

November 1992

IN RE: ALBERTA MIS

Westinghouse
Electric Corporation



Headquarters Industrial Hygiene
Research and Development Center

Beulah Road
Pittsburgh Pennsylvania 15235
412 256 5847

HWBB-0006911

May 7, 1976

TO: ATTENDEES OF MARCH 5, 1976 ASBESTOS SEMINAR
FROM: *K. A. Bodden* K. A. Bodden, Administrator, Industrial Hygiene Laboratory

Attached is information related to the subject seminar and the ☺ Asbestos Substitution Program. Please note the May 3, 1976 memo from ☺ Divisions' V.P.'s outlining the program with specific contacts to assist you with your program.

Updated reports on the proposed standard and/or health related information will be forwarded to you on a continuous basis.

Attachments: -Div. V.P.'s 5/3/76 memo.
-Seminar Critique (3/9/76)
-Asbestos Substitutes List (3/10/76)
-Seminar Roster/Copy of Slides
-Hampton Substitutes (2/3/76)

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THE ALBRAMS

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③ Hampton - Substitute their, Asbestos-
Phenolic Micarta Sheet

*	44141AA 44141AB	44141AJ	NEMA A 44341AH	** H-24907	TYPICAL 239	TYPICAL 200
Tensile Lengthwise, psi	8,000	12,000		29,500	13,000	12,000
Compressive Flatwise	35,000	44,000		85,000	41,000	49,000
Compressive Edgewise	19,500	18,000		26,000		
Flex Lengthwise	17,000	19,000	12,000	34,000	17,000	19,000
Flex Crosswise	15,000	15,000	10,000	33,000		
Impact Lengthwise	3.6	3.75	0.60	10.0	1.0	4.0
Impact Crosswise	3.0	3.0	0.60	10.0	1.0	4.0
Density	1.60	1.66		1.27	1.79	1.67
Bond A	1,800	1,450	700	1,700	750	2,000
Bond D-48/50	1,600		600	1,600		
Water Absorption, 1/2" Maximum, %	1.5	2.0	0.55	1.1	0.95	1.5

* All test values are based on 1/2" material.

** H-24907 is Kevlar-Phenolic.

2/23/76

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HVBB-0006912

IN THE ABRAAMS

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REGULATED AREA

- AIRBORNE ASBESTOS ABOVE LIMITS
- ENTRY BY AUTHORIZED PERSONS ONLY
- DAILY ROSTER OF PERSONS ENTERING AREA

I.H.L.
3-76

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HW88-0006913

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IN RE: ABRAMS

SUMMARY
ASBESTOS SUBSTITUTES PRESENTLY USED

NWBB-0006915

<u>PLANT</u>	<u>APPLICATION</u>	<u>SUBSTITUTE MATERIAL</u>
<u>Bloomfield</u>	Curtains-glare and heat shield	Fiberglass Cloth (Pais Mfg. Co.)
<u>Buffalo</u>	Insulation	Nomex (DuPont) Micarta Silicone Sheet Glass Doryl Glass Melamine } (W)
<u>E. Pgh.</u>	Protective Blankets for Soldering	Nomex (DuPont)
	Blankets	Refrasil (Hitco) (W) M 41514GC
<u>Lester</u>	Insulating Blanket Filler	Kaowool (Babcock & Wilcox) (W) M 41414AD Temp Mat (Pgh. Corning) (W) M 41414AD
	Pipe Insulation	Flame Safe (Johns-Manville) (W) M 41424JC (fiberglass)
	Block Insulation and Pipe	Thermo 12 (Johns-Manville) (W) M 46102BB
	Cement for Block	Super Power House Cement (Keene Ind. Insulation Corp.)
	Insulating Blanket Cover	Textoglass 1925/9383 Glass Cloth (Pocar, Philadelphia, Pa.)
<u>Sharon</u>	Tank Cover Gaskets	Fiberfrax Rope (Carborundum) Glass Sleaving
	Heat Trap for Brazing	Wet Cheese Cloth Fiberfrax Rope (Carborundum)
	Stop Gasket for Bushings	Duroid 900 (Rogers Corp.)
	Shielding for Weld-Braze	Aluminum Sheet Nomex (DuPont) Fiberfrax (Carborundum)
<u>South Boston</u>	Weld Barrier (Blankets)	Textoglass S/192-/9383 (J.P.Stevens)
	Weld Barrier (Sheet)	Textoglass S/84205/9383 (J.P.Stevens)

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NWBB-0006916

In March 1976, the Corporate Standards Department informed Industrial Hygiene of 42 Westinghouse Manufacturing locations that were using at the time, or were known to have used, asbestos or asbestos containing materials in their operations.

