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September 24, 1991

Michael Dindio, Master
S/S ARCO SAG RIVER

Dear Captain Dindio:

On board monitoring for airborne Asbestos was conducted on the SS Arco Sag River from July 15 to July 20, 1991 while the vessel was underway from Long Beach to Valdez. The monitoring was conducted by Clayton Environmental Consultants, Inc., an environmental consulting firm specializing in asbestos monitoring and abatement. The final report documenting the results of the monitoring has been received and is enclosed for your information and use. A summary of the survey results is also attached which should be posted in a central location onboard the vessel. Results of the survey should be discussed at the next safety meeting.

A letter summarizing the results of the survey has been sent to all employees on board the Arco Sag River during the sampling period. Employees were advised that the report is on board the Arco Sag River and available for review. On completion of the monitoring program, when all Arco ships known to contain asbestos has been completed a summary for all ships will be sent to the fleet.

Please feel free to call me if you have any questions.

Very truly yours,

Jay C. Kitchener
Manager, Safety, Health &
Environmental Protection

cc: F. E. Robinson
J. L. Sullivan

Enclosure
JCK/cec

**ASBESTOS ASSESSMENT SURVEY
ABOARD THE SS ARCO SAG RIVER**

Arco Marine, Inc. retained Clayton Environmental Consultants to conduct an asbestos monitoring program and to perform employee awareness training during the northbound sailing of the SS Arco Sag River from July 15-20, 1991.

Results of 33 air samples determined by PCM analysis indicated airborne fiber concentrations ranging from 0.0035 to 0.02 fibers per cubic centimeter (f/cc). All but four samples showed airborne fiber concentrations of less than 0.01 f/cc. The four samples that were at or above 0.01 (the highest one being 0.02) were analyzed by transmission electron microscopy (TEM) using NIOSH Method 7402. The TEM method, unlike PCM, can distinguish between asbestos and non-asbestos fibers. The results of TEM analyses for the four samples submitted indicated airborne fiber concentrations ranging from less than 0.00018 to 0.0021 f/cc. The TEM results indicated that the majority of the fibers seen through PCM are of non-asbestos type.

All air samples collected on SS Sag River showed concentrations below the applicable permissible exposure limits (PELs) established by the U.S. Coast Guard (0.1 f/cc) and the U.S. Occupational Safety and Health Administration (OSHA) PEL of 0.2 f/cc. These samples were also below the Environmental Protection Agency (EPA) recommended concentration of 0.01 f/cc for general occupancy.

The Captain has a copy of the full report.