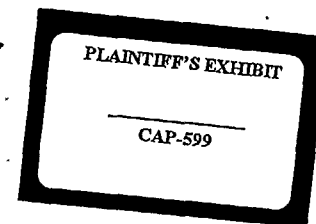


OCT 9 1980



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270



October 6, 1980

Mr. Robert P. Van Dyke
General Manager
City Water Board
1001 E. Market St.
P. O. Box 2449
San Antonio, TX 78298

Dear Mr. Van Dyke:

Thank you for your letter of September 16, 1980 requesting information on the health risks associated with various pipe materials.

The Environmental Protection Agency shares your concern. Studies are underway in the following areas:

- * Animal studies of health effects of ingested asbestos;
- * Corrosive effects of various water qualities upon asbestos cement pipe and other pipe materials;
- * Leaching effects of water on organic chemicals associated with various pipe materials.

There is also a question of the chemicals used in pipe processing. Organic chemicals can be part of the pipe composition, or a residue of a sealing or coating material. In addition to vinyl chloride, polynuclear aromatics, epichlorohydrin and polychlorinated biphenyls mentioned in the Region IV response paper, tetrachloroethylene, a carcinogen, has also been detected as a contaminant in vinyl lined asbestos pipe.

We agree with the opinions expressed in Region IV's response paper, but caution that it is difficult, if not impossible, for EPA to be aware of the consequences of all processes used by the many manufacturers of pipe materials. Additionally, these manufacturing processes change, and a pipe material which was unsuitable several years ago may be the best choice today due to changes in technology. The reverse could also be the case. It is hoped that pipe manufacturers are becoming more aware of the health effect ramifications of their materials and processes.

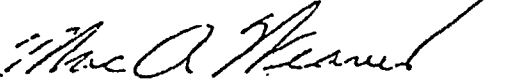
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EPA has not established a list of approved pipe materials, but a major section of the August 27, 1980 Amendments to the National Interim Primary Drinking Water Regulations deals with corrosion control. We are enclosing a copy of these amendments for your information. Although you state that your source water is non-aggressive, I suggest you review the corrosion control section of the Amendments. There are several indices for determining the corrosive potential of waters. Extensive studies have shown that these indices are not conclusive indicators of corrosivity of all waters, due to complexity of the corrosion phenomenon and the differing corrosion mechanisms. Determination of the corrosivity is extremely important in selecting the best pipe material.

Extensive evidence indicates that in systems having an Aggressive Index (AI) greater than 12.0, asbestos cement pipe does not dissolve and thereby release asbestos fibers. Such material does represent the lowest health risk pipe material for non-aggressive waters according to the best information available to us at this time.

I hope this information is helpful to you. Should you require clarification or more information, please contact Mr. Warren Norris, P.E., (214) 767-1762.

Sincerely,



Mac A. Weaver
Acting Chief, Water Supply Branch (6AWS)

Enclosure