampled on January 4, 1980, for respirable dust, which may contain free silica, was a coil man who was mixing refractories in the coil department. Personal sampling pumps with pre-weighed polyvinyl chloride filters, preceded by a miniature cyclone, were used to collect respirable dust samples for free silica analysis. Sample results as reported by the laboratory are as follows:

Employee	Job	Exposure	ACGIH	% SiO ₂
		TWA mg/M ³	TLV mg/M ³	
H. Turnage	Coilman	0.245	1.355	5.38

TWA - Employee Exposure - Time-Weighted Average
TLV - Threshold Limit Value
ACGIH - American Conference of Governmental Industrial Hygienists
mg/M³ - Milligrams per cubic meter of air.

$$TLV (mg/M^3) = \frac{10 \text{ mg/M}^3}{\% \text{ Respirable quartz} + 2}$$

Ajax Magnathermics Corp.
Warren, Ohio
page 3

A review of the preceding sample result indicates that exposure for the coilman, who was mixing refractories, to respirable dust was below the suggested TLV of the ACGIH. Exposure to excessive dust which contains free silica may cause a pulmonary fibrosis called silicosis, one of the most common and serious of all pneumoconioses. Associated with silicosis is shortness of breath, emphysema, and reduced pulmonary capacity with ensuing disability.

Threshold Limit Values (TLVs) refer to airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effects. Because of wide variations in individual susceptibility, however, exposure of an occasional individual at or even below current TLVs may not prevent discomfort, aggravation of pre-existing conditions, or an occupational illness. Many TLVs are based on acute exposures and do not necessarily represent prolonged exposures after many years of working.

Ajax Magnethermic Corporation

6/27/80

A S B E S T O S

Actions Taken by Company

1. Monitor samples were taken by several people.
2. The company will get employees Xrayed for asbestos, but not every six months.
3. The company did buy three portable floor vacuum units. They are now in use in the following departments; Coil, Transformer, and the Machine Dept.
4. The company did purchase and install a vacuum unit for the Refractory Dept.
5. The company did purchase and install a vacuum unit for the Transformer Dept. This is connected with the band saw, grinder, and drill press.
6. The company did purchase the proper type respirator cartridge for asbestos; they are available in the Personnel Dept.
7. The company provided barrels marked "Asbestos and Glass Fibers" that are used on the dust collectors. This material will be shipped in these same containers per government regulations.
8. The company did purchase a dust collector for the Machine Dept. several years ago. This is connected to a table saw, milling machine, and a band saw. Several improvements have been made to this system, through suggestions by shop personnel. A most recent suggestion will be implemented as soon as all the parts are available. This will be an added pipe to the saw blade guard.

D. Flink

DF:bjv

cc: ~~Mr. Broadbelt~~
R. Turner

Hutton Associates

35 EAST MAIN STREET
P.O. BOX 517
HUDSON, OHIO 44236
(216) 656-2148

INDUSTRIAL CONSULTANTS

February 6, 1981

Mr. Don Flink
Maintenance Supervisor
Ajax Magnothermic
1745 Overland Avenue
Warren, OH 44483

Dear Don:

As I stated, the OSHA Standard covering storage of materials is primarily a performance standard; it is up to the employer to enforce compliance with the following:

Subpart N - Materials Handling and Storage
1910.176(b) Secure Storage. Storage of materials shall not create a hazard. Bags, containers, bundles, etc. stored in tiers shall be stacked, blocked, interlocked, and limited in height so that they are secure against sliding or collapse.

Yours truly,

David T. Hutton
David T. Hutton
Safety Engineer

DTH/kg

AJAX MAGNETHERMIC CORP.

WARREN

OHIO

SC No. 15350A

SHEET 1 OF 1

APPR'D

DATE 5-2-83

SUBCLASSIFICATION: INSULATION, CERAMIC BOARD

SPECIFICATION:

Refractory bonded rigid insulating board, composed of Aluminum Oxide and Silicon Oxide fibers processed and dried flat and tru on all surfaces, having uniform composition and density.

COLOR: Tan

TOLERANCES I.125

CONTINUOUS USE LIMIT: 2000°F *plw 5/3/83*

DENSITY: 16 lbs./cu. ft.

Sizes are listed under standard below in inches.

VENDOR: Carborundum

CAT. REF.:

SCHEMATIC:

DIM. DWG.:

SP. PTS. LIST:

SOURCE:

ADD SIZE No. TO SC No.

SIZE No.

STANDARD

MISC.

VENDOR

SC APPROVED

THICKNESS

WIDTH X LENGTH

00 — 1/2 24 x 48

01 — 1 24 x 48

02 — 2 24 x 48

USED ON: LFM

Channel fce. lining

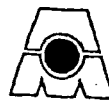
NOTE 1. Other mechanical and physical properties and characteristics listed under SC files.

STORES LOCATION:

SUPERSEDES.

