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section 17500 would apply. The statute simply makes no exemptions for nonprofit organizations; it applies, on its face, to any person who makes false or misleading statements in the course of selling goods or services. The provisions of IAPMO's corporate charter, or the state of its balance sheet, are irrelevant. It is IAPMO's activities and intent that are germane here.

B. IAPMO Has Disseminated Statements With the Intent to Dispose of Goods or Services

IAPMO also argues that it has not made any statements with the intent of disposing of goods or services, as required by the statute. This is not correct.

It is true that IAPMO does not make the statements at issue in this case with the intent of disposing of piping or other construction materials that it manufactures itself. IAPMO appears to argue that it simply acts as a neutral umpire, impartially calling balls and strikes, and then just reporting the score, with no intent as to how its calls affect the salability of listed products. This argument does not square with what IAPMO actually does. IAPMO knows that it is widely and heavily relied upon by government and industry. It is well aware that contractors may select products, and building inspectors approve them, because IAPMO lists them. Indeed, IAPMO takes considerable pains to ensure that government and industry will rely on IAPMO's

listings. IAPMO observes listing procedures, reviews products, and inspects some manufacturers. It makes representations that it is competent to evaluate the safety and fitness of products, and that the products it lists may be trusted to meet applicable standards and to meet minimum safety requirements in the listed use. Were this not true, IAPMO's publications would not be purchased and its primary activity and purpose would vanish.

IAPMO here is in the role, not of a direct seller of goods, but of an endorser of goods, an entity that presents itself as an expert and presents its expert evaluation of products it evaluates. It cannot avoid responsibility for its representations simply by saying that it does not manufacture the products it endorses.

A similar argument was rejected in Hanberry v. Hearst Corp. (1969) 276 Cal.App.2d 680. Plaintiff in that case alleged that she had purchased defectively designed shoes bearing the Good Housekeeping Seal. Defendant argued that it had no responsibility for any consequences, since its seal constituted nothing more than a statement of opinion. Rejecting that argument, the court said:

> "Respondent was not the seller or manufacturer of the shoes; it held itself out as a disinterested third party which had examined the shoes, found them satisfactory, and gave its

endorsement. By the very procedure and method it used, respondent represented to the public it possessed superior knowledge and special information concerning the product it endorsed. Under such circumstances, respondent may be liable for negligent misrepre entations of either fact or opinion." (276 Cal.App.2d at p. 686.)

IAPMO is similarly responsible for its representations concerning the safety of plastic pipe.

More importantly, IAPMO is in the business of selling its own services as a product endorser. It is with intent to dispose of its services as an endorser that it makes its statements that the products it lists meet applicable requirements and are safe. Having presented and established itself as an expert on plumbing codes, IAPMO actively attempts to preserve that image. As a result, manufacturers come to IAPMO to be evaluated and listed, and they pay for the IAPMO seal and the IAPMO endorsement that their products may be relied upon to meet all applicable standards and to meet minimum safety requirements.

The situation of IAPMO as an endorser, selling its services as an endorser, falls within the ambit of section 17500 as surely as if such services as writing wills or repairing cars were being sold. The statute requires only that a person make certain kinds of statements with the

intent to sell goods or services for section 17500 to be applicable. IAPMO meets this test. It publishes the UPC and the Research Directory publications, which state that certain materials and products meet applicable standards and are safe, with every apparent intention that these publications will be widely bought and relied upon. IAPMO also evinces every intent that manufacturers avail themselves of IAPMO's services as an endorser, and that they pay for these services. This meets the test of section 17500.

This office has held that section 17500 is not limited to "misrepresentations in commercial situations involving a quid pro quo." (66 Ops.Cal.Atty.Gen. 40, 46 (1983).) That opinion dealt with charitable solicitations, but noted the broad sweep of the section:

> "The general purport of section 17500 evident from its language is to protect a person from being deceived or misled when statements and representations concerning the disposing of property or the performing of services seek to induce such person to expend money for a result he desires." (Id., at p. 46.)

IAPMO's publications unquestionably have such effects. Manufacturers surely would not pay to have their products listed if such listing did not have a positive effect on sales.

II

IAPMO'S STATEMENTS ARE MISLEADING WITHIN THE MEANING OF BUSINESS AND PROFESSIONS CODE SECTION 17500

A. Section 17500 Prohibits Untrue and and Misleading Statements

Business and Professions Code section 17500 makes it unlawful for any person to make any statement which the person knows or by the exercise of reasonable care should know to be untrue or misleading in order to dispose of goods or services. It is not necessary that any person be misled by the statements; the gravamen of the offense is the making of untrue or misleading statements, and the offense is "complete without regard to whether or not anyone is deceived or damaged." (In re Application of O'Connor (1927) 80 Cal.App. 647, 652.) A statement is impermissibly untrue or misleading if the statement merely has the capacity to deceive members of the public:

> "A statement is false or misleading if members of the public are likely to be deceived. Intent of the disseminator and knowledge of the customer are both irrelevant. Referring to both section 17500 and Civil Code section 3369 [the predecessor to section 17200], it has been said: 'The statute affords protection against the probability or likelihood as well as the actuality of deception or confusion.'" (Chern v. Bank of America (1976) 15 Cal.3d 866, 876; emphasis added.)

See Fletcher v. Security Pacific National Bank (1979) 23 Cal.3d 442, 451; Ball v. American Trial Lawyers Assn. (1971) 14 Cal.App.3d 289, 310; People ex rel. Mosk v. Lynam (1967) 253 Cal.App.2d 959, 965-966; People v. Wahl (1940) 39 Cal.App.2d Supp. 771, 773. These cases clearly indicate that an action predicated on violations of section 17500 is not the same as an action for fraud or common law deceit: intent to deceive, reliance, and damage are not elements of a section 17500 cause of action. (See also People v. Superior Court (Olson) 1979) 96 Cal.App.3d 181, 190, 198, cert. den. (1980) 446 U.S. 935.)

In determining whether a representation has the capacity to deceive, the courts look to the least sophisticated members of the public. (Exposition Press, Inc. v. FTC (2d Cir. 1961) 296 F.2d 869, 872.[1/] Although a statement may not deceive or mislead a sophisticated consumer, the statement may be misleading or deceptive to others who are less experienced or more vulnerable. As the United States Supreme Court stated nearly fifty years ago:

"The fact that a false statement may be obviously false to those who are trained and

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1. Because of the similarity between California and federal statutes in the area of deceptive business practices, decisions of federal courts are more than ordinarily persuasive. (People ex rel. Mosk v. National Research Co. of Cal. (1962) 201 Cal.App.2d 765, 772.)

experienced does not change its character, nor take away its power to deceive others less experienced. There is no duty resting upon a citizen to suspect the honesty of those with whom he transacts business. Laws are made to protect the trusting as well as the s spicious. The best element of business has long since decided that honesty should govern competitive enterprises, and that the rule of caveat emptor should not be relied upon to reward fraud and deception." (FTC v. Standard Education Society (1937) 302 U.S. 112, 116.)

Accordingly, courts have ruled that:

"The law is not made for experts but to protect the public, -- that vast multitude which includes the ignorant, the unthinking and the credulous, who, in making purchases, do not stop to analyze but too often are governed by appearances and general impressions." (Aronberg v. FTC (7th Cir.1942) 132 F.2d 165, 167.)

IAPMO's statements may not be actively false, only misleading or incomplete. However, the law provides that words and sentences may be literally and technically true and still be used in a manner to mislead or deceive the

public. (FTC v. Sterling Drug, Inc. (2d Cir. 1963) 317 F.2d 669, 675; Koch v. FTC (6th Cir. 1953) 206 F.2d 311, 31.) If a representation is susceptible to both a misleading a truthful interpretation, the representation will be construed against the person making it. (Murray Space Shoe Corp. v. FTC (2d Cir. 1962) 304 F.2d 270, 272; Rhodes Pharmaceutical Co. v. FTC (2d Cir. 1953) 208 F.2d 382, 387, mod. for other reasons, 348 U.S. 940.) As the Court of Appeal has stated:

> "'The use of a word having a double meaning is a common device of those desiring to deceive or mislead others. One who does this cannot escape the charge of misleading or deceiving by saying that to him or as he meant the words, they were true.'" (Garvai v. Bd. of Chiropractic Exmrs. (1963) 216 Cal.App.2d 374, 379, citing Smulson v. Bd. of Dental Exmrs. (1941) 47 Cal.App.2d 584, 590.)

Further, even the failure to disclose information can be actionable, for as the California Supreme Court has noted:

> "[T]he omission of crucial information can be as misleading as a direct misstatement of fact." (Ford Dealers Assn. v. Department of Motor Vehicles (1977) 32 Cal.3d 347, 363-364.)

* * * * * *

The listing by IAPMO of certain plastic piping in the UPC and the Research Directory is such an incomplete, and therefore misleading, statement. By listing them in the Research Directory for use for potable water, IAPMO has brought plastic pipe products within the representation made as to all listed products, namely that it meets all applicable standards. By listing it in the UPC, IAPMO has brought plastic piping within the statement in the UPC that materials listed therein meet minimum safety requirements.

In the case of plastic piping for drinking water uses, such statements are, at best, incomplete when made in California. Plastic pipe is not approved for use in California in carrying potable water inside structures; plastic pipe therefore does not meet all applicable requirements in California. Any generalized statement that materials listed in the UPC meet all applicable requirements is false as to this use of plastic pipe in California; it is certainly a statement so incomplete as to be misleading. The carefully self-cultivated influence of IAPMO makes it even more likely that its listing of plastic pipe in the UPC and the Research Directory will mislead the many persons in government and private industry who use the IAPMO publications into assuming that the listed materials and products are acceptable in California for the uses IAPMO lists. This is more than sufficient to bring IAPMO's statements within the ambit of section 17500.

III

THE INJUNCTION SHOULD BE EXTENDED TO THE 1985 UPC

The applicability of section 17500 to IAPMO's conduct in this case is not an academic question of law, but a vital matter of public safety. The State of California is deeply concerned about the possibility that known or suspected human carcinogens may enter the drinking water of families and individuals because of the use of plastic piping for the carrying of potable water in homes. The state is sufficiently concerned to take the unusual step of researching and preparing a full environmental impact report (EIR) on the use of this building material for carrying water people drink, bathe in, and cook with. See judgment entered by Honorable Judge Crickard on January 24, 1984, pages 2-3.) The state has not yet approved plastic pipe for certain drinking water uses precisely because of the unknowns and the risks, and the state is attempting to ensure that sufficient time and sufficient effort is taken to evaluate the risks before it does so approve plastic pipe.

It was in this context of many unknowns and substantial potential risks that the trial court issued its injunction requiring that IAPMO inform all users of the 1982 UPC that plastic pipes are not approved for certain potable

water uses in California. The injunction reflects concerns the trial court obviously must have had for protection of public health and protection of the public against possible exposure to carcinogenic chemicals.

The injunction was well founded and, indeed, compelled by the evidence in the case. However, given the showing made by appellants, the trial court erred in limiting the injunction to the 1982 UPC and Research Directory. Under a proper application and interpretation of Business and Profession Code section 17500, the injunction should be continued until an appropriate change in circumstances occurs.

The injunction provisions connected with section 17500 create a different situation from the normal request for an injunction. Under Business and Professions Code section 17535, a court may issue an injunction upon a finding that section 17500 (or other sections of that code dealing with false advertising or unfair business practices) has been violated. The finding of a violation is all that is required; no showing of irreparable harm need be made, and no balancing of the equities need be done. Rather, a rebuttal presumption of irreparable harm arises in such a case. (IT Corp. v. County of Imperial (1983) 35 Cal.3d 63.) In effect, the Legislature has itself decided the questions of harm and of the balance of equities, and has decided that

whenever section 17500 has been violated, an injunction may issue.

Here, a very convincing showing was made that IAPMO's conduct in publishing the 1982 UPC and the Research Directory violated section 17500. The trial court very properly issued an injunction requiring appropriate disclaimers regarding the use of plastic pipe for potable water uses in structures. However, this injunction was limited to the 1982 editions of these publications, and automatically terminated when the 1985 editions were published. This was an error on the trial court's part.

The identical facts exist as to the 1985 editions of the UPC and Research Directory as existed as to the 1982 editions. The influential and well known IAPMO is widely circulating publications that imply that plastic pipe is acceptable and approved for use in carrying potable water. It expects that these publications will be relied on in both the public and private sector and, indeed, actively encourage such reliance. IAPMO circulates these publications in California, a state in which it knows that plastic pipe is not accepted for certain of these uses and is being studied by a government agency for possible health hazards, including cancer. IAPMO does not inform its California readers of what it well knows, that they cannot rely on IAPMO's implied representations of acceptability and

safety as to plastic pipe for drinking water uses in California. Now, as when the injunction issued, an EIR is being prepared. Neither the facts nor the law has changed.

Where a violation of section 17500 has been shown, and where identical facts exist to those that existed when the injunction was issued, the injunction should not be termi ated but should continue until either the underlying facts or the underlying law change significantly. Amicus believes that the injunction should be extended to apply to the 1985 UPC and Research Directory.

* * * * * *

CONCLUSION

The Attorney General believes that this case falls within the ambit of Business and Professions Code section 17500, and that IAPMO's conduct constitutes a violation of that section. Accordingly, the Attorney General feels that the trial court's injunction should be extended to apply to the 1985 editions of IAPMO's publications.

DATED: OCTOBER 15, 1985

Respectfully submitted,

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SLD:CT:dm

Exception: When in the opinion of the Administrative Authority no hazard to the potable water supply system is evident, special approval may be obtained to omit the vacuum breakers.

(l) **Aspirators** shall not be directly connected to a sewer connected waste pipe, but may be connected to the inlet side of a trap and shall be equipped with an approved vacuum breaker installed at least six (6) inches (152.4 mm) above the aspirator unit. The discharge pipe from the aspirator unit shall be designed for free flow and shall discharge through an approved airgap.

(m) **Vacuum breakers for hot water over 160°F (71°C)** shall be of approved type designed to operate at temperatures of one hundred sixty (160) degrees F (71°C) or more without rendering any portion of the device inoperative.

(n) **Steam and steam boiler connections** shall be protected by an approved backflow prevention device as set forth in subsection (o) of this section.

(o) **Non-potable Water Piping.** In cases where it is impractical to correct individual cross-connections on the domestic water line, the line supplying such outlets shall be considered a non-potable water line. No drinking or domestic water outlets shall be connected to the non-potable water line. Backflow or back-siphonage from the non-potable water line into the domestic water line shall be prevented by the installation of a gravity tank or by a tank having a pump for desired non-potable water. The domestic water inlets to the non-potable water tank shall have an approved airgap as required elsewhere in this chapter. Where it is impractical to install tanks, as set forth above, an approved pressure type backflow or back-siphonage prevention device shall be installed as follows:

Where reverse flow due only to gravity or a vacuum within the line can occur, an approved pressure type vacuum breaker unit or other approved backflow prevention device shall be installed in the supply line.

Each pressure type vacuum breaker unit shall be installed at a height of at least twelve (12) inches (.3 m) above the highest tank, equipment or point of usage of the non-potable water. Other approved backflow prevention devices shall be installed in a manner satisfactory to the Administrative Authority, but in no case less than twelve (12) inches (.3 m) above the surrounding ground or floor.

Where backflow can occur due to steam boilers, pumps, etc., creating a higher pressure in the non-potable water line, an approved backflow prevention device shall be installed in the supply line. Such backflow prevention device shall be installed at least twelve (12) inches (.3 m) above the surrounding ground or floor.

Whenever possible, all portions of the non-potable water line shall be exposed and all exposed portions shall be properly identified in a manner satisfactory to the Administrative Authority. Each outlet on the non-potable water line which may be used for drinking or domestic purposes shall be posted: DANGER — UNSAFE WATER.

Residential Building

(p) **Vacuum breakers** shall be located outside any enclosure or hooded area containing fumes that are toxic or poisonous.

Section 1004—Materials

(a) Water pipe and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, galvanized steel, lead or other approved materials. Asbestos-cement, CPVC, PB, PE, or PVC water pipe manufactured to recognized standards may be used for cold water distribution systems outside a building. CPVC and PB water pipe and tubing may be used for hot and cold water distribution systems within a building. All materials used in the water supply system, except valves and similar devices shall be of a like material, except where otherwise approved by the Administrative Authority.

(b) Cast iron fittings up to and including two (2) inches (50.8 mm) in size, when used in connection with potable water piping shall be galvanized.

(c) All malleable iron water fittings shall be galvanized.

(d) Piping and tubing which has previously been used for any purpose other than for potable water systems shall not be used.

(e) Approved plastic materials may be used in water service piping, provided that where metal water service piping is used for electrical grounding purposes, replacement piping therefore shall be of like materials.

Exception: Where a grounding system, acceptable to the Administrative Authority is installed, inspected and approved, metallic pipe may be replaced with non-metallic pipe.

Section 1005—Valves

(a) Valves up to and including two (2) inches (50.8 mm) in size shall be brass or other approved material. Sizes over two (2) inches (50.8 mm) may have cast iron or brass bodies. Each gate valve shall be a fullway type with working parts of non-corrosive material.

(b) A fullway valve controlling all outlets shall be installed on the discharge side of each water meter and on each unmetered water supply. Water piping supplying more than one building on any one premises shall be equipped with a separate fullway valve to each building, so arranged that the water supply can be turned on or off to any individual or separate building; provided however, that supply piping to a single family residence and building accessory thereto, may be controlled on one valve. Such shutoff valves shall be accessible at all times. A fullway valve shall be installed on the discharge piping from water supply tanks at or near the tank. A fullway valve shall be installed on the cold water supply pipe to each water heater at or near the water heater. A fullway valve shall be installed for each apartment or dwelling of more than one (1) family. In lieu of the main supply shutoff in each apartment, individual shutoff valves may be provided at each fixture.

(c) All valves used to control two (2) or more openings shall be fullway gate valves or other approved valves designed and approved for the service intended.

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(b) Cast iron fittings up to and including two (2) inches (50.8 mm) in size, when used in connection with potable water piping shall be galvanized.

(c) All malleable iron water fittings shall be galvanized.

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(e) Approved plastic materials may be used in water service piping, provided that where metal water service piping is used for electrical grounding purposes, replacement piping therefore shall be of like materials.

Exception: Where a grounding system, acceptable to the Administrative Authority is installed, inspected and approved, metallic pipe may be replaced with non-metallic pipe.

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(a) Valves up to and including two (2) inches (50.8 mm) in size shall be brass or other approved material. Sizes over two (2) inches (50.8 mm) may have cast iron or brass bodies. Each gate valve shall be a fullway type with working parts of non-corrosive material.

(b) A fullway valve controlling all outlets shall be installed on the discharge side of each water meter and on each unmetered water supply. Water piping supplying more than one building on any one premises shall be equipped with a separate fullway valve to each building, so arranged that the water supply can be turned on or off to any individual or separate building; provided however, that supply piping to a single family residence and building accessory thereto, may be controlled on one valve. Such shutoff valves shall be accessible at all times. A fullway valve shall be installed on the discharge piping from water supply tanks at or near the tank. A fullway valve shall be installed on the cold water supply pipe to each water heater at or near the water heater. A fullway valve shall be installed for each apartment or dwelling of more than one (1) family. In lieu of the main supply shutoff in each apartment, individual shutoff valves may be provided at each fixture.

(c) All valves used to control two (2) or more openings shall be fullway gate valves or other approved valves designed and approved for the service intended.

away from a terminal for pregnant women; (3) allow periodic rest breaks for terminal operators; (4) provide comfortable working conditions with respect to furniture, lighting, heat, noise, etc.; and (5) arrange for periodic inspection and maintenance of the terminals.

Proponents of this type of legislation cite two studies by Mt. Sinai Hospital and the International Labor Organization that concluded that terminal operators often suffer from headaches, eye strain, poor vision, back and shoulder pain, anxiety, irritability, sleep disorders and fatigue. Another study undertaken by the National Research Council concluded that while terminals per se are not harmful, the working conditions and the work environment of terminal operators is often uncomfortable and can lead to physical maladies.

Opponents contend that the best available scientific evidence shows that terminal operation is not harmful. The American Academy of Ophthalmology has issued a statement, for example, that says terminals are not harmful to the eyes. The American College of Obstetricians and Gynecologists has found no link between terminal operation and problems with the human reproductive function. A review of the scientific literature by the American Newspaper Publishers Association turned up no evidence that terminals were hazardous to human health.

GOVERNMENT
Building Codes Conflict

6. Should legislation be enacted which will provide that when a local government has adopted and is enforcing a nationally recognized building, electrical, fire or plumbing code, the version of the code adopted by the State of Alaska will not supersede the version adopted by the local government?

