

The Presidential Address

Sharing the Vision

*The text of the inaugural address delivered
at the ASHRAE Annual Meeting in San Diego, California*

By Richard B. Hayter, Ph.D., P.E.

1995-96 President

American Society of Heating, Refrigerating and Air-Conditioning Engineers

One hundred years. That is a long time. Or is it? Today, we are witnessing a global stampede toward the future. The proliferation of information technology has flooded the world with data and information moving near the speed of light to all corners of the world. Where distance and time used to separate us, modern communications technologies are bringing us together.

In our world, information and knowledge are becoming our most valuable commodities, and we are quickly becoming a 24-hour society.

What is your vision of 100 years from now, when our children and grandchildren, as ASHRAE members, will be celebrating the Society's bicentennial? What will their world and businesses be like? What legacy will we have left them?

Alvin Toffler in his book, *The Third Wave*, describes companies of tomorrow as innovative and energetic.

"Work units will tend to be small...they will tend to invest more in R & D, training, education and human resources. Ferocious competition will force them to innovate continuously."

In this market and consumer-driven global economy, successful competition means that human ability and performance must be at their peaks. The companies, countries and organizations that will succeed are not necessarily those that have the most capital, the most employees, and the most production plants — but those that seize the initiative and run with it.

We will see information technologies as common as electricity. Computers for the exchange of information will be on every

desk, every lap and even in every palm, tapping into vast resources of knowledge.

University networks are already serving students around the world through electronic communications. Physicians are diagnosing patients from a distance through fiber-optics, compressed video and discrete digital images. More "smart" technologies will become available to help us cope with working and living in this 24-hour society.

In a recent issue of *The Futurist* magazine, I came across a brief scenario of waking up in 2025. I would like to share parts of it with you, with a few additions of my own.

It's stardate 2025: You wake up at 7 am and your biometric bed checks your vital signs. Of course, your environmental control system is now preparing other rooms in your home for your entry into that space.

You step into the shower and the spray nozzles automatically adjust to your frame. Whereas your grandparents sang in the shower, you listen attentively as the shower room's personal information system reports on the latest worldwide stock activity and a synopsis of the latest research results from an ASHRAE-sponsored project.

As you are doused with antibacterial suds, which are then passed through a water recycler, you ask the information system for a quick mood assessment from the psychotherapeutic expert system you just installed.

"Hey, relax," it responds soothingly. "Imagine a sun-drenched beach."

You smile, and think about the fun you had on your last vacation, rather than the three-hour international video-conference you had with your ASHRAE standards project committee about the adoption of *Standard 90-2025R*.

The robotic closet-valet brings out your temperature-sensitive garment. You quickly

dress as you realize you are late for an Internet user group meeting on refrigerant-free, low-temperature chilling technology. As you leave your bedroom and head for your office just off your family room, you sense the space temperature in the room you are leaving adjusting to an unoccupied setting.

As you enter your office, you smile at the lack of paper and clutter, because 25 years ago ASHRAE adopted a paperless policy. You turn on your computer and log in. You are now ready for a typical workday in the 21st century.

What might we more realistically expect?

- Building envelopes that serve a dual role as the building power source or
- Mechanical and lighting systems with self-contained power sources?
- Refrigerant free, energy efficient refrigeration equipment?
- Cost-effective annual cycle heating and refrigeration systems?

About the President

Dr. Richard B. Hayter is Associate Dean of Engineering for Extension and Outreach at Kansas State University. A mechanical engineer, he received his B.S. from South Dakota State University, and his M.S. and Ph.D. from Kansas State University. Prior to his present position, he served in the U.S. Air Force and was executive vice-president of an engineering consulting firm specializing in energy management in commercial and industrial buildings. A licensed professional engineer, he was a member of the Kansas Governor's cabinet as director of the Kansas Energy Office.

Dr. Hayter is an ASHRAE Fellow and a recipient of ASHRAE's Distinguished Service Award.

• Indoor environments that are universally free of harmful contaminants?

Like all companies and organizations, to succeed in this future world and to excel in this market- and consumer-driven economy, ASHRAE must be energetic and innovative. We must be prepared to seize the initiative — to reinvent, to adapt, to develop new markets and to change as necessary.

Today we are in an excellent position to seize the initiative. Our accomplishments during our first 100 years laid a solid foundation for the growth of ASHRAE in its second century and for the growth of our industry.

