

Technology For a Better Environment

*Text of the Inaugural Address Delivered
At ASHRAE's Annual Meeting in Boston*

By Donald E. Holte, P.Eng.
1997-98 ASHRAE President

Good afternoon fellow ASHRAE members and guests. This afternoon I will speak to you briefly about an area that I would like this great organization of ours to focus some of its energy on in the next year and in the years to come. Just as you cannot run a horse race without names for the horses, so too, if one wants to give focus to an idea, it needs a name. My horse is called: **Technology for a Better Environment**.

Before I ask you to buy into my ideas and plans, I feel you need to know a little more about the person who will act as your president for the next year. When I first entered into my own business, I was told, "You can't do business with a stranger." To most of you, I am stranger. Who is Don Holte?

I was born in 1936 in a place called Cold Lake, Alberta, Canada. I have lived in Edmonton, Alberta since 1940. Edmonton has a metro population of about 850,000. It is an agriculture, oil, gas and petro-chemical community. I graduated from the University of Alberta with a degree in mechanical engineering in 1963.

I have worked as a surveyor for an oil company, as a utilization engineer for a natural gas utility, and as a consulting HVAC engineer for 25 years. Now, I am one of the founding partners and senior vice president marketing for a high performance window and curtain wall manufacturer. I have spent the last 12 years in various ASHRAE positions, starting as Region XI regional vice chair of education.

It may seem strange to some of you that a HVAC&R engineering society would have for its president someone who makes window and curtain wall systems. Well, ASHRAE is to blame.

At the 1984 ASHRAE Winter Meeting in Atlanta, I attended a technical paper presentation by Dr. Bruno Keller from Switzerland. He spoke about the work his company was doing in the high performance window field. As ASHRAE is the only North American organization that really understands windows and the impact they have on a building heating and cooling loads, it was only logical that when they wanted to tell the world about what they were doing, they would decide to come to spread the word at an ASHRAE winter meeting. What Dr. Keller said intrigued me so much that I changed careers.

When I first started to think about what I was going to discuss with you and all of our members, I was going to use the handle **The Greening of ASHRAE** as my opening gambit. But, when I bounced this idea off some of my ASHRAE peers, all I heard was "NO." The word "greening" engenders many varied reactions.

A lot of you here are probably thinking, "He's one of those." And, yes, I am one of those. I am very concerned about what we are doing to our global environment. But, I am also one of those who strongly believes in a free market system, and I like making money.

Let me explain what I mean by the **Greening of ASHRAE**, why I believe we have to be green, and how this ties into **Technology for a Better Environment**.

Being green requires a sustainable approach to designing and building buildings and managing our natural resources. By "sustainable" or "green," I mean we must design and build buildings that do not deplete the earth's natural resources, nor harm our global environment or jeopardize the ability of future generations to meet their needs.

ASHRAE has a large role to play in our global environment. Because our standards, research and ability to disseminate technical information are so well respected, we have, in

About the President

ASHRAE President Donald E. Holte, P. Eng., Fellow ASHRAE and Life Member, is senior vice president of marketing and founding partner for Visionwall Technologies in Edmonton, Alberta, Canada. He is a registered professional engineer in three Canadian provinces, and specializes in heating, ventilation, fenestration, building envelopes and building energy use.

Holte joined ASHRAE in 1964 and has held leadership positions

at the chapter, region and Society levels. He was elevated to the grade of Fellow in 1993, and received the ASHRAE Distinguished Service Award in 1996. As president, he will preside at meetings of the Society's Board of Directors and the Executive Committee.

Holte earned a degree in mechanical engineering in 1963 from the University of Alberta. In his 25 years as a consulting HVAC&R engineer, his projects ranged from a heat recovery ventilation system for a 800MW thermal power plant to arctic housing to bio-medical and petrochemical research buildings.

North America at least, assumed the mantle of the keeper of the keys for building energy use, indoor air quality and indoor comfort, all of which impact directly or indirectly the outdoor global environment.

But, we must take this one step further. We must become proactive in what we do so as to lessen the impact our technology has on the environment. We must become the link between the indoor built environment and the outdoor global environment. We must strive to do more with less. We must be willing to reward people for designing and building buildings that are energy efficient and which do not adversely affect the environment. For example, why not reward people for designing and building buildings that do not need a chiller, not just for ones that use a smaller chiller?

