ARCO Marine Inc. Internal Correspondence





Date: October 10, 1988

Subject: Asbestos Monitoring/ARCO Sag River

From/Location: X. J. Padilla

To/Location: Master/ARCO Sag River

Enclosed are the results of airborne fibrous dust monitoring conducted on the ARCO Sag River 9/13/88 while at Berth 78 in Long Beach.

The monitoring and analysis of the dust samples collected were administered by IT Corporation, Cerritos, California.

Note that the results are below the acceptable indoor air quality criterion of 0.01 fibers per cubic centimeter of air (f/cc).

cc: J.L. Sullivan
D. Sucharski
Chron file

INTERNATIONAL TECHNOLOGY CORPORATION

October 6, 1988

Arco Marine, Inc.
300 Oceangate, Room 1177
Long Beach, CA 90802-4341

Attention: X. J. Padilla IT Job No: 490134

Subject: Survey for airborne fibers (asbestos) aboard the vessel Arco Sag River at Arco Marine Terminal No. 2, Berth 78 in Long Beach, California.

On September 13, 1988, Jamin Kazarian, Health and Safety Technician of IT Corporation evaluated airborne asbestos levels by monitoring airborne fibrous dust on the vessel ARCO Sag River docked at the above location. Sample locations included the exercise room, Thwartships Passage, and the officers lounge.

A total of three samples were collected on 25 millimeter diameter, 0.8 micrometer pore size, mixed cellulose ester filters contained in plastic cassettes. Airflow through the cassettes was provided by BGI high volume sampling pumps calibrated before and after each use with a precision rotameter.

The samples were analyzed by phase contrast microscopy (PCM) using the National Institute for Occupational Safety and Health method number 7400 A. All the results are corrected for a blank filter, and presented in the appended table.

The airborne fiber concentrations at the referenced locations were all representative of acceptable indoor air quality, falling below the U.S. E.P.A. "clean air" criterion of 0.01 fibers per cubic centimeter of air (f/cc).

If you have any questions regarding this matter, or are in need of further assistance, please feel free to contact our office.

IT CORPORATION

Jamin Kazarian
Health and Safety Technician

Fredrick Mlakar, CIH
Manager, Occupational
Health & Safety Services

JK/FM/cp

Enclosure

xc: Jamin Kazarian

AIRBORNE FIBER CONCENTRATIONS ABOARD THE VESSEL
ARCO SAG RIVER

September 13, 1988

SAMPLE ID	SAMPLE LOCATION	SAMPLE VOLUME (liters)	CONCENTRATION (f/cc)
ASR-1	1st deck exercise room	1003	0.0076
ASR-2	1st deck thwartship passage	1596	0.0043
ASR-3	2nd deck officers lounge	1398	0.0021
ASR-4	Blank	All data corrected for blank value	

Analytical method = NOISH 7400 "A"

8-16-2

INSULATION ABOARD ARCO VESSELS

HERITAGE

DWG. NO.	TITLE	SYSTEM	MATERIAL
M85085	Machinery/Piping Insulation	Insulation	-Amosite Asbestos in felted form -Calcium Silicate -Asbestos cloth -Diatomaceous Silicate -Cork -Anti-sweat Asbestos felt -Fiberglass
		Lagging	-Asbestos cloth and tape -Fibrous glass cloth
		Pads	-Asbestos cloth with asbestos pads
M85047 627-755A	House Insulation	Insulation	-Limpet Asbestos -Microlite -"Komul"
M85047-1 627-755A	Boiler & E.R. Casing	Insulation	-Microlite -Magnesia brick -Asbestos
M85048 627-797A	Deck Coverings	Insulation	-Magnesite -"Komul" -Dex-O-Tex Subkote #1 -Block Calcium Silicate or Block Magnesia with "Komul"
M85280 627-755B	Boiler & E.R.Casing	Insulation	-Fiberglass -Calcium Silicate
M85281 627-755C	Misc. Bulkheads	Insulation	-Fiberglass
M85282 627-755D	Linen Rooms	Insulation	-Fiberglass
M85447	Joiner Details	Bulkheads	-Marinite (asbestos)
M85477	Insulation Details	Insulation	-J. M. Spintex (Mineral Wool)
M85521	Ceilings	Ceilings	-Marine Veneer (Asbestos)

PRUDHOE BAY/SAG RIVER

M4630-377-1	Machinery/ Piping Insulation	Insulation	-Calcium Silicate -Fiberglass (Owens Corning) -Foam Glass (Cellulated Glass Type) (Pittsburgh Corning)

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ARCO PRUDHOE BAY/SAG RIVER (Continued)

DWG. NO.	TITLE	SYSTEM	MATERIAL
M4630-377-1 (continued)			-Polyurethane (Low Temperature) -Thermo Bestos (Asbestos-Calcium Silicate)(Johns-Manville)
		Pads	-Asbestos or Fibrous Glass Cloth w/felted Amosite (Asbestos) or quilted Fiberglass
		Lagging	-Asbestos Cloth
Hopeman Bro's. 8	Joiner Insulation	Insulation	-3/4# Microlite (Johns-Manville) -1.6# Fiberglass Semi-rigid (Owens Corning) or equal
Hopeman Bro's. 10	Joiner Details	Bhds. & Linings	-Melamine veneered to incombustible core (MA Spec 32MAS Type II Class 3) Marinite 36(Johns-Manville) (Asbestos) or equal
		Ceilings	-3/16" Marine Veneer (Johns-Manville) (Asbestos)
M4630-234-1,2	Deck Coverings	Insulation	-Magnesite -Bubkote -Thermo Bestos (Asbestos) or equal
		Coverings	-Vinyl Asbestos -Nectex
		TEXAS	
M4638-377-1	Machinery/Piping Insulation	Insulation	-Calcium Silicate -Fiberglass (Owens Corning) -Foam Glass (Cellulated Glass Type) (Pittsburgh Corning) -Polyurethane (Low temperature) -Thermo Bestos (Asbestos - Calcium Siliate) (Johns-Manville)
		Pads	-Asbestos or Fibrous Glass Cloth with felted Amosite (Asbestos) or quilted Fiberglass
		Lagging	-Asbestos cloth or Fibrous Glass cloth