☐ YES (1) ☐ NO (2) ☐ UNDECIDED (3) (17)

64% 24% 12%

BACKGROUND: The situation often exists where a local government is enforcing a more current, nationally recognized version of a building, electrical, fire or plumbing code than the one adopted by the state. Under present law the state code must be followed.

For example, if a contractor in Juneau installs plumbing in accordance with the 1982 Plumbing Code, which has been adopted by the City and Borough of Juneau and an inspector for the State of Alaska happens to stop by and inspects the job, (under state law they have the right to do so) the state inspector may require the contractor to remove any plumbing which does not conform to the 1979 Uniform Plumbing Code which is the version adopted by the state.

Proponents of this legislation feel that contractors and/or individuals building their own home have enough problem trying to meet the requirements of the codes which have been adopted by the local government. They believe contractors or private citizens should not also have to determine what additional requirements must be met because the state has adopted a different version of one or more of the codes.

The codes which have been adopted locally are compiled by a national group of experts so they are not just the local official's opinion of what are proper construction techniques or materials, proponents say. They feel that local governments do not need "Big Brother" (the State) mandating what codes should be applied when the local governments are capable of making these decisions. There is no argument that the codes adopted by the State of Alaska should apply in the situation where the local governments have not adopted particular building codes or are not actively enforcing the codes which have been adopted.

Opponents of this type of legislation feel that the state should always reserve the right to make sure that appropriate building codes are properly applied to construction anywhere in the state. It is argued that many local government building officials do not understand the building codes well enough to properly enforce them.

GENERAL BUSINESS
Highway Signs

7. Should legislation be adopted which would require the State to install signs on all highways which would identify the specific travel services which are available in the area?

☐ YES (1) ☐ NO (2) ☐ UNDECIDED (3) (18)

BACKGROUND: Several states have adopted legislation which stipulates that the signs on all major highways, which indicate the travel services available; i.e. gas, lodging or food, should also include the symbol or name of the company providing the service. For example, the sign to indicate that there was gas available ahead, would also include the company symbol such as Chevron, Union, etc. This would include all applicable businesses within one-quarter mile of the highway.

Proponents point out that these types of signs are of great assistance to the traveler so that if they are looking for a certain type of gas station or lodging, they will not have to pull off the highway and look for the station or motel to determine if it is the one which they were looking for.

Opponents feel that the state is not developed to the degree that this type of information is necessary on the highway signs. For the majority of our highways, the gas stations, motels or restaurants are located on the highway so it is not necessary to pull off the road to identify the business. Further, with the exception of the gas stations, we have very few national chains of motels and restaurants, so the logo or name will usually not mean anything to the traveler, even if it is on the highway sign.

Comments: _____

August 1985
65th Year

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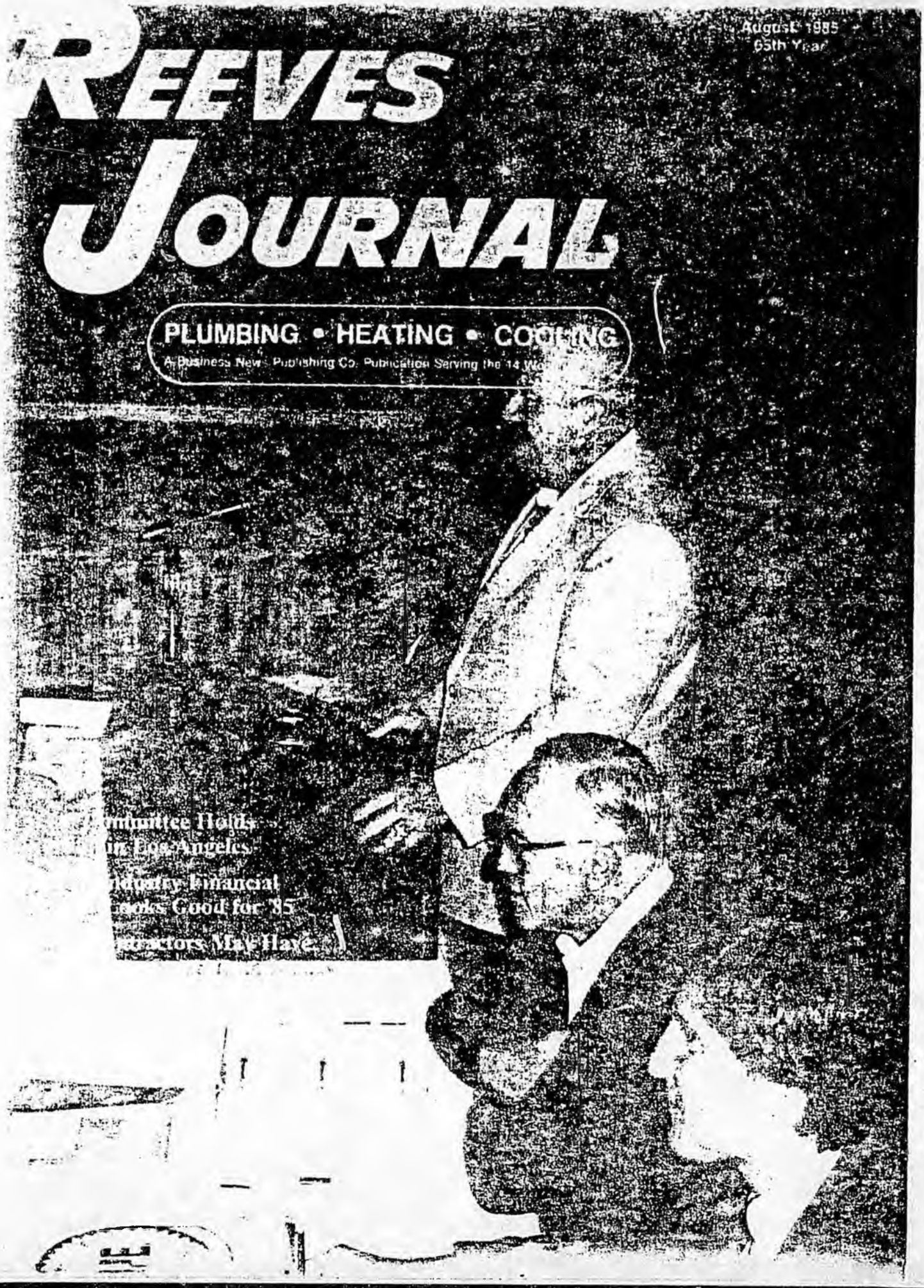

Materials Controversy Continues

Anti-Plastics Forces Bring Out Hired Guns in LA A-40 Session

by Larry Diil

UNIVERSAL CITY, Calif. — It was only fitting that the American National Standards Institute's A-40 Committee on Safety Requirements for Plumbing hold its latest meeting at the Universal Sheraton Hotel here July 23-25.

Overlooking the Universal Studio lots, soundstages and outdoor arenas used for western stunt shows and the like as part of the studio's tours, the hotel was the perfect site for an old fashioned shootout between the advocates and opponents of plastic piping materials. The only trouble with the shootout, however, was that it was as one-sided as Custer's debate with Sitting Bull. If it was a fight, it would have been stopped on cuts in the third round.

While the majority of the three-day exercise was dominated by tedious reviews of the A-40 Committee's Table 3.1.3 (Standards for Materials, Equipment, Joints and Connections) and discussions regarding the chapters pertaining to such products in the developing model code being formulated by the committee, the liveliest session took place on the opening afternoon when it was announced that there would be a 90-minute discussion on permeation of plastic piping materials, providing 45 minutes for both advocates and opponents of plastic pipe to speak, to be followed by a 10-minute question-and-answer session.

The first speaker called to the podium was Jack Lancaster, spokesman for the Plastic Pipe and Fittings Association (PPFA). Lancaster briefly outlined PPFA's position on the issue of pipe permeation and reviewed two documents — a review of the plastics industry's position on permeation (which had the joint letterheads of the Plastic Pipe Institute, the Vinyl Institute, the Uni-Bell PVC Plastic Pipe Association and PPFA) and a copy of PPFA's position that characteristics of water and soil should be considered when making materials selections.

The former document listed the advantages of using plastic piping materials and the latter stressed that proper evaluation of soil and water conditions would lead to responsible selection of materials. The conclusions of the second document stated that "in order to maintain a viable supply of potable water, thought must be given to the installation of affected materials in known or suspect soil and ground water conditions which may cause permeation, corrosion or structural failure of the pipe, tubing or fittings."

Jack Lancaster, Plastic Pipe and Fittings Association, reviews PPFA's position on pipe permeation.

The point of Lancaster's presentation, it appeared, was that all piping materials are subject to failure or permeation and leaching under particular circumstances.

Lancaster's statement was concluded in approximately six minutes and he sat down with nearly 40 minutes still alotted to him. The shortness of Lancaster's presentation was surprising to many of the committee members present at the session, including one who candidly told **Reeves Journal**, "I went to the bathroom and when I got back Jack was sitting down."

Opponents Speak

After Lancaster concluded his remarks and left the podium, chairman Vincent Doyle, representing the Mechanical Contractors Association of America as part of the joint committee with the National Association of Plumbing-Heating-Cooling Contractors as joint secretariats of the committee, called for the other speakers to step forward.

If Lancaster's presentation appeared to be surprisingly short and light to the committee members, what was to follow was a grand performance.

The committee members next witnessed a very organized, polished, professional and dynamic presentation by Raymond J. Leonardini, the attorney who has represented the California Pipe Trades (consisting primarily of United Association interests) in its legal battles with the International Association of Plumbing and Mechanical Officials (IAPMO) during the last three years over the addition of certain plastic pipe products to the Uniform Plumbing Code. He was followed by Marc Lappe, PhD and the chief consultant to the California Pipe Trades on matters concerning its charges that plastic pipe contains toxic materials which are hazardous to the health of the public.

Leonardini, in his best courtroom manner, delivered a moving presentation blasting plastic piping products and their usage in plumbing systems. He also called for the A-40 Committee members to use their own judgment to keep plastics from their model code document. Lappe followed with supporting statements from a health policy consultant's viewpoint, before Leonardini delivered the closing summation.

Toxic Spills

Addressing the subject of permeation, Leonardini cited statistics that estimate 300 toxic waste spills in California every three months. "You don't know where those spills are going to be," he said, "so the idea of analyzing permeation and saying not to put them (plastic pipes) in areas where there are known toxins" is similar to "closing the corral after the horses are out."

"How are you going to know where there is going to be a toxic spill?" Leonardini asked, labeling the committee members "public policy makers and public health officials."

The attorney then pointed out that while efforts are made to determine locations that were once the sites of hazardous wastes, several cases pop up each year where housing tracts have been found to be built on waste sites three or four years after their construction.

One of Leonardini's strongest contentions was that research performed by the American Water Works Company revealed that toxic vapors, particularly from gasoline products, can permeate plastic piping as well as liquids.

"Now where are you going to put pipe to avoid infiltration and permeation by vapors?" he asked.

Leonardini went on to discuss a recent lawsuit filed in the San Jose region concerning polybutylene piping system failures. Submitting a deposition on the issue for the record, Leonardini called the failure rate of PB "time dependent."

"Because of the chemical development of that pipe (PB), if you wait long

enough that particular installation will fail," he claimed.

Leonardini concluded his opening remarks and called upon Lappe, a former official with California's Department of Health and the chief consultant in the lawsuit brought forward by the California Pipe Trades Council and the state's former director of the Department of Consumer Affairs, Richard Spohn, who lent his name to the IAPMO lawsuit under the banner of the Department of Housing.

"I want to thank this group for giving me the opportunity to speak, and the United Association for bringing me here," Lappe said in his opening remarks.

Lappe later explained that the quality of drinking water is generally measured at its source in public treatment facilities. "We assume that nothing happens to it to aid and abet any levels of contaminants in transit," he added, charging that contaminants are being picked up through plastic piping systems.

"We also know of contaminants from metal ions and we are assuming that they are not raising the level of lead, copper or arsenic above the levels that are permissible from the source."

Lappe pointed to three studies conducted by the Pipe Trades Council (under his supervision), the American Water Works Company and the Vinyl Institute.

"What each of these studies found was that there are differences as clear as day and night between plastic and metal," he said. "Plastic permeates certain organic chemicals of health concern. Metal absolutely unequivocally does not."

Leonardini Summarizes

Leonardini followed with a tight, passionate conclusion that hit home with a number of emotional charges and pleas to the committee members.

The attorney challenged IAPMO (which has successfully defended its position on plastics against the Pipe Trades Council, et al in the courts, largely from a judge's ruling that no sufficient evidence has been produced to show any health hazards from plastic piping) and its 1982 UPC additions of plastics. He also questioned the validity of the National Sanitation Foundation which presented key testimony in IAPMO's California lawsuit.

Noting that IAPMO relies upon NSF testing, Leonardini said, "NSF 14 is an inadequate standard for the evaluation and analysis of leaching characteristics in plastic pipe.

"Can you trust EPA? EPA is talking about relying on NSF. EPA has not developed drinking water standards for any of the chemicals that are involved."

Leonardini concluded by stating that all of the data is yet to be received and that it would probably take at least another year and a half to gather all information and comments on the conclusions.

"You have nothing to gain and everything to lose" by acting before governmental studies are completed, he said in closing.

John Woodward, Cast Iron Soil Pipe Institute, expresses his opinion during a discussion of the A-40 Committee's proposed product standards.

Confusion Begins

The polished presentation by Leonardini and Lappe was followed by Doyle's announcement that "in the interest of fairness to both sides and everyone who is on the committee," a 10-minute question-and-answer period would follow.

Lancaster returned to the podium and began to comment on the remarks made by the other two speakers by first acknowledging that he, indeed, represented PPFA and that the other speakers were employed to represent the interest of the United Association.

Lancaster's remarks were quickly met with an objection from Edward Brabec, executive vice president of the United Association. This was followed by Doyle's announcement that the remaining time would be limited to questions from the floor, not rebuttal statements.

Lancaster protested the procedures and then left the podium where Leonardini and Lappe proceeded to answer several questions from the committee members regarding their statements.

Very Convincing

To the members of the audience, it must have appeared as though the anti-plastic speakers clearly presented a very convincing argument for their case, while the plastic concern failed to prove any of their contentions.

When confronted with the question of why Lancaster had failed to make a more comprehensive and prepared statement, PPFA attorney Robert Creamer and Lancaster both charged that they had no prior knowledge that speakers were going to be given 45 minutes each nor were they informed of the type of presentation Leonardini and Lappe were going to make.

While the plastics representatives claimed that they had not been contacted directly by the committee, but that a message was delivered through a third party, chairman Doyle told **Reeves Journal** that he did speak to Lancaster personally by telephone. William Abernathy, committee secretary, George Kauffman, co-chairman, and at least two A-40 members told **Reeves Journal** they had been told that PPFA was notified of the anti-plastics concerns' plans to appear at the meeting more than a month prior to the sessions.

Creamer told **Reeves Journal** that PPFA did not have any plans of making a similar presentation before the committee because the organization did not feel it was the proper venue to air such testimony.

"This group, regardless of what they call themselves or how they self-anoint themselves, is not competent to make these kinds of decisions, and we are not going to engage in a debate before the A-40 Committee on scientific and technical matters.

"The union can bring in people to talk about whatever they want, but we are not going to do anything that would imply that this committee is competent enough to make those kinds of judgments.

"For us to bring in toxicologists would be, in effect, to submit this issue to this group; and it doesn't belong here. This may be a safety code in terms of traditional concern of plumbers for safety, in terms of what is a safe plumbing system, but I don't believe that makes this group competent to decide whether a particular kind of plastic pipe leaches or is permeable to

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Final Arguments Presented In Calif. Suit Challenging AC Efficiency Rates

by Larry Dill

SACRAMENTO, Calif. — A Sacramento county superior court judge is expected to deliver a final decision in early October on the lawsuit pitting air conditioning manufacturers against the California Energy Commission (CEC) over the CEC's proposed 1988 and 1993 minimum energy efficiency standards.

Judge James I. Morris heard final arguments from attorneys on July 16, and agreed to allow both sides of the litigation to file final closing briefs within 15 days. Upon filing of the briefs, which will be limited to material presented during the July 16 court session, the parties involved in the suit will then have 30 days to file written responses. Upon review of the material submitted, Morris will then deliver his written decision, probably in early October.

The suit was filed by Lennox Industries, Inc., Bard Manufacturing Co., Heil Heating and Cooling Products and Borg-Warner Central Environmental Systems, Inc.. In a related action, American Standard's Trane Division has petitioned the CEC to reconsider its decision to adopt a minimum seasonal energy efficiency ratio (SEER) of 8.9 — beginning in 1988. The SEER would raise to 9.9 in 1993. California's current minimum SEER is 8.0.

The majority of the July 16 season centered around closing arguments by attorneys Thomas Knox, who represents Lennox Et Al. and Bruce Dodge, legal counsel for Trane.

The plaintiffs' attorneys focused their attention on charges that the CEC staff was selective in its use of reference materials, particularly data from the Department of Energy, and claims that the proposed regulations would drastically increase costs while resulting in products and requirements that would not be cost effective for consumers.

"We're very optimistic about the outcome," David F. Lewis, director of marketing for Lennox Industries, told **Reeves Journal.** "We think that the regulations will end up costing the consumer a lot more money. The key is that we don't feel it will be cost effective for the consumer."

Lewis also pointed out that the manufacturers contend CEC reached its decision through the selection of data that would only support its position.

Knox outlined a number of points raised in previous testimony which are being challenged by the manufacturers.

While questioning the methodology used to evaluate such factors as feasibility of compliance, discount rates, maintenance costs and particularly the "design life of units," Knox zeroed in on his clients' contention that the CEC did not have sufficient evidence to develop its regulation. Knox contended that CEC used the wrong "baseline" to determine the cost efficiency of air conditioners that would be subject to the regulations.

"They used the wrong yardstick to measure the cost effectiveness of the 1993 standards," Knox said. "There is no evidence considered that states SEER 9.9 will be cost effective in 1999," he added.

A large portion of the final session was spent arguing the language used in the regulation. The primary question was whether units covered by the regulation should be classified as residential or commercial or single and triple phase air conditioners.

Dodge stated that no data was submitted on a commercial category and that there is no evidence to support the contention the proposed SEERs would be cost effective. He suggested that the regulation be sent back to the CEC staff to either add language specifying commercial air conditioners or that commercial units be exempted from the action.

Exemption would be more favorable, he argued, because of the projected difficulty in enforcing such distinctions, particularly in light of the possibility of units designated for commercial applications being used for residential installations.

In challenging the CEC's selection of data in its regulation formulation process, Knox contended that the CEC staff ignored workshop testimony and input from industry sources and instead selectively referred to data that only tended to back its position on SEER minimums, particularly information from DOE.

Alan B. Lilly, deputy attorney general representing the CEC and the State of California, responded that CEC didn't rely on testimony supplied by industry because it was "just the opinions of their engineers."

CEC has been joined in the defense of the proposed regulation by Carrier Corp. and the Natural Resources Defense Council.

A-40 Committee

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such a point that it should not be used in plumbing systems.

"No one on that committee is competent to make those kinds of decisions, and it's ironic to note that through all of the procedure they have said they are incompetent to decide whether lead should be used. They have decided they aren't competent to decide whether certain kinds of asbestos products should be used in the code. They have said they are not competent to make judgments whether certain kinds of pipe assemblies are fire retardant. They have denied competence to determine all kinds of issues, but yet when it comes to these extremely complex, complicated and controversial issues about plastic pipe, then all of a sudden there is a group of people that is in there who deem themselves highly competent to decide if plastic pipe should be used.

"And that's what we have, but we simply aren't going to submit that issue to this group. So we're not going to come in with our own dog and pony show."

Both Lancaster and Creamer contend that governmental agencies such as EPA and the Department of Health should be involved in the study and evaluation of the issue.

Couldn't Rebut

Lancaster protested the fact that he was not provided the opportunity to answer the charges made by Leonardini and Lappe, stating that they made several misstatements of fact.

As an example, he countered that the lawsuit in San Jose is centered around a mechanical fastening system, not issues concerning cancer. "He was pulling apples and oranges," Creamer added of his legal counterpart.

When it was pointed out to the plastics spokesmen that a member of the audience would surely have to be influenced by the presentation made by their foes, based on PPFA's lack of performance, Creamer concluded, "You got the message that the sponsors and the union people wanted you to get because, again, we were never told what was going to happen and they had a canned, rehearsed, slick presentation. The other thing to remember, and I'll stop saying it eventually, is that this is not the forum for that kind of thing."