DATED: 10-18-79

Ajax Magnethermic



inter-office letter

FROM: H. W. VANDERBACH

DATE: NOVEMBER 3, 1983

TO: C. C. HANSON
R. MARTIN
E. STANLEY

SUBJECT: NEW ASBESTOS EXPOSURE
STANDARD

Attached is a copy of the article which appeared in the Thursday, November 3, 1983, edition of The Wall Street Journal outlining the emergency temporary standard which has been issued by OSHA to cover asbestos exposure. As you will note, this new standard takes effect Friday, November 4, 1983.

In late 1979 and early 1980, the Warren facility had air quality surveys conducted both by Hutton Assoc., a consulting firm, and The Division of Safety & Hygiene for the State of Ohio. The results of these surveys indicated that only one operation involving transit exceeded the then standard of 2 million fiber per cubic meter of air and that involved grinding. Further, a review of the readings from other processing of transit indicates that none exceeded the 500,000 fibers per cubic meter of air standard now being put into effect. However, even though we were mainly in compliance at the time of the survey, the Company did implement certain additional actions, (Copy attached).

Based on the implementation of this new standard, I would strongly recommend that air quality surveys of our transit operations be conducted at both AMKY and AMNOC to determine exposure levels. If they come out the same as the Warren survey, then we will have records to support our compliance, if, for some reason they do not, then we will have to require corrective action. I would also suggest that we review the corrective actions taken at Warren after the 79/80 survey and determine if any or all of them are required at AMKY and/or AMNOC.

I would appreciate your thoughts and comments on this matter.

HWV:jk

CC: N. C. Harbert, R. Ashcraft, and W. Rush
AJAX MAGNETHERMIC CORPORATION/HEADQUARTERS

1 DAY

4

NOV. 1983

Nov. 4th
1 ft. triangle
erecting glass
in down-
linneapolis.

NOV. 4

DAYS REMAINING
- 57

YS EARN MORE

PER
VERS
IFICATE
HIGH
RATE
PASSBOOK

2% 10%

ounded
dily
Year Terms
imum
al

• \$2,500 Minimum
Deposit

• Daily Availability
Without Penalty

• Approval on certificates
• FSIC INSURED

savings & Loan

One-Mall Billion Dollars

9090 • Lyons (312) 442-8400
121 795-7272 •
9090 • Sandwich (815) 786-
115

gement Systems
to preview

ient Seminar
Computers

in Chicago
er Management, Inc.

ember 14-15, 1983
10AM - 3:30PM

Tougher Limits For Asbestos Issued by U.S.

OSHA Takes a Rare Step
With Temporary Rule;
Challenge Is Expected

By JAMES S. LAWREN

Staff Reporter of The Washington Post
WASHINGTON—In a step rarely taken,
the Labor Department issued immediate
tougher limits on occupational exposure to
asbestos, which has been linked to fatal dis-
eases.

The department's Occupational Safety
and Health Administration issued an emer-
gency temporary standard that sets maxi-
mum workplace exposure for asbestos at
200,000 fibers per cubic meter of air. The
current level, set in 1972, is two million fi-
bers per cubic meter. The temporary rule,
drafted by 14 unions, takes effect Friday and
remains in effect for six months while the
safety agency decides whether to make
the tougher standard permanent.

This marks the first time OSHA has is-
sued an emergency temporary standard
since 1974. The asbestos industry is expected
to challenge the ruling in federal court. Al-
though unions won the desired emergency
ruling, they remain unhappy with OSHA be-
cause they wanted even more stringent new
limits and fear the agency won't step up its
enforcement efforts.

The emergency rule reflects new scien-
tific evidence linking low-level exposure of
asbestos to asbestosis, a lung disease, and
mesothelioma, a cancer of the lining of the
lungs. An OSHA analysis found 50,000 work-
ers in the U.S. are exposed to between 500,
000 and two million fibers per cubic meter of
air, averaged over an eight-hour day.

"That really is the basis" for the emer-
gency rule, said Patrick Tyson, OSHA's de-
puty chief. "We had to demonstrate that
there are a number of workers at risk."

The agency believes the new exposure
limit may prevent 200 of those employees
from dying from cancer, Mr. Tyson
added.

OSHA has agonized for months about
whether to issue the emergency ruling, be-
cause of its poor track record with such
steps in the past. Industry groups have sued
the job-safety agency over five of the eight
emergency standards issued since the
agency's inception in 1971. Only one of those
five rulings has been fully upheld by the
courts, a standard limiting exposure to scry-
lonitrile, a chemical widely used to make
synthetic rubber, plastic and other prod-
ucts that has been linked to cancer.

To bolster its asbestos emergency rule
against legal action, OSHA hired a consul-
tant and solicited comments from a bevy of
outside scientists. "We subjected this to a
great deal of scrutiny," Mr. Tyson said.

Robert Pigg, executive director of the As-
bestos Information Association, said the
trade group expects to sue OSHA over the
ruling because "we think it's unwarranted
and unnecessary. The association feels a far
superior course of action would be address-
ing (the issue) through normal rulemak-
ing."