Every time I speak about modern office buildings without a chiller I hear snickering. The BATISO building in Switzerland, where it can get to 95°F (35°C) in the summer, is an excellent example. The architects and the engineers cooperated from square one. Temperature control and ventilation are separate with the building mass acting as a thermal regulator. The end result is an HVAC system that uses only 10% to 15% of the energy used by a conventional system.

When we speak with our peers, we need to feel good about bragging how small the system was we designed and built. We should feel proud to say how we are pro-actively working to advance the arts and science of HVAC&R technology by doing more with less.

So you see, **Technology for a Better Environment** really complements **The Greening of ASHRAE**, and one cannot happen without the other. By embracing this philosophy, we can ensure an adequate supply of all material resources for future generations.

This year I have asked the Society to emphasize my theme in two areas. The first is for ASHRAE to be one of the sponsors of the Green Building Challenge '98, and the second is the Presidential Award of Excellence program.

The Green Building Challenge '98 is a two-year process of international building performance assessments. Each of the 14 participating countries will present examples of the work their country is doing in the field of green, sustainable buildings. The program culminates in a conference in Vancouver, British Columbia, Canada in October 1998, during which participating countries will present the results of their detailed assessments. The conference will also provide a forum for general technical papers and a discussion of issues in the green, sustainable building field. ASHRAE's support of this program includes:

- Having a member participate on the United States and Canadian teams;

- Promoting the program through advertising in our publications;
- Providing financial assistance; and,
- Assisting in the review of the projects presented at the conference.

Our participation in this program will help, I hope, to close the gap between us and the architects. Only through integrated design will the full benefits of our technical knowledge lead to a better environment. Our participation in the Green Building Challenge '98 also will help to enhance ASHRAE's global image as a leader in **Technology for a Better Environment**.

In ASHRAE, we have this thing called PAOE -- the Presidential Award of Excellence. As most of you know, it is one of the things we have fun picking at every year. It does, however, allow the Society's president an opportunity to cause each chapter to pay some attention to the current president as he or she can focus the PAOE program to emphasize his or her area of concern.

This Society year I have added a new PAOE section called "Presidential Activity." In this section, I have asked the chapters to focus some of their chapter programs on:

- The impact energy consumption has on the global environment;
- Joint meetings with the architectural community; and,
- New technology for a truly sus-

tainable building.

I want all of our Society to buy into the concept of **Technology for a Better Environment** and to think of **The Greening of ASHRAE**. We owe this to the generations following us.

The past 100 years has been a century of brawn over brain. No matter what the architect dreamed up, we said we would build a machine and system to beat the building into submission. We had an abundance of low-cost energy, and were not overly concerned about how much we used or the impact on the environment.

This must stop! It is our responsibility to ensure a clean environment and an adequate supply of energy for future generations. We must learn to be proactive, to do more with less, and we must stop thinking bigger is better. From here on, it must be brain over brawn. ASHRAE has the brain. Our technical knowledge must be used to make a better environment.

I would like to wrap up by telling you about Rudyard Kipling. I know some of you are saying, "What does Rudyard Kipling have to do with ASHRAE?"

Kipling wrote a poem entitled, *The Sons of Martha*, which describes the role of the engineer in our society. In this poem, he stresses the obligation we, as engineers, have to keep this world running. His comments apply to us as ASHRAE members as much today as they did to engineers 90 years ago when



1997-98 ASHRAE President Donald Holte has held leadership positions at all levels of ASHRAE.

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he wrote the poem. If you do not know this poem, I encourage you to look it up and read it.

In 1923, Kipling also wrote the text for a ceremony that has been conducted by the engineering community across Canada for the past 75 years. In 1963, when I graduated as an engineer, I accepted an Obligation at the Ritual of the Calling of an Engineer. A couple of months ago, I had the opportunity to attend this ceremony again with my wife as she received her Iron Ring. The last part of the obligation is:

“For my assured failures and derelictions, I ask pardon beforehand of my betters and my equals in the Calling here assembled; praying that in the hour of temptation, weakness and weariness, the memory of this Obligation and of the company before whom it was entered into, may return to aid, comfort and restrain.”

I ask this of you, and I assure you that I will endeavor to fulfill my obligation to you as your president. ASHRAE has the technology to make a better environment. We also have the wisdom and experience to learn:

- To do more with less;
- To always be thinking about our impact on the global environment; and,
- To be the link between the indoor environment and global outdoor environment.

Do more with less, and our technology will make a better environment. To be the change we want to see in this world, all we have to do is just do it.

My wife, Wita, and I look forward to serving the global ASHRAE during the 1997-98 Society year. Thank you. ■

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