

Presentation to Legislators  
on the Relationship between  
A/C pipe and the Public Health.

Washington, D.C.

February 28 - March 1, 1979

You and certain of your associates have been chosen to represent CertainTeed Corporation in addressing your home district senators and/or representatives on the subject of A/C pipe and its relationship to the public health.

Purpose:

To assure the congressmen and their staffs that A/C pipe is an extremely useful and cost-effective product that is essential in some areas, highly desirable in most, and completely safe to install and use.

and

To forestall capricious or misguided additional regulations or legislation stemming from rumor, falsehood and/or erroneous information.

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The Presenter's Position:

You should take the stance that you are the spokesman for CertainTeed, a corporation soon to exceed one billion dollars in annual sales volume . . . a firm whose products fill fundamental human needs for shelter, energy conservation, water distribution and waste water removal, one of which is A/C pipe.

Your role is not to make a case for asbestos. You are there to make the case for A/C pipe. You should portray it for what it is, a good, safe, widely-used product that is produced and installed under the most rigid and effective safety standards, and which is used to serve millions of people safely throughout the world.

You are there because of a national concern over the danger of asbestos fiber inhalation and its inadvertent impact on A/C pipe. You want to make the point that A/C pipe does not produce a health hazard.

The legislator you are addressing should come away from the meeting convinced of that fact. The inhalation hazard is negated by the industry's strict conformance to OSHA safety standards

during the manufacture and installation of A/C pipe. The ingestion hazard is nonexistent, and that is confirmed by numerous studies on the subject.

Bear in mind, too, that in the present climate of taxpayer revolts, the cost-effectiveness and long, useful life of A/C pipe is drawing considerably more attention from local governments considering water system expansion.

The Presenter's Resources:

We have provided a "fact sheet" on A/C pipe from which you can construct your own presentation. It contains most of the essential data about A/C pipe which should be conveyed.

We have also provided a sample presentation which you can put into your own words. No attempt should be made to memorize this presentation; it is provided simply to give you an idea of what might be said and in the order that it might be said.

In case the Senator or Congressman you are addressing has questions at the end of your

presentation, we have furnished you with a list of possible questions that might be asked, along with the answers. It is suggested you brush up on these questions and answers to help you cope with any that might come up.

However, IT IS NOT NECESSARY FOR YOU TO ANSWER EVERY QUESTION ON THE SPOT. IF YOU ARE NOT SURE, PROMISE TO GET THE ANSWER FROM THE PROPER PERSON OR ORGANIZATION WITHIN A FEW DAYS.

Incidentally, don't assume the Congressman or Senator knows what A/C pipe is and how it is used. Be especially prepared to answer that question quickly and effectively.

Finally, we have put together a kit of materials, including the "fact sheet", which should be left with your legislator when your presentation is concluded.

There will be a further detailed briefing for you and your group in Washington before the presentation.

SAMPLE PRESENTATION

(SPOKESMAN IDENTIFIES CERTAINTeed AS A CORPORATION WITH ANNUAL SALES CLOSE TO ONE BILLION DOLLARS AND WHOSE PRODUCTS FILL BASIC HUMAN NEEDS FOR SHELTER, ENERGY CONSERVATION, WATER DISTRIBUTION AND WASTE REMOVAL. ONE OF THESE PRODUCTS IS A/C PIPE. HE INTRODUCES HIS GROUP INDIVIDUALLY TO THE SENATOR OR CONGRESSMAN BEING ADDRESSED, MENTIONS THAT CERTAINTeed IS PART OF HIS CONGRESSIONAL DISTRICT, THANKS HIM FOR HIS TIME, ETC.)

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SPOKESMAN:

Some products containing asbestos have recently become subject to scrutiny by legislative and regulatory agencies and consumer groups. The possible impact of these products upon the public health is being questioned.

CertainTeed Corporation has been a major manufacturer of asbestos cement pipe since 1962. It is used in all 50 states and throughout the world to distribute potable water to homes, institutions and

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commercial establishments. It also serves to carry off waste and sewage.

Our purpose today is to acquaint you with the characteristics of A/C pipe and to document for you that, due to the advanced state of today's technology, it is safe to install and to use . . . that it poses no health hazard, and that, for taxpayers everywhere, it is an extraordinarily cost-effective conduit of water.