This information was available, because these divisions were participating in the Corporate Standards Material Code System. Following is a list of these locations.

Athens, GA - Overhead Dist. Transformers

Baltimore, MD - Systems Development

Beaver, PA - Control Products

Bedford, PA - Treated Materials

Bloomfield, NJ - Lamp

Bloomington, IN - Dist. Apparatus

Bridgeport, CT - Bryant Electric

Buffalo, NY - General Control

Buffalo, NY - Large Motor

Buffalo, NY - Medium Motor and Gearing

Buffalo, NY - Industrial Equipment

Cheswick, PA - Electro-Mech

Cleveland, OH - Outdoor Lighting

Derry, PA - Industrial Ceramics

East Pittsburgh, PA - LRA & Switchgear

Greenville, PA - Specialty Transformers

Greentree (Pgh), PA - Industry Services

Hampton, SC - Micarta

Horseheads, NY - Electronic Tube

Hunt Valley, MD - Electronics System Supports

Hyde Park (Boston, MA) - Sturtevant

Jefferson City, MO - Underground Dist.
Transformers

Lester, PA-Steam Turbine, Gas Turbine

Lima, OH - Appliance Motors

Lima, OH - Aerospace Electrical

Lima, OH - Small Motors

Muncie, IN - Larger Power Transformers

Newark, NJ - Relay Instruments

Norman, OK - Residential Air Conditioning

Raleigh, NC - Meter

Randolph, NJ - Elevators

Roundrock, TX - Heavy Industries Motor

Sharon, PA - Transformers

South Boston, VA - Small Power Transformers

Staunton, VA - Commercial & Ind. Air Conditio

Sunnyvale, CA - Marine

Sykesville, MD - Industrial Equipment

Sykesville, MD - Welding

Trafford, PA - Power Circuit Breaker

Vicksburg, MS - Interior Lighting

West Mifflin, PA - Transportation

Youngwood, PA - Semiconductor

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IN RE: ABRAMS November 1992

SUMMARY OF QUESTIONNAIRE ON ASBESTOS PRODUCTS

WBB-0006918

1) Replies received from 19 locations.

2) Affirmative answers to question - "Which of the following asbestos containing products are used in your operations."

<u>2</u> Block	<u>0</u> Filter Media	<u>8</u> Rope Packing
<u>4</u> Board	<u>3</u> Laminated Compositions	<u>5</u> Sheet Packing
<u>2</u> Brake Lining	<u>3</u> Micarta Bars	<u>4</u> Sheet (Asb. bonded
<u>4</u> Cable & Wire	<u>9</u> Micarta Sheet	with rubber)
(Asb. Insul.)	<u>0</u> Molding Mixtures	<u>1</u> Sheet (Mill Board)
<u>0</u> Cement Sheet	<u>0</u> Molding Compositions	<u>3</u> Sleeving
<u>7</u> Cloth-Treated	<u>8</u> Paper-Treated	<u>4</u> Tape
<u>4</u> Cloth-Untreated	<u>5</u> Paper-Untreated	<u>5</u> Transite
<u>1</u> Fibers(Air Floats)	<u>0</u> Powder	<u>2</u> Yarn
<u>3</u> Fiber Powder	<u>1</u> Pulverized Asbestos	
(Resin Grade)		

List any others not mentioned above.