We must always remember, however, that whatever good there is in our world we inherit from the courage and work of those who went before us. We, in turn, have a responsibility to make things better for those who will inherit the earth from us.

Jonas Salk, developer of the first effective polio vaccine, said: "Our greatest responsibility is to be good ancestors."

When I was vice chairman of the ASHRAE Program Committee, I had an opportunity to visit with the science fiction writer and futurist Isaac Asimov. He wrote that.

"No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be."

In 1993, ASHRAE adopted its first vision statement. This vision statement guides us on our journey into the future and will help us to be good ancestors. It also helps us focus our decisions on the world as it is now and as it will be. It reminds us of our mission as a society and of our goals. The statement reads:

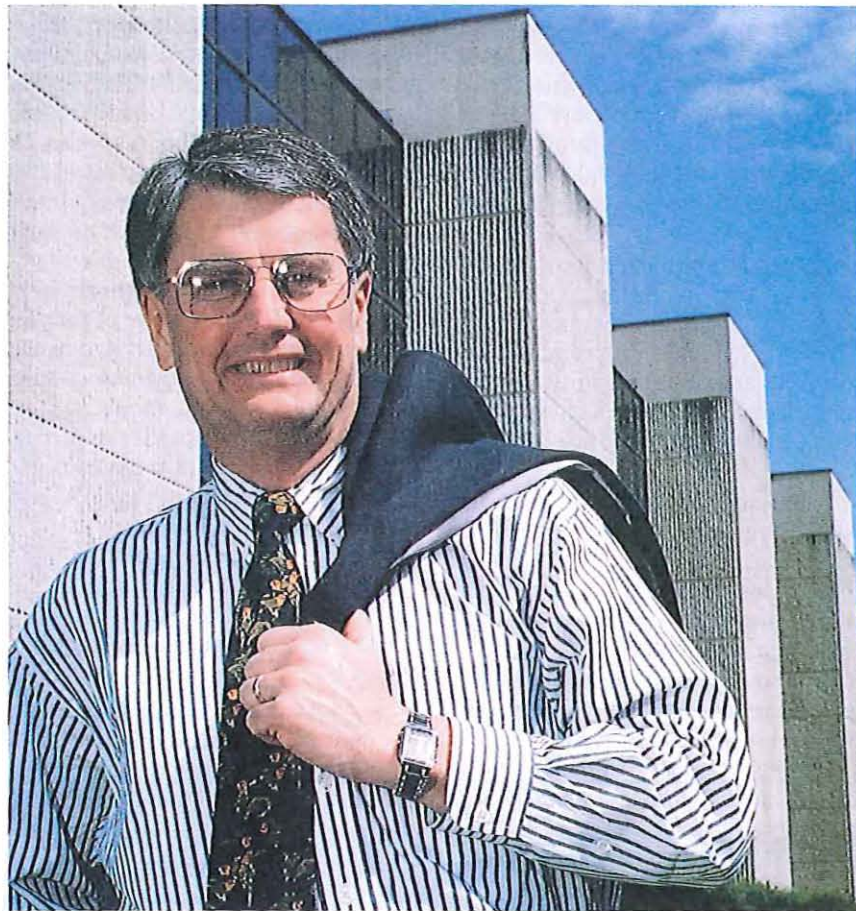
ASHRAE —

- Will be the global leader in the arts and sciences of heating, ventilating, air conditioning and refrigeration

- Will be the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, and

- Will be the primary provider of opportunity for professional growth recognizing and adapting to changing demographics and embracing diversity.

My challenge to you this year is to seize the initiative, embrace this vision of ASHRAE and commit yourself to action.



Richard B. Hayter, Ph.D., P.E., see challenges and opportunities for ASHRAE.

My theme for this year reflects this challenge. It quite simply is.

VISION

Vision — speaking now in general terms — means thinking big, maintaining perspective, relentless alertness and clarity. Vision is valuing intellectual brilliance. Vision means thinking for yourself, maintaining a clear image of your distant goals — in short — being not only reactive but also resolutely proactive. It means having a sense of legacy and destiny, and at all times keeping that sense in view.

I am pleased to report that we have already begun to seize the initiative and embrace this vision as we enter ASHRAE's second century. This past year, for example, the Society formally established the ASHRAE Foundation. The Foundation will provide the resources needed to meet our vision of service to our members and industry.

In addition, the Board of Directors has received the first draft of a new long-range plan. At this San Diego meeting,

we began the development of a new strategic plan which will take us into the 21st century.