OSHA's initial reluctance to issue the
emergency standard reflected fears that a
lawsuit would question its failure to pursue
regular rulemaking procedures in the past.
In 1975, the agency proposed lowering the
asbestos standard to 500,000 fibers per cubic
meter of air, but it never held hearings or
took any other action on the proposal.

Last month, OSHA announced plans to
triple asbestos-exposure inspections to about
100 over the next year in the construction
and manufacturing industries, focusing on
demolition sites and manufacturers with re-
cords of asbestos violations. The emergency
standard will produce "some additional
compliance," Mr. Tyson predicted. But he
coerced that "OSHA doesn't have a lot of
compliance officers out there. It would take
a long time to get to every site."

Led by the Machinists union, 14 unions
that petitioned for the emergency ruling
wanted the asbestos limit reduced to 100,000
fibers per cubic meter of air. OSHA esti-
mates that 375,000 workers currently are ex-
posed to asbestos on the job, with 41,300 of
them exposed at levels above two million fi-
bers per cubic meter.

The mineral once was widely used by
about 300 companies in producing ships,
floor tiles, brake linings and roof coatings.
Environmental Protection Agency officials
last month said that they intend to ban or
phase out asbestos in the few products that
still contain it.

InterNorth to Combine Units
OMAHA, Neb.—InterNorth Inc. said it
will combine its Houston-based Norvia Gas
& Oil Co. and the domestic operations of re-
cently acquired Union Petroleum Corp.



for busi
and pleas



SNEAK PREVIEW OF FLORIDA \$2.50

To help you put together a more fun-filled Florida vacation, we've put together
a full-color Florida Vacation Guide.

It tells you all you need to know, want to know or have to know to make
Florida better than ever.

For your own copy just mail this coupon today, along with a check or money
order for \$2.50. (No cash please. Make check or money order payable to:
Florida Department of Commerce. Allow 3-4 weeks for delivery.)

NAME _____

ADDRESS _____

CITY/STATE/ZIP _____

VACATION DATES FROM _____ TO _____

Mail to: Florida Division of Tourism, Visitor Inquiry Section,
Dept. WSJM, 126 Van Buren Street, Tallahassee, FL 32301.

FLORIDA

When you need it bad, we've got it good.

FLORIDA
BLACKBURN
VACATION ON Marco Island
4-ROOM SUITES
FOR LESS THAN A
HOTEL ROOM
Right on Marco Island's
3 1/2 mile beach

- Golf, tennis, bowling, fishing,
golfcart driving and nightly
entertainment
- Spacious, air conditioned,
fully-equipped suites with 2
B&B, bath, kitchen, living room—
sleeps up to 6 And — a
swimming pool!
- Just 16 miles south of Naples on
the Gulf of Mexico with
connections to major airlines,
highways and water routes

Act Now! Demand a great every vacation.
Call toll-free (800) 237-3175
in Florida, call collect (813) 394-2537
Or send coupon today.

NAME _____
ADDRESS _____
CITY _____
STATE _____
ZIP _____
000-000-0000

FLORIDA
SPEND
CHRISTMAS
ON OUR
ISLAND
\$419.95 Per Week
Family of 4
Make your Christmas vacation plans
now! Sandpiper Key is the ideal place
to relax under the Florida sun at a
special Family Christmas Price. Fish,
swim or lounge on our Sandpiper
Copper, or bring your own boat and
tie up at our private dock.
Christmas packages available Dec.
15-31.
CALL COLLECT NOW FOR RESERVATIONS
(813) 475-5106
or write for full color brochure:

Sandpiper Key
1601 Beach Road
Englewood, FL 33533
IN THE SAMAN CLUB

STINIBEL
ISLAND...
TROPICAL
VACATIONS
Southwest Florida beach hotel
completes 100th year by
the next month or so when the
hotel is scheduled for
rebuilding. Make your plans early.
Contact:
SANIBEL
ACCOMMODATIONS
INC.
For a free brochure or
TOLL FREE (800) 237-3175
1-800-237-3175
OR FAX 1-800-237-3175

TEXAS
TROPICAL
It's true—W
is our off-sec
Choose from four fin-
Munster Island
North Padre I
Special Monthly
\$600.00 and L
All are fully equipped app-
water pools, access to golf
club and tennis, private area
Pine branches or recreation
SURFIDE CONDOMINI
Island, halfway to beach,
units 2B1-1B
15006 Windward
Carpus Christi T
(412) 833-41
EXECUTIVE KEYS CONI
beach in Port Aransas. Ed
and luxurious apartmen-
ation room, room phone, va
Box 1581, Port Arans
(412) 748-00
GULF SHORES CONUM
for view of the Gulf from a
water building, all B&B, 2B
color TV.
Box 1284, Port Arans
(412) 748-00
EL CORTES VILLAS—Com-
bination of one and two-
bathrooms, two pools, cul
Box 1284, Port Arans
(412) 748-00
OK, for reservations or term-
H G MANAC
P.O. Box 1284—Port Ar

LUXURY IN SCOT
2-Bedroom
Exquisite
Offering privacy with con-
Available by day, week or m-
1-800-237-3175

Ajax Magnethermic



inter-office letter

FROM: H. W. VANDERBACH

DATE: NOVEMBER 3, 1983

TO: C. C. HANSON
R. MARTIN
E. STANLEY

SUBJECT: NEW ASBESTOS EXPOSURE
STANDARD

Attached is a copy of the article which appeared in the Thursday, November 3, 1983, edition of The Wall Street Journal outlining the emergency temporary standard which has been issued by OSHA to cover asbestos exposure. As you will note, this new standard takes effect Friday, November 4, 1983.

