

ASHRAE JOURNAL

The Presidential Address

Professional development through participation

The text of the inaugural address delivered at the Annual Meeting of the American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc., in St. Louis, Missouri

ASHRAE members and friends, I am deeply honored to stand before you tonight.

ASHRAE is a unique organization. It is unique because of its level of membership participation, its tradition, and its relevance to today's world. Together, these characteristics permit ASHRAE to make untold contributions to our industry and to the well-being of mankind.

Who are ASHRAE members? We are educators, consulting engineers, contractors, building operators, service technicians, code officials, researchers, equipment design engineers and sales engineers, among others. We belong to ASHRAE to enhance our technical skills, thus developing professionally.

As members, we have the opportunity to share knowledge and experiences with individuals representing an entire cross-section of our industry.

When I first became an ASHRAE member, I was impressed with the quality and dedication of the membership. I am even more impressed today. Every time I have been on a committee, there has been someone who has taught me something new. The more I participate, the more I learn, proving the axiom that you learn more by doing and trying than by observing.

The opportunity to participate in our industry, and therefore the opportunity to learn, is ASHRAE's greatest strength. It is the focus of this year's presidential theme:

Professional Development Through Participation

Gerald Wilson, dean of engineering at MIT, says that too often engineering takes place in isolation. He calls it the "throw it over the wall syndrome." Design engineers working independently from manufacturing engineers. Manufacturing engineers working independently from sales engineers.

Wilson says, "Engineers were not meant to be merely analyzers working in isolation. They were meant to be synthesizers, organizers, integrators, and above all, builders."

Our industry achieves integration through ASHRAE. Because of ASHRAE, no one in our industry needs to work in isolation. And through ASHRAE, each one of us can reach his or her full potential.

The second characteristic that makes us unique is our tradition. This tradition is that of technological leadership and is built upon ASHRAE's main objective: advancing the arts and sciences of heating, ventilation, air-conditioning and refrigeration for the benefit of the general public.

Manufacturers and trade associations in our industry rely upon ASHRAE research and standards. Manufacturers and associations do this because first, ASHRAE is a Society of individuals, removed from commercial bias. This in turn creates technical credibility. Second, ASHRAE is an interdisciplinary organization. Through ASHRAE, manufacturers and trade associations have a mechanism to invite constructive debate and later to achieve industry-wide consensus. Third, as a nearly



ASHRAE President Damon Gowan

100-year-old organization with members around the world, ASHRAE's work is recognized internationally.

We have clearly considered those areas in which ASHRAE should write standards and those areas in which we should cooperate with others. Through standards, ASHRAE exerts its greatest impact on the general public and at the same time provides the greatest opportunity to work for the benefit of the public and industry as a whole.

ASHRAE also assists industry through its ability to disseminate information. The focus of our meetings, our publishing and our continuing education activities is to make ASHRAE research and standards as useful to the industry as possible.

The third aspect of ASHRAE's uniqueness is its relevance to today's world.

Everyday we are confronted with examples of the public's mistrust of technology. Unfortunately, we in the engineering and technological community deserve some of the blame for the public's perceptions.

Too often, we concentrate only on technological issues which fascinate us and neglect the important process of communication which will enable our contributions to be understood, appreciated and useable.

Take the CFC issue, for example. Virtually everyone believes CFCs used in air-conditioning and refrigeration systems are depleting the ozone layer. But how many in the general public know that different refrigerants have different ozone depleting potentials? How many know the energy penalties associated with phasing out specific refrigerants?

CFCs, energy, indoor air quality and refrigeration are four subjects of public interest in which ASHRAE can make an important contribution to improved understanding as well as technological progress.

Looking at the characteristics of our Society which set us apart from others—the opportunity for participation; the traditional role as the technological leader of our industry; and the relevance to today's world—it becomes apparent there are three things we should focus on during this year ahead: education, technological development and communication.

This year's theme of "Professional Development Through Participation" will be built upon activities in these three areas. To successfully address them, I offer you 10 specific challenges for the 1990-91 Society year.

- The first challenge is to attract an increasing number of young people to major in engineering and technology.

We should visit middle schools and high schools, encouraging students to take up studies in math and science.

During our visits, we should develop student interest by relating our practical experiences and we should detail the career opportunities they have because demographics show there will be a shortage of engineers by the time they graduate from a university.

We should communicate with school principals and superintendents about the value of developing strong fundamentals.

Our objective should be to promote and emphasize a basic education including problem solving and reasoning.

The engineering profession is so diverse that ASHRAE's emphasis should not be on the promotion of specific engineering disciplines, but rather on the development of a firm foundation of skills that can benefit all of our industries.

- The second challenge is to improve the process by which our profession educates people who enter the HVAC&R industry. What a wonderful opportunity for ASHRAE.

There is no question that ASHRAE is the leader of the development and recording of the sciences of HVAC&R. With our research and technical activities and the lines of communi-

cations with sister societies, we should be able to retain this leadership. But we must do more! We must establish a system to communicate the arts as well as the sciences.

What better resource is there but ASHRAE to help shape effective engineering curriculum and training programs so that our industry realizes the greatest benefit from its young people?

- The third challenge is to provide additional continuing education programs.

Specialty training in our field is so necessary. The state of the art is changing so much that to design a system, build and commission the system and operate and maintain the system, we need the best trained staff available. Our industry needs to have an A-Z training program, and ASHRAE is the one to fill that role. These programs should be for university graduates in engineering and also for industry members who want to improve their technical skills.