2 - Asbestos Filled Cement
1 - Paints - Asbestos Filled
1 - Caulking Compound
1 - Pipe Covering
1 - Flex Tubing Insulated with Asbestos
2 - Gloves
1 - Ceiling Tile

3) Plants Replying:

Baltimore AESD, SDD	Lester
Bedford IMD	Manor IMD
Bloomfield	Muncie
Buffalo	Reform
Derry	Sharox
East Pittsburgh LRA	South Boston
Grand Rapids Architectural	Staunton
Systems Division	Trafford PCB
Greentree ISD	West Mifflin IMD
Greenville	
Irwin LRA	

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JIN REP: ABRAMS

(1) Did this seminar present useful information to your programs?

100% - Yes

(2) Additional information on asbestos:

- List of approved substitution
- Corporate level of purchasing decision to eliminate asbestos
- M-number search to identify material containing asbestos
- Sampling methods which meet regulatory requirements
- Asbestos standard breakdown on slides as shown at seminar
- Industrial Hygiene to become a collection and dispensing source for asbestos products
- Tradenames of common items containing asbestos
- None - Convinced that it must be completely eliminated
- Asbestos rule changes
- Your follow-up based on the seminar
- Possible brake block substitutes
- Clothing substitutes
- Will the Corporation take a position with respect to questioning the X-ray examinations for the asbestos and future health standards?
- Will Material Engineering and Purchasing become involved in directing the controls of asbestos usage throughout the Corporation?
- Substitutions available in phenolic molding powders - asbestos free Substitute for motor slot wedges (M 44141AA)

(3) Should seminars like this be held on future health standard impacting on (W)?

100% - Yes

(4) What specific OSHA standards would you like to be kept updated on?

Noise	Ammonia	Asbestos
Solvents	Chromates	Welding
Inorganic Mercury	Acetone	Alcohols
Lead	Styrene	PVC
Resins	Toluol	Metal & Flux

(5) Comments:

- Excellent meeting, well planned, well run
- Need more opportunities to exchange information on safety & health problems
- Good, concise, informative program
- Need central clearinghouse for successful substitution examples
- A similar program on epoxy resins and catalyst
- Good show - well worthwhile
- Seminars on specific materials are very helpful
- Will suggest strongly to send material engineers to future meetings
- Industrial Hygiene should publish a comprehensive list of asbestos substitutes
- A listing of (W) materials that contain asbestos
- Need for a seminar on other proposed standards that have a large impact on (W) - Noise
- Corporation should eliminate the use of asbestos products.

TASK FORCE: Paul Palmieri, Gerry Brady, Smith A. Gause, G. Shilling.

MAP, 3/9/76

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ASBESTOS SUBSTITUTES PRESENTLY USED

HW88-0006920

November 1992

IN THE ABRAAMS

APPLICATION

SUBSTITUTE MATERIAL

Insulation

Motor

Nomex (DuPont)
Micarta Silicone Sheet }
Glass Doryl
Glass Melamine }

Ⓜ

Blanket Filler, Insul.

Kaowool (Babcock & Wilcox) Ⓜ M
Temp Mat (Pgh. Corning) 41414AD

Block & Pipe, Insul.

Thermo 12 (Johns-Manville) Ⓜ M 46102BB

Pipe, Insul.

Flame SAFE (Johns-Manville) Ⓜ M 41424JC

Cement for Block, Insul.

Super Power House Cement
(Keene Ind. Insulation Corp.)

Blanket Cover, Insul.

Textoglass, 1925/9383 Glass Cloth
(Pocar, Philadelphia, Pa.)

Protective Blanket or Shield

Curtains-glare & heat shield

Fiberglass Cloth (Pais Mfg. Co.)

Heat Trap for Brazing

Wet Cheese Cloth
Fiberfrax Rope (Carborundum)

Soldering & Welding

Nomex (DuPont)
Refrasil (Hitco)

Weld - Braze

Aluminum Sheet
Nomex (DuPont)
Fiberfrax (Carborundum)

Weld Barrier

Textoglass S/1925/9383 (J.P. Stevens)
Textoglass S/84205/9383 (J.P. Stevens)

Gaskets

Tank Cover Gaskets

Fiberfrax Rope (Carborundum)
Glass Sleaving

Stop Gasket for Bushings

Duroid 900 (Rogers Corp.)

Tool

Holding Jaws-Hot Glass
in Lamp Production

Teflon

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