Regardless of the contentions of PPFA, they may find that their counterparts on the committee left with a very strong impression from the presentation made by Leonardini and Lappe. If they were keeping score in the grandstands, the committee members may have concluded that it was no contest. The hired guns scored a TKO.

Reeves Journal - July 1985

Southwest Gas Replacing ABS Pipe in Gas Lines

PHOENIX, — Southwest Gas Corp. has been given the central business area top priority in its program to replace an estimated 2,300 miles of possibly defective gas pipe.

The utility acquired the gas distribution system from Arizona Public Service (APS) last November.

The first phase of the project is expected to require between three and four months and will depend on several contractors working simultaneously in various sections of the target area. Some of the work is already underway, according to John Hanenburg, program manager.

Utility officials noted that the program will involve all ABS-type plastic pipe. APS had used the pipe extensively in the Greater Phoenix area and in other parts of Arizona between 1959 and 1971.

Officials said the pipe constitutes about 23 per cent of the entire system. The whole replacement program will cost an estimated $120 million and will last about six years.

The ABS pipe was involved in an explosion in Phoenix last September that killed five persons and prompted an investigation. The probe revealed that the pipe was aging more rapidly than expected initially.

Reeves Journal - July 1985

Oregon City Seeking $3 Million to Replace Broken Plastic Pipe

by Jim Norland

MEDFORD, Ore. — This southern Oregon city of 50,000 is asking seven suppliers of plastic pipe to reimburse more than $3 million in damages the city expects to sustain in replacing the polybutylene water pipe bought between 1971 and 1981.

Attorneys for the Medford Water Commission and the City of Medford told the suppliers by letter, "It would appear . . . that this water pipe does not meet the requirements, warranties or representations made by you at the time of sale."

The city and the water commission have recently discovered defects and consequent breaking of "numerous pipe," says W. V. Deatherage, a member of Frohnmayer, Deatherage, deSchweinitz, Pratt & Jamieson, P.C., Attorneys at Law, in Medford.

Deatherage has asked each of the seven suppliers to notify his firm by June 26 whether they want to reimburse the two government entities "for the damages they have suffered as a result of said defective pipe.

"The Medford Water Commission will be required to replace all of this water pipe, which it has estimated will be at a cost in excess of $2,000,000," Deatherage's letter continues.

Medford City Attorney Gene Clark told **Reeves Journal** that the total damage is expected to be "in excess of $3 million, but no one supplier is expected to be responsible for more than $2 million."

Letters identical to the one quoted went to The Flintkote Co., Pipe Products Group, Orangeburg, N.Y.; Clow Corp., Plastics Division, P.V.C. Plastic Pipe, Bensenville, Ill.; Western Products Co., Union City, Calif.; Hinds Supply Co., Beaverton, Ore.; Westflex Manufacturing Co., Division of Western Plastic & Rubber Co., Richmond, Calif.; Budge-McHugh Supply Co., Medford; and Consolidated Supply Co., Portland, Ore.

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Wednesday
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Seattle Post-Intelligencer

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D-2 WEATHER
D-4 COFFEE BREAK
D-12 FUNERALS

City halts use of plastic pipes for drinking water

By Jane Hadley
P-I Reporter

The Seattle Water Department has placed a moratorium on its use of plastic pipe that delivers drinking water.

"We're not using any until we do come to a final decision" about the safety of the pipe, said Jim Chapman, water quality supervisor for the department.

"We've been contacted by a number of people who claim to have further information."

Water contaminated

The moratorium follows the discovery by a couple renting a home in West Seattle that their water was contaminated with toluene and xylene, two substances commonly found in airplane glue, gasoline, paint solvents and other products.

When the department investigated, it found soil around the meter box contaminated with a strong-smelling solvent. The department then replaced the plastic pipe from the street main to the meter box with copper pipe.

Plastic pipe is a problem because it can be permeated by organic solvents such as gasoline or trichloroethylene, a widely used degreasing solvent. Also, certain glues used to join the pipes are toxic and permeate the pipe to contaminate the drinking water inside.

The city first began to use plastic pipe in the early 1960s for service lines that run from the mains in the street to meters, Chapman said. He estimated that about half the service lines in the city are some type of plastic pipe. The mains are not plastic.

Many lines from the meters to the houses probably also are plastic, Chapman said, but property owners are responsible for installing those.

Forbidding use of plastic for those lines would require a change in the plumbing code, which the City Council would have to do by ordinance.

Chapman said there have been six or seven cases in Seattle within the past two or three years in which drinking water was contaminated when organic solvents penetrated plastic pipe.

All but one were in primarily commercial or industrial areas, where the likelihood of gasoline spills and other soil contamination is greater than in residential areas.

Installations halted

Consequently, the city already has stopped installing plastic water pipes in commercial and industrial areas. The new moratorium applies to residential and all other areas.

Bob Giron, business agent for the United Association of Plumbers and Fitters Local No. 82 in Seattle, said yesterday that plumbers oppose the use of plastic pipe for drinking water.

"It's not delivering as pure an item as it should be," he said. "And from the workers' standpoint, the glues and solvents we have to use we feel are dangerous."

November, 1985
65th Year

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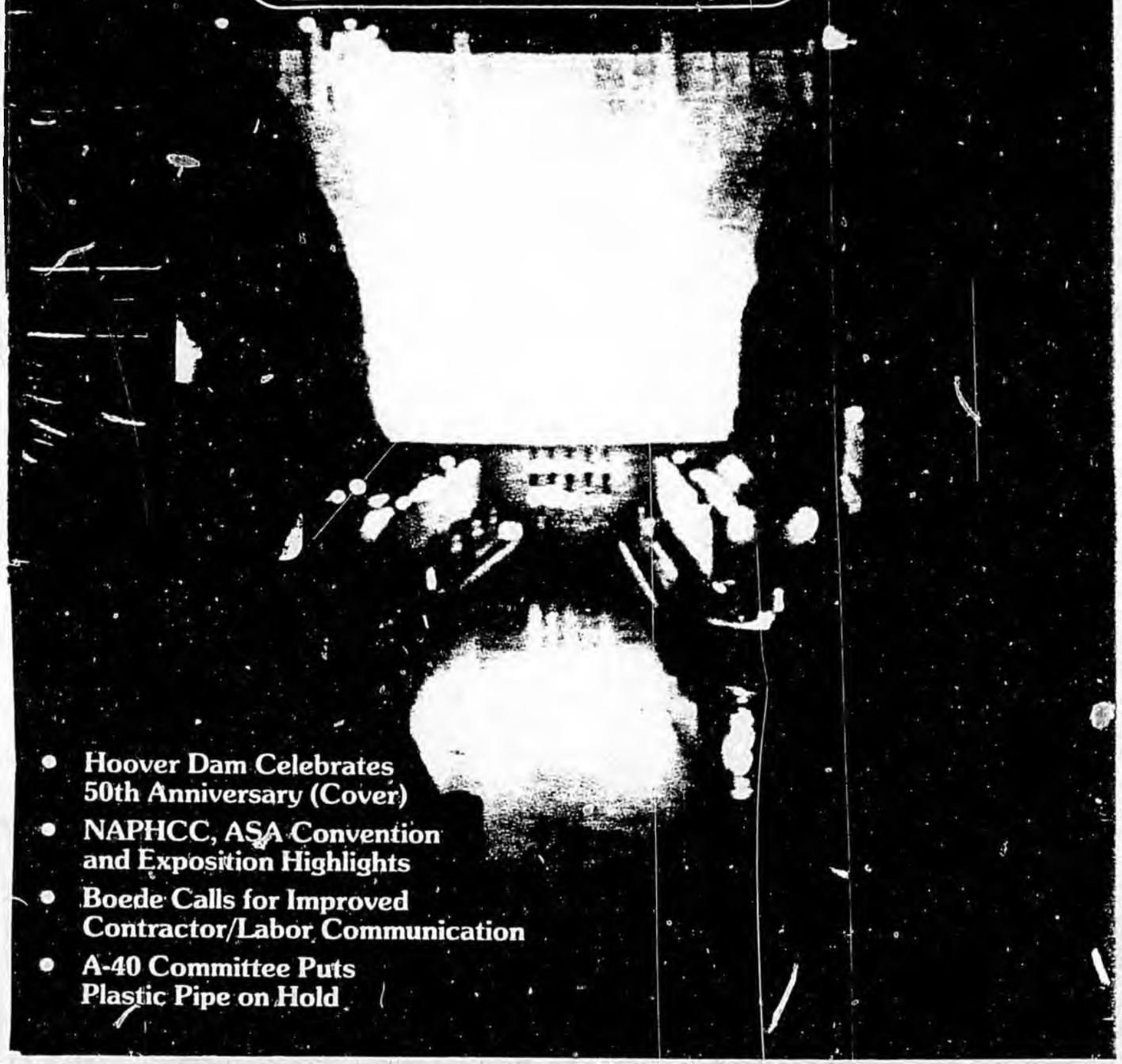

- Hoover Dam Celebrates 50th Anniversary (Cover)
- NAPHCC, ASA Convention and Exposition Highlights
- Boede Calls for Improved Contractor/Labor Communication
- A-40 Committee Puts Plastic Pipe on Hold

Calif. Attorney General Critical of IAPMO Decision

SACRAMENTO — California's attorney general has written a brief of amicus curiae in support of the anti-plastics factions involved in an appeal of a court decision requesting that an injunction ordered against the International Association of Plumbing and Mechanical Officials (IAPMO) in 1983 be extended to IAPMO's 1985 Uniform Plumbing Code (UPC).

A number of parties, including the State Building Construction Trades Council of California (backed heavily by the United Association), filed suit in 1982 in an attempt to prevent IAPMO from circulating its 1982 edition of the UPC in California because of the addition of several new plumbing code changes which allowed plastic piping materials to be used for potable water within buildings for the first time under UPC guidelines.

The anti-plastics concerns attempted to stop circulation of the 1982 UPC in their lawsuit, which was also filed by the former director of the state's Department of Consumer Affairs, Richard Spohn, and a handful of environmentalist groups and individuals. The original suit alleged that IAPMO did not have the jurisdiction to make such additions to the code and that it was violating the state's Business and Professions Code.

Los Angeles Judge Jack A. Crickard ruled in the county's superior court, however, that IAPMO was not in violation of any laws or alleged unfair business practices and ruled against the anti-plastics factions' efforts to stop the publication of the 1982 UPC.

Crickard based much of his decision in favor of IAPMO on his opinion that there was not sufficient evidence to back up the anti-plastics camp's claims that plastic piping could be hazardous to the public health. Crickard did rule in favor of an environmental impact report to provide further input and agreed to issue an injunction on the code calling for a disclaimer to be distributed with the 1982 UPC in California, stating that an environmental impact report is in progress and advising users of the newly added plastics materials to consult with their local officials as to the status of plastics.

IAPMO had already agreed to voluntarily print the disclaimer before the injunction was ordered.

The injunction was scheduled to be in effect only for the 1982 UPC. Now, as the 1985 UPC is being published (IAPMO issues a new update every three years), the plaintiffs in the case have attempted to continue the injunction through the appeals process.

California District Attorney John Van De Kamp issued his opinion, which has no enforcement powers, on Oct. 15. In his statement, Van De Kamp stated that he felt the appeals case in question falls "within the ambit of Business and Professions Code Section 17500" and that "IAPMO's conduct constitutes a violation of that section."

Van De Kamp called for the extention of the trial court's injunction to apply to the 1985 UPC and the 1985 IAPMO Research Directory (which lists approved products).

One of the primary contentions of the original lawsuit was that IAPMO did not have the authority to list products or grant product approval for products said to be in compliance with the standards of the UPC. Crickard rejected this claim and, in fact, praised IAPMO's efforts and professionalism in making such determinations, citing the input and testimony of the National Sanitation Foundation, which provides testing information for IAPMO and other model code writing bodies.

Van De Kamp's opinion challenges IAPMO's right to make such determinations and contends that the organization's operations should be governed under the Business and Professions Code.

A-40 Committee Puts Plastic on Hold

by Larry Dill

CAMBRIDGE, Mass. — In an effort to avoid becoming bogged down in a never ending materials debate that could slow progress on the American National Standards Institute's A-40 Committee on Safety Requirements for Plumbing, the committee voted during its Oct. 22-25 session here to withhold acceptance of plastic piping materials for use in domestic hot and cold water systems for potable use until it can receive more input on the subject from impartial, outside sources.

The action took place following a follow-up to the controversial discussions about plastic pipe at the committee's last session in July in Universal City, Calif. The July session of the A-40 Committee was highlighted by presentations from plastic pipe advocates and opponents. It was during the July session that both sides of the issue were provided with equal time to discuss the plastics issue.

The anti-plastics camp headed by the United Association presented a well organized and emotional program featuring its two key "expert witnesses," attorney Raymond Leonardini, and Dr. Marc Lappe, PhD., two of the key figures in the union-backed California Pipe Trades council's long running legal battle with the International Association of Plumbing and Mechanical Officials (IAPMO) over the use of plastic pipe in Uniform Plumbing Code (see page 24).

The Plastic Pipe and Fittings Association's participation in the July presentations consisted of a brief six-minute summary of its position on the issue of alleged permeation and leaching of plastic piping materials and the distribution of two documents supporting its position.

After much debate after the July program, PPFA, which had contended that it was not properly notified of the format of the July presentations (which was refuted strongly by A-40 officials), was extended a second invitation to present its case before the A-40 body during the October session. The presentations were established on a similar format with each side given 45 minutes to present its testimony. Following the testimonies equal time was also provided for rebuttals and question answering sessions.

This time it was the plastics advocates who rolled out their team of hired guns in the expert witness derby.

The United Association, which was called upon to make its presentation first, was content to have its legal counsel briefly state that the union felt it had adequately presented its case in July and that it did not feel further input was necessary to express its views on the plastics issue. The United Association then distributed new documents for the committee members' consideration including an opinion (which has no legal binding power) by California attorney general John Van De Kamp on the on-going IAPMO court case over the use of plastics in the Uniform Plumbing Code (see page 24). In his statement, Van De Kamp voiced the opinion that an injunction which called for the inclusion of a disclaimer notifying users of the 1982 UPC in California that an environmental impact report was in progress to study plastic products, be extended for distribution with the 1985 UPC in California.

The United Association also distributed copies of a study being conducted by scientific experts at the University of California, Berkeley. The study, commissioned upon the request of the state's Department of Health Services, is providing a review of recent literature and research on the permeation of plastic pipe. The materials distributed were released Sept. 30 and represent the first half of a study that is scheduled to be concluded by April 1, 1986.

Also distributed were copies of correspondence to Leonardini from a representative of the California Department of Housing and Community Development which included a recent press release explaining the suspension of the environmental impact report assigned to Versar, Inc., a Virginia based research firm. This was accompanied by an audit of the work performed by Versar before suspension of the project.

Plastics Testimony

The plastics proponents were keyed by PPFA representative Jack Lancaster, who repeated PPFA's position following the July presentations. Lancaster continued to state that "PPFA believes, as it has stated other times, that this committee is not the appropriate group to decide complex, scientific and technical issues with regard to plastics or with regard to any other materials."

"None of us has the professional expertise to decide issues like alleged permeation and leaching that have been raised against plastic pipe in this committee," Lancaster continued.

Apparently intent upon stressing its position that the members of the A-40 Committee did not have the technical or scientific background to make decisions on plastics materials, the PPFA representatives innundated the voting committee members with more than 50 documents on the plastics issue. They then presented three witnesses of their own to provide technical testimony on various aspects of the plastics issue.

PPFA's witnesses included Steven C. Packham, PhD, of Salt Lake City, a longtime toxicologist who has worked with a number of governmental and scientific agencies, who announced that he is currently conducting a study of all available data on plastics.

Another witness was Joseph Zicherman, PhD, of Innovative Fire Technology, Berkeley, who discussed his work with studies concerning plastic piping materials in fire stations.

The third PPFA witness was Alan Olson, PE, of B.F. Goodrich's chemical group. Olson addressed the charges of permeation in plastic piping.

Put on Hold

Following the presentations, the committee was still faced with the monumental task of forging ahead with the A-40 document's Table 3.1.3 which provides "standards for materials, equipment, joints and connections."

Realizing that the table, which must be passed before any definative progress can be made toward completing the document, contains hundreds of pro-

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Edward Brabec of the United Association ponders the large stack of technical materials presented to A-40 members for their study on the plastic pipe issue.

A-40

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duct listings and their relating standards, the committee members were faced with the possibility of having progress slowed by debates on every plastics product that appears in the table.

In an effort to avoid such delays, Donald Dickerson, representing the American Society of Plumbing Engineers, suggested a motion which stated:

"Serious concerns regarding the suitability of plastic pipe to convey domestic hot and cold water for potable use have been brought before this committee.

"The committee has heard presentations and received materials regarding data which has been compiled and tests performed, planned and underway which deal with and address the 'complicated chemical, medical and public health questions' involved in such issues.

"It has been stated, and we believe, that much more work must be done in order to provide those data necessary to (make) a sound decision on these important matters.

"With all of the above in mind, the A-40 Committee is withholding acceptance of plastic pipe for use in domestic hot and cold water systems for potable use until such time as clear, definitive and impartial data are available which can substantiate its use for this purpose."

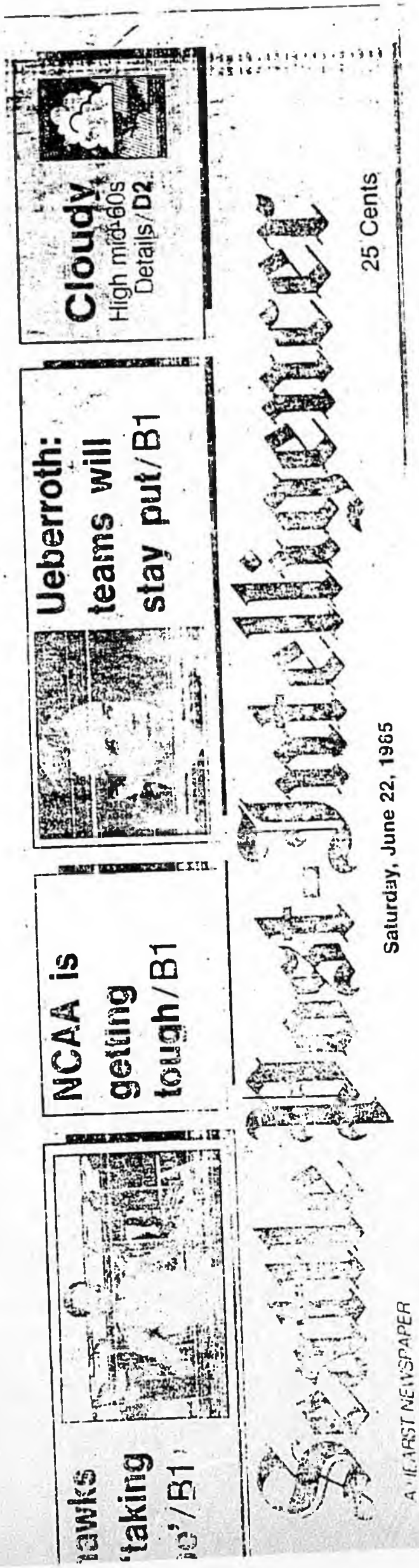
After acceptance of the motion, the committee members agreed that material from an outside source should be submitted and then studied before the committee made any decisions on plastics.

Refuting the charges by PPFA that the A-40 body is not capable of making the proper decisions on plastics, Dickerson noted that the body was qualified to make such determinations provided that it was given sound and impartial study results to evaluate. "I believe we have within this body the ability to analyze pretty technical reports," Dickerson said.

Vincent Doyle, co-chairman, said, "Collectively, we're probably the finest minds in the country in the plumbing industry."

PPFA's Richard Church protested the singling out of plastics materials and asked that all piping materials be studied. His pleas fell upon deaf ears. He continued his contention that the plastics industry would be willing to participate in such studies "if it was done across the board."

The A-40 Committee scheduled its next session for January in Tampa. At that time it will resume work on Table 3.1.3, which is nearly halfway completed with the exception of the plastics materials which have been placed on hold.



City fear: Plastic pipe lets poisons in

By Jane Hadley
P-I Reporter

The first time Alicia Berger, 29, drank a glass of water at the West Seattle house she was renting, she spit it out because it tasted so bad.

Soon, she and her boyfriend, Jeffrey Lewis, 38, found that their water was contaminated by xylene and toluene, two organic solvents commonly found in airplane glue, gasoline, paint solvents, plastics and other products.

As a result of five or six similar cases, the Seattle Water Department may stop using plastic water pipes, an official said.

The city already has tightened its policy within the past year on plastic water pipes, no longer installing them in industrial or commercial areas, said Jim Chapman, supervisor of water quality at the city Water Department.

