



ARCO Marine, Inc.

Internal Correspondence



Date: January 31, 1985
Subject: ARCO ANCHORAGE
Noise & Asbestos Survey

From/Location: A. W. Cordeira

To/Location: D. F. Davis

A noise, asbestos and an environmental compliance survey was conducted on the ARCO ANCHORAGE from January 13, 1985 to January 18, 1985.

The equipment used for the noise survey were: Metrosonic dB-306 and the Metrosonic dB-301. The Gilian HFS 113 Sampling Pump was used for the asbestos monitoring.

The Noise survey indicated the following decibel (dB(A)) average readings.

1. Accommodation, Deck and Service Areas	65.39 dB(A)
2. Upper Engine Room	101.7
3. Control Level	90.0
4. Lower Engine Room	95.4

Noise analysis - ARCO ANCHORAGE

Noise level measurements were recorded using a Metrosonic dB-306 throughout the vessel, including occupied and non-occupied accommodation spaces, machine spaces and service spaces.

Crew members were requested to wear Metrosonic dB-301, Metrologgers to evaluate the 24-hour effective exposure level (LEFF (24)).

The dosimeters recorded integrated noise levels between 70-134 dB for up to a 24-hour time period. The dosimeters were calibrated before each sample session, using a Metrosonic calibrator.

The dosimeter used produced noise exposure data as an average sound level measurement every three minutes, with hourly averages and cumulative summary.

January 31, 1985
D. F. Davis
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Asbestos samples were taken with the Gilian HFS-113 Sampling pump, calibrated to 2 liters per minute. Eight hour samples were taken. The samples were then analyzed by IT Corporation Analytical Laboratory. Ten samples were taken from various areas (see attachment.) Unprotected persons should not be exposed to airborne asbestos fiber concentrations in excess of 2.0 fibers per cubic centimeter of air averaged over an 8-hour work day. Persons should not be exposed to airborne asbestos fiber concentrations in excess of 0.1 fibers per cubic centimeter of air in a living environment.

The ARCO ANCHORAGE concentration levels of asbestos are well in compliance outlined in the USCG NAVIC 5-80.



IT ANALYTICAL SERVICES

17605 Fabrica Way • Cerritos, California 90701 • 213-921-9831 / 714-523-9200



CERTIFICATE OF ANALYSIS

Prepared For: **Arco Marine**
300 Ocean Gate
Long Beach, CA 90804

Date: **December 6, 1984**

Attn: **Danny Davis**

Date Received: **December 4, 1984**

P.O. Number: **Verbal**

Job Number: **31487/rjc**

Nine (9) filter cassettes.

The filters were analyzed for airborne asbestos by phase-contrast light microscopy using NIOSH Method P & CAM 239. No sample blank was included. The results are as follows.

<u>Sample</u>	<u>Fibers/Fields</u>	<u>Volume (L)</u>	<u>Fibers/cm³</u>
#1	1/100	960.0	0.003
#2	0.5/100	960.0	0.001
#3	2.5/100	960.0	0.007
#4	1.5/100	960.0	0.004
#5	2/100	960.0	0.006
#6	1.5/100	960.0	0.004
#7	0.5/100	960.0	0.001
#9	5.5/100	960.0	0.02
#10	0.5/100	960.0	0.001

I certify that this report truly represents the finding of work performed by me or under my direct supervision.

Mary Hammons
Mary Hammons
Chemist

Reviewed and Approved.

Jack P. Kiehl
Jack P. Kiehl
Asst. Lab. Manager
Technical Service

Accredited by the American Industrial Hygiene Association



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<u>Sample</u>	<u>Fibers/Fields</u>	<u>Volume (L)</u>	<u>Fibers/cm³</u>
STATE ROOM 9 #1 OK	1/100	960.0	0.003
GLAND SEAL REG #2 ER	0.5/100	960.0	0.001
CONTROL STATION #3 ER	2.5/100	960.0	0.007
BEHIND BOILERS #4 ER SOOT BLOWERS	1.5/100	960.0	0.004
STATE ROOM 16 #5 AK	2/100	960.0	0.006
UPPER LEVEL BOILER #6 ER FRONT	1.5/100	960.0	0.004
B/R ROOM #7	0.5/100	960.0	0.001
FIDLEY AREA #9 ER	5.5/100	960.0	0.02
SHOP LEVEL #10 ER	0.5/100	960.0	0.001
TEMP OUT 17824			

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	<u>Sample</u>	<u>Fibers/Fields</u>	<u>Volume (L)</u>	<u>Fibers/cm³</u>
S. - R. Room 03	#1	1/100	960.0	0.003
	#2 Gland Seal Rqo.	0.5/100	960.0	0.001
Control Station	#3	2.5/100	960.0	0.007
	#4 RE Hind Boilers Soot Blowers	1.5/100	960.0	0.004
State Room 16 AB	#5	2/100	960.0	0.006
	#6 Upper Level Boiler Room	1.5/100	960.0	0.004
R/R Station	#7	0.5/100	960.0	0.001
	#9 Fldly Area	5.5/100	960.0	0.02
Shop Level 1	#10	0.5/100	960.0	0.001

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Technical Service



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CERTIFICATE OF ANALYSIS

Prepared For: Arco Marine Inc.
300 Ocean Gate
Long Beach, CA 90804

Date: June 20, 1984

Attn: Bill Cordeiro

Date Received:

P O. Number:

Job Number:

June 13, 1984

Verbal

29879/kb

Two (2) bulk insulation samples.

The samples were analyzed for asbestos by polarized light microscopy with dispersion staining using the EPA procedure for bulk insulations. The results are as follows.

<u>Sample</u>	<u>Asbestos Found</u>	<u>Percent by Area</u>
Material under bunks	Chrysotile	2
Beneath stwd. bunk	None	-

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CERTIFICATE OF ANALYSIS

Prepared For: Arco Marine, Inc.
300 Oceangate LAC 1014
Long Beach, CA 90802-4341

Date: June 7, 1984

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JUN 12 1984

A. W. CORDEIRO

Attn: Bill Cordeiro

Date Received: June 6, 1984

P.O. Number: VERBAL/Bill Cordeiro Job Number: 29803/sls

Three (3) insulation samples in plastic bags

The samples were analyzed for asbestos by polarized light microscopy with dispersion staining using the EPA procedure for bulk insulations. The results are as follows.

<u>Sample</u>	<u>Asbestos Found</u>
Material under bunks	Chrysotile
Subfloor stateroom #7	None
Subfloor from deck of stateroom #6 & #7	None

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Richard I. Myrland
for
Jack P. Kiehl
Tech. Service Staff Chemist

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