

ASHRAE: The Bridge to Professional Growth

The text of the inaugural address delivered at the ASHRAE Annual Meeting in Denver, Colorado

By Neil R. Patterson, P.E.

1993-94 President

American Society of Heating Refrigerating, and Air-Conditioning Engineers

I am very honored and also very proud to serve as president of this great Society we call ASHRAE.

As we approach the end of our first century of progress and look to the future, we should reflect on those principles that have brought us to the preeminent position that we hold today as "The World's Leading Technical Society" devoted to the control and movement of air in enclosed spaces.

Without question we have had strong leadership over the years, providing vision and commitment for continuous improvement. And we are blessed with the winning combination of a good staff and executive director, who are all dedicated to providing world-class service to our membership from our newly renovated headquarters facility in Atlanta.

The cardinal reason for ASHRAE's success is the real gold that lies deep within its very roots. That gold, my friends, is the *individual volunteer* who contributes, year after year, not only time, but also his or her

resources to make this world a better place to live in.

Stop and think a minute about this resource we call ASHRAE. Just the authors of the four volumes in the Handbook series alone represent a combined total of more than 3,000 years of experience! And if you think this is impressive, the volunteers who work on our standards represent more than 15,000 years of experience!

It's really the sum of all of our many and varied parts that makes ASHRAE successful: The 3,000 years of experience that represent our handbooks and 15,000 years that represent our standards are just two of the many obvious examples. I use them to illustrate that no other resource in our industry comes even close to matching what ASHRAE offers to each of its individual members.

About the president

Neil R. Patterson, P.E., is corporate director of market development at The Trane Company in La Crosse, Wisconsin. He is well known in the fields of heat transfer, building energy and economic analysis, and integrated systems. Patterson, an ASHRAE Fellow, has served on ASHRAE committees since 1973. He was chairman of Standard Projects Committee 100.4 for energy conservation in existing industrial facilities and was a member of the committee which developed *Standard 90a-1990, Energy Conservation in New Building Design*.

Bridge to Professional Growth

Continuing to build this resource of and for individual members will be our focus this year. And bridging these talents and disciplines of our 50,000 members into a united resource for technical advancements will be our goal. The improvement and expansion of services that we provide to each and every member will be our objective so that we can all better serve the public that depends upon us.

With this in mind, I have chosen as my theme this year . . . "ASHRAE, The Bridge to Professional Growth."

A former baseball player and manager, Yogi Berra, once stated the obvious when he said, "You can observe a lot by just watching." Well, equally true is the old axiom that you can learn a lot more by participating.

I look at ASHRAE as *your chance* to participate in *your industry* to help it benefit the public. Equally important, ASHRAE is your chance to grow professionally—it's *your chance to grow* whether you are a young engineer in your first position or if like me, you are just trying to keep up with rapidly changing technology.

Just imagine how misinformed or ill-informed you would be about alternative refrigerants and indoor air quality without ASHRAE. Yes, *ASHRAE is your bridge to growth*.

So what qualifications are needed to begin this journey across the bridge to professional growth? I think the most important is to have an open mind. I like the words of James Dewar, the Scottish scientist, who said that, "Minds are like parachutes—they only function when they are open."

Having an open mind reminds me of the story of the third-grade student who said that the thermos bottle was the greatest invention of the 20th Century. "Why," the teacher said, "All the thermos bottle does is keep things hot or cold!" "Yes," the student replied, "But how does it know?"

ASHRAE teaches us to know when and how to keep things hot and cold. But ASHRAE also teaches us more—all we really need is an open mind and a willingness to cross the "Bridge to Learning."

Obviously, ASHRAE's literature and professional contacts teach us such things as how to design energy efficient buildings and how to provide healthful, safe and

productive environments for the people who occupy them.

But beyond the provision of technical knowledge, ASHRAE also builds the characteristics of good leadership. It teaches confidence—you can stake your reputation on ASHRAE data and information that comes from our research and our standards.

Beyond this, ASHRAE also teaches communication skills. If you doubt this, just ask a chapter or regional officer.

ASHRAE also teaches management by objectives and the dynamics of group interaction.

The bottom line—employers in our industry cannot find a better teacher than ASHRAE to develop well-rounded, technically competent employees.