Organic solvents

But now Water Department executives soon will discuss going even further and discontinuing their use altogether, he said.

The main problem with plastic pipes is that organic solvents can permeate the pipe, polluting the water they carry, said Roy Jones, an environmental scientist for the U.S. Environmental Protection Agency.

Typically, the ground around the pipe becomes saturated with a solvent, such as gas or oil or paint thinner, which passes through the pipe wall to the water.

A second problem is that certain kinds of adhesives used to join some plastic pipes also permeate the pipe and contaminate the water.

Plumbing code

The plumbing code requires that the right combination of adhesive and plastic be used, but Jones says it's hard for plumbing inspectors to know whether an installer has used the correct adhesive.

Chapman said the city began to use plastic pipe in the early 1960s and estimates that maybe half the city water lines serving residences are on plastic pipe today.

In the last two or three years, there have been about six cases in which residents have reported drinking water contaminated with organic solvents such as toluene, xylene and benzene, Chapman said.

Benzene is a known human cancer-causing agent, linked to leukemia. Xylene and toluene are

See TWO, Page A-4

Jeffrey Lewis and Alicia Berger had to leave a rental home because the water there was contaminated with organic solvents. Plastic water pipes may have been part of the problem.

Two leave rented house because city water there is contaminated

From Page A-1

not linked with cancer but can cause kidney, liver and central nervous system damage.

In all but one of the cases, the residents lived in commercial or industrial areas, Chapman said. But in one case, the home was in a residential neighborhood.

Chapman speculated that in that case somebody poured oil or some other petroleum product into the gutter and it leaked through an expansion joint in the concrete to saturate the soil around the water pipe.

In each case, the city replaces the plastic pipe that runs from the street to the property line with copper pipe. It's up to the property owner to replace the pipe from the property line to the house.

Berger and Lewis moved into a rented house last Nov. 28 on a sparsely populated, overgrown ridge in West Seattle just above Marginal Way Southwest. By Jan. 1, they had moved out.

The two were so upset by their experience they didn't even want to talk about it for several months, said Lewis, a teacher of Indian music.

He complained that officials at various agencies were slow to respond initially, never called back when they said they would, were timid and uninformative and tried constantly to limit their responsibility for the problem.

"Everybody was very nice, but nobody would make a commitment," he said. Meanwhile, the couple was driving 40 miles round-trip to shower every day, borrowing water from people across the street and eating elsewhere.

Berger, a graduate student at the University of Washington, and Lewis hired a private lab to test the water, because they felt the Water Department would not do a test.

But the Water Department did do a test. Both tests found the water contaminated and the department decided the plastic service line should be replaced.

When crews dug holes in the ground near the meter box along Marginal Way Southwest to install copper pipe, the soil was clearly contaminated and gave off a strong solvent odor, said Jones of the EPA.

Lewis said, "From 20 feet away you could smell this ground they were digging up. It stunk."

But though the Water Department did replace the pipe, nobody ever did anything about the contaminated soil.

In fact, Water Department crews started to cover over the new pipe with the old contaminated soil until Lewis questioned the wisdom of that move.

"Aren't you just asking for trouble?" Lewis asked. The crews then decided to haul the soil away and put clean dirt down instead.

Jones said he was at the site "strictly as an observer." Jane Lee of the Seattle-King County Department of Public Health said once she saw that the water department replaced the pipe, she considered her responsibility over.

Chapman said the Water Department's responsibility was only to replace the plastic pipe.

He said nobody checked to see whether the contamination is widespread or limited to the meter box area. And nobody checked the source of the contamination.

He said it would be hard to know where it came from, though he added, "Obviously, with the painting contractor next door, that would be suspicious." The meter box is adjacent to the property of Central Painting Inc. on Marginal Way Southwest.

Both Jones and Chapman said any soil contamination would be in the jurisdiction of the state Ecology Department. But the Ecology Department was never called about the case.

And Joan Thomas, director the Ecology Department's regional office in Redmond, said soil contamination isn't that department's responsibility unless either groundwater or surface water is polluted.

She acknowledged that groundwater pollution almost always starts as soil pollution.

When asked whose responsibility the soil contamination would be, Thomas said: "I can't say it was anybody's responsibility. I'm saying I don't know."

Tom Hubbard, a water quality biologist for Metro, said he considers it important to follow up such reports of soil contamination. Hubbard has been meticulous in testing the shores of the Duwamish. "I've the past several years trying to figure out where various river pollutants come from.

Jones of EPA said: "The problem is because of different jurisdictions and the delegation of programs back and forth, that we leave some pretty big gaps in the system. I'm not saying the fault right, but they exist."

Chapman said: "It's an area of mixed responsibilities. It's not entirely clear who does have responsibility. I agree it's not a terrific situation."

One person who has taken a stand on the source of the pollution is the owner of the house Berger and Lewis were renting. Landlady Carol Knox, a Cashmere resident, recently filed suit against Central Painting Inc.

Knox's Seattle lawyer, Linda Larson, said the suit alleges that the paint company released chemicals into the soil which ended up in the water line to Knox's house.

Though the new copper pipe put in by the Water Department reduced the levels of contamination, the drinking water is still contaminated, said Chapman.

Knox probably will have to replace at least some of the pipe on her property. To replace all of it up to her house, a long distance up a steep hill, would cost an estimated $23,000, said Knox's lawyer.

John Hamilton, president of Central Painting, denied responsibility for the problem. He said tests performed by a local environmental laboratory show that the pollution in the house drinking water is unrelated to diesel oil found at the meter box and naptha found at a sump on his

Plumbing Code - UCA

Moen ✓

Sharon Macklin

A M E N D M E N T

In the HOUSE

By Navarre by request

TO: HB 63

Page 1, after line 29, insert new bill sections to read:

"* Sec. 3. AS 18.62.010 is amended to read:

Sec. 18.62.010. CERTIFICATE OF FITNESS REQUIRED. In connection with work performed subject to the standards established in AS 18.60.580 and [AS] 18.60.705, a person may not be employed without a certificate of fitness to perform the work, except that a certificate of fitness may not be required of

(1) employees of an electric utility which does not have within its service area any portion of a city or unified municipality having more than 2,500 population; or

(2) a sewer or water line installer.

* Sec. 4. AS 18.62.010 is amended by adding a new subsection to read:

(b) In (a) of this section, a 'sewer or water line installer' means

(1) a person employed to install a building sewer pipe within the property lines of the building, starting at the first joint from the building to the main sewer trunk or disposal field; or

(2) a person employed to install a water service pipe from a private or public water supply to the first joint in a building above ground, within the property lines of the building."

UTILITY CONTRACTORS OF ALASKA, INC.
Alaska Chapter of the National Utility Contractors Association
P.O. Box 10-1186 • Anchorage, Alaska 99511 • (907) 344-4581

April 4, 1986

Sharon Macklin, Lobbyist
515 5th Ave. #6
Juneau, AK 99801

Re: House Bill Number 63 and Senate Bill Number 238, "An act relating to the plumbing code".

Dear Sharon:

UCA has no objection to adoption of the Uniform Plumbing Code as outlined in the above referenced bills.

However, we very much would like to see an amendment to Alaska Statute 18.62.070, (copy attached). We feel that House Bill No. 63 and Senate Bill No. 238 would be the appropriate vehicle for such an amendment. We propose that the AS 18.62.070 be amended to add the following:

(3) The requirement for Certificate of Fitness does not apply to "sewer/water line installers".

(4) A "sewer/water line installer" means:

a) A worker who installs the building sewer piping within the property lines, starting at the first joint from the building to the main sewer trunk or disposal field; or

b) A worker who installs water service piping to the first joint in a building above ground, within the property lines from either a public or private water supply.

The purpose for this proposed amendment is to avoid the kind of hassels we had last year with Bill Zubeck. The proposed definition for "sewer/water line installers" conforms with industry wide practice.

Please call me concerning this amendment at your convenience.

Sincerely yours,

William A. McKeever

cc: All UCA members

b.6.1

CERTIFICATE OF FITNESS

AS 18.62.070 PERSONS REQUIRED TO OBTAIN CERTIFICATE. A person engaged in one of the following trades shall first obtain from the department the appropriate certificate of fitness in that trade:

(1) electrical wiring subject to the standards established in AS 18.60.580; and

(2) plumbing subject to the uniform plumbing code, as established in AS 18.60.705 (1ch 12 SLA 1974)

AS 18.62.080. PENALTY: A person, either an employer or employee, who violates a provision of this chapter or of a regulaion issued under this chapter is guilty of a misdemeanor and upon conviction, is punishable by a fine of not more than $500.00 (1ch 12 SLA 1974)

M E M O R A N D U M

To: All Members, House State Affairs Committee

From: Roger Poppe, Committee Staff

Date: March 21, 1985

Subject: Testimony of Barry Haight on HB 63

HB 63 Testimony

Taken on the telephone on March 19 from Barry Haight of the Fairbanks Firefighter's Assocation, and the Fairbanks Labor Council (home phone 455-6293; office 456-8354):

Mr. Haight was present at the Monday teleconference in Fairbanks, but was one of those that due to the shortage of time was unable to testify. He is unable to make it for the Thursday teleconference, and so gave this testimony to me over the phone.

Mr. Haight states he is opposed to Hb 63, and in fact would contest almost every single statement that the members of the plastic industry made at the teleconferenced hearing on March 18.

He further states that the firefighters international union has decided to take a strong stand against the use of any kind of plastics in any kind of building or home furnishings, and it happens that plumbing is one of the first of many areas where they are coming out strongly opposed to the use of plastics.

He pointed out that Representative Koponen hit close to the mark when he metnioned that in the film there was a chemical company representative who expressed surprise at the plastic and how his product reacted to heat and didn't burst into flame; and how that really begs the question. PBC gives off 74 different kinds of fumes. Many of them are poisonous, but more importantly, all of them are carcinogens. One in four firefighters get cancer of the lung from enhaling various kinds of smoke fumes !!

There have been numerous detailed and accepted studies done recently which show the hazards of plastics, and the chemical industry in general has:

1) Fought the development and standardization of these tests; and
2) Disputed the results of any tests made, including the best ones done to date from the U. of Pittsburg

Another interesting point to make is that if you put the right heat to galvanized piping, it too will give off toxi fumes, but most iron piping will not.

Mr. Haight said that Mr. Jack Lancaster's talk about temperatures in fires was incorrect, some fires can go up to over 2,000° F. And most common plastics burn twice as hot and fast as organic materials; though there are some that don't burn.

The average home has between 300-500 pounds of plastic furnishings and piping in it, so it is a widespread and serious problem.

Plastic furnishings can be changed in any building over a period of time, but the important thing to note is that plastic piping is there to stay in the building and its walls for the life of the building, so we need to take a hard look at this.

Also, just because the Underwriter's Laboratory puts a seal of approval on something, doesnt mean it is guaranteed as far as it's safety is concerned. This whole issue is so new that UL hasn't investigated its ramifications yet, so a lot of products that give off toxic fumes have the UL seal on it.

To show you how recent this problem is, it was only recently in Fairbanks that the firefighters there discovered that the polycarbonate material that the firemen use for their helmets will melt down around our ears if we get exposed to even a short flash of heat in the medium to upper heat ranges of the average fire!!

And of course, there is the terrible toxic fumes that come from home furnishings like the polyurethene foam in sofas, etc.

Mr. Haight says to make a point in public lectures he gives on this issues, often challenges the plastic industry representatives to have each of them enter a sealed room, his own with 10-15 ounces of burning organic material, and the plastics representative with 10-15 ounces of burning plastic material, and see who lives to come out of the room in 20 minutes to tell about it.

He says that after a regular fire, he has some chest congestion problems for a while from enhaling smoke, but when he has been in a fire where he has inhaled fumes from buring plastic (unavoidable in many house fires these days), he is still blowing black stuff from his nose 3 days later, and he gives off black stuff from the poors of his skin for about 3 days that smells terrible.

His final point is that all firemen, including him, are breathing this stuff every day on the job and are all slowly dying from it.

Shell Chemical Company
A Division of Shell Oil Company

P.O. Box 7637
Stockton, CA 95207

February 15, 1985

Mr. Gordon Evans
Ely, Guess and Rudd
318 4th Street
Juneau, Alaska 99801

Dear Gordon:

Thank you for your note and a copy of HB #63. Fifteen Polybutylene handout packages are on their way to you under separate cover.

The following is a partial list of states and major cities approving the use of Polybutylene, plus a list of model codes.

Model Codes approving Polybutylene
(refer to attachment)

Uniform Plumbing Code -- Most of West including Alaska
Building Officials and Code Officials -- Northeast
Southern Builder's Code -- Mid West and South

States with a state wide code approving Polybutylene

Oregon
Utah
New Mexico
Montana
Massachusetts

States without a Statewide code but with all major areas approving Polybutylene (refer to attached list)

Washington
Hawaii
Arizona
Nevada
Texas
Florida
Virginia
Georgia
North Carolina
South Carolina

It should also be noted that in May of 1984, the Plumbing Advisory Board for Anchorage approved the use of Polybutylene. In short, Polybutylene for plumbing application continues to grow at 10-20% per year. Over 5,000,000 units are now plumbed with Polybutylene across the U.S.

Thanks for keeping me informed.

Very truly yours,

Martin J. O'Brien

Martin J. O'Brien
Regional Sales Manager
Polybutylene Department

MJO/css

enclosure

SPECIFICATIONS, STANDARDS, APPROVALS, ACCEPTANCES, AND LISTINGS FOR POLYBUTYLENE PLUMBING

I. SPECIFICATIONS

ASTM D2581 - Polybutylene Material Specification
ASTM D2662 - Polybutylene Pipe Specification (IPS sizes) water service
ASTM D2666 - Polybutylene Tubing Specification (CTS sizes) water service
ASTM D3000 - Polybutylene Pipe Specification
ASTM D3309-82 - Polybutylene plastic for hot and cold water distribution systems
ANSI 119.1
ANSI 119.2 - Mobile Home and Rec. Vehicle Specifications
AWWA C902-78 - Polybutylene Water Service Sewer Tubing (American Water Works Association)
CSA B137.7 - Polybutylene Cold Water Service (Canadian Standards Association)
CSA B137.8 - Polybutylene Hot and Cold Water Distribution Tubing

II. CODES AND LISTINGS

BOCA (Code) - Building Officials Congress of America (accepts PB per ASTM D3309)
FHA (Listing) - Farmers Home Administration (cold water only)
FHA-HUD (Listing) - Federal Housing Administration (Bulletin 68) UM78 4/25/78 - (hot and cold water approval) UM 76.
ICBO (Code) - International Congress of Building Officials (plumbing approval)
IAPMO (Code) - International Association of Plumbing and Mechanical Officials (Uniform Plumbing Code)
MHA (Listing) - Manufactured Housing Association
NSF (Listing) - National Sanitation Foundation - (Standard #14)
NSPC (Code) - National Standard Plumbing Code (NAPHCC)(Code Table 3.1.3)(plumbing approval) National Association of Plumbing-Heating-Cooling Contractors
PPI (Listing) - Plastic Pipe Institute
RVI (Listing) - Recreational Vehicle Institute
SBCC (Code) - Southern Building Code Congress (accepts PB per ASTM D3309)
UL (Listing) - Underwriters Laboratory
MHMA (Listing) - Mobile Home Manufacturers Association
NFPA - National Fire Protection Association #501.C (mobile home)(plumbing approval)
South Florida Building Code

75/100

CODE APPROVALS IN MAJOR METROPOLITAN AREAS

METROPOLITAN AREA

+ Akron
+ Albuquerque
Allentown-Bethlehem
Anaheim, CA
Atlantic City
+ Austin
Baltimore
+ Birmingham
+ Boise
+ Boston
+ Buffalo
+ Canton, OH
+ Charleston, SC
+ Charlotte, NC
Chicago
+ Cincinnati
+ Cleveland
+ Colorado Springs
+ Columbia, SC
+ Columbus, OH
+ Dallas
+ Dayton
Daytona Beach
+ Delaware
+ Denver
+ Detroit
El Paso
Evansville
+ Fort Lauderdale
Fresno, CA
+ Gainesville, FL
+ Grand Rapids
+ Greenville County, SC
+ Harrisburg, PA
+ Hartford
+ Hawaii
+ Houston
+ Indianapolis
+ Jacksonville, FL
+ Kalamazoo, MI
+ Kansas City
+ Knoxville
+ Lakeland-Winter Haven, FL
Lancaster, PA
+ Las Vegas
Lincoln, NE
+ Little Rock
Los Angeles, Long Beach

+ = Code Approval

Madison, WI
+ Miami
+ Memphis
Milwaukee
+ Minneapolis
+ Nashville
+ Newark, NJ
+ New Brunswick, NJ
+ New Haven, CT
New York
+ New Orleans
+ Norfolk, VA
+ Oklahoma City
+ Orlando, FL
Oxnard, CA
+ Peoria, IL
Philadelphia
+ Phoenix
+ Pittsburgh
+ Portland
+ Raleigh, NC
+ Rhode Island
+ Riverside, CA
+ Roanoke, VA
Rochester, NY
Sacramento, CA
St. Louis
+ Salem, OR
+ Salt Lake City
San Antonio
+ San Diego
San Francisco
+ San Jose
+ Santa Barbara
+ Sarasota, FL
Scranton, PA
+ Seattle
+ Somerset County, NJ
+ Spokane
+ Springfield, IL
+ Tacoma
+ Tampa
+ Toledo
+ Tucson
+ Tulsa
+ Washington, DC
Wausau, WI
+ West Palm Beach
+ Wichita
+ Wilmington, NC

New Uniform Mechanical Code

Chapter 23

436

B-23-82-1[7-82-1]—S.C.C. Approval as Revised

As Submitted:

See *Building Standards, Part IV,* July-August, 1982.

As Revised:

Appendix B. Add a new chapter to read as follows:

Chapter 23
HYDRONIC PANEL HEATING SYSTEMS

General

Sec. 2301. The purpose of this chapter is to establish and provide minimum standards for the protection of public health, welfare and property by regulating and controlling the design and installation of panel heating systems.

Installation

Sec. 2302. (a) Panel sytems shall be designed and installed in accordance with installation standards incorporated in Appendix C, Panel Heating and the requirements of this code.

(b) Piping to be embedded in concrete shall be pressure tested prior to pouring concrete. During pouring, the pipe shall be maintained at the proposed operating pressure.

Piping Materials

Sec. 2303. (a) Panel. Piping for heating panel shall be standard-sight steel pipe, Type L copper tubing, polybutylene or other approved plastic pipe or tubing rated at 100 psi at 180°F. in accordance with design stresses listed in Appendix C, or other materials suitable for this type of design approved by the building official.

(b) Hot Water Supply Lines. Piping for hot water supply lines shall be installed according to requirements in Chapter 21.

Piping Joints

Sec. 2304. Joints of pipe or tubing forming the panel that are embedded in a portion of the building, for example, concrete or plaster, shall be in accordance with the following:

1. Steel pipe welded with electrical arc or oxygen/acetylene method.
2. Copper tubing joined with solder or copper brazing rods having a melting point of 1000°F.
3. Polybutylene pipe and tubing installed in continous lengths or with heat-fused polybutylene fittings.

Joints of other piping in cavities or running exposed shall be joined by the use of normally accepted methods in accordance with manufacturer's recommendations and related sections of this code.

Heat Sources

Sec. 2305. Heat sources for generating hot water for use in hydronic panel radiant heating systems shall include conventional fossil fuel, hot water boilers, electrical resistance heated boilers, air/water or water/water heat pumps or solar heat collector systems. The latter system may include booster or back-up heating units.

Systems shall be protected by pressure-temperature relief valves as outlined in this code.

Testing

Sec. 2306. Approved piping or tubing installed as a portion of a radiant panel system that will be embedded in the walls, floors or ceilings of the building it is designed to heat shall be tested for leaks by the hydrostatic test method by applying not less than 100 psi water pressure or one and one-half times the operating pressure, whichever is the greater.

For metal piping, a pressure gauge shall be connected to the piping, and after the pressure has been raised, the hydrostatic pressure connection shall be discontinued, and the systems under pressure shall remain at the test pressure for a sufficient period of time to determine whether any leaks exist in the system. Leaks shall be indicated by the pressure drop on the gauge. Minimum test period shall be 30 minutes.

For flexible plastic piping, the test pressure shall be applied for a period of 30 minutes. During this time, the system shall be maintained at the test pressure by the periodic addition of makeup water to compensate for the initial stretching of the pipe. The system shall then be visually inspected for tightness.