- Fourth, we must instill in all those entering our industry a sense of professionalism, pride and understanding of professional ethics.

ASHRAE provides literally thousands of role models. You wouldn't attend this meeting unless you had professional pride which required that you share your knowledge and interest with others. You wouldn't contribute the countless hours of service to ASHRAE committees and chapters unless you believed this was an opportunity to learn about your profession and at the same time put something back.

One of today's best selling authors on business management, Harvey Mackay, writes, "Every time you want to perform whether you're promising delivery, quality, or price—you have to be consistent, and you have to do what you say and say what you mean." He goes on to say that your reputation is your greatest asset. "You can earn it only by earning it; once you do, don't ever let it slip away."

- Our fifth challenge is to maintain ASHRAE as the primary source of information on all technical issues relating to HVAC&R. We achieve this through our TC/TG structure, our research program, our publications and our meetings.

- The sixth challenge is to communicate to the public sector. Whether we like it or not, our industry is the subject of public debate. Attention has been thrust upon us because of such environmental issues as depletion of the ozone layer, the greenhouse effect, the use of energy resources, and indoor environmental quality.

It is critical that ASHRAE continues to serve as a technical resource to government. We must increase these efforts locally, through each one of our chapters. And the Society must continue to support the Washington, D.C., office. When I visited government agencies last fall, the Department of Energy and the Environmental Protection Agency both stressed how they use ASHRAE and ASHRAE lines of communication to disseminate important information to the general public. The same lines are used to communicate industry's knowledge to government and to coordinate research activities.

- Energy is our seventh challenge for the year. But energy is not a stand-alone issue. It is part of a triad, intimately connected to changes in equipment design and performance necessitated by environmental issues.

Indoor air quality and the CFC issue ultimately hinge upon energy usage. We must do a better job of showing the interrelationship between energy use and all of the other technical issues that we face. Each concession we must make in equipment design, installation or operation may have a serious impact on energy efficiency.

Energy is acknowledged to be the key to global prosperity. This means we must provide for our energy needs while not damaging the environment. We must recognize that solutions to energy problems can only be found through good decision-

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making and by efficiently managing the energy resources available.

We know from simple mathematics that even a small percentage increase in energy consumption will result in the need for availability of vast new energy resources. A two percent annual growth will result in a complete doubling of energy use in only 36 years.

As the world's population increases and as under-developed nations continue on the path of industrialization, our energy situation becomes ever more critical. Our challenge is not just to save money. Our challenge is to develop design techniques that save energy, which in turn saves money.

- The eighth challenge for ASHRAE is increased standards activities.

We must convey to our public policy decisionmakers and to the general public the value of and need for ASHRAE and industry standards. We must demonstrate that ASHRAE standards are based upon the best technical judgements our industry can make. We must convey this to all industry segments which depend upon and which are impacted by our standards.

This is even more critical in the changing world of international standards. As an international organization, we must increase our involvement in the international standards writing process and work toward the increased utilization of advanced technology on a global basis.

- Our ninth challenge is to make better utilization of international resources. Technology exchange is at the heart of internationalism.

To promote this exchange, we must integrate people from overseas into the mainstream of ASHRAE participation and we must work with other international societies—such as the Inter-

national Institute of Refrigeration, the European Federation of HVAC Associations, and the Chartered Institution of Building Services Engineers in the United Kingdom.

- The tenth and final challenge is to further bind all elements of the Society together as one, increasingly effective.

Our goal will be to eliminate the "we" and "they" in ASHRAE. We need to promote the concept of a common cause and objective. Sometimes we are so busy ourselves with the details of the work in front of us that we fail to remember our mission.

We hope to meet this challenge by initiating revision of the Society's strategic plan. The process will begin with development of broad goals by the long range planning committee. Each council and committee will then be asked to address these long range goals and to identify specific objectives which achieve them. We anticipate that a new strategic plan, one with broad-based committee input, will be in place by June 1992.

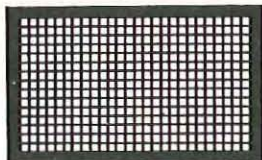
Twenty four years ago, a friend did me the biggest favor in my professional life. He asked me to join ASHRAE.

Never did I dream that I would become so involved in our unique organization, nor did I ever dream that the more I became involved, the more I would personally benefit.

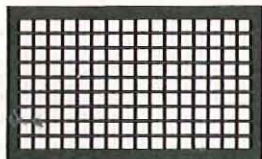
During the year, I would like each one of you to do someone a favor—invite them to join ASHRAE. Like you and me, they will have an unbelievable opportunity to enhance their technical and professional skills.

Meeting these challenges and building upon ASHRAE's strengths in education, technological development and communication is "what's in it" if you will for every ASHRAE member, and it lies at the heart of "Professional Development Through Participation." ■

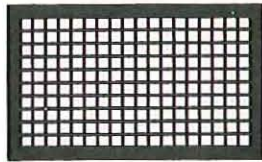
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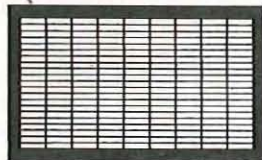
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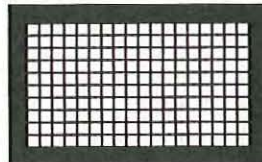
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