Our presentation will take only a few minutes. We will leave with you a packet of informative materials and will be glad to answer any questions you or your staff may have at any time. Wally Werner, our Director of Government Relations, is your regular contact with us. His address and telephone number is included in the fact sheet we will leave with you.

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1. 3,000 PRODUCTS  
CONTAIN ASBESTOS

1. There are some 3,000 useful products containing asbestos that serve people beneficially in almost every part of the world. If you drove to your office this morning, you depended on one of them: the brake linings on your car. It's also an important element in roofing products, flooring materials, paper, plastics, textiles, insulation and fire-fighting and lifesaving equipment.

2. ASBESTOS ADDS  
STRENGTH, RESISTS  
CORROSION,  
REDUCES COST

2. Asbestos is used in A/C pipe. It represents about 15% of the materials employed. It's there for reinforcement because asbestos contributes a tensile strength to the product that is five times greater than that of steel. It adds needed flexibility to the pipe and there is not yet a known substitute for it. A/C pipe has excellent resistance to chemicals and other

corrosive elements. And, as mentioned, it can save a lot of taxpayer money -- as much as 40% on water system projects.

3. A/C PIPE IS  
WIDELY USED

3. In virtually every nation of the world and in all 50 of the United States, A/C water pipe serves people well. Globally, there are more than 1,600,000 miles of A/C pipe now in service. In the United States, over a quarter-billion dollars worth is being installed annually and today there are some 250,000 miles of A/C pipe serving American communities from the largest to the smallest. One-third of all U.S. water pipe installed today is A/C.

4. A/C PIPE IS SAFE

4. A/C pipe is safe to use. Most asbestos found in drinking water all over the U.S. comes from natural sources. Ground water picks it up from asbestos rock formations and carries it into

drinking water supplies, no matter what pipe material is used for distribution. IN A/C PIPE, THE ASBESTOS FIBERS ARE ENCAPSULATED AND SECURELY BOUND INTO THE CHEMICALLY STABLE CEMENT AND SILICA FROM WHICH THE PIPE IS FORMED. The release if any, of asbestos fibers from A/C pipe is infinitesimal and poses no health hazard. This is a conclusion confirmed by research done by or for several federal agencies.

A. (Principally the National Cancer Institute; The Department of Health, Education and Welfare; American Cancer Society; and the National Institute of Health. The American Waterworks Association Research Foundation has also published a comprehensive study of the mass of data on this subject.)

5. "AGGRESSIVE"  
WATER CAN BE  
DAMAGING

5. All water pipe, whether A/C, metallic or plastic, is at the mercy of what is known as highly "aggressive" water. This is water which is very soft or highly acidic. It damages all kinds

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of pipe, and other water system components.

Aggressive water in the U.S. costs a billion dollars annually in system replacement and repair. The real solution is to neutralize it chemically at the source, regardless of the pipe materials used.

CertainTeed, in conformance to industry standards, does not recommend the use of A/C pipe under aggressive water conditions.

6. INDUSTRY WORK  
PRACTICES FOR  
CONTRACTORS AND  
INSTALLERS

6. For people using water distributed through A/C pipe, there is no danger to health. And for installers, most machining operations in the field are minimized because of the complete line of short lengths of pipe available and because of the standard fittings used.

However, some cutting and shaping may be necessary during field operations. For this reason, A/C pipe manufacturers and the water utility industry have developed and made mass distribution of recommended work practices to contractors and installers of A/C water pipe. These

explain in detail how to handle, cut, bevel and tap A/C pipe to insure a safe work environment.

To protect residents near manufacturing sites, EPA regulates the emission of asbestos fibers into both the air and water surrounding the plants. We comply with all of those regulations.

7. To summarize:

With today's technology, A/C pipe is safe to handle and install, and safe for the many millions of people served by A/C pipe in water systems around the world.

CertainTeed is in full compliance with all local, state and federal regulations. The A/C pipe industry is important to the economy, not just in terms of the employment it provides, but in terms of the highly cost-effective product it provides for the taxpaying public.

YOU ARE CORDIALLY INVITED TO VISIT ANY OF OUR PLANTS ANY TIME.