Tests for tightness of radiant piping systems shall be witnessed by the building official

Also:

Appendix C. Add entries to read as follows:

PANEL HEATING, ASHRAE Systems Volume 1980, Chapter 8

RECOMMENDED HYDROSTATIC STRENGTHS AND DESIGN STRESSES FOR THERMOPLASTIC PIPE AND FITTINGS COMPOUNDS, Technical Report TR-4, August, 1978, Plastic Pipe Institute, 355 Lexington Avenue, New York, New York 10017.

Reason: To provide appropriate recognition and code regulation of panel heating systems.

MECHANICAL CONTRACTORS
of Fairbanks, Inc.

P.O. Box 74796 Fairbanks, Alaska 99707-4796
1881 Marika Road Suite A (907) 456-8347 or 456-6413

January 24, 1985

Mike Navarre

Labor and Commerce Committee

Pouch V

Juneau, Alaska, 99811

Re: House Bill No. 63

Dear Representative Navarre:

The Mechanical Contractors of Fairbanks, Inc. endorses the passage of House Bill No. 63. This Act would have the State of Alaska adopt the:

1985 Uniform Plumbing Code

1985 Uniform Solar Energy Code

1985 Uniform Swimming Pool, Spa and Hot Tub Code

The adoption of these Codes by the State of Alaska will have the effect of making Alaska current on plumbing codes and bring the State closer in line with Codes presently in use here in Fairbanks as well as Anchorage.

Very truly yours,

Eugene R. Rutland

Eugene R. Rutland

Executive Director

MECHANICAL CONTRACTORS
of Fairbanks, Inc.

P.O. Box 74796 Fairbanks, Alaska 99707-4796
1881 Marika Road Suite A (907) 456-8347 or 456-6413

February 22, 1985

Representative Mike Navarre
Labor and Commerce Committee
Pouch V
Juneau, Alaska, 99811
Subject: House Bill 63

Dear Representative Navarre:

I understand that consideration of this bill in committee is being delayed because printed copies of the 1985 Codes are not yet available. These are supposed to be available before March 1, 1985.

We ask your cooperation in expediting action on HB 63 when these codes are available. We feel strongly that this legislation should be adopted this session.

As you know the State of Alaska presently recognizes the 1979 Codes as their standard. Both Anchorage and Fairbanks recognize the 1982 Codes. The differences in these codes cause many problems at the local level.

Adoption of the 1985 Codes will put the State of Alaska in a current stance and enable Anchorage and Fairbanks, by adopting the 1985 Codes, to be uniform with the State.

To those of us operating in the construction business at the local level this would simplify a needlessly complicated situation.

Very truly yours,

Eugene R. Rutland

Eugene R. Rutland
Executive Director

Exception: When in the opinion of the Administrative Authority no hazard to the potable water supply system is evident, special approval may be obtained to omit the vacuum breakers.

(l) **Aspirators** shall not be directly connected to a sewer connected waste pipe, but may be connected to the inlet side of a trap and shall be equipped with an approved vacuum breaker installed at least six (6) inches (152.4 mm) above the aspirator unit. The discharge pipe from the aspirator unit shall be designed for free flow and shall discharge through an approved airgap.

(m) **Vacuum breakers for hot water over 160°F (71°C)** shall be of approved type designed to operate at temperatures of one hundred sixty (160) degrees F (71°C) or more without rendering any portion of the device inoperative.

(n) **Steam and steam boiler connections** shall be protected by an approved backflow prevention device as set forth in subsection (o) of this section

(o) **Non-potable Water Piping.** In cases where it is impractical to correct individual cross-connections on the domestic water line, the line supplying such outlets shall be considered a non-potable water line. No drinking or domestic water outlets shall be connected to the non-potable water line. Backflow or back-siphonage from the non-potable water line into the domestic water line shall be prevented by the installation of a gravity tank or by a tank having a pump for desired non-potable water. The domestic water inlets to the non-potable water tank shall have an approved airgap as required elsewhere in this chapter. Where it is impractical to install tanks, as set forth above, an approved pressure type backflow or back-siphonage prevention device shall be installed as follows:

Where reverse flow due only to gravity or a vacuum within the line can occur, an approved pressure type vacuum breaker unit or other approved backflow prevention device shall be installed in the supply line.

Each pressure type vacuum breaker unit shall be installed at a height of at least twelve (12) inches (.3 m) above the highest tank, equipment or point of usage of the non-potable water. Other approved backflow prevention devices shall be installed in a manner satisfactory to the Administrative Authority, but in no case less than twelve (12) inches (.3 m) above the surrounding ground or floor.

Where backflow can occur due to steam boilers, pumps, etc., creating a higher pressure in the non-potable water line, an approved backflow prevention device shall be installed in the supply line. Such backflow prevention device shall be installed at least twelve (12) inches (.3 m) above the surrounding ground or floor.

Whenever possible, all portions of the non-potable water line shall be exposed and all exposed portions shall be properly identified in a manner satisfactory to the Administrative Authority. Each outlet on the non-potable water line which may be used for drinking or domestic purposes shall be posted: DANGER — UNSAFE WATER.

Residential Building

(p) **Vacuum breakers** shall be located outside any enclosure or hooded area containing fumes that are toxic or poisonous.

Section 1004—Materials

(a) Water pipe and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, galvanized steel, lead or other approved materials. Asbestos-cement, CPVC, PB, PE, or PVC water pipe manufactured to recognized standards may be used for cold water distribution systems outside a building. CPVC and PB water pipe and tubing may be used for hot and cold water distribution systems within a building. All materials used in the water supply system, except valves and similar devices shall be of a like material, except where otherwise approved by the Administrative Authority.

(b) Cast iron fittings up to and including two (2) inches (50.8 mm) in size, when used in connection with potable water piping shall be galvanized.

(c) All malleable iron water fittings shall be galvanized.

(d) Piping and tubing which has previously been used for any purpose other than for potable water systems shall not be used.

(e) Approved plastic materials may be used in water service piping, provided that where metal water service piping is used for electrical grounding purposes, replacement piping therefore shall be of like materials.

Exception: Where a grounding system, acceptable to the Administrative Authority is installed, inspected and approved, metallic pipe may be replaced with non-metallic pipe.

Section 1005—Valves

(a) Valves up to and including two (2) inches (50.8 mm) in size shall be brass or other approved material. Sizes over two (2) inches (50.8 mm) may have cast iron or brass bodies. Each gate valve shall be a fullway type with working parts of non-corrosive material.

(b) A fullway valve controlling all outlets shall be installed on the discharge side of each water meter and on each unmetered water supply. Water piping supplying more than one building on any one premises shall be equipped with a separate fullway valve to each building, so arranged that the water supply can be turned on or off to any individual or separate building; provided however, that supply piping to a single family residence and building accessory thereto, may be controlled on one valve. Such shutoff valves shall be accessible at all times. A fullway valve shall be installed on the discharge piping from water supply tanks at or near the tank. A fullway valve shall be installed on the cold water supply pipe to each water heater at or near the water heater. A fullway valve shall be installed for each apartment or dwelling of more than one (1) family. In lieu of the main supply shutoff in each apartment, individual shutoff valves may be provided at each fixture.

(c) All valves used to control two (2) or more openings shall be fullway gate valves or other approved valves designed and approved for the service intended.

14-0889
Moen
3/13/85

IN THE SENATE

SENATE BILL NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the plumbing code."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 18.60.705 is amended to read:

Sec. 18.60.705. PLUMBING CODE. The following publications are adopted [DEPARTMENT OF LABOR SHALL ADOPT,] as the official minimum plumbing code for the state,

(1) the Uniform Plumbing Code, 1985 [1979] edition, adopted at the 54th [49TH] Annual Conference, September 1983 [,1978], International Association of Plumbing and Mechanical Officials, chs. 1 - 13 and appendices, Useful Tables, and Installation Standards, but excluding Part I, Administration, pages 1a - 6a, and subject to AS 18.60.710 - 18.60.740 and the changes specified in (b) of this section;

(2) the Uniform Solar Energy Code, 1985 edition, adopted at the 54th Annual Conference, September, 1983, International Association of Plumbing and Mechanical Officials; and

(3) the Uniform Swimming Pool, Spa and Hot Tub Code, 1985 edition, adopted at the 54th Annual Conference, September, 1983, International Association of Plumbing and Mechanical Officials.

* Sec. 2. AS 18.60.705 is amended by adding a new subsection to read:

(b) The 1985 edition of the Uniform Plumbing Code adopted under (a)(1) of this section is adopted with the following changes:

(1) On Page 37, Chapter 4, Drainage Systems, 401, Materials, Subsection (a), Sub-subsection (1), all material is excluded and the following language is adopted:

"(1) Galvanized, wrought iron, galvanized steel, ABS, or PVC pipe may not be used underground and must be kept at least six (6) inches above ground."

(2) On Page 37, Chapter 4, Drainage Systems, Section 401, Materials, Subsection (a), Sub-subsection (2), all material is excluded and the following language is adopted:

"(2) ABS or PVC installations are limited to type VN residential construction of not more than 35 feet in stack height. ABS and PVC pipe may not be less than schedule 40 (IPS) standard steel pipe thickness."

(3) On Page 45, Chapter 5, Vents and Venting, Section 503, Materials, Subsection (a), Sub-subsection (2), all material is excluded and the following language is adopted:

"(2) ABS or PVC installations are limited to type VN residential construction of not more than 35 feet in stack height. ABS and PVC pipe may not be less than schedule 40 (IPS) standard steel pipe thickness."

(4) On Page 45, Chapter 5, Vents and Venting, Section 503, Materials, Subsection (b), all material is excluded and the following language is adopted:

"(b) A person shall use cast iron, galvanized malleable iron or galvanized steel, lead, copper, brass, ABS, PVC, or other approved materials for vent fittings, and galvanized malleable iron, galvanized steel. ABS or PVC may not be used underground and must be kept at least six (6) inches above ground."

(5) On Page 75, Chapter 10, Water Distribution, Section 1004, Materials, Subsection (a), the second and third sentences are not adopted.

(6) On Page 75, Chapter 10, Water Distribution, Section (e) is not adopted.

* Sec. 3. AS 18.60.740(1) is amended to read:

(1) "code" means the 1985 editions of the Uniform Plumbing Code, the Uniform Solar Energy Code, and the Uniform Swimming Pool, Spa and Hot Tub Code [1979 EDITION], adopted at the 54th [49th] Annual Conference, September 1983 [1978], International Association of Plumbing and Mechanical Officials, as modified and adopted in AS 18.60.705;

To: Mike
From: Roger March 18, 1985

HB 63: Well, this one should be fun. It's a statewide teleconference; and lots of interest on it. Also, Dwight Perkins of the Plumbers and Pipefitters union will show a video tape of about 10 minutes in length for the hearing as part of his presentation.

They went directly to Don Bennett in the Senate and he in turn leaned on Zharoff to accept a Senate Labor and Commerce Committee revised bill that incorporates the amendments they want (both of these are in your file). I gather that with Eliason on the SEnate L & C they might run into opposition on any bill that keeps the "plastic" piping in the Code. Though I also understand that the states seem to be starting to accept codes with the plastic piping in them, and Eliason's tactic in the past has been to stall to "wait and see what the other states do."

Also, there is a good chance we will be getting testimony from the Chemical Industry people on this issue, with possible visitors from Tennessee, Texas, and California, if Gordon Evans, their lobbyist, is correct.

Lots of stuff to wade through in the files this time, huh? This bill is a hot priority item with Grussendorf, so if we don't pass it out today, we might want to bring it back up again later in the week to get it out of committee as soon as possible; we are the only Committee of referral. At the rate the Senate is moving on it though, they could get their version out quicker than we do, unless we hurry. Normally, the courtesy is that the two houses will deal with whichever bill gets to the other house first.

cified test conditions and not necessarily to explain why they are more toxic (1-11).

A large selection of test conditions can be used. The toxicity screening program used by the Product Safety Corporation employs 16 different sets of test conditions: the rising temperature program at 40°C/min from 200 to 800°C and seven fixed temperatures at 100°C intervals (200, 300, 400, 500, 600, 700, and 800°C), both without forced air flow and with nominal 1 L/min air flow. This program has been used with polyethylene (12), polypropylene (13), polystyrene (14), polycarbonate (15), polyoxymethylene (16), polyethersulfone (17), polyetherimide (18), polytetrafluoroethylene (19) and Douglas fir (20).

Experiments at a succession of fixed temperatures have research value in that they determine the material responses at particular temperatures. The rising temperature method offers the potential for more cost-effective screening by attempting to integrate the effect of successive temperatures, and provides the ability to compare test results with those obtained for over 300 materials previously evaluated under the same rising-temperature conditions.

This report presents the toxicity test data obtained for two samples of polybutylene pipe and one sample of Douglas fir wood, evaluated under the routine screening test conditions of rising temperature at 40°C/min from 200 to 800°C without forced air flow. These test conditions have been described as Procedure B of the NASA-USF toxicity screening test method, and are included in the BART specifications for seat cushioning materials (21).

MATERIALS

The materials evaluated were two samples of polybutylene pipe received from Shell Oil Company, Houston, Texas. The samples were identified as follows:

DURAFLEX Polybutylene 4127 (grey)

DURAFLEX Polybutylene 4121 (black)

For purposes of comparison, a sample of Douglas fir wood was obtained from Underwriters Laboratories, Santa Clara, California. This material met the requirements of UL Standard 127 for testing of fireplace inserts.

DATA AND DISCUSSION

The times to various animal responses are presented in Table 1. Reproducibility was generally good.

Average times to death with the polybutylene pipe samples ranged from 21.5 to 24.4 minutes, compared to 16.8 to 18.6 minutes for Douglas fir wood. On the basis of time to death, the polybutylene pipe samples appeared to be significantly less toxic than Douglas fir under these particular test conditions.

CONCLUSIONS

The polybutylene pipe samples evaluated appeared to exhibit significantly less toxicity than Douglas fir under these particular test conditions.

REFERENCES

1. C.J. Hilado, "Screening Materials for Relative Toxicity in Fire Situations," *Modern Plastics*, Vol. 54, No. 7, 64-66, 68 (July 1977)
2. C.J. Hilado, H.J. Cumming, and C.J. Casey, "Relative Toxicity of Materials in Fire Situations Determined in New Testing," *Western Fire Journal*, Vol. 30, No. 2, 32-33 (February 1978)
3. C.J. Hilado, H.J. Cumming, and C.J. Casey, "Relative Toxicity of Materials in Fire Situations," *Modern Plastics*, Vol. 55, No. 4, 92, 94, 96 (April 1978).
4. C.J. Hilado, "Toxicity of Pyrolysis Gases from Materials," *SAMPE Quarterly*, Vol. 9, No. 3, 14-15 (April 1978)
5. C.J. Hilado and H.J. Cumming, "Relative Toxicity of Pyrolysis Gases from Materials: Effects of Chemical Composition and Test Conditions," *Fire and Materials*, Vol. 2, No. 2, 68-79 (April 1978).
6. C.J. Hilado, H.J. Cumming, and C.J. Casey, "Toxicity of Pyrolysis Gases from Natural and Synthetic Materials," *Fire Technology*, Vol. 14, No. 2, 136-146 (May 1978).
7. C.J. Hilado, H.J. Cumming, and A.M. Machado, "Relative Toxicity of Pyrolysis Gases from Materials: Specific Toxicants and Special Studies," *Fire and Materials*, Vol. 2, No. 4, 141-153 (October 1978).
8. C.J. Hilado and D.P. Brauer, "How Test Conditions and Criteria Effects Impact on Pyrolysis-Gas Toxicity Findings," *Modern Plastics*, Vol. 56, No. 3, 62-64 (March 1979).
9. C.J. Hilado, H.J. Cumming, and J.E. Schneider, "Relative Toxicity of Pyrolysis Gases from Materials: Effects of Temperature, Air Flow, and Criteria," *Fire and Materials*, Vol. 3, No. 4, 183-187 (December 1979).
10. C.J. Hilado and P.A. Huttlinger, "Concentration-Time Relationships in Off-Gas Toxicity," *Fire Technology*, Vol. 16, No. 3, 192-203 (August 1980).
11. C.J. Hilado and P.A. Huttlinger, "Rising vs. Fixed Pyrolysis Temperature in Evaluating Toxicity," *Modern Plastics*, Vol. 57, No. 9, 89, 94 (September 1980).
12. C.J. Hilado and D.P. Brauer, "Polyethylene: Effect of Pyrolysis Temperature and Air Flow on Toxicity of Pyrolysis Gases," *Journal of Combustion Toxicology*, Vol. 6, No. 1, 63-68 (February 1979).
13. C.J. Hilado, J.E. Schneider, and D.P. Brauer, "Toxicity of Pyrolysis Gases from Polypropylene," *Journal of Combustion Toxicology*, Vol. 6, No. 2, 109-116 (May 1979).
14. C.J. Hilado, E.M. Olcomendy, and D.P. Brauer, "Effect of Pyrolysis Temperature and Air Flow on Toxicity of Gases from a Poly styrene Polymer," *Journal of Combustion Toxicology*, Vol. 6, No. 1, 13-19 (February 1979).
15. C.J. Hilado and D.P. Brauer, "Bisphenol A Polycarbonate: Effect of Pyrolysis Temperature and Air Flow on Toxicity of Pyrolysis Gases," *Journal of Combustion Toxicology*, Vol. 6, No. 2, 81-85 (May 1979).
16. C.J. Hilado, J.E. Schneider, and D.P. Brauer, "Toxicity of Pyrolysis Gases from Polyoxymethylene," *Journal of Combustion Toxicology*, Vol. 6, No. 1, 30-36 (February 1979).
17. C.J. Hilado and E.M. Olcomendy, "Toxicity of Pyrolysis Gases from Polyether Sulfone," *Journal of Combustion Toxicology*, Vol. 6, No. 2, 117-123 (May 1979).
18. D.E. Floryan and G.L. Nelson, "Fire Performance Studies on Polyetherimide," *Journal of Fire and Flammability*, Vol. 11, No. 4, 284-301 October 1980).
19. C.J. Hilado and J.E. Schneider, "Toxicity of Pyrolysis Gases from Polytetrafluoroethylene," *Journal of Combustion Toxicology*, Vol. 6, No. 2, 91-98 (May 1979).
20. C.J. Hilado, E.M. Olcomendy, and D.P. Brauer, "Effect of Pyrolysis Temperature and Air Flow on Toxicity of Gases from Douglas Fir in USF Toxicity Test," *Journal of Combustion Toxicology*, Vol. 6, No. 1, 48-57 (February 1979).
21. C.E. Jenkins and H.S. Procter, "BART Seat Specification Development," *Proceedings of the California Conference on Fire Toxicity*, Vol. 2, 80-109 (1980). ★

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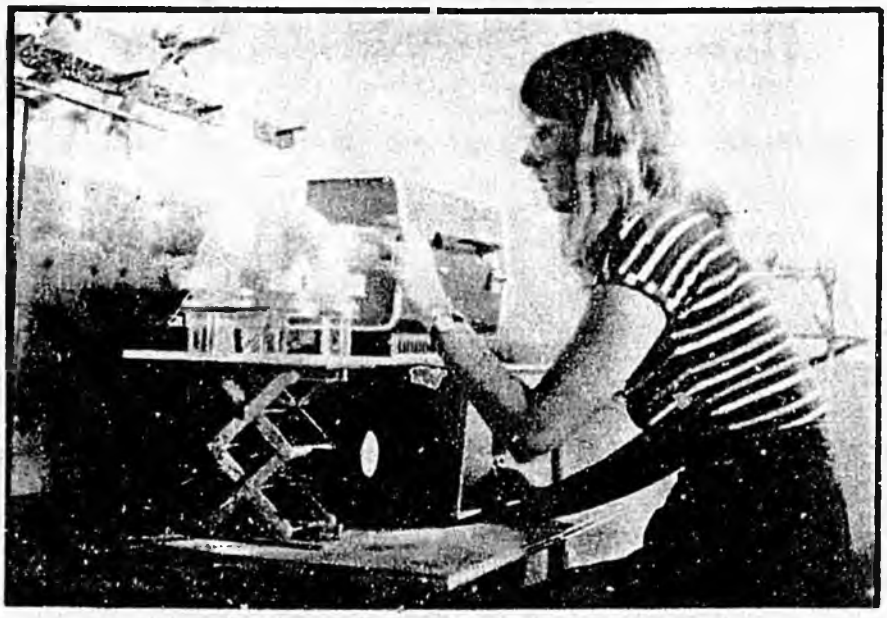

Toxicity of Gases From Polybutylene And Douglas Fir

By CARLOS J. HILADO & PATRICIA A. HUTTINGER
Product Safety Corporation

EXECUTIVE SUMMARY

Widespread use of plastics has added both convenience and hazards to modern living. Below is a study of the dangers of toxic gases produced by the combustion of plastic pipes . . .