In late 1979 and early 1980, the Warren facility had air quality surveys conducted both by Hutton Assoc., a consulting firm, and The Division of Safety & Hygiene for the State of Ohio. The results of these surveys indicated that only one operation involving transit exceeded the then standard of 2 million fiber per cubic meter of air and that involved grinding. Further, a review of the readings from other processing of transit indicates that none exceeded the 500,000 fibers per cubic meter of air standard now being put into effect. However, even though we were mainly in compliance at the time of the survey, the Company did implement certain additional actions, (Copy attached).

Based on the implementation of this new standard, I would strongly recommend that air quality surveys of our transit operations be conducted at both AMKY and AMNOC to determine exposure levels. If they come out the same as the Warren survey, then we will have records to support our compliance, if, for some reason they do not, then we will have to require corrective action. I would also suggest that we review the corrective actions taken at Warren after the 79/80 survey and determine if any or all of them are required at AMKY and/or AMNOC.

I would appreciate your thoughts and comments on this

matter

HWV:jk

CC: N. C. Harbert, R. Ashcraft, and W. Rush
AJAX MAGNETHERMIC CORPORATION/HEADQUARTERS

Form No. 5001A

*Make sure
this is correct
is correct
is correct
is correct
is correct*

Ajax Magnethermic



inter-office letter

FROM: H. W. VANDERBACH

DATE: NOVEMBER 21, 1983

TO: R. MARTIN
E. STANLEY

SUBJECT: MY MEMO 11/3/83 "NEW
ASBESTOS EXPOSURE STANDARD"

Per the above referenced memo would you please make arrangements to have an air quality survey conducted of the transite operations at your facility. Once you have located a company capable of conducting the survey, please contact me so that we can discuss the details of the survey and the cost.

Your co-operation is appreciated.

HWV:jk
CC: N. C. Harbert
C. C. Hanson

Speed Letter 44-902

GrayLine

SNAP-A-WAY FORM

Speed Letter

To

Harry Underbush
Warren, Ohio

From

Ben Rusk
Winterville, NC

Subject

Recent developments relating to air quality survey.

MESSAGE

Enclosed are the actual figures taken from our December, air quality survey. I've also attached a draft of our proposed Respiratory Protection Program, per the 1st recommendation of NC Dept of Labor (29 CFR 1910.134(a)(2)). Please call if you have any questions. 1/27/86 Signed Ben

REPLY

Date

Signed

Wilson Jones

GRAYLINE FORM 44-902 3-PART
©1983 - PRINTED IN U.S.A.

RECIPIENT—RETAIN WHITE COPY, RETURN PINK COPY

383

Harry

1-26-84

Mr. Ruch

Please see attached
report per your
request.

Chris Foster
OSTHA Consultant
Security Bureau
Raleigh, NC



NORTH CAROLINA DEPARTMENT OF LABOR
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
CONSULTATIVE SERVICES BUREAU

Consultant Number M2291

OSHA # 84-085

INDUSTRIAL HYGIENE CONSULTATION REPORT

AJAX MAGNETHERMIC, WINTERVILLE, N.C.

Dec 14, 1983

CALIBRATION		Agent(s) Sampled	Sample Location (or person)	Total Exposed	8 HR TWA Exposure Level Calculations	Fibers/cc Allowable Level(s)	Actual Level(s)	OVEREXPOSURE			Recommendations
Instrument (Type, Model)	Date							Yes	No	Marginal*	
MSA SAMPLING PUMP	12/14/83	Asbestos Fibers	BAND SAW IN COIL DEPT	1	$(85 \text{ min} \times .067 \text{ Fibers})$ 480 min equals .011 Fibers per cent.	2.0	.011		X		① Use HIGH EFFICIENCY (HEPA) dust collector TO KEEP DUST FROM ESCAPING INTO WORK PLACE.
DUPONT PERSONAL SAMPLING PUMP	12/14/83	Asbestos Fibers	BRIDGEPORT MILLING MACHINE	1	$(125 \text{ min} \times .668)$ 480 min equals .174 Fibers per cent.	2.0	.174		X		② PLACE TRANSITE BOARD BEING CUT ON BRIDGEPORT INSIDE A NEGATIVE pressure enclosure, or use A STATIONARY cutting head WITH LOCAL VENTILATION.
											③ Use LANDFILL FOR DISPOSAL OF PROPERLY SEALED AND LABELED ASBESTOS WASTE.
											④ MONITOR exposure Levels periodically