## QUESTIONS AND ANSWERS

1. Q. WHAT IS ASBESTOS?

A. Asbestos is the world's only naturally occurring mineral fiber. Deposits are found in over 1/3 of the land area of the U.S. It occurs in commercial quantities in such places as Canada, Russia and Africa. Soft and silky, the fiber has a tensile strength 4 to 5 times greater than that of steel and has properties of flexibility, heat and chemical resistance unmatched by any other natural or man-made fiber. It is used in over 3,000 products.

2. Q. WHAT IS A/C PIPE?

A. "A/C", or asbestos cement pipe, is a pipe made of a blend of cement, silica and asbestos. All of these materials are noncorrodible, inorganic, and compatible with each other.

3. Q. HOW IS A/C PIPE USED?

A. In two major ways: to distribute potable water, and to carry off sewage.

4. Q. HOW IS A/C PIPE MADE?

A. A/C pipe is made by first blending controlled amounts of cement, silica, asbestos and water to create a slurry. From a continuous web, the slurry aggregate is wound under precise pressure onto a mandrel. The mandrel is removed after an intermediate curing stage. Then, the A/C pipe is fully cured in an autoclave at high temperature and pressure to create a chemically and dimensionally stable matrix within which the

asbestos is bound in for permanent tensile reinforcement. The cement, asbestos and silica have now become a completely unified composite material, more stable and inert than any metallic water piping substance.

5. Q. HOW MUCH ASBESTOS IS THERE IN A/C PIPE?

A. About 15 percent.

6. Q. WHY CAN'T YOU SUBSTITUTE A MATERIAL OTHER THAN ASBESTOS TO MAKE A PIPE THAT'S EQUALLY AS GOOD?

A. CertainTeed for some time has been investing substantially in the search for alternative reinforcing fiber materials because asbestos is a limited and expensive natural resource. So far, no material has been found which will do the job.

7. Q. WHY WOULD A WATER SYSTEM AUTHORITY ELECT TO USE A/C PIPE OVER SUCH TRADITIONAL MATERIALS AS IRON, STEEL OR CONCRETE?

A. A/C pipe solves two problems for a community: The first is purely economic. The net cost to the taxpayer for installing A/C pipe is significantly lower than the cost of traditional materials, whether the system is water or sewage. We have seen savings to the community of as much as 40 percent in the recent past.

The second reason is indirectly economic in that metallic pipe can corrode and A/C pipe cannot. According to a

National Bureau of Standards Report\*, the total annual cost of corrosion in the U.S. water and sanitary services is over one and a quarter billion dollars. Direct costs account for \$411,000,000 while indirect costs total \$843,000,000.

\*(National Bureau of Standards Report: Economic Effects of Metallic Corrosion in the United States, Special Publication 511-1, Page 16, Table 8).

Because it is cured at high temperatures, A/C sewer pipe has higher resistance to sewage acids than concrete pipe. In both water and sewage systems, A/C pipe can be expected to have a longer useful life and require less maintenance than its metallic equivalents.

8. Q. WHAT IS THE NUMBER 1 PROBLEM THAT THE WATER PIPE INDUSTRY FACES TODAY?

A. Aggressive water. The American Water Works Association and the EPA have recognized aggressive water as a basic hazard. Aggressive water is a term applied to water that is very soft or highly acidic. It attacks pipe and valves of all kinds, not just in distribution systems, but inside homes as well. Aggressive water causes repair, replacement and protective devices costing the U.S. waterworks industry an estimated one billion dollars a year. But the heaviest

toll of all may be its toll in human lives. A 1974 study by H. A. Schroeder and L. A. Kraemer entitled "Cardiovascular Mortality, Municipal Water and Corrosion," confirmed that there was a "consistent and highly significant relationship" between aggressive water and cardiovascular diseases such as heart attacks. The study, published in the Archives of Environmental Health, showed that cities with the softest water had twice the death rate from coronary disease as cities where the water was the hardest.

9. Q. CAN THE LOCAL WATER AUTHORITIES DO ANYTHING ABOUT AGGRESSIVE WATER?

A. Yes. The damaging effects of aggressive water can be prevented by simple, inexpensive treatment at the source.

10. Q. ARE YOUR PLANTS SAFE FOR YOUR WORKERS?

A. It is an acknowledged fact that significant exposure to airborne asbestos fibers can cause a hazard to health when inhaled. This is recognized internationally today. So standards have been set establishing safe levels of exposure for people working in asbestos product industries.