Because of their versatility and performance advantages, plastics have found their way into numerous applications. This widespread use has inevitably brought them into many applications in which safety upon exposure to heat or fire is an important consideration, and their response characteristics need to be known.

One aspect of safety which has caused considerable concern is the possible generation of toxic gases upon exposure to heat or fire. It is impossible to simulate all possible conditions under which such exposures could occur, but manufacturers conscious of their responsibilities to the consumer and to the general public nonetheless make an effort to evaluate their products by means of available technology to obtain some degree of assurance that there would be no unreasonable risk. Screening of materials is needed, because investigation of every possible formulation for every possible exposure is not feasible.

A laboratory toxicity screening test method has been developed by the authors to serve as a means for comparing materials on the basis of relative toxicity under specified test conditions, using apparatus, facilities and personnel which would be within the capabilities of most laboratories. With the purpose of screening in mind, this method is intended to indicate which materials are more toxic under spe-

Table 1. Toxicity Test Data on Polybutylene Pipe and Douglas Fir (PSC Condition 1 or NASA-USF Procedure B)

material	test no.	time to staggering min	time to convulsions min	time to collapse min	time to death min
DURAFLEX 4127	1	16.32 ± 0.88	17.75 ± 1.02	20.22 ± 2.44	24.35 ± 3.20
	2	16.53 ± 0.27	17.54 ± 1.34	18.70 ± 1.73	22.39 ± 2.77
	mean	16.42 ± 0.15	17.64 ± 0.15	19.46 ± 1.07	23.37 ± 1.39
DURAFLEX 4121	1	16.45 ± 0.45	16.88 ± 0.73	18.47 ± 0.14	21.49 ± 0.95
	2	16.33 ± 1.08	17.77 ± 0.96	18.45 ± 0.88	21.93 ± 0.54
	mean	16.39 ± 0.08	17.32 ± 0.63	18.46 ± 0.01	21.71 ± 0.31
Douglas fir	1	10.92 ± 2.18	14.98 ± 0.58	16.09 ± 1.05	18.57 ± 0.79
	2	12.29 ± 0.69	14.04 ± 0.52	14.41 ± 0.42	16.77 ± 0.40
	mean	11.60 ± 0.97	14.51 ± 0.66	15.25 ± 1.19	17.67 ± 1.27

MIDNIGHT SUN CONTRACTORS

General Contractors - Homebuilders

SRA 6614, Wasilla, Alaska 99687
(907) 745-2875

March 20, 1985

Representative Mike Navarre, Chair
House Labor and Commerce
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Committee Members: Representative Mike Navarre, Chair
Representative Mike Davis, Vice-Chair
Representative Red Boucher
Representative Niilo Koponen
Representative Drue Pearce
Representative Virginia Collins
Representative Katie Hurley

As a General Contractor in the Mat-Su Borough since 1982, I have personally built thirty three single or multi family structures. In talking with plumbing contractors of the Mat-Su Borough, I find they all agree that there is no practical grounds for restricting the use of plastic pipe for any type of residential construction.

All of my construction since 1973, a total of about one hundred and fifty single and multi family buildings, and some commerical buildings, have ABS plastic pipe for drainage and vent systems. There has been absolutely no problems or complaints about the plumbing in any of these buildings from owners or occupants.

The stand special interest groups in Alaska are taking against the use of plastic plumbing pipes and fittings is without merit.

The homebuyers and real estate investors of Alaska are paying a minimum of $300 for a small single family home, up to $3,000 on a four plex, unnecessary additional costs for just one item, plumbing drain and vent piping due to an obsolete plumbing code. Add 12% interest for 30 years to this unnecessary extra cost, and you have a substantial unnecessary financial burden for just this one item.

In the best interest of all of the people of Alaska, the 1985 Uniform Plumbing Code should be adopted with no amendments or exceptions to any sections regarding materials. The 1985 Uniform Plumbing Code allows for "state of the art" materials and plumbing practices that will bring the plumbing industry of Alaska up to date.

MIDNIGHT SUN CONTRACTORS
General Contractors - Homebuilders

SRA 6614, Wasilla, Alaska 99687
(907) 745-2875

I urge the legislators of the State of Alaska to act for the people and adopt HB 63.....or the 1985 Uniform Plumbing Code with no changes regarding approved materials and practices.

Sincerely,

Lester Hawkins

Lester Hawkins

LH:jf

HB 63 File Contents

March 18, 1985 Monday

1) Bill Summary -- Legislative Reporting Service

2) Overview -- Roger Poppe, Committee Staff

3) Alaska Statutes 18.60.705-740.

4) Letter of Support --Governor Sheffield

5) Fiscal Note -- Dept. of Labor 3/15/85

6) Position Statement & Proposed Amendments -- Dept. of Labor

7) Anchorage Municipality Local Amendments to the Uniform Plumbing Code, 1982 edition -- Chapter 23.25 (currently in effect)

8) Proposed Amendments to HB 63 by the Plumbers and Pipefitters Unions

9) Draft of proposed 1985 Senate Bill relating to the plumbing code dated 3/13/85

10) Additional Materials Supplied by the Plumbers and Pipefitters Unions

   a) Letter from Marie Sibuya Shell to Thomas Higham -- Dec. 20, 84
   b) Article from NEWS on "Polyvinyl Chloride Fumes Cause Long-Term Health Problems for Fire Survivors, Study Shows"
   c) Legislative Activities of Interest regarding Electrical Non-metallic Tubing and Other Plastic Construction Materials
   d) Summary of Lawsuit of California Department of Consumer Affairs et alli vs. International Association of Plumbing and Mechanical Officials (beige covered booklet).
   e) Investigation of Plastic Pipe Permeation by Organic Chemicals November, 1984 (blue-covered booklet)

11) Additional Materials from representatives and manufacturers of Polybutylene pipe

   a) Letter of May 16, 1984 from A. H. Schroer to Senate Labor and Commerce Committee regarding testimony on HB 508 last session.
   b) White paper--Testimonials on cold weather durability of polybutylene pipe (starts out with P.P.P. saved thousands of homes...etc.)
   c) Public Health News broadside of December 16, 1983 from Virginia Dept. of Health

d) Tests of Polybutylene Pipe at PT Relief Valve Conditions
e) Report to Congress by the Comptroller General--Feb. 18, 82
f) News Release -- Cold Bay -- February 18, 82.
g) Shell Chemical Company letter of May 27, 1983
h) Legislative Proposal Analysis on adoption of 1982 Uniform Plumbing Code
i) Polybutylene Pipe (grey brochure from Shell Chemical)

12) Letters of January 24, 1985 and February 22, 1985 from Eugene Rutland of the Mechanical Contractors of Fairbanks, Inc. to Chairman Navarre

13) List of states and major cities approving the use of Polybutylene in a Feb. 15, 85 letter from Martin O. Brien of Shell Chemical Co. to Gordon Evans of Juneau

14) Copies of the following materials are available for inspection on the Committee Table:

a) Uniform Plumbing Code -- 1985 Edition

b) Uniform Solar Energy Code -- 1985 edition

c) Uniform Swimming Pool, Spa, and Hot Tub Code -- 1985 edition

d) Advanced Drainage Systems Inc. Booklet (beige)

e) Effects of Heavy Loads on Buried Corrugated Polyethylene Pipe

f) Miscellaneous flyers from Polyethylene Pipe Manufacturers

March 21, 1985 Thursday additions

15) Health Hazards Associated With Plastic Pipe -- (gold covered booklet) -- Supplied by Plumber's union representatives

16) "Plastic Critics off-base," from January 15, 1985 issue of Contractor magazine -- Supplied by Plastics Industry representatives

JANUARY 15, 1985

Contractor Magazine

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TWICE-MONTHLY Essential News of Mechanical Contracting: AIR CONDITIONING • HEATING • PLUMBING

Plastics critics off-base

Burning toxicity, leakiness panned

BY HAROLD V. SEMLING JR.
Special to CONTRACTOR

WASHINGTON — Much-maligned plastic pipe was given favorable reviews in two recently released reports concerning fire hazards and water-service performance.

The American Council on Science and Health, an independent scientific organization, said burning PVC is no more toxic than any other material. In addition, a study by the engineering firm of Simpson, Gumpertz & Heger found that the majority of complaints about polyolefin water-service pipe can be traced to a single batch made by one manufacturer in 1974.

Not extraordinary hazard

In the fire safety study, ACSH said the public has been misled about the alleged dangers of PVC during a fire.

The scientific evidence "fails to show that PVC is an extraordinary fire hazard in fire situations," said ACSH Research Associate Sharon Campbell.

"The evidence that allegedly shows that smoke from burning PVC is extremely toxic is very weak," Campbell said. "What information there is in the scientific literature indicates that while PVC smoke is toxic, it is no more so than smoke from other burning materials.

"All types of smoke are dangerous, and smoke is an important cause of deaths in fires," she said. "However, there doesn't appear to be anything special about PVC smoke, and there is no evidence which would indicate that in a fire situation, PVC is a significant factor in the death rate."

Good international record

In response to suggestions that restricting use of plastics would decrease the fire death rate, Campbell noted, "International comparisons indicate that this is unlikely. Vinyl and other plastics account for more than half of the electrical pipe and tubing used in Sweden, as compared with less than 10% here, yet the Swedish fire death rate is far lower than ours.

"Similarly, in Japan, where more plastics are used in buildings and where fire hazards are generally greater than in the U.S., the seeming paradox is that the fire death rate is much lower than in this country," she said.

"Part of the excessive panic over PVC appears to be the result of a deliberate scare campaign on the part of a manufacturer of competing metal products," said ACSH Executive Director Dr. Elizabeth M. Whelan. "Unfortunately, this campaign has helped to spread a lot of unfortunate misconceptions about the hazards of PVC."

Water service study

The study of polyolefin water-service pipe was commissioned by The Society of the Plastics Industry in mid-1982 in response to growing complaints about the pipe in the late 1970s.

Polyolefin, which includes polyethylene and polybutylene, has been in use for water service since the late 1950s. When complaints about leaking pipes surfaced, the Plastic Pipe Institute of the Society contracted with Simpson, Gumpertz & Heger to investigate the complaints.

Plastic pipe defended in two reports

Contractor, January 15, 1985

The study was based on a survey of members of the American Water Works Ass'n, a utility group.

The engineering firm found that 75% of the complaints resulted from one bad batch of pipe.

Eighty percent of the users of polyclefin pipe were satisfied with its performance, according to the study, with 98% of their installations satisfactory.

Of the 20% that were unhappy with the pipe's performance, 80% of their installations were satisfactory.

Brittle batch of pipe

"Pipe made by a single manufacturer, circa 1974, that embrittled and started to fail by the end of the decade, appears to account for about 75% of the users that were dissatisfied with [polyethylene]," the engineering report said. "Laboratory tests indicate that the embrittlement was the result of oxidation due to some deficiency in stabilizer levels. Aside from the brittle [polyethylene] pipe, low levels of stabilizer were also found in [polyethylene] pipe made from one commercial class of material."

Other problems with the pipe were related to installation, according to the report.

"Kinks in [polybutylene] service lines, formed during installation and later resulting in rupture of the pipe wall, were a significant factor in the failure of [polybutylene] installations," the report said.

Leaking fittings

Another problem was caused by leaks in fittings, particularly failures at the tips of insert stiffeners used in compression fittings; corrosion of hose clamp screws; and cracks within plastic fittings (not polyethylene or polybutylene).

Also, "pinhole failures of pipe indented by stoney soils such as tightly bound cemented caliche have been responsible for a significant number of failures."

The report concludes, "Overall, and despite the significant problems experienced at some agencies, the track record of polyolefin pipe products in the water service application has been extensive and successful. The experience of satisfied users demonstrates that these products are viable in the application."

DELIVER TO: JPOM

014

file
HB63

ORIGINAL
SENT: 01/17/86 TIME: 12:45
FROM: ANNIE NEUBAUER
SUBJECT: POM/FAIRBANKS
PRINT DATE: 01/17/86 TIME: 12:45

TO: HOUSE LABOR & COMMERCE COMMITTEE

REPS: NAVARRE, DAVIS, BOUCHER, KOPONEN, PEARCE, COLLINS, HANLEY

ALSO: REPS FRANK, M.W. MILLER, RINGSTAD
SENS FAHRENKAMP, COGHILL, BENNETT

FROM: [redacted] P.O.BOX 56317, NORTH POLE 99705

PHONE 488-1586

RE: HB63 PLUMBING CODE

I AM THE PASTOR OF TRUE VICTORY BAPTIST MISSION HERE IN NORTH POLE AND PRESENTLY WE HAVE BEEN SEEKING APPROVAL OF THE PLASTIC PIPE, PBS, VENTILATION PIPING. THIS WOULD MAINTAIN THE PRESENTLY INSTALLED PLASTIC VENTILATION PIPING. WE HAVE HAD A WAIVER REQUEST INTO THE STATE PLUMBING INSPECTOR WHICH WAS APPROVED FOR SIX MONTHS, BUT SINCE SUCH TIME WE HAVE BEEN DIRECTED TO REMOVE IT. FURTHERMORE THE BOROUGH INITIALLY STATED WE WERE IN A NON RESTRICTED AREA WHICH IS THE REASON WE WENT WITH THE PLASTIC PIPE. HOWEVER, THE BOROUGH AND THE STATE REGULATIONS HAVE NOT COINCIDED. IN OUR BEST INTEREST PLEASE PASS HB63.

FEBRUARY 7, 1983 $3.00

FORTUNE

APPLE'S BID TO STAY IN THE BIG TIME

Apple Computer's Steven Jobs

TOIL AND TROUBLE AT CONTINENTAL ILLINOIS

THE EXPLOSION OF INTERNATIONAL BARTER

THE DUBIOUS WAR ON PLASTIC PIPE

THE DUBIOUS WAR

BUILDING MATERIALS/STEVEN FLAX

■ Fire horrifies. Leaping flames and billowing smoke, victims carried choking on stretchers or lifeless in body bags—the sights arouse a deep-seated urge to control the menace. Major disasters like the hotel fire below can also be a marketing windfall for companies seeking to fight competing products by playing on the fear of fire.

This is the story of a company that has done so with an extraordinary outpouring of half-truths and misinformation. Its target: plastic pipe. Allied Tube & Conduit Corp. of Harvey, Illinois, is the largest U.S. producer of rigid metal pipe used to contain and protect electrical wiring. Plastic conduit, mainly made of polyvinyl chloride (PVC), has made heavy inroads, partly because it's easier to install. According to Predicasts, a market-research firm, its share of the conduit market widened from an estimated 9% in the late 1960s to 54% in 1980. Meanwhile, steel conduit's share fell, from nearly 50% to 32% of a business worth hundreds of millions a year. But Allied, a privately owned company with 1982 sales of about $300 million, has not been content to fight back with conventional salesmanship.

Since the late Seventies, Allied has run a campaign to publicize the supposedly unusual fire hazards of PVC, pitching it at consumers, contractors, legislators, and officials who write building codes. To give its effort the appearance of impartiality, Allied has set up a not-for-profit organization, the Foundation for Fire Safety. Supposedly the foundation, with offices in Rosslyn, Virginia, is dedicated to disseminating impartial scientific information. But with about 75% of its $750,000 budget coming from Allied, it has often served as a vehicle for anti-PVC propaganda. The foundation's officials frequently travel the country citing plastics as contributing to some of the deaths in prominent fires, even though there's no proof that their combustion products were responsible.

Allied has also lobbied heavily against the inclusion in the National Electrical Code, which serves as a guide for local codes, of a new, flexible type of PVC conduit. The new conduit—that's a sample above—is even cheaper to install. Allied's efforts have prompted the Carlon division of New York-based Indian Head Inc.—in turn controlled by Curaçao-based Thyssen-Bornemisza N.V.—to sue it for restraint of trade. The Society of the Plastics Industry, which has long retained the public relations firm of Hill & Knowlton, has also redoubled its efforts to present its side of the controversy. Carlon, with 1982 sales of $150 million, introduced the flexible conduit in 1980; it's also the leading maker of rigid PVC conduit. Other makers include Certain-Teed Corp. of Valley Forge, Pennsylvania, and Robintech Inc. of Fort Worth, both publicly owned. Leading suppliers of PVC are B.F. Goodrich, Tenneco, and Du Pont.

ALLIED SAYS IT HAS "a moral and legal responsibility" to oppose products that constitute "an inherent, immediate, and substantial danger to the public." Asserts Theodore H. Krengel, 57, Allied's founder, president, and controlling shareholder: "The plastics produced now kill." Allied's awareness that plastics are hazardous goes back to 1972, he says. "We began to hear more and more about the problems of toxicity, flammability, and smoke of plastics." Buildings, warns Krengel, are becoming "plastic bombs—they go up in a matter of seconds." Allied's general counsel, John Lison, adds ominously: "Any company that knowingly puts a harmful product into the stream of commerce is liable for punitive damages."

Allied is not the only campaigner against plastic pipe. Carol Bellamy, New York City's

RESEARCH ASSOCIATE *Ford S. Worthy*

PHOTOGRAPH BY GARY THOMPSON

left the foundation. Conveniently for Allied, some professional firefighters have strong opinions against plastics and will state them publicly. Shortly after the Westchase Hilton fire, Andrew Casper, then chief of the San Francisco Fire Department, appeared on KPIX-TV. Casper sketched a simple causal sequence in the MGM Grand fire: "More plastics, more fires, more deaths caused by the inhalation of toxic fumes." Later he went on the payroll of the Foundation for Fire Safety, which he has since left.

WHILE AN EX-FIRE CHIEF has credentials to speak out, this can hardly be said for another PVC opponent financed by Allied. Deborah Wallace is president of the Public Interest Scientific Consulting Service, another organization mainly backed by the company, to the tune of $17,000 a quarter. With a Ph.D. in environmental physiology, Wallace has little expertise in deaths from fires. Yet she travels the country preaching the dangers of PVC and calling herself "an expert on fire toxicology."

She also made a pretrial deposition in 1980 as an "expert witness" in the litigation arising from a May 1977 fire at the Beverly Hills Supper Club in Southgate, Kentucky, in which 165 died. Later she testified that autopsy reports, hospital admission records of survivors, and questionnaires strongly suggested that PVC was responsible for the deaths and injuries at the fire. On this point she was disputed during the trial by the medical examiner of St. Louis County.

The Foundation for Fire Safety has lobbied repeatedly. Several states have been considering bills that would require that all materials be tested for their combustion toxicity before they can be considered for approval in building codes. Since metal conduit can't burn, it would pass such tests; PVC might not. Unfortunately, satisfactory testing procedures don't yet exist. Yet on May 6, 1982, Birky appeared before the fire safety subcommittee of the New York State senate finance committee and declared that they do. An inhalation test protocol that he helped develop at the National Bureau of Standards, he said, is able to prove that one material is more toxic than another.

One reputable authority disputes Birky. "There's no correlation between the test method and what happens in a real fire," says Irving Einhorn, an adjunct professor at the University of Utah, who has published 100 papers on combustion toxicology. "Yet Birky is going around the country trying to ban materials based on incomplete tests." The Bureau of Standards adds that even if its test protocol were ready to be used, which it isn't, it alone would not justify banning some materials from building codes.

The plastics industry and Carlon have charged Allied with using questionable tactics within the National Fire Protection Association. Prior to an NFPA vote in May 1980 that would have recommended the inclusion of Carlon's flexible PVC conduit in the National Electrical Code, they say, Allied and other companies and trade organizations in the steel industry purchased scores of (and perhaps as many as 100) $50 memberships in the organization. When the vote came up, these new members helped to defeat Carlon's conduit by 394 to 390.

SEVERAL NFPA MEMBERS were outraged by the way the outcome was achieved. One, Nathaniel Addleman, a registered fire protection engineer with Boeing Co., was particularly incensed when he addressed the group after the vote: "I had occasion to have lunch with a gentleman who is a salesman for one of the steel companies and he didn't know why he was here. He was going to go to a meeting at 12:30 to find out why he was here and be told how to vote. This is what's happening here today. We cannot let the NFPA degenerate to that type of thing."

Before and after Allied helped vote Carlon's conduit out of the electrical code, it was selling PVC products. Even though Allied President Krengel claims that he was aware of plastics' hazards as far back as 1972, his company sold PVC conduit during the mid-Seventies through distributors. Asked how he could sell a product that he considers hazardous, Krengel says, "Maybe we began to realize how bad it was later. Anyway, as soon as we began to realize how bad it was, we got out of the business."