White Copy — Employer
Yellow Copy — Office
Pink Copy — Consultant

*Within 10% of Allowed Exposure Level

IV, 16, 1940
Initiated 7/82
Printed 500
Revised 5/83
Printed 500

Harry

Ajax Magnethermic Respiratory

Protection Program

Winterville, N. C. Plant

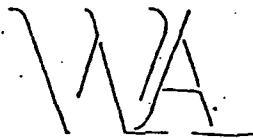
1. All employees who come in contact with or perform any manufacturing operation on or near the product "TRANSITE", an asbestos - cement board produced by the John's-Manville Corp., must wear an approved respirator. It also must be worn when working with any product that contains silica or lead based paints. We strongly recommend the use of a respirator when working with any dust or mist.
2. Only Company provided respirators that are recognized by the Occupational Safety & Health Administration for respiratory protection against air-borne asbestos particles are acceptable.

Presently, two are in use in the Winterville Plant:

- A) Pulmason C-251, with replacement filters
- b) 3M Brand 8710, disposable

3. Each employee requiring a respirator will be issued his own individual unit by his supervisor. Each respective supervisor will be responsible for instructing his employees in the proper use and limitations of this respirator.
4. Pulmason C-251 respirators should be cleaned after each use. Each supervisor should routinely inspect these units. Used filters should be discarded in the appropriate containers after each 8 hours of actual use; sooner if necessary. 3M Brand units should be discarded after each use and should never be reused.
5. It will be the responsibility of each individual employee to keep his respirator in a convenient, clean, and sanitary location.
6. Each supervisor should continually survey his work areas to see that all regulations are observed and that exposure levels are at an absolute minimum.
7. The individual or committee in charge of plant safety will conduct inspections and determine the continued effectiveness of the program.
8. Individuals should not be assigned to tasks requiring the use of respirators unless they are physically able to perform the work and use the equipment.

1/27/84



Watkins and Associates, Inc.
engineers • architects • planners

Over 50 years of Service

Henry Vandeburch

File

1. Safety

February 3, 1984

Mr. Ray Gabbard
Production Engineer
Ajax Magnathermics
P. O. Box 900
Richmond, KY 40475

Dear Mr. Gabbard:

On January 4, 1984, I conducted an airborne asbestos fiber survey in your plant. This report summarizes the procedures followed and results obtained.

Operations Studied

The operations studied consisted of the machining processes (table saw, band saw, and radial arm drill) using slabs of "Transite" material. Operators are exposed to Transite dust generated by these machining operations, as well as that falling off the Transite slabs during normal handling.

Asbestos Material Used

The "Transite" material is a thermal insulation product manufactured by Johns-Manville Corp. It is composed of 35% by weight of chrysotile asbestos fibers and 65% by weight of Portland Cement. The product warning label notes that machining operations may liberate free asbestos fibers. A U. S. Department "Material Safety Data Sheet" is attached.

A bulk sample of this material was sent to the University of Cincinnati Medical Center for analysis. Their report (attached) verified that it contained the chrysotile form of asbestos.

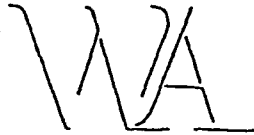
The Sampling Program

All air sampling was personally conducted by the undersigned. The basic procedure consisted of sampling the breathing zone air of three employees using a battery powered personal air pump and air filter assembly. Fibers collected on the filter were analysed and compared with the maximum allowable daily exposure.

Procedures

The procedures followed during sampling were in accordance with the most recent standard of the U.S. Department of Labor. The procedure is summarized as follows:

1. Employees tested were fitted with portable, battery powered personal air sampling pumps. These pumps were "Monitaire" model pumps manufactured by Mine Safety Appliances Company. They had been calibrated for accuracy by the buret and bubble technique.



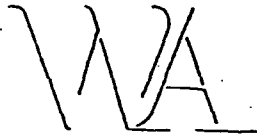
Watkins and Associates, Inc.
engineers • architects • planners

Mr. Ray Gabbard
February 3, 1984
Page Two

2. Each pump was connected to a 3-piece air filter assembly by a length of over-the-shoulder tubing. The filter was of the membrane type (Millipore 0.8 micron AAWP filter) and was covered by a protective facing until the start of each test. The filter was clipped to the collar near the employee's breathing zone.
3. The protective facing was opened just prior to each test so that fibers could be collected with the filter assembly in the "open face" configuration. Employees then proceeded to conduct their normal machining operations with the Transite material.
4. The pump was started and allowed to collect air samples for approximately two hours. The flow rate was adjusted to 2.0 Liters per minute. Pump flow rate and filter orientation were checked periodically during sampling and adjusted if necessary to insure consistent sampling conditions. The precise sample duration was noted so total sample air volume could be calculated.
5. At the end of each sampling period, the protective face was replaced on each filter.
6. All filters, and a sample of bulk Transite material, were sent for analysis to the Kettering Laboratory at the University of Cincinnati Medical Center. They were requested to use the x-ray diffraction method to verify asbestos content of the bulk sample, and to use phase-contrast Microscopy to count fibers on the air filters.
7. Lab results were adjusted, according to the sample and operational parameters used, to calculate an 8-hour time-weighted-average (TWA) asbestos fiber concentration in air. This concentration was compared with the current exposure limit established by the U. S. Department of Labor. That limit is 0.5 fibers per cubic centimeter of air where a fiber must be greater than 5 micrometers long to be counted. This standard was published as an "Emergency Temporary Standard (ETS)" in the Federal Register on November 4, 1983. It is more stringent than the previous limit of 2.0 fibers per cubic centimeter.