In our A/C pipe manufacturing plants, precautions are in effect to assure that exposure levels set by OSHA are met.

At CertainTeed, health-protective equipment and systems, representing an investment of over one million dollars per plant, are in place and in operation.

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These include:

- Highly effective vacuum systems.
- Air contaminant measuring devices.
- Dust and waste disposal apparatus.
- Water treatment and solids recovery equipment.
- Regular medical surveillance.

Although all the evidence we have indicates our plants are safe, CertainTeed will continue its investment in development and application of improved environmental control systems.

11. Q. HOW THOROUGH AND HOW OFTEN ARE "MEDICAL CHECKUPS" GIVEN TO EMPLOYEES AT YOUR PLANTS? WHO PAYS FOR THEM?

A. All candidates for employment are required to undergo a medical examination to determine if there are any physical conditions which might prove incompatible with their employment at CertainTeed.

Each plant employee is given a complete, annual physical examination and the results are discussed individually with the employee by the attending plant physician. If there is an abnormality found which, in the opinion of the examining physician, may be job-related, it is CertainTeed's policy to refer the employee to a qualified medical specialist for further diagnosis and corrective

action, if required. Our company's medical program is comprehensive and exceeds OSHA requirements.

CertainTeed pays all costs for these medical services.

12. Q. WHAT IS THE DEGREE OF CONCENTRATION OF AIRBORNE ASBESTOS FIBER PERMITTED IN YOUR PLANT?

A. Our A/C pipe plants are in full compliance with the OSHA limit of 2 fibers per cubic centimeter, time weighted average over 8 hours. We consider these to be safe levels.

13. Q. HOW DOES ASBESTOS ARRIVE AT YOUR PLANTS?

A. Asbestos arrives in sealed polyethylene bags.

14. Q. IS THERE ANY ASBESTOS DUST IN THE IMMEDIATE AREA OUTSIDE YOUR PLANTS?

A. The outside atmosphere at all CertainTeed plants is monitored and is in full compliance with the EPA emission standards.

15. Q. HOW DO YOU DISPOSE OF WASTE IN YOUR PLANTS?

A. The dust from any machining operations is collected through a vacuum system and returned to the manufacturing process. Any water used in the manufacturing process is completely recycled as is other waste. Any non-recyclable waste is disposed of in approved landfills.

16. Q. WHEN DID YOU BECOME AWARE OF THE HEALTH HAZARDS RELATED TO ASBESTOS AND WHAT DID YOU DO ABOUT IT?

A. It wasn't until the mid-1960's that the risk of cancer due to significant inhalation of asbestos fibers became evident. In 1972 government standards were established. CertainTeed has always been in full compliance.

17. Q. HOW DO YOU REGARD THE PROSPECT OF FURTHER GOVERNMENT REGULATION?

A. Speaking for CertainTeed we have no fear of any regulation or legislation that is based on scientifically-founded and informed judgement. However, we do fear emotional action that is based on faulty or incomplete information. This is one of the reasons we are here -- to contribute to the fund of accurate information available to you and your staff.

We do not believe that any further regulation is indicated. You can be assured that we will react to any new facts as honestly and resolutely as we have in the past. We welcome the opportunity to contribute input at anytime into the development of appropriate regulation arising from such new information.

18. Q. HOW LONG HAS CERTAINTED CORPORATION BEEN IN THE A/C PIPE BUSINESS?

A. We entered the A/C pipe business in 1962 when we purchased four A/C pipe facilities from Keasbey and Mattison Company.

19. Q. WHAT ABOUT THE RISKS TO SCHOOL CHILDREN AND SHIPYARD WORKERS?

A. We are not experts on those issues because they don't relate to A/C pipe production or use. However, we understand that they are basically historical problems, arising from ignorance of the hazards of breathing quantities of asbestos fiber, and they are or have been corrected. We would caution against precipitous regulation or legislation to correct for practices that have long ago been discontinued.

Also, we would think it illogical to apply punitive measures to a small and responsible asbestos industry for past errors in architectural and naval engineering.