What else can we do to embrace this vision of ASHRAE?

First, we must recognize that individual members are the key to ASHRAE's future. This past year our president reminded us that each of us is a giant upon whose shoulders future HVAC&R engineers will stand. Therefore ASHRAE has an obligation of service to members.

Second, we must continue to provide a forum whereby each of us can collectively make a unique contribution to our industry and our world.

I would like to spend my remaining time describing seven initiatives in these two areas of service to our members and service to our industry.

At the 1993 ASHRAE Region V CRC, the Cleveland Chapter opened their chapter report with a quote from successful football coach Woody Hayes. He said, "You win with people!"

Sharing the Vision

Likewise, we can win with our members by providing member services that will facilitate their professional growth and encourage their participation in ASHRAE. We can accomplish this through three member service initiatives: Education, professional certification and communication.

First, education. ASHRAE's education programs give our members access to three vital tools: Information, support and resources. One of the best investments ASHRAE can make is in educating our members and giving them the ability, through discernment and foresight, to see what the future can be and how to make it so.

One major program that the ASHRAE Foundation is considering is the solicitation of support for an ASHRAE Training Institute where, in a short period of time, members would receive in-depth training in HVAC&R.

Chapter programs are another excellent vehicle for education. This year your Society established a Chapter Program Committee to strengthen the benefit of chapter meetings for the technical growth of our members.

ASHRAE is fortunate to have a multitude of world class speakers who can share knowledge needed by all our members. I will ask the Chapter Program Committee to investigate creating an ASHRAE Distinguished Lectureship Program to take advantage of this valuable resource. In addition, I have asked the ASHRAE Foundation to determine if financial support could be generated for this program through gifts.

The second member initiative is professional certification. Opinions differ within our Society as to ASHRAE's role in specialty certification. Yet while we are debating that role, others are implementing programs that directly affect our members, particularly as certification impacts governmental regulation.

I will ask the Board of Directors to establish a Society position on this issue, and if appropriate, establish a plan of action that will serve the needs of our members and the HVAC&R industry.

My third initiative is to enhance fast, cost-effective communication with our members. Communication is critical to realizing our vision and maintaining our position as the world's leading technical society.

Just as HVAC&R technology is growing exponentially, so are communication technologies. Today 30% of US households have a personal computer, and 50% of all computer sales are for home use. Also, 38 million people now have access to the information superhighway through Internet compared with 8 million just 2 years ago.

This year we will investigate how ASHRAE can take advantage of the new communication technologies and accelerate the adoption of those technologies that will most benefit our members.

Allow me to now expand on the second way we can embrace our vision of ASHRAE, which is service to the HVAC&R industry. Here, I offer four initiatives: Innovation, membership Growth, internationalism and Total Building Design.

We must remember that in serving our industry we serve humanity. Albert Einstein said:

"Concern for man and his fate must always form the chief interest of all technical endeavors...never forget this in the midst of your diagrams and equations."

My first industry service initiative is to encourage greater innovation in our practice of engineering. The world community looks to those of us in the HVAC&R engineering profession to deal with issues ranging from health, safety and productivity to energy conservation and global warming. Solutions to these challenges can only be achieved through creative thought and innovative engineering.

What is our vision?

- Will refrigerants be environmentally benign?
- Will renewable energy be the primary energy source for operating buildings and refrigeration systems?
- Will "smart" buildings change their thermal and optical properties to minimize the energy used?
- Will refrigeration play a role in genetic engineering for creating new methods of food preservation?

Within all of these, we must ask how will engineers deal with the increasing demand for precise environmental control as traditional energy supplies decline?

Can ASHRAE's members help accelerate this innovative process and provide solutions to the challenges we face? We can, and we will!

Towards this end, I have asked a group of individuals, who are recognized internationally for their innovative contributions, to provide a plan of action that would encourage creative engineering through our present ASHRAE structure of technical committees, standards project committees and other elements within our ASHRAE organization.

In addition, research is a fundamental component for meeting the technological challenges of our industry. ASHRAE has a strong tradition of serving industry through research. I ask each of you to make a personal commitment to continue and to expand your support of ASHRAE's research program.

The second initiative in service to industry is membership growth. To increase service to our industry, we must continue to build our membership. Our Membership Promotion Committee has embraced the challenge of meeting this need, particularly through promoting diversity.