Sample Data

The following table (see also the footnote) summarizes the sampling data for this study:



Watkins and Associates, Inc.
engineers • architects • planners

Mr. Ray Gabbard
February 3, 1984
Page Three

Filter No.	Sample Duration	Flow Rate	Sample Air Volume	Operation
001	120 min.	2L/Min	240L	Table and Band Saw
002*	122 min.	2L/Min	242L	Table and Band Saw
003	120 min.	2L/Min	240L	Radial Arm Drill
004	99 min.	2L/Min	198L	Table and Band Saw

*NOTE: During the sample period, the employee wearing Filter #2 spilled some bulk Transite dust on his chest, from some material being handled from a head-high position. Excessive dust appeared to have been collected inside the filter holder as a result of that spill. Filter 004 represents a repeat test on the same employee.

Final Results

The table on the following page contains the final results of the study. It was developed as follows:

1. The laboratory results yielded the concentration of asbestos fibers in the 198-242 Liters of air collected in each sample. Concentration ranged from 0.15 to 0.39 fibers per cc during the sample collection period. See appendix for complete lab report.
2. The 8-hour TWA concentration was calculated by extrapolating the results to a full 8-hour exposure, adjusted by the actual amount of the machining time used per day (3-6 hours).
3. These results may be considered conservative. Cumulative exposure for a month will even be less than indicated since the machining operations are reported to be operational only 16-39 hours per 173 hour month.



Watkins and Associates, Inc.
engineers • architects • planners

Over 50 years of Service

Mr. Ray Gabbard
February 3, 1984
Page Four

FINAL RESULTS

Sample Number	Operation	Time of Operation per day *	Time of Operation per month *	Concentration of Asbestos-in-air; fibers/cc	
				For Sample Duration**	8-hour TWA ***
001	Table and Band Saw	Table: 4 hr Band: 6 hr	16 hr 36 hr	0.15	0.094
002	Table and Band Saw	Table: 4 hr Band: 6 hr	16 hr 36 hr	0.39	0.244
003	Radial Arm Drill	3 hr	39 hr	0.19	0.071
004	Table and Band Saw	Table: 4 hr Band: 6 hr	16 hr 36 hr	0.33	0.206

* Consensus judgement of Ajax Magnathermics management personnel.

** As reported by laboratory

*** Projected to a full 8-hour day. Calculations as follows:

1. For Sample 001 (Same procedure to 002, 004).

$$\begin{aligned} \text{TWA} &= (0.15 \frac{\text{fiber}}{\text{cc}}) \frac{(4 \text{ hr} + 6 \text{ hr})}{2} \left(\frac{1}{8 \text{ hr/dy}} \right) \\ &= 0.094 \frac{\text{fiber}}{\text{cc}} \end{aligned}$$

2. For Sample 003

$$\begin{aligned} \text{TWA} &= (0.19 \frac{\text{fiber}}{\text{cc}}) (3 \text{ hr}) \left(\frac{1}{8 \text{ hr/dy}} \right) \\ &= 0.071 \frac{\text{fiber}}{\text{cc}} \end{aligned}$$



Watkins and Associates, Inc.
engineers • architects • planners

Mr. Ray Gabbard
February 3, 1984
Page Five

Conclusions

1. Employees were exposed to less than the maximum allowable of 0.5 fiber/cc of airborne asbestos in an 8-hour day. This was true for every sample collected (3 different employees).
2. Employee exposures were therefore legally acceptable according to present criteria of the U.S. Department of Labor.
3. Given that there is some exposure to asbestos fibers, even though the level is acceptably low, the situation nevertheless bears watching. I would recommend (though this is not required) that employees should be made aware of their exposure situation, employees who smoke should be made aware of their extra degree of risk if their asbestos exposure increases, and sampling should be repeated periodically to insure that exposure remains within allowable limits.