Of course, the maximum benefit from any organization or business requires immersion in the joys and challenges of "making it go."

Ask yourself if you are getting the most out of ASHRAE. If not, then determine what you should do to maximize your benefits.

To help all of us as members to grow, I am charging our chapters, regions, committees and councils with three key initiatives this year:

- Membership promotion
- Timely technology transfer
- Leadership development.

First let us talk about membership promotion. The addition of each new member does not just add to our financial resources. Of much greater importance is the experience that the new member brings to our Society to share with other members. This is especially critical today as we face two demographic facts of life:

- Our membership is getting older
- Our industry work force is becoming more diverse

The obvious solution is to provide the *bridges of opportunity* that will attract young people from diverse backgrounds to our industry and to our Society.

If we do not do this, we will not be the dynamic organization of the future that introduces and guides technology advancement. Rather, we will become a complacent organization whose members reflect on how things used to be.

Our Life Members are the pioneers who give us invaluable professional experience and wisdom to help guide Society

chapters, regions, committees and councils in their deliberations.

While we are blessed with this resource, we should also be aware that there are currently more than 3,700 Life Members in the Society. It is our fastest growing membership segment, and accounts for more than 7% of our current membership. Ten years ago it was less than 3.5%.

To further utilize this tremendous resource, here is my challenge to all Life Members: Find a young candidate for membership and be his or her mentor.

Your example coupled with your professional guidance will strengthen your bridge to outstanding service to ASHRAE.

To all members, I offer the challenge of becoming involved in your local school systems. Participate in National Engineers Week. Offer to teach a class. Encourage young people to enter engineering and our industry. They may be our future leaders!

Let us talk about timely technology transfer. In the past, ASHRAE has built a thousand bridges to bring new technology into practice. But we need more, and we need to speed up the process.

Certainly the rapidly changing issues of today will drive the technology of tomorrow. For example, there are more than 80,000 centrifugal chillers in the United States that must be replaced or converted to use alternate refrigerants in the next few years.

This is just the tip of the iceberg. How many R-22 systems will ultimately require conversion or replacement once an environmentally acceptable alternative is found?

One thing is certain—the large number will dwarf the centrifugal chiller issue!

The point is that the need develops rapidly for state-of-the-art or current Standards like 15 and 34 on refrigerants, Standards 90.1 and 90.2 on energy conservation and Standard 62 on indoor air quality!

But these standards must also be quickly codified, because if ASHRAE does not provide assistance in a timely manner for code preparation, others less qualified will step forward to take our place.

Perhaps our most important bridges to timely technology transfer are "Global Bridges." The synergy of ASHRAE working with other national and international

organizations around the world must remain dynamic.

After all, economists today know that there really is not a U.S. economy or Canadian or Japanese or British economies. What we have is a world economy that affects each nation in a different way. Ours is a world technology applied differently, advanced differently, but sharing common ingredients and based on similar needs.

In that context, last year's presidential theme "Sharing Resources Globally" takes on added meaning.

What can you do as an ASHRAE member to assist the timely transfer of technology? Here are four examples:

- Assist in the research promotion effort, either by increasing your personal investment or by reaching out to others to support the research effort.
- Inquire about membership on an ASHRAE technical committee or standard project committee.
- Get involved in presenting chapter and regional technical programs. Share your knowledge with other members as they share their knowledge with you.
- Attend ASHRAE's Annual and Winter Meetings. There is no greater forum for the exchange of engineering information in our industry.

A final challenge that I would like to address is *leadership development in our Society*. If we are to continue to lead our industry in the future, we must remain dynamic and continue to develop the entrepreneurial spirit in the young people who will be the future leaders of ASHRAE.

