

JM Johns-Manville

Pipe Division

JAN 12 '82

November 16, 1981

Re: How the City of Lakewood, California
Handled a Potentially Explosive
Asbestos and Health Situation

The City of Lakewood is located adjacent to the City of Long Beach where a major U.S. Naval Shipyard is located. There are a number of asbestos and health related cases amongst shipyard workers who were employed during the war years when controls on airborne asbestos were far less rigorous than those which exist today. Also in Long Beach is an organization of former shipyard workers who claim to have an asbestos related disease. This group is known as the "White Lung Association".

On one of Lakewood's A/C pipe installation projects, the contractor failed to keep his project in satisfactory condition from a housekeeping standpoint and local residents became very upset with open trenches, and pipe on the sidewalks for excessive periods of time. The White Lung Association heard of the discontent with an A/C pipeline project and entered the case with a new dimension. They told the citizens that the pipe being installed was not only a momentary inconvenience but that it would cause cancer to those who drank water from the line. This factor coming on top of their previous complaints created a major disturbance in Lakewood. The City Council correctly chose to initiate a full investigation into this new charge, and appointed a study team who were to investigate, prepare a detailed report, and report back to the council at an open council meeting on their findings. The study team not only developed a very extensive report that concluded that the city should continue its use of A/C pipe, but decided to have a team of distinguished authorities on hand to answer questions from the council and the floor when the report was submitted to the council.

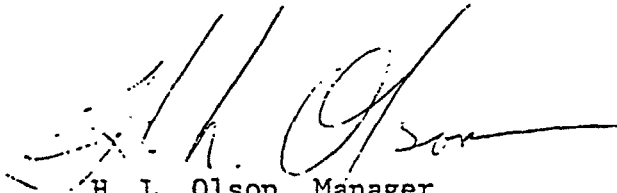
They also prepared an exhibit consisting of an old section of cast iron pipe that was highly deteriorated and an equally old section of A/C pipe that showed no signs of deterioration. This exhibit graphically showed why the city was using A/C pipe.

The panel who appeared before the council consisted of:
John Gaston, California Department of Health Services;
Dr. Herbert Conrad, Water Quality Scientist; Robert Bryant,
Chairman of the AWWA A/C Pipe Committee; Dr. Arthur Gelb,
Chest Disease Consultant; Dr. Kaye Kilburn, Professor
of Medicine and Director, Environmental Science Lab U.S.C.

With the report, the exhibit, and the testimony of the
distinguished panel, the opposition to the use of A/C pipe
was relatively mute. The council voted to continue using
A/C pipe in the City of Lakewood.

After the meeting was over, the city printed excerpts of the
expert witness' testimony. Copies were mailed to residents
in the city so that all concerned citizens would have the
complete story.

Attached is a xerox copy of the excerpts of the testimony
presented to the Lakewood City Council. Additional copies
are available if desired.



H. L. Olson, Manager
Environmental & Engineering Development
PIPE DIVISION

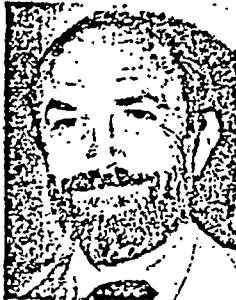
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Excerpts from Testimony
Presented to the Lakewood City Council
Evaluating the Health Effects of
Asbestos-Cement Water Pipe
July 14, 1981

John Gaston
California Department of
Health Services

Mr. Gaston is responsible for drinking water quality in California. He has been chief of the sanitary engineering section of the health department since 1968. He holds a master's degree in sanitary engineering from the University of California, Berkeley.



We have no problem with the use of asbestos-cement pipe in Lakewood.

Asbestos in drinking water is an issue that we have been involved with for some time. In looking at the asbestos fiber and water supply issues we have seen in California — [from San Francisco, Marin, Humboldt, and the California Aqueduct] — there is no problem in Lakewood.

A-C pipe when used in proper applications — as apparently it is in Lakewood — does not present a hazard to water consumers.

Dr. Herbert M. Conrad
Water Quality Scientist

Dr. Conrad has monitored the Lakewood water supply since 1959. He is president of Ecological Systems Corporation. Dr. Conrad received his PhD in biochemistry from the University of Southern California.