Sincerely yours,

A. B. Broderson, Ph.D., P.E.
Vice President

ABB:ls



ANALYTICAL SECTION, KETTERING LABORATORY
UNIVERSITY OF CINCINNATI MEDICAL CENTER
3223 EDEN AVENUE, CINCINNATI, OHIO 45267



(513) 872-5739

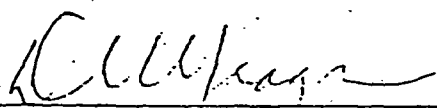
Material: Four (4) filter papers containing particulate matter removed from the atmosphere

Submitted: 1-11-84 by A. B. Broderon, Watkins and Associates, Inc., 446 E. High St., PO Box 951, Lexington, KY 40588

Required: Determination of fibers greater than five micrometers in length per cubic centimeter ($>5\mu\text{m/cc}$)

Results

<u>Analysis Number</u>	<u>Sample Number</u>	<u>Volume Liters</u>	<u>Fibers$>5\mu\text{m/cc}$</u>
84A-0298	001	240	0.15
84A-0299	002	242	0.39
84A-0300	003	240	0.19
84A-0301	004	198	0.33



David W. Yeager
Assistant Professor of
Environmental Health

Reported: 1-27-84



ANALYTICAL SECTION, KETTERING LABORATORY
UNIVERSITY OF CINCINNATI MEDICAL CENTER
3223 EDEN AVENUE, CINCINNATI, OHIO 45267



(513) 872-5739

Material: One (1) bulk sample

Submitted: 1-11-84 by A. B. Broderson, Watkins and Associates, Inc., 446 E. High St.,
PO Box 951, Lexington, KY 40588

Required: Determination of asbestos

Results

Analysis

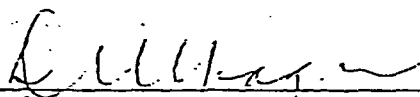
Number

Description

84A-0302

"Transite"

The x-ray diffraction pattern reveals two (2)
known d-values of chrysotile asbestos



David W. Yeager,
Assistant Professor of
Environmental Health

Reported: 1-27-84

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

OMB No. 1440-0187

MATERIAL SAFETY DATA SHEET

SECTION I

MANUFACTURER'S NAME Johns-Manville Corp.		EMERGENCY TELEPHONE NO. 303/978-3118
ADDRESS (Number, Street, City, State, and ZIP Code) Ken-Caryl Ranch, Denver, Colorado 80217		
CHEMICAL NAME AND SYNONYMS Asbestos-Cement Board		TRADE NAME AND SYNONYMS TRANSITE
CHEMICAL FAMILY	FORMULA	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL - PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Chrysotile Asbestos Fiber				by weight approx. 35	•
Portland Cement				65	50 mppcf
*For TLV see attached (29 CFR 1910.1001)					

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H ₂ O=1)	1.6
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____=1)	
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR Solid gray sheet - no odor			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	Non-flammable	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES				
UNUSUAL FIRE AND EXPLOSION HAZARDS				

SECTION V - HEALTH HAZARD DATA

PERMITTED EXPOSURE LIMIT	See Section II
ADDITIONAL OVEREXPOSURE	Overexposure to excessive concentrations of asbestos fiber may cause pulmonary disease.
EMERGENCY AND FIRST AID PROCEDURES	Avoid breathing excessive dust when cutting, drilling & sanding.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Vacuum clean loose dust and chips. If sweeping is necessary, use dust suppressant.
WASTE DISPOSAL METHOD	Comply with all applicable local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: <i>Spill only</i> NIOSH approved for protection against pneumoconiosis-producing dusts.			
VENTILATION	LOCAL EXHAUST	Control dust generated by fabricating operations to within TLV by use of mechanical exhaust ventilation systems.	SPECIAL
	MECHANICAL (General)		OTHER
PROTECTIVE GLOVES		EYE PROTECTION	
		Recommended during fabricating operation.	
OTHER PROTECTIVE EQUIPMENT			

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Maintain good housekeeping practices. Vacuum clean or wet down waste when cleaning.
OTHER PRECAUTIONS	

AJAX MAGNETHERMIC CORPORATION

HAZARD COMMUNICATIONS PROCEDURE

Issued 12/1/85

The purpose of the AJAX MAGNETHERMIC CORPORATION'S HAZARD COMMUNICATIONS PROCEDURE is to establish a system by which employees of the Corporation will receive the information and training necessary to ensure their safety and health when working with chemicals which are defined as presenting a potential hazard. This procedure has been developed to comply with the provisions of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200. 48 Fed. Reg. 53280 (November 25, 1983).

This procedure defines the methods by which the Company will comply with the following provisions of the OSHA Standard:

- A. Written Hazard Communication Program
- B. Labels and Other Forms of Warnings.
- C. Material Safety Data Sheets
- D. Employee Information and Training.

SECTION I. WRITTEN HAZARD COMMUNICATION PROGRAM

- A.) A copy of this procedure, in it's entirety, will be available to all employees of the Corporation, their designated representatives, the Assistant Secretary, and the Director, in accordance with the requirements of 29 C.F.R. 1910.20(e) and will be maintained in all operating areas of the Company where potential exposure to defined hazards exists.
- B.) Supervisors, under the direction of local facility management, will have the responsibility of maintaining an up-to-date copy of this procedure within their individual work area.
- C.) Supervisors will be responsible for the employee communications and training outlined in this procedure.
- D.) Current Material Safety Data Sheets (MSDS) on all hazardous chemicals known to be present in the workplace will be incorporated as a part of this procedure.
- E.) The Area Supervisor will be responsible for informing employees of the hazardous non-routine tasks in their work area and for instructing the employees in the proper method of performing said tasks.