Allied's general counsel, John Lison, says Allied got out of the PVC business for a different reason: it lost its supplier. He adds, "Our suppliers could not keep us price competitive. There wasn't enough profit margin in 1975." Allied got back into the PVC market during the summer of 1980. Krengel and other Allied officers worked out a deal in which Robintech would produce rigid plastic conduit for Allied on a private label basis. Krengel now says he wasn't aware that Allied was in the PVC business a second time. Asked if subordinates had put Allied back into PVC without his knowing about it, he responds: "Look, it was a nothing kind of thing. It was incidental and momentary. When we knew what was going on we backed off."

Actually Allied sold PVC conduit from about September 1980 to March 1981. It did so, moreover, without warning users of the fire hazards it professes to be concerned about. According to Lison, Krengel got out of the business because this time he *really* found the material hazardous. "Ted was amazed by the horrors of the MGM fire, and then the others," says Lison.

Allied's suppliers remember a completely different story. When Allied concluded its relationship with Robintech, Pat Madormo, Robintech's executive vice president, met Bernie Auerbach, Allied's product development manager, and asked why Allied was calling it quits. According to Madormo, Auerbach told him that Allied felt that PVC was a different market from those it was used to. "The PVC market got pretty tough around then," says Madormo, "and there wasn't enough margin for them to buy from Robintech and resell."

Allied returned to the PVC business for a third time in November 1981. It acquired Eleen Metal Products Co. of Franklin Park, Illinois, one of whose product lines is PVC coated. A current product, called Strut, is a hanging PVC-coated pipe holder. If the big hotel fires convinced Krengel he should get out of the business, why is Allied selling something like this? "Look," says Lison, "we don't know why people die from fires in this country." But wouldn't PVC be dangerous in this sort of application? "We don't have a corner on the wisdom of the world," Lison says, "and Factory Mutual [a testing organization that does inspections for the insurance industry] kept telling us that this stuff is fine, that it'll be included in all the codes. You know, for lots of applications PVC is better than our stuff."

Despite this strange admission, Allied's war on PVC has continued without letup. Last September the newsletter of the American Council on Science and Health, a consumer education group, published an article headlined "The Merchandising of Fear" on some less than savory aspects of Allied's campaign. Zoeller's quick reply was morally lofty: "Although Allied obviously has an interest in this issue, we had every opportunity to enter the PVC market and chose not to on safety grounds. We believe this issue concerns human life and safety, and therefore transcends the commercial interest of any company or industry. We believe our record shows this concern."

■ Allied's record is something rather different—a rare well-documented example of unfair tactics in the marketplace. Companies battling new products often play rough, with high-pressure salesmanship, aggressive pricing, antagonistic ads. But a few go further, in ways that sidestep notice. Allied has called attention to itself by overreaching. ■

Caught with his funding showing, *Michael Olsen (right), then managing director of the Allied-supported Foundation for Fire Safety, admitted in an interview for TV that the bulk of his support came from the metal industry. At left on this April 1982 broadcast on Houston's KHOU-TV is reporter Roger Lindberg, interviewing Olsen at the foundation's headquarters.*

have caused the occupants to succumb."

Snell's opinion is tersely endorsed by Irwin Benjamin, an eminent fire researcher and now a private consultant after many years at the Bureau of Standards. Says Benjamin, "If the public has been terrified about plastic conduit, that's completely ridiculous."

Surprisingly, these opinions are echoed even by Merritt Birky, director of research at the Allied-supported Foundation for Fire Safety. "Plastic conduits play little role in an ordinary hotel fire," Birky conceded in a recent interview. "It is unlikely," he adds, "that plastic conduit played any role in, for example, the fire at the Westchase Hilton in Houston." He refers to a March 1982 fire that took 12 lives.

A toxicologist with a Ph.D. in chemistry from the University of Virginia, Birky until January 1982 headed combustion toxicity studies at the National Bureau of Standards. He has generally been careful in his public utterances. Yet some of them, both before and after he changed jobs, have been used by Allied to give spurious scientific credibility to its campaign against PVC.

One of Allied's chief exhibits is the November 1980 fire at the MGM Grand Hotel in Las Vegas, which killed 85 people and injured hundreds of others. The cause of the fire, it should be noted, was a short circuit in the hotel's metal conduit. But burning PVC plumbing, Allied asserts, has been implicated in some of the deaths. The company has seized on a statement made by Birky while he was still with the Bureau of Standards and involved in the investigation of the blaze. The carbon monoxide levels in the victims' blood, Birky speculated at that time, were too low to have caused all the deaths.

This implied that something else caused them, and Allied has repeatedly pointed to plastics ever since. In a September 1982 news release headlined "Plastics in Construction Add to Fire's Tombstones," the company's public affairs vice president, Laurence Zoeller, declared: "There is mounting evidence that decomposing plastics contributed to the vast majority of fatalities in such recent tragic fires as at the MGM Grand Hotel."

This release did not mention that in November 1981 the National Fire Protection Association, an investigative and code-writing body, had issued its final report on the fire. It said that 79 out of the 85 victims died primarily from a combination of smoke inhalation and carbon monoxide or smoke inhalation only. Burns and smoke inhalation killed three more, while the remaining three each died of a different cause: burns, skull fracture, and heart failure. As Birky emphasizes, the report's findings are vague. But they are a far cry from implicating plastics.

Birky may nevertheless have done a bit of out-and-out propagandizing, though he vigorously denies it. He had taken up his post at the Foundation for Fire Safety when he was interviewed by reporter Rolando Santos of KPIX-TV in San Francisco. Santos reported last March 23: "The leading researcher in the study of the deaths at the MGM, Dr. Merritt Birky, told me in these cases the toxic gases had to come from the plastics in the room, probably cyanide." Birky claims that Santos misquoted him. Santos says that he and Birky had a detailed conversation prior to the broadcast, and that Birky said exactly what was reported.

Whatever Birky may have said about cyanide, Allied brandished this scare word before the final report on the MGM fire was out. In one May 1981 advertisement in the trade press, the company said: "The Clark County Coroner reported that five victims, who were among the first autopsied, showed evidence of cyanide in their bodies. Cyanide is produced from burning plastic pipe frequently used for drain, vent, and waste disposal, as well as plastic that is commonly used for decorative wall coverings." Allied omitted to say that cyanide is also given off when other synthetic materials burn. In any event, the presence of cyanide is no proof that it killed anyone. The final investigation report on the MGM fire never mentioned synthetic materials—plastic pipe or whatever—as the primary cause of any death.

One of the Foundation for Fire Safety's officials has resorted to innuendo in discussing the Westchase Hilton fire in Houston. Birky, as noted, says it's unlikely that plastic conduit caused any deaths there. Yet Michael Olsen, then the managing director of the foundation, got on KHOU-TV in Houston a month after the fire, offering his "preliminary report" that "toxic gases in addition to carbon monoxide must be considered as causes of death." The TV reporter told his audience, "The Fire Safety Foundation believes some of those deadly gases can come from plastics."

AS A RULE, the foundation's spokesmen have not volunteered the source of their funds during such interviews. Unfortunately for Olsen, KHOU-TV's reporter Roger Lindberg was one of the few to ask him where the money came from. Olsen admitted, listeners were told by another reporter, that "he was funded largely by the metal industry." Olsen insisted that his report was unbiased. KHOU-TV then presented Dale Everitt of the Houston Fire Department, who dismissed Olsen's views. Said Everitt, "When you have a group like this, I think they're going to be interested in keeping those funds coming in." Olsen has since

ON PLASTIC PIPE

politically ambitious city council president, made a fuss last year about new PVC conduit installed in subways. At her insistence $2 million is being spent to rip out some and replace it with metal, though most of the subway system's PVC will be left where it is. Plastics' growing use in plumbing, primarily for water and drain pipes, has also come in for criticism. Allied's crusade against PVC has been especially vehement, however. A significant proportion of its sales are threatened. The last straw may have been Carlon's flexible conduit, aimed at a $190-million-a-year market that steel had all to itself.

"I wouldn't deny we have a commercial interest," says Allied's President Krengel. "It's a big market. If you include cable, conduit, ducts, and pipe, you're talking in the multibillions of dollars." If the competition gets much worse, Krengel adds, Allied might switch to plastics—"*if* we could find one that is proven safe." Krengel goes on to declare: "I'm not going to make any Three Mile Islands or any Love Canals. I'm not going to make anything where I can't sleep nights because we've made a product that's unsafe. I don't want that on my conscience."

Krengel could be speaking his convictions, of course. But doubt is fanned by a curious fact recently discovered by FORTUNE: Allied itself has marketed PVC conduit on and off in recent years. In fact, it's still selling PVC-coated products.

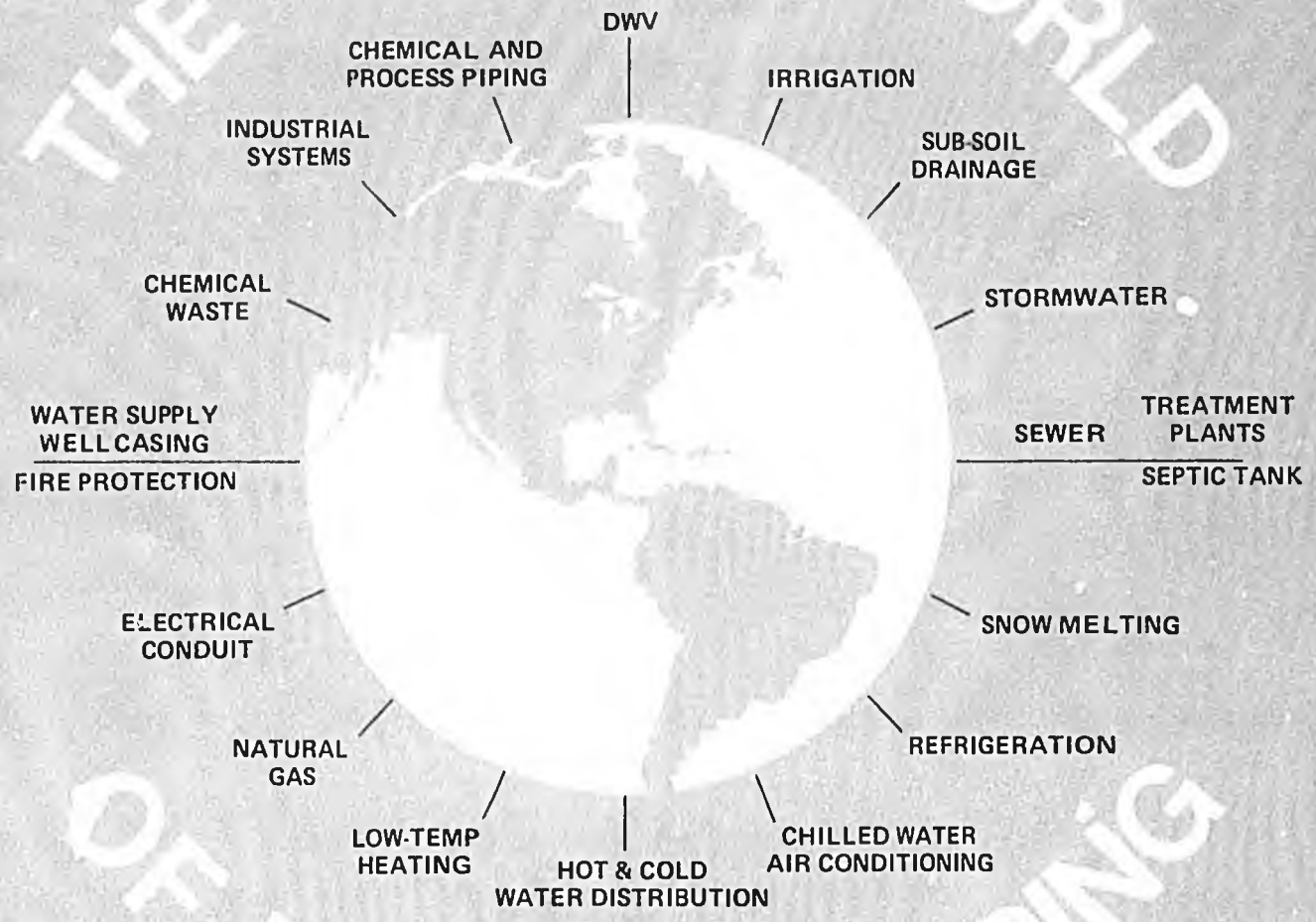
PVC *is* hazardous when it burns, as the plastics industry admits. So is everything else that burns. PVC may give off, among other things, hydrogen chloride, a corrosive gas that is lethal in high concentrations. But burning natural materials also give off a host of dangerous substances, such as carbon monoxide and acrolein. When wool carpeting or upholstery catches fire, it can produce deadly cyanide gas. Furthermore, a government-sponsored study has shown that Douglas fir, widely used in construction, is every bit as hazardous when it burns as PVC.

Still, wouldn't it make sense to ban plastics and use just noncombustible metal for conduit? The answer, according to experts not financed substantially by either side in this dispute, is a surprising no. There is much more to fire hazards than the toxicity of a material's combustion products. "You may be making the situation worse by having metal conduits," says Dr. Edward Radford of the University of Pittsburgh's Graduate School of Public Health. "Many fires result from electrical short circuits. One common type occurs as a result of improperly grounded metal conduits." Adds Radford, a leading authority on what kills in fires: "There is no evidence that PVC plays a major role in whether an individual dies in a fire."

Since no material is hazard free, the real issue is whether PVC is more hazardous than others. Here again the answer, according to impartial authorities, seems to be no. According to Jack Snell, director of the Center for Fire Research at the National Bureau of Standards, PVC conduit would probably be among the least of the worries in most fires. "Plastics would *not* create a significant additional hazard to life," says Snell. "Typically it's the contents of a building—in contrast to construction, plumbing, and electrical materials—that represent the largest fuel load. You would need a large fire before the conduit became involved, and by that time the burning contents of the room would

Neptune stood helpless *as flames ravaged the MGM Grand Hotel in Las Vegas on November 21, 1980, leaving 85 dead. Allied Tube & Conduit has cited this and other fires to publicize the supposedly extraordinary hazards of the lethal products given off when plastic pipe catches fire. The final report on the fire, however, did not blame plastics for any of the deaths.*

THE GROWING WORLD OF PLASTICS PIPING



A COMPREHENSIVE LISTING OF COMMON APPLICATIONS OF PLASTIC PLUMBING SYSTEMS COVERED BY NATIONAL CONSENSUS STANDARDS

Published by

PPFA

Plastic Pipe and Fittings Association

999 North Main St. • Glen Ellyn, IL 60137 • Phone: 312/858-6540

APPLICATION	PLASTIC MATERIAL	RIGID FLEXIBLE	ASTM STANDARD	SCOPE
DRAIN, WASTE & VENT (DWV)– Building drain and waste, building storm and rainwater piping	ABS	rigid	D2661 & F628 D2235 F402	Pipe & Fittings ABS solvent cement Safe handling of S.C.
	PVC	rigid	D2665 D2564 F402 D2855	Pipe & Fittings PVC solvent cement Safe handling of S.C. Making S.C. joints
	PVC	rigid	D2949 D2564 F402 D2855	Pipe & Fittings (3.25 o.d.) PVC solvent cement Safe handling of S.C. Making S.C. joints
HOT & COLD WATER DISTRIBUTION SYSTEMS	CPVC	rigid	D2846 F493 F402	Pipe, Tubing & Fittings CPVC solvent cement Safe handling of S.C.
	PB	flexible	D3309	Pipe, Tubing & Fittings
OUTSIDE SEWERS AND DRAINS – Building sewer, building storm sewer	ABS	rigid	D2751 & F628 D2235 F402 D3212 D2321 F477	Pipe & Fittings ABS solvent cement Safe handling of S.C. Elastomeric joints Underground installation procedures Elastomeric seals
	PVC	rigid	D3033 D2564 D2855 F402 D2321 F477 D3212	Pipe & Fittings, Type PSP PVC solvent cement Making S.C. joints Safe handling of S.C. Underground installation procedures Elastomeric seals Elastomeric joints

APPLICATION	PLASTIC MATERIAL	RIGID FLEXIBLE	ASTM STANDARD	SCOPE
WATER PIPING – Water supply, water distribution, yard sprinkler, swimming pool piping, chilled water piping, low-temp heating, irrigation systems, industrial process piping, ice rinks, ice melting, water well casing.	ABS	rigid	D1527 D2468 D2469 D2465 D2235 F402	Pipe, Schedules 40 & 80 Fittings, Schedule 40, socket-type Fittings, Schedule 80, socket-type Fittings, Schedule 80, threaded ABS solvent cement Safe handling of S.C.
	ABS	rigid	D2282 D2235 F402 D2468 D2469	Pipe, SDR-PR, o.d. controlled ABS solvent cement Safe handling of S.C. Fittings, schedule 40, socket-type Fittings, schedule 80, socket-type
	ABS	rigid	F480	Water Well Casings & Couplings, SDR
	PE	flexible	D2239 D2609	Pipe, SDR-PR, i.d. controlled Fittings, insert type
	PE	flexible	D2104 D2609	Pipe, Schedule 40 Fittings, insert type
	PE	flexible	D3035	Pipe, SDR-PR, o.d. controlled
	PE	flexible	D2737 D3261	Tubing, SDR-PR Fittings, butt-type, heat fusion
	PE	flexible	D2447 D3261	Pipe, Schedules 40 & 80 Fittings, butt type, heat fusion
	PB	flexible	D2662 D2609	Pipe, SDR-PR, i.d. controlled Fittings, insert type
	PB	flexible	D2666	Tubing, o.d. controlled
	PB	flexible	D3000	Pipe, SDR-PR, o.d. controlled
	PVC	rigid	D1785 D2564 D2855 F402 D2466 D2467 D2464	Pipe, Schedules 40, 80 & 120 PVC solvent cement Making S.C. joints Safe handling of S.C. Fittings, Schedule 40, socket-type Fittings, Schedule 80, socket-type Fittings, Schedule 80, threaded

Dear Reader:

Welcome to the *Growing World of Plastics Piping!* This pamphlet is an introduction to one of the truly exciting, growth industries in America. Since 1960, the use of plastics in piping applications has multiplied 46 times! There are millions of plastics plumbing installations in service all across the country.

It has been estimated that 95% of all new piping installations made in residential construction is plastics. In the early stages of its development as a plumbing product, plastics were primarily used in drain-waste-vent applications. Over the years plastics piping has grown not only by dominating the DWV market, but by adding new materials and applications as well.

Plastics are now used extensively in water service piping and in water distribution systems. Additionally, many other plumbing products are now manufactured partially or completely with plastics materials.

The use of plastics in plumbing has grown because its use is economical and efficient. Its characteristics are also superior to competitive materials in a variety of important ways.

Even though the feedstocks of most plastics are derivatives of oil, plastics piping uses are highly energy efficient because it takes far less energy to manufacture comparable lengths and sizes of plastics pipe than metal piping products.

We are pleased to provide this easy reference guide to the *Growing World of Plastics Piping* giving the reader the basics of plastics in plumbing and its many, many applications.

Sincerely,

The Plastic Pipe and Fittings Association

INTRODUCTION

You will find plastic plumbing materials to be an excellent value because of initial cost, ease of installation, low maintenance cost, long life, and their significant energy savings in manufacture and use. Plastics pipe and fittings compare favorably with all other materials.

This brochure provides engineers, code officials and consumers with basic information about plastics piping. Used successfully in the United States since 1943, these "engineered" plumbing materials, often called plastics piping systems, have met the challenge of providing improved technological advancements needed in the construction industry.

Plastics vary greatly in their characteristics and properties from one to another. These differences are utilized in plastics piping to the advantage of the consumer in two ways: first, through proper design each plastic raw material is properly applied and controlled (see ASTM Standards); and, second, a competitive market exists within plastics piping systems since the suitable characteristics and properties of different plastics often overlap in piping applications.

Plastic plumbing materials commonly in use are;

ABS ACRYLONITRILE-BUTADIENE-STYRENE, hard, strong, smooth interior surface, chemically resistant, not affected by contact with water or soil.

PE POLYETHYLENE, excellent resistance to chemicals, corrosive environments and rupture from mechanical shock.

PB POLYBUTYLENE, higher temperature strength combined with long-term strength and chemical resistance.

PVC POLYVINYL CHLORIDE, hard, strong, smooth interior surface, chemically resistant, not affected by contact with water or soil.

CPVC CHLORINATED POLYVINYL CHLORIDE, higher heat and chemical resistance than PVC.

PP POLYPROPYLENE, excellent rigidity, high strength and chemical resistance.

SR STYRENE RUBBER, high in tensile strength and stiffness, also, resistant to both corrosive soils and sanitary wastes.

Plastics piping do not conduct electricity and are not susceptible to galvanic or electrolytic corrosion.