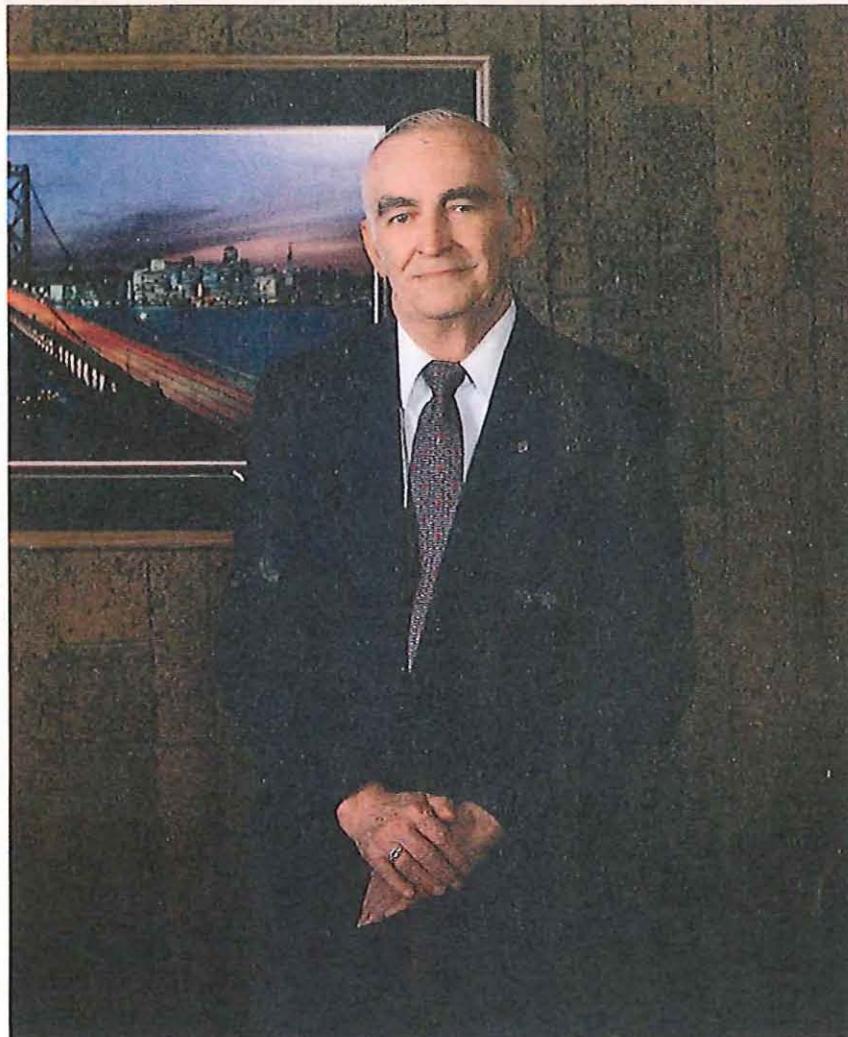
To this end, we must continue to improve the quality of our educational programs, our publications and our research.

We are currently spending about \$1 million per year to help solve the ozone depletion and global warming problems. And ASHRAE will continue to support research to find the most promising replacement refrigerants for energy efficiency and safe operation of heating and cooling systems.

But the point is that the solutions will come from leadership of individuals within the various committees of ASHRAE, not from the committees themselves.

If you do not believe this, go search the parks in any city; you'll see dozens of statues of *leaders* and not one of a *committee*.

To sustain our leadership we must not only continue our creative efforts but we



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must also communicate our conclusions in a timely manner to our membership as well as to others who have a need to know.

For example, our new position paper on global warming advocates precautionary action based on prudent and responsible measures. It illustrates that higher energy inputs or safety compromises may be counter-productive.

And in all solutions to problems of this nature, we must continue to have open, searching minds. We must not only *see things* and say *why*—but we must also *dream of things* that never were and say *Why not?*

Engineers have always been builders. And this year we must build the bridges that will attract new members to advance technology and bring our expertise to bear on creative solutions to the challenges facing our industry. It's these new bridges that will open the doors to leadership development and professional growth.

In *Megatrends 2000*, John Nesbitt and

Patricia Aburdene point out that when we think of the 21st Century, we think of technology: things like space travel, biotechnology, robotics and the like. But they say that the most exciting breakthroughs will occur not because of technology, but because of an expanding concept of what it means to be human.

The wider our horizons and the more powerful our technology, the greater we have come to value the individual member and the leadership potential that he or she possesses. Always remember, *there is no greater experience for a leader than reaching down and lifting people up*.

And so my fellow members, ASHRAE is your bridge to professional growth. It is a bridge that will be built by you and for you as an individual member. And the stronger your bridge becomes in ASHRAE, the greater the benefit that you as an individual member will enjoy. As a Society, let us all cross that bridge together as we start another ASHRAE year. ■