F.) Local Management will have the responsibility of informing any contractor employers with employees working in the workplace of the hazardous chemicals their employees may be exposed to while performing their work. Further, they will advise the contractor of the appropriate protective measures and require the contractor to comply with them.

SECTION II. LABELS AND OTHER FORMS OF WARNING

A.) For those defined hazardous chemicals which the Company acts as a "DISTRIBUTOR" in accordance with the definition presented in the OSHA Standard, the following procedure will apply:

1.) The Shipping Department Supervisor will ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked with the following information:

- a.) The identity of the hazardous chemical(s);
- b.) The appropriate hazard warnings;
and,
- c.) The name and address of the chemical manufacturer, importer, or other responsible party.

2.) Further, the Supervisor will ensure that said labeling does not conflict with the requirements of the Hazardous Materials Transportation Act (18 U.S.C. 1801 et. seq.) and regulations issued under that Act by the Department of Transportation. Chemical hazards regulated by OSHA in a substance-specific health standard will carry the appropriate warning as defined by that Standard.

B.) For those defined hazardous chemicals which enter the workplace and are encountered by employees in the course of their employment, the following procedure will apply:

1.) The Receiving Department Supervisor will ensure that all containers of hazardous chemicals delivered to the workplace are properly marked in accordance with the Standard.

2.) The Area Supervisor will ensure that all containers of hazardous chemicals delivered to the workplace are properly marked in accordance with the Standard.

3.) Minimum labeling data will incorporate the information cited in Section II, A., 1. & 2. of this procedure.

4.) If the required labeling information is not provided;

a.) the Receiving Room Supervisor will see that it is added prior to releasing the materials to the workplace; or

b.) the materials will be returned to the supplier with a request that a proper label be supplied.

5.) The Receiving Room Supervisor and the Area Supervisor will ensure that the container labels are legible.

SECTION III. MATERIAL SAFETY DATA SHEETS (MSDS)

A.) All Material Safety Data Sheets pertaining to hazardous chemicals encountered in the workplace shall be incorporated in this procedure and made available in accordance with the provisions of Section I., A. of this procedure.

B.) All MSDS received anywhere in the Corporation will be forwarded to the Corporate Materials Department for their review prior to incorporation in this procedure. The Corporate Materials Department will:

- 1.) determine if all information required by the Standard is contained in the MSDS.
- 2.) determine if the MSDS is a revision or modification of an existing MSDS.
- 3.) issue new or revised MSDS to all facilities for incorporation in all copies of the HAZARD COMMUNICATIONS PROCEDURE MANUAL.

C.) It shall be the responsibility of the person(s) at the local facility charged with keeping the procedure manual up-to-date to see that all MSDS issued by the Corporate Materials Department are promptly incorporated into the Procedure Manual.

D). In it's role as a "DISTRIBUTOR", the Company's Corporate Materials Department, working with whichever department is selling the defined hazardous chemical, shall provide material safety data sheets and update information for distribution by various Company Marketing groups, to other distributors and manufacturing purchasers of hazardous chemicals.

SECTION IV. EMPLOYEE INFORMATION AND TRAINING

A.) The immediate Supervisor will be responsible for conducting the training defined in this procedure. Local Management will be accountable for seeing that said training is conducted in a timely manner.

B.) All employees will be required to affirm in writing that they have received the training herein defined.

C.) All employees will be provided with information and training on hazardous chemicals in their work area in the following manner:

1.) All current employees will receive such training prior to May 25, 1986.

2.) Employees hired after May 25, 1986, will receive such training prior to their initial assignment.

3.) All employees will receive such training whenever a new hazard is introduced into their work area.

D.) The Supervisor shall inform each employee under his/her supervision of:

- 1.) the training and information requirements of this procedure and the OSHA Standard;
- 2.) the operations in their work area where hazardous chemicals are present;
- 3.) the location and availability of this written hazard communications procedure within the work area; and
- 4.) that this procedure contains all of the MSDS for hazardous chemicals found in the workplace.

E.) The Supervisor shall train each employee under his/her direct supervision in the following:

- 1.) The methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area.
- 2.) The physical and health hazards of the chemicals in the work area.
- 3.) The measures employees can take to protect themselves from these hazards, including any specific Company procedures which have

been implemented to protect employees from exposure to hazardous chemicals, including such things as appropriate work practices, emergency procedures, and the use of personal protective equipment.

4.) The hazardous chemical labeling system.

5.) How to interpret and use the Material Safety Data Sheets herein provided.

6.) As a part of this training all employees will be required to review this Hazard Communication Procedure and the Material Safety Data Sheets contained herein.