The following chart shows the general categories of piping applications of plastic materials covered by applicable national consensus standards:

Piping Application	Plastic Material						
	ABS	PE	PB	PVC	CPVC	PP	SR
Tubular waste	X			X		X	
Outside sewers and drains	X			X			X
Drain, waste & vent (DWV)	X			X			
Water piping	X	X	X	X	X		
Gas piping	X	X	X	X			
Septic fields - sub-soil		X		X			X
Chemical waste piping	X	X		X		X	
Industrial process piping	X	X	X	X	X	X	
Other piping applications	X	X	X	X	X	X	X

NOTE: For procedures on installing thermoplastic pressure pipe underground see ASTM D 2774. For information on joints for plastic pressure pipe using elastomeric seals see ASTM D 3139. For procedures on flaring PE and PB Tubing see ASTM D 3140.

		[illegible]	[illegible] Couplings, Schedules 40 & 80, socket-type
PVC	rigid	D2241 D2564 D2855 F402 D2466 D2467 D3036	Pipe, SDR-PR, o.d. controlled PVC solvent cement Making S.C. joints Safe handling of S.C. Fittings, Schedule 40, socket-type Fittings, Schedule 80, socket-type Line Couplings, Schedules 40 & 80, socket-type
PVC	rigid	D2672 D2564 F402 D2855	Pipe, Schedule 40, Bellend, & Pipe, SDR-PR, o.d. controlled PVC solvent cement Safe handling of solvent cement Making S.C. joints
PVC	rigid	D2740	Tubing, SDR-PR, o.d. controlled
PVC	rigid	F480	Water Well Casings and Couplings, SDR
CPVC	rigid	F441 F493 F402 F438 F439 F437	Pipe, Schedules 40 & 80 CPVC solvent cement Safe handling of S.C. Fittings, Schedule 40, socket-type Fittings, Schedule 80, socket-type Fittings, Schedule 80, threaded
CPVC	rigid	F442 F493 F402 F438 F439	Pipe, SDR-PR, o.d. controlled CPVC solvent cement Safe handling of S.C. Fittings, Schedule 40, socket-type Fittings, Schedule 80, socket-type
CPVC	rigid	F443 F493 F402	Pipe, Schedule 40, Bellend CPVC solvent cement Safe handling of S.C.

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	PVC	rigid	D3034 D2564 D2855 F402 D2321 F477 D3212	Pipe & Fittings, Type PSM PVC solvent cement Making S.C. joints Safe handling of S.C. Underground installation procedures Elastomeric seals Elastomeric joints
	PVC	rigid	D2729 D2564 D2855 F402 D2321	Pipe & Fittings PVC solvent cement Making S.C. joints Safe handling of S.C. Underground installation procedures
	SR	rigid	D2852 D3122 F402 D2321 F477 D3212	Pipe & Fittings SR solvent cement Safe handling of S.C. Underground installation procedures Elastomeric seals Elastomeric joints
SEPTIC DISPOSAL FIELDS & SUB SOIL DRAINAGE – Perforated Piping	PE	flexible	F405 F481	Corrugated Tubing & Fittings, Perforated Installation
	PVC	rigid	D2729 F481	Pipe & Fittings, Perforated Installation
	SR	rigid	D3298 F481	Pipe, Perforated Installation
TUBULAR WASTE – Tube & fittings for accessible waste connections	ABS	rigid	F409 D2235 F402	Tube & Fittings ABS solvent cement Safe handling of S.C.
	PVC	rigid	F409 D2564 D2855 F402	Tube & Fittings PVC solvent cement Making S.C joints Safe handling of S.C.
	PP	rigid	F409 D2657	Tube & Fittings Heat joining

NOTE: Plastics pipe also has many applications for gas piping, chemical/industrial waste piping and chemical/industrial process piping.

THE MAJOR BENEFITS OF USING PLASTICS PIPING MATERIALS

● Plastics piping is **energy efficient.** In a recent study it was estimated that during 1977, 324 trillion B.T.U.'s more energy would have been required to make metal piping to replace the plastics piping which was manufactured. That equals a savings of about 56 million barrels of oil because of plastics pipe. Additionally, in hot water distribution systems, plastics piping serves as an insulator itself to reduce heat loss. While plastics piping is made from petroleum based products, it is truly doing its share to reduce energy consumption.

● The **initial cost of piping materials** is important to users. Here, again, plastics piping receives high marks. Its initial cost is significantly less than the cost of other material.

● **Installation costs** of plastics versus other materials represent further savings to the user. Cutting, joining and installing plastic pipe is far simpler than the same processes for other materials. At today's labor rates, increased productivity is vital.

● The **ease of handling** plastics pipe is a tremendous benefit. Not only does its light weight present real benefits to the installer when working in tight places, but a normal length of DWV pipe can be carried by one man whereas two men or a machine are required to move heavier metal piping.

● The **long life** of a material is important to the consumer of the material. Millions of plastics piping installations have been in service for over a quarter of a century and are still functioning the way they did the day they were installed.

● Plastics piping is **corrosion resistant and free flowing.** Plastics piping systems are resistant to normal household chemicals and many other substances which might enter a sanitary drainage system. DWV piping does not "gum up" as does some other materials. The smooth wall of the plastics makes transport of wastes and water more effective. Plastics water piping also resists the kind of interior build-up that sometimes plagues metal piping systems.

● Plastics piping is usually marked to **aid in identification.** Manufacturers making pipe and fittings according to ASTM standards and having the material tested to those standards usually mark the pipe and fittings to show the use and the applicable standard. This procedure makes it simple for users to properly identify the many kinds of plastics pipe and fittings which are available for different applications.

That's a pretty impressive list of benefits for any material. If you have not used plastics piping before, it may be time you did. If you have not been served by plastics piping, you are missing the many benefits which are available through its use. Our industry is proud of the materials which it offers for so many varying piping applications. We stand ready to serve our customers to bring them the benefits of The Growing World of Plastics Piping.

CODE ACCEPTANCE

Plumbing codes are the basis for acceptance of materials for specific plumbing installations and for the methods of installation. Model plumbing codes, sponsored by associations of building and plumbing code officials or other industry groups, are the basis for most of the over 14,000 local codes in this country.

The following organizations (and their model plumbing codes) accept the use of plastics for piping applications:

Building Officials and Code Administrators International, Basic Plumbing Code

International Association of Plumbing and Mechanical Officials, Uniform Plumbing Code

International Conference of Building Officials, Plumbing Code

National Association of Plumbing, Heating, Cooling Contractors/American Society of Plumbing Engineers, National Standard Plumbing Code

Southern Building Code Congress International, Standard Plumbing Code

Plastics piping is also an approved material for use in U.S. Government building projects according to directives of the U.S. Department of Housing and Urban Development.

Regardless of the material you choose to use, check your local plumbing code for approved materials and accepted installation practices.

Additional information on plastics piping in plumbing applications may be obtained from the **Plastic Pipe and Fittings Association,** 999 North Main St., Glen Ellyn, Illinois 60137.

Additional information on plastics piping use for water and sewer mains may be obtained from the **Uni-Bell Plastics Pipe Association,** 2655 Villa Creek Dr., Suite 164, Dallas, Texas 75234.

General information on plastics piping for other purposes may be obtained from the **Plastics Pipe Institute,** 355 Lexington Ave., New York, New York 10017.

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Plastic Pipe and Fittings Association

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Bill No. House Bill 63

Title "An Act relating to the Plumb ng Code."

Date March 15, 1985

Contact: Eileen Plate
465-2700
Bob Bacolas
465-4870

House Bill 63 provides for the adoption of the 1985 Uniform Plumbing Code, Uniform Solar Energy Code, and Uniform Swimming Pool, Spa and Hot Tub C de.

The International Association of Plumbing and Mechanical Officials revises its minimum standards for the installation of plumbing every three years to incorporate technological advances, and the 1985 edition is the most recent effort in this regard. The standards for the installation of solar energy and the spa and hot tub standards have not previously been adopted in Alaska (the minimum standards for swimming pools were formerly included in the Uniform Plumbing Code.) The 1979 code currently in effect in Alaska is outdated, and adoption of the 1985 version would bring Alaska's minimum standards into conformity with those adopted and used by the industry nationwide.

This bill also removes an anomalous provision that instructs the Department of Labor to adopt the specific publications that constitute the plumbing code. The current statute leaves no discretion in the department as to whether to adopt or as to what to adopt. Thus the actions of the department in going through the formal adoption procedures are unnecessary. Under the amendment in this bill, the statute will simply declare what constitutes the plumbing code. This is the approach already employed for the electrical code, for example; see AS 18.60.580.

With respect to the Uniform Plumbing Code, a number of water quality, worker safety, and fire safety questions have been posed nationally concerning code provisions which permit the use of plastic pipe (section 401 of chapter 4 dealing with drainage systems and section 1004 of chapter 10 dealing with water distribution). This concern also exists in Alaska, and no doubt will be brought out in the hearings on House Bill No. 63. Although the Department supports adoption of the 1985 code at this time, should it be determined in the course of the hearings that there are compelling reasons to prohibit the use of plastic pipe, we would not have any strong objection to the specific questioned sections being excluded from the State's minimum plumbing standards.

In any event, the Department would request that two provisions in House Bill No. 63 be amended, as follows.

Section 1, line 20 needs to be amended to read:

> of Plumbing and Mechanical Officials, chs. 1--9 and appendices, but excluding Part 1, Administration, pages 3--9; and

Section 1, line 23 needs to be amended to read:

> International Association of Plumbing and Mechanical Officials, chs. 1--5 but excluding Part 1, Administration, pages 1--9.

POSITION PAPER/Department of Labor

We did not have copies of the 1985 codes when we drafted our bill, so were not aware that the Solar Energy Code and Swimming Pool, Spa and Hot Tub Code both contained an Administration section. This section is comparable to the Administration section in the Plumbing Code itself, which Alaska has never adopted.

House Bill No. 63 would not have a fiscal impact on the Department of Labor.

APPROVED:

Jim Robison

Jim Robison, Commissioner
Department of Labor

HB 63 File Contents

1) Bill Summary -- Legislative Reporting Service

2) Overview -- Roger Poppe, Committee Staff

3) Alaska Statutes 18.60.705-740.

4) Letter of Support --Governor Sheffield

5) Fiscal Note -- Dept. of Labor 3/15/85

6) Position Statement & Proposed Amendments -- Dept. of Labor

7) Anchorage Municipality Local Amendments to the Uniform Plumbing Code, 1982 edition -- Chapter 23.25 (currently in effect)

8) Proposed Amendments to HB 63 by the Plumbers and Pipefitters Unions

9) Draft of proposed 1985 Senate Bill relating to the plumbing code dated 3/13/85

10) Additional Materials Supplied by the Plumbers and Pipefitters Unions

    a) Letter from Marie Sibuya Shell to Thomas Higham -- Dec. 20, 84
    b) Article from NEWS on "Polyvinyl Chloride Fumes Cause Long-Term Health Problems for Fire Survivors, Study Shows"
    c) Legislative Activities of Interest regarding Electrical Non-metallic Tubing and Other Plastic Construction Materials
    d) Summary of Lawsuit of California Department of Consumer Affairs et alli vs. International Association of Plumbing and Mechanical Officials (beige covered booklet).
    e) Investigation of Plastic Pipe Permeation by Organic Chemicals November, 1984 (blue-covered booklet)

11) Additional Materials from representatives and manufacturers of Polybutylene pipe

    a) Letter of May 16, 1984 from A. H. Schroer to Senate Labor and Commerce Committee regarding testimony on HB 508 last session.
    b) White paper--Testimonials on cold weather durability of polybutylene pipe (starts out with P.P.P. saved thousands of homes...etc.)
    c) Public Health News broadside of December 16, 1983 from Virginia Dept. of Health

d) Tests of Polybutylene Pipe at PT Relief Valve Conditions
e) Report to Congress by the Comptroller General--Feb. 18, 82
f) News Release -- Cold Bay -- February 18, 82.
g) Shell Chemical Company letter of May 27, 1983
h) Legislative Proposal Analysis on adoption of 1982 Uniform Plumbing Code
i) Polybutylene Pipe (grey brochure from Shell Chemical)

12) Letters of January 24, 1985 and February 22, 1985 from Eugene Rutland of the Mechanical Contractors of Fairbanks, Inc. to Chairman Navarre

13) List of states and major cities approving the use of Polybutylene in a Feb. 15, 85 letter from Martin O. Brien of Shell Chemical Co. to Gordon Evans of Juneau

14) Copies of the following materials are available for inspection on the Committee Table:

a) Uniform Plumbing Code -- 1985 Edition

b) Uniform Solar Energy Code -- 1985 edition

c) Uniform Swimming Pool, Spa, and Hot Tub Code -- 1985 edition

d) Advanced Drainage Systems Inc. Booklet (beige)

e) Effects of Heavy Loads on Buried Corrugated Polyethylene Pipe

f) Miscellaneous flyers from Polyethylene Pipe Manufacturers

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

January 15, 1985

The Honorable Ben Grussendorf
Speaker of the House
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Representative Grussendorf:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill relating to the plumbing code. The International Association of Plumbing and Mechanical Officials revises its minimum standards for the installation of plumbing every three years to incorporate technological advances. The 1985 edition contains the most recent revisions. The standards for the installation of solar energy are new, and the spa and hot tub standards have not previously been adopted in Alaska (the minimum standards for swimming pools were formerly included in the Uniform Plumbing Code). The 1979 code currently in effect in Alaska is outdated, and adoption of the 1985 version would bring Alaska's minimum standards into conformity with those adopted and used by the industry nationwide.

This bill also removes an anomolous provision that commands the Department of Labor to adopt the specific publications that constitute the plumbing code. The current statute leaves no discretion in the department as to whether to adopt or as to what to adopt. Thus the current adoption language is useless and the actions of the department in going through the formal adoption procedures are unnecessary. Under the amendment in the bill, the statute will simply declare what constitutes the plumbing code. This is the approach already employed for the electrical code, for example; see AS 18.60.580. Any publicity value that department adoption might have could be achieved through simpler means.

Sincerely,

Bill Sheffield
Governor

REQUEST

Bill/Resolution No.: HB 63

Title: "An Act relating to the Plumbing Code...."

Sponsor: Rules Committee

Requestor: Rules Committee

Date of Request:

FISCAL DETAIL

Agency Affected: Labor

Program Category Affected: Public Protection

BRU, Program or Subprogram(s) Affected: Labor Standards and Safety - Mechanical Inspection

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

Prepared By: Robert J. Bacolas, Sr. Phone: 465-4870

Division: Labor Standards & Safety Date: 12/28/84

Approved by Commissioner: Jim Robison Date: 12/28/84

Agency: Labor

Distribution (by Agency preparing fiscal note):

Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

7/1/84

STATE OF ALASKA 1985 LEGISLATIVE SESSION

FISCAL NOTE

Revision Date:

REQUEST

Bill/Resolution No.: HB 63

Title: "An Act relating to the plumbing code."

Sponsor: Governor

Requestor: House Labor & Commerce

Date of Request: 3/15/85

FISCAL DETAIL

Agency Affected: Labor

Program Category Affected: Public Protection

BRU, Program or Subprogram(s) Affected: Labor Standards & Safety
Mechanical Inspection

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

Prepared By: Robert J. Bacolas Sr. Phone: 465-4870

Division: Labor Standards & Safety Date: 3/15/85

Approved by Commissioner: Jim Robison Date: 3/15/85

Agency: Labor

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7/1/84

STATE OF CALIFORNIA—STATE AND CONSUMER SERVICES AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF Consumer Affairs (916) 445-4465
1020 N STREET, SACRAMENTO, CALIFORNIA 95814

December 20, 1984

Mr. Thomas Higham
Executive Director
International Association
of Plumbing and Mechanical
Officials
5032 Alhambra Avenue
Los Angeles, CA 90032

Dear Mr. Higham:

As you know, this department actively participated in litigation concerning IAPMO last year. While our formal role in that matter has ceased, we remain abreast of current developments and are involved, in conjunction with HCD, in the ongoing environmental impact report.

I recently learned that IAPMO voluntarily has elected to include the notice concerning the use of plastic pipe in your upcoming edition of the Uniform Plumbing Code. It is also my understanding that the language to be used is identical to that which appeared in the last publication.

I applaud your decision. This action on the part of IAPMO carries forward the spirit of the trial court decision and allows all interested parties to focus their attention upon other critical problems.

While I trust that the information which I have received is correct, please don't hesitate to contact me if I have misstated your decision.

Sincerely,

Marie Shibuya-Snell

MARIE SHIBUYA-SNELL
Director

cc: Shirley Chilton
Secretary
State & Consumer
Services Agency

bcc: Mitch Wilk
Julie Nauman (HCD)
Tom Cecil

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIA
5032 ALHAMBRA AVENUE, LOS ANGELES, CALIFORNIA 90032-2400 • (213) 223-1471

January 14, 1985

Marie Shibuya-Snell, Director
Department of Consumer Affairs
1020 N Street
Sacramento, CA 95814

Dear Ms. Shibuya-Snell:

This is in response to your letter of December 20, 1984, regarding the insertion of the notice on the status of plastic pipe in California in the 1985 edition of the Uniform Plumbing Code.

At its recently held meeting, the IAPMO Board of Directors determined that IAPMO will voluntarily continue to insert the notice in copies of the Uniform Plumbing Code sold in California. The wording of the notice will be substantially the same as at present. We are, however, contemplating deleting the portion in parenthesis which refers to the "pending litigation". Since the litigation is no longer pending, there is no reason to continue to refer to it.

Very shortly I will be forwarding a copy of the proofs of the 1985 edition of the Uniform Plumbing Code to John Worsley so the Building Standards Commission can proceed with its adoption in a timely fashion.

Thank you for your letter and your interest. I hope we can continue to work closely together for the mutual benefit of the citizens of California.

Cordially,

Tom Higham

TOM HIGHAM
EXECUTIVE DIRECTOR

INTERNATIONAL ASSOCIATION OF
PLUMBING AND MECHANICAL OFFICIALS

TH:jg

cc: Jack McKenna

JAN 16

PROPOSED AMENDMENT TO HOUSE BILL NO. 63

In lieu of * Section 2. AS 18.60.740(1) is amended to read:

(1) "code" means the 1985 editions of the Uniform Plumbing Code, the Uniform Solar Energy Code, and the Uniform Swimming Pool, Spa and Hot Tub Code [1979 Edition], adopted at the 54th [49th] Annual Conference, September 1988 [1978], International Association of Plumbing and Mechanical Officials;

the following is proposed:

(1) "code" means the 1985 editions of the Uniform Plumbing Code, the Uniform Solar Energy Code, and the Uniform Swimming Pool, Spa and Hot Tub Code [1979 EDITION], adopted at the 54th [49th] Annual Conference, September 1988 [1978], international Association of Plumbing and Mechanical Officials, provided: however, that the 1985 Edition of the Uniform Plumbing Code shall be amended as follows:

A. On Page 37, Chapter 4, Drainage Systems, 401, Materials, Subsection (e), Sub-subsection (1), shall be deleted and in its place shall be inserted " (1) No galvanized, wrought iron, galvanized steel, ABS, or PVC pipe shall be used underground, but all such pipe shall be kept at least six (6) inches above ground."

B. On Page 37, Chapter 4, Drainage Systems, Section 401, Materials, Subsection (e), Sub-subsection (2), shall be deleted and in its place shall be inserted "(2) ABS or PVC installations shall be limited to type VN residential construction, not over 35 feet in stack height. ABS and PVC pipe shall not be less than schedule 40 (IPS) standard steel pipe thickness."

C. On Page 45, Chapter 5, Vents and Venting, Section 503, Materials, Subsection (a), Sub-subsection (2), shall be deleted and in its place shall be substituted. "(2) ABS or PVC installations shall be limited to type VN residential construction, not over 35 feet in stack height. ABS and PVC pipe shall not be less than schedule 40 (IPS) standard steel pipe thickness."

D. On Page 45, Chapter 5, Vents and Venting, Section 503, Materials, Subsection (b), shall be deleted and in its place shall be substituted ,"(b) Vent fittings shall be cast iron, galvanized malleable iron or galvanized steel, lead, copper, brass, ABS, PVC, or other approved materials, except that no galvanized malleable iron, galvanized steel, ABS or PVC shall be used underground and shall be kept at least six (6) inches above ground."

E. On Page 75, Chapter 10, Water Distribution, Section 1004, Materials, Subsection (a), the second and third sentences shall be deleted therefrom

F. On Page 75, Chapter 10, Water Distribution, Section (e), shall deleted in its entirety, including the exception therefrom.

PROPOSED AMENDMENT TO HOUSE BILL NO. 63