



A/C Pipe
Producers Association

1600 Wilson Boulevard
Suite 1008
Arlington, Virginia 22209
(703) 341-3536

PLAINTIFF'S EXHIBIT

CAP-1008

March 28, 1984

Mr. Tom Novey
Department of Motor Vehicles
Program and Management Analysis
2415 First Avenue
Sacramento, CA 95813

Dear Mr. Novey:

By means of introduction, the Association of Asbestos-Cement Pipe Producers (AACPP) is a trade association representing all U.S. companies that produce and market asbestos-cement (A/C) pipe, as well as twenty-five companies manufacturing or marketing A/C pipe throughout the world. AACPP is the industry's information source on the design, manufacture, specification, installation and performance of A/C pipe products and industry's spokesman on occupational safety/health and environmental matters.

AACPP welcomes the opportunity to submit comments on the underlying issues and study protocol for Department of Housing and Community Development (DHCD) and Department of Health Services (DHS) investigations on the permeability of piping materials used to convey potable (drinking) water. The brevity of AACPP's comments should not be misconstrued as disinterest in this matter, but the result of the association's late notification and your March 30 deadline.

The comments herein pertain to A/C pipe used in waterworks construction, i.e. for potable water distribution mains. Use of A/C pipe for drain, waste and vent (DWV) or potable water applications within commercial or residential structures historically has been de minimus and currently is non-existent to the best of the association's knowledge.

Statement of the Problem

In reviewing the Senate and Assembly budget items that in 1983 considered pipe permeability testing, it is clear that the focus of the Legislature's concern was

"... to assess, if possible, public health impacts resulting from potential chemical contaminants, including natural soil conditions, which may infiltrate domestic potable water and irrigation piping systems." (emphasis added)

The threshold question is whether the permeability of pipe materials is a cause of "possible public health impacts" or an effect of environmental pollution. Even acknowledging the limited scientific evidence available on chemical spills, and water system contamination, it is obvious that in the absence of "chemical contamination," permeability is an issue of minimal concern.

DHS' Sanitary Engineering Branch, state and federal authorities, and national/international standards organizations all have examined — and approved — the



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suitability of A/C, ductile iron, PVC and other piping materials for potable water conveyance. Permeability of the pipe joining system is scrutinized in the context of joint tightness, for which empirical data must be available from pipe manufacturers. In turn, these data must be supported by satisfactory pipe performance during field use. This data review-consensus approval process is objective, rigorous and bi-partisan. Moreover, its validity has withstood the test of time. All these products have been used extensively for many years in U.S. water systems without significant evidence of adverse "public health impacts" resulting from permeation.

The assurances offered by the material approval process are augmented by engineers that design and install water systems. These individuals are highly conservative in the best engineering sense of the word and consider the probabilities and consequences of extraordinary events such as earthquakes, 200 year floods and so on. This design conservatism is further bolstered by careful examination of where a water system is to be located. For example, no competent engineer would specify the installation of a potable water pipeline in an area known to contain raw sewage, through a hazardous waste site or under chemical storage facilities. Thus, the design or consulting engineer is a second "safety factor" — beyond pipe material approval — that prevents "public health impacts" from pipe permeability. It is worth noting that DHS is a vigilant party to both processes as it approves use of various piping materials and design engineers' plans for water systems.

Finally, there is a third "safety factor" — the Safe Drinking Water Act (SDWA) and its mandatory standards for coliform bacteria, turbidity, organic and inorganic chemicals, and radionuclides. When the State of California was granted primacy (primary supervisory and enforcement responsibility), it demonstrated that among other things it:

- o had established a systematic program for conducting sanitary surveys of public water systems, with priority given to systems not in compliance with State drinking water regulations
- o had established a plan to supply drinking water during emergencies
- o had established and maintained an activity to review the design and construction of new or modified water facilities to insure that systems are capable of providing drinking water which meets State regulations.

All these prerequisites are germane to the issue of "chemical contamination" from environmental pollution. Sanitary surveys detect the presence on chemical contaminants in drinking water so that appropriate corrective measures can be taken to prevent "public health impacts." Emergency response plans are part and parcel of every water utilities' operating procedures. When fuels, chemicals or microbiological contaminants are accidentally released in the vicinity of pipelines, there are well established procedures for increased water sampling and analysis, isolation of mains to prevent system contamination, or temporary measures such as recommended boiling or even supplying water from an uncontaminated source. These measures ensure that the cause of the problem — the "chemical contamination" — is immediately identified, contained and eventually eliminated.



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In sum, the issue is not one of pipe material selection but environmental pollution. There are at least three "safety factors" that minimize the probability of pipe permeability having "public health impacts:" (1) the consensus process of pipe material approval in accordance with national specifications, (2) the consulting or design engineer's professional judgment and (3) the State's statutory obligations under SDWA. DHS is a responsible party in all three factors.

Considerable time and resources can be spent further elucidating the obvious fact that the potential contamination of drinking water from pipe permeability is an effect of environmental pollution, not the cause. Those resources might be better spent in preventing such incidents or ensuring appropriate emergency response when they do occur.

Experimental Protocol

If any investigations are to be conducted on the permeability of water pipe materials, every effort should be made to duplicate actual service conditions in water system, including

- o typical bedding and backfill
- o typical depths of burial
- o representative soil type(s), density and other natural conditions
- o typical internal operating pressures

Bench-type studies, however well designed and conducted, using simulated service conditions cannot be expected to produce results as valid as experiments duplicating actual service conditions.

The Environmental Protection Agency's Municipal Environmental Research Laboratory (MERL) has successfully used pipe test loops to replicate dynamic operating and water quality conditions in water systems. Such an approach also would be suitable for permeability studies by constructing a "soil box" through which test pipes could pass.

Funding Options

AACPP recommends that permeability testing be wholly funded by the State of California.

Other Recommendations

AACPP recommends that consideration be given to establishing a non-partisan panel of scientists to evaluate the test results and make appropriate policy recommendations to DHS and DHCD. To date, discussions and input on this matter have come primarily from parties with vested or potential economic interests. In point of fact, the parties most significantly affected by the outcome of these deliberations are



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the designers, operators and owners of municipal water systems and the water consuming public. Accordingly, the panel might be comprised of the following members:

- o A water utility manager with distinguished academic and professional credentials
- o A consulting or sanitary engineer with experience in water system design, materials specification/performance, and environmental engineering
- o A physician (toxicologist or pathologist) knowledgeable about the potential health effects of contaminants in drinking water
- o An expert in analytical methods
- o An individual with extensive experience in public health policy issues related to drinking water.

As an interested party, AACPP hereby requests that it be fully apprised of all communications, meetings, public hearings, etc. relevant to this matter. If we can be of further assistance, please do not hesitate to call.

Very truly yours,

A/C PIPE PRODUCERS ASSOCIATION

John F. Welch
Vice President

JFW/ajb

cc: A. Kahn, Esq.
Board of Directors
Winner/Wagner & Associates

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