PLAINTIFF'S EXHIBIT

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A/C Pipe Producers Association

ADVISORY

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ISSUE #1 VOLUME #1 This first in a series of "advisories" is designed to keep water utilities and public health officials current on information regarding usage of asbestos-cement pipe. Each Advisory issue will factually summarize data contained in scientific papers, government studies, media reports, and technical and educational source material.

GOVERNMENT ANIMAL FEEDING STUDIES SHOW NO CARCINOGENIC EFFECT OF INGESTED ASBESTOS

Preliminary results of government-sponsored studies on the effect of ingested asbestos on laboratory animals show no carcinogenic or cocarcinogenic effect.

The studies are being conducted by the National Institute of Environmental Health Sciences (NIEHS) under the direction of the Public Health Service's National Toxicology Program. The Environmental Protection Agency (EPA) has contributed a portion of the funding.

The aim of the NIEHS/EPA studies is to assess the biological (carcinogenic) effects of asbestos fibers which are ingested, or taken into the body through the digestive tract, as in drinking water.

The studies call for asbestos to be fed continuously in the diet over the entire lifespan of the animal, which is defined as the age at which the animal begins eating solid food until its death.

A total of 1,850 male and female hamsters were fed asbestos, and an equal number of hamsters were fed a control diet with no asbestos over their lifetime of 18-23 months. Two types of asbestos fibers (chrysotile and amosite) commonly used in the manufacture of asbestos-cement products were administered.

The dose of asbestos (1% of total diet by weight) fed to the hamsters was millions of times greater than levels which occur in drinking water consumed by the public in a lifetime, in areas where asbestos occurs naturally in the drinking water.

NIEHS reports, "There was no indication of major differences in the mortality rate between the hamsters receiving the asbestos diet or the control diet." Preliminary analysis of the hamster data indicates that no carcinogenic or cocarcinogenic effect was observed.

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The analysis included thorough gross pathological evaluation at time of autopsy, as well as microscopic examination of some thirty tissues from test animals.

In addition, preliminary results of rat studies in which a total of 5,158 rats were fed asbestos and control diets were also reported. The lifetime exposure phase of the study concluded, ". . . longevity was not affected by exposure to the various types of fibers."

These findings are consistent with a number of other studies of animals fed asbestos in food or drinking water. In 1980, the Health Research Institute at Fairleigh-Dickinson University reported no malignant tumors related to treatment in hamsters maintained on drinking water containing 13 billion asbestos fibers per liter.

References:

1. NIEHS, Biological Effects of Ingested Asbestos Status Report January 22, 1981, National Toxicology Program, Public Health Service.
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3. Moore, J.A., NIEHS Oral Asbestos Studies, National Bureau of Standards Special Publication 506. Proceedings of the Workshop on Asbestos: Definitions and Measurement Methods held at NBS, Gaithersburg, MD July 18-20, 1977.