This year we will launch the 1995/96 membership campaign — VISION 2001. Each sponsor who recruits a new member is automatically entered into a VISION 2001 incentive program.

But where are the future members of our Society? They are in today's classrooms throughout the world.

A demographer told us at the 1990 Winter Meeting in Atlanta that an interest and enthusiasm for the sciences, math and engineering must take root before students enter high school and certainly before they enter college.

A number of chapters have excellent programs of working with their local schools and youth organizations. For example, the Rocky Mountain Chapter works closely with the schools districts in the greater Denver area to place engineers in the classroom. The Louisville Chapter will soon sponsor a Boy Scout Explorer Specialty Post in engineering. And there are other examples.

I will ask our Student Activities Committee to poll our chapters to discover other programs that are stimulating an interest in science and engineering. I will also ask the committee to recommend opportunities for expanding our services to student members and student branches. To help in this effort, I have appointed two premiere student branch advisors as consultants to this committee.

We must also take steps to expand the base of our membership. Many of the solutions to problems with which we deal will come from professions which have typically not been represented in ASHRAE. We must identify those professions and encourage individuals in those fields to join our Society.

The third initiative is internationalism in service to our industry. One way we can encourage advantageous sharing of work, coordination of effort and a common language for the exchange of information is to continue our commitment to the development and adoption of globally accepted standards. These standards will help ensure that markets are open and competitive for equipment and systems regardless of the country of origin.

In addition, standards which are globally accepted will assure that engineering practices and procedures are uniform and consistent worldwide. Most importantly, they will assure a minimum standard

of quality of equipment and systems for the benefit of humanity.

ASHRAE will also continue to search for ways to serve the worldwide engineering community, including our members and ASHRAE's associate societies. This year we will continue to explore opportunities to fulfill our vision and mission worldwide.

The fourth industry service initiative addresses the concept of Total Building Design. Just as technology is experiencing exponential change, so is the role of the engineer in designing new systems and adopting that technology. Presidential Member Billy Manning met this challenge by appointing an ad hoc committee on Total Building Design.

Because Total Building Design is so critical to our industry, I will ask the ad hoc committee to make additional recommendations for expanding ASHRAE's effort in this area.

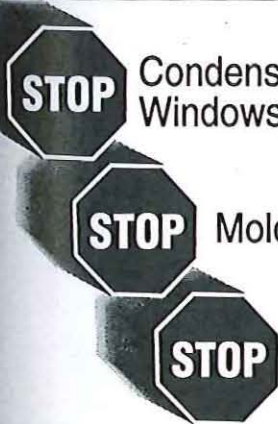
In closing, I have mentioned only a few of the challenges and opportunities fac-

ing us as we pursue the vision of ASHRAE through service to our members and to our industry. Vision alone, however is not enough. The futurist, Joel Barker, said:

"Vision without action is merely a dream, and action without vision just passes the time. But, vision with action can change the world."

Our Society has proven this to be true. I ask each of you to make an individual commitment to that vision by contributing your unique talents, knowledge and abilities. Commitment unlocks the doors of imagination, and allows us to embrace our vision and develop new, innovative ideas. Commitment gives us the "right stuff" to turn our vision into reality.

As your new president, I ask each of you to join ASHRAE's 50,000 members in pursuit of our vision. Together we will continue the initiative seized 100 years ago. With vision and commitment, we will build the future of HVAC&R technology and our world.



STOP Condensation on Windows, Walls & Ceilings

STOP Mold and Mildew

STOP Rust and Corrosion

Dehumidifiers

For Every Situation

Including -

- Portable Models
- Wall Mounted Models
- Swimming Pool & Spa Models (self-contained or ductable)
- Low Temperature Models-Down to 0°F

1-800-433-9011

Ebac Systems, Inc.
 106 John Jefferson Road, Suite 102
 Williamsburg, VA 23185-5654
 804-229-3038 Fax 804-229-3321

(Circle No. 19 on Reader Service Card)

CONTEMPORARY ALUMINUM

RoundRegister™
(Double Deflection)



SpotDiffuser™



SpotPac™



A B C D E

A Spot Air Flow
 B Air Volume Control
 C Air Direction Control
 D On/Off Operation
 E Air Shower for Particle/Dust Control

SEIHO
 INTERNATIONAL, INC
 P. O. BOX 5338 PASADENA, CA 91117
 (800) 248-0030 (818)395-7299 FAX (818)395-7290

(Circle No. 20 on Reader Service Card)