

ASHRAE Leadership Recall (formerly Leadership Recalled)
Transcription

Interview of: Terry Townsend

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Interviewed by: Dick Worth

Dick Worth

Good afternoon. My name is Dick Worth I'm 2007-2008 vice chair of the ASHRAE historical committee and today I'm pleased to be with Terry Townsend, past president from 2006-2007. Terry, welcome.

Terry Townsend

Well thank you very much. Appreciate it Dick.

D.W.

This is a leadership recalled interview and we're going to start at the beginning.

T.T.

Oh okay.

D.W.

With where you were born. Where you went to school. You want to talk about your parents and family.

T.T.

That's kind of a, how long did you say we have?

D.W.

We'll just keep going.

T.T.

I was born in Cleveland, Tennessee and according to my grandkids that was back when the earth cooled. But really born, raised in Cleveland, Tennessee and went to high school, to Bradley High school. Community college in Cleveland State Community College and Tennessee Tech. So that's where I have my engineering and advanced engineering degrees as well as working on my doctorate. So my parents. My mom she was a professional secretary. She worked for a different manufacturing concerns. My dad, he was in automobile sales and went into real estate and he was also a Baptist preacher. And he preached in country churches. And he was a head of the Bradley County Beverage Association for a few years but I guess what he and I had a closeness in is we both love baseball. And I still play baseball in this, in the men's senior baseball league. But that's how I kind of get my relaxation. You know, you get frustrated during the week doing engineering work so you can go out and take it out on the baseball.

D.W.

That's great.

T.T.

So that's kind of my background. Of course I think that everyone is aware that my grandmother was a Cherokee Indian. And she was a member of the eastern band of the Cherokee Nation and really that had formulated a lot of my approach toward what I'm trying to do relative to the environment as well as

natural resources because the Cherokees were somewhat of a very advanced Indian nation. And I mean, they were first ones to have an alphabet. They were organized. They had their winter homes, they had their summer homes. They had organizations just like a democracy that we as a country came along afterwards. So they were very advanced but also at the same time that they had quite a bit of reverence for the earth, Mother Earth, Father son or, Father Sky. And you have to respect that. So my dad tried to weave into me that respect of nature. And I resisted all I could because he wanted me to work in the garden. I wish I had worked more in the garden but I'd rather play ball or do things like this. But again I remember back with my grandmother and some of the things that she tried to do. So that had a tremendous impact on me.

D.W.

What were some of your early jobs after graduating from college at Tennessee Tech or even before that?

T.T.

I put myself through school working with my uncle as electrician. And so we did residential and commercial electrical installations. And then after I graduated from Tennessee Tech I went to work for Combustion Engineering and actually designed nuclear power plants. In fact the group I was in dealt with the design of nuclear steam generators and we had systems not only in the United States but also we partnered with Kraftwerk Union out of Germany to develop a system 80 which was the first nuclear steam generator that could go to three different power levels based upon whatever the rating of the NRC would have. And my responsibility was to design an interval economizer of the steam generation so that we could increase the output of the steam generator by 30 percent because of inefficiency, you might say a heat transfer efficiency on, they call it the cold lake side of the generator and heating up the feed water. So I worked on it until the nuclear energy just kind of went belly up after Three Mile Island and some of the other catastrophes that happened worldwide. And then I went to work with a design build firm. I was also working for a consulting firm and taught at Chattanooga State. And even taught some at Tennessee Tech. So and then I went to design build firm and then I finally went into my own consulting business. So that's kind of the background.

D.W.

What really induced you to become an engineer?

T.T.

One inducement is the space program.

D.W.

I can relate to that.

T.T.

I wanted to be an astronaut. But I was too tall and too blind because at the time that, when Mercury first went off you could only be, you had to be under six feet tall. And you had to have perfect vision, 20-20. And I had neither. I was six foot four and I had to wear glasses or contact lens. Now that's not a restriction or criteria anymore. But I saw what was happening in the space program and I thought, well that's really what I want to do. One of the major professors at Tech was in aerospace and I talked about going to into aerospace but he directed me towards mechanical because he said it was more of a generalistic, that you could do more with that degree than you could with aerospace. Well then introduced me to an individual that later become Director of Technology for ASHRAE, Richard Wright.

And he was the one that got me into the ASHRAE student chapter while I was at Tennessee Tech. And he had a couple of courses in refrigeration that I participated in my undergraduate work. But that started the link with me with ASHRAE it was while I was with student chapter.

D.W.

I think that's great. At the University of Tennessee we didn't have a student chapter and that's one of the things that I tried to get started myself later and was unsuccessful. But I think it's great that Tennessee Tech did have one. And then after you graduated and started at Combustion Engineering, you stayed involved with the Tennessee chapter?

T.T.

No I didn't get involved with him until I was working with the consulting firm and also teaching at Chattanooga State. And then that reintroduced me because the consulting firm I worked for was a HVAC&R design firm. And so I got integrated into the Tennessee valley chapter at that point. Became involved with it and the chapter meetings and been with it ever since. So after I went from the consulting design build firm to my own firm that was just kind of a migration, you might say, into the profession but ASHRAE helped me all along the way relative to publications, of course the Handbook, the special publications that we needed and the technical sessions that you had at the chapter as well as regional meetings. Now, I did not get involved with society until, in the late 80s. And we had a director and regional chair by the name of Chuck Koptis. And Chuck was a, to me was someone that, he never met a stranger. But he was very passionate about ASHRAE and what it could do for you. And I was having a personal difficulty in my life at that time in going through a divorce. And what happened was that I became the regional vice chair of energy and technical activities. And later that transformed into TEGA and now CTCC. But then I just threw myself into that activity. And it opened up the whole realm of Society and you start meeting a lot of interesting people. And when you come to the society meetings I say that there is a stepwise level of education. You have the chapter level but then the chapter people go to the region and they see a whole different level of commitment. And the region people if they go to society they see a whole, you know, another quantum leap you might say of dedication. And that fascinated me. And it also fascinated me just sitting in technical committees, sitting beside people that actually wrote the textbooks that I used in my courses. And what was really amazing to me was these people that wrote the textbooks, they were so nice. They were anxious. They were willing to speak to you and to help you. I thought they'd be stuck up just like some of my college professors. You know you had to get an appointment, you had to do this, you had to do that, in order to even have an audience with them. These guys were just super nice. So that is kind of my progression and after I was the regional vice chair then Billy Manning, who was a past president of ASHRAE, got me involved on the technical side. And then this is where I got into working with the technical committees more and R&T. That was the old Research and Technical Committee. They put me on that and that of course split up and I was on tech and went to standards and again just kind of progression through the technical side. Until I had my turn on being the director and regional chair because our director and regional chair was forced to resign. His employer said you have until six o'clock today to turn in your letter of resignation or you're going to be fired. So he called me because I was at that time the regional member on the nominating committee, to tell me that he was going to have to send this letter of resignation in. And