A/C Pipe
Producers Association

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PLAINTIFF'S EXHIBIT

CAP-1029

June 6, 1984

Steven O'Donohoe
Public Information Officer
Department of Public Works
City of Houston
City Hall Annex, Third Floor
902 Bagby Street
Houston, TX

Dear Steve:

This letter will confirm our telephone conversation of June 4, 1984. Enclosed are answers to the five questions given to Frank Duffy (CertainTeed Corporation).

1. What types of asbestos fiber are used in A/C pipe?

   A blend of chrysotile and crocidolite asbestos are used. The specific fiber blend varies according to manufacturer. A/C pressure pipe typically contains 15-17% asbestos, by weight. Reference: A/C Pipe Producers Association.

2. What are the lengths and thicknesses of asbestos fibers that (a) are used in the manufacture of A/C pipe, and (b) may be released from A/C pipe into drinking water?

   A typical grade of asbestos used in A/C pipe has the following fiber lengths: 45% greater than 1.2 mm, 35% between 1.2 mm and 75 micrometers, 20% less than 75 micrometers. Fiber diameters vary from large fiber bundles millimeters in diameter to single fibers fractions of a micrometer in diameter.

   According to studies conducted by the U.S. Environmental Protection Agency (EPA), "(t)he vast majority of asbestos fibers found in U.S. water supplies are under 5 micrometers in length." No fiber diameter data are available from EPA studies. Reference: Millette, J. R., et al, Asbestos in Water Supplies of the United States, Environmental Health Perspectives, Vol. 53, pp. 45-48, 1983.

   It is worth noting that animal studies showing no carcinogenic effects from ingested asbestos have used the same types and lengths of asbestos fibers as are used in the manufacture of A/C pipe.

3. How many fibers are likely to be released into drinking water from A/C pipe?

   Release of asbestos from A/C pipe can occur only if the cement matrix is physically or chemically disrupted. EPA has drawn the following conclusion:

While it is estimated that some 200,000 miles of asbestos-cement pipe are in use in the United States, reported analyses suggest that most asbestos-cement pipe does not shed significant numbers of fibers into the water.

Reference: Millette, el al, Concentration and Size of Asbestos in Water Supplies, Environmental Health Perspectives, Vol. 34, pp. 13-25, 1980.

4. What are the effects of home filtration devices on asbestos fiber removal?

   EPA does not recommend or approve use of home treatment and filtration devices for asbestos-fiber removal.

5. What potentially toxic substances might be associated with the use of PVC or ductile iron pipe?

   PVC pipe contains residual amounts of vinyl chloride monomer (VCM), a human and animal carcinogen, which may migrate into drinking water. VCM has been linked with increased incidence of liver angiosarcoma in vinyl chloride industry workers. EPA will soon propose a maximum contaminant level for VCM in drinking water.

   The cement-mortar lining of ductile iron pipe is coated with asphaltic or bitumastic coatings that may release polynuclear aromatic hydrocarbons (PAH's) into drinking water. EPA has stated that some PAH's are carcinogens. The World Health Organization (WHO) has a limit of 0.2 micrograms/liter for six representative PAH's found in drinking water. On October 5, 1983, EPA issued an Advance Notice of Proposed Rulemaking on National Revised Primary Drinking Water Regulations, and requested comments on whether national regulation of PAH's is warranted.

   In summary, PVC pipe and ductile iron pipe are like A/C pipe. Minute amounts of chemicals may be released, but there is no evidence of adverse health effects in humans consuming drinking water conveyed through these products. A/C pipe is advantaged by the fact that substantially more studies have been conducted on asbestos in drinking water and the safety of the product.

Frank Duffy will be in Dallas next week, so if there is a need for an A/C pipe industry representative to meet with Councilman Greanias or the City Council proper, please contact me directly.

Very truly yours,

A/C PIPE PRODUCERS ASSOCIATIONS

John F. Welch
Vice-President

JFW/bwm

cc: A. H. Kahn, Esq.
F. T. Duffy (CertainTeed)
Executive Committee

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