The findings of our tests demonstrate that the asbestos fiber content of Lakewood water is minimal. Furthermore, the protective nature of the water itself precludes the subsequent deterioration of the A-C pipelines, which might have served as a secondary source of asbestos fibers.

Specific tests were run to determine whether our water was corrosive. We determined that the water is scale-forming and protective.

We have shown that A-C pipe is safe and have confirmed these findings by three different methods, not just one.

Tests were run using an electron microscope to count the fibers. In all cases, it was found that the fiber content of the water, in all locations of the city, was safe and relatively low.

The only conclusion that can be drawn from these facts is that the City of Lakewood does not have an asbestos problem with its water system.

Robert S. Bryant
American Water Works Assn.

Mr. Bryant is the chairman of the Standards Committee for Asbestos-Cement Pressure Pipe of the American Water Works Association.



The American Water Works Association functions as the representative of the water purveying agencies in the United States. One of our functions is to formulate policy based on the understanding and knowledge that our members possess.

A typical standards committee such as the asbestos-cement pipe committee will develop and maintain on a five-year cycle all the standards that relate to the manufacture of the pipe, testing and quality assurance. There are also standards that relate to the design and selection of the pipe. There are also standards for the installation of the pipe and all the components that would go into the pipeline to form a water system. We also have manuals that are used concurrently with the installation standards to specifically address pipe installation.

I am a member of the AWWA committee organized to develop a policy statement on the safety of asbestos fibers in drinking water.

In listening to the presentation of your report [on A-C pipe], I felt I was on traveled ground. We have recently done the same type of work. Our final policy statement will be prepared by our committee.

We offer some precautions. But our basic statement is that asbestos-cement pipe is safe when used in accordance with the guidelines that we have established.

Dr. Arthur F. Gelb
Chest Disease Consultant and
Associate Clinical Professor
University of California, Los Angeles

Dr. Gelb is a member of the medical staff of Doctors Hospital of Lakewood. He is a specialist in internal medicine and pulmonary diseases. Dr. Gelb and his family are Lakewood residents and receive their water from the city water system.



I have reviewed the report on asbestos in the city water supply. I am in complete agreement with the conclusions of the study.

I am a resident of this community and I wholeheartedly support the conclusions.

I wish to reassure the members of the City Council that the opinions reached are fair. [Asbestos in the drinking water] provides no health hazards to the members of this community.

Dr. Kays Kilburn
Professor of Medicine and
Director, Environmental
Sciences Laboratory,
University of Southern California

Dr. Kilburn is one of the nation's leading authorities on diseases which are caused by asbestos. In 1978, he was the co-director of a major symposium on asbestos associated disease held in New York City. He is the author of more than 125 professional journal articles on medicine, including four on asbestos-related diseases.

Under Dr. Kilburn's direction, the environmental sciences laboratory at USC focuses on the causes of disease in the occupational and environmental sectors. Projects include control of lung cancer in shipyard workers, asbestos disease in families of shipyard workers, and the development of health monitoring programs for workers.



The first thing I would like to say is that to inhale asbestos is hazardous. But this is entirely different than ingesting [drinking or eating] it.

If any of you think you can reduce your asbestos hazard by drinking beer, wine, soft drinks, or bottled water, I invite you to do so. But your asbestos fiber concentration will probably go up!

So, if you want to be totally safe, you should go off water and all other liquids.

I think the point that Dr. Conrad made that we have nonaggressive water is very important. That means that the asbestos that we are going to drink in Lakewood — or in Long Beach and Los Angeles — is the asbestos that comes out of the Sierras by reason of the Sierras catching rain and draining a certain amount of water [into the California Aqueduct].

I spend a good part of my working day seeing people who have been injured by inhaled asbestos. It is not a trivial matter.

We figure that less than one percent of ingested asbestos remains in the system. Let's compare that to our lungs. Probably, the lungs retain 50 percent of the asbestos that is inhaled.

The primary ingestion of asbestos through water or food is really trivial compared to secondary ingestion from inhalation.

I would affirm that asbestos is a hazardous material. But it is basically hazardous by only one mode of entry — airborne through inhalation.

There is really not much we can do about the natural asbestos we are faced with in the water supply. It is like natural radiation from the sun or from the rock that we live on. It is one of those risks we have to accept.

There are plenty of things that we have to be very worried about. Asbestos in water is one we don't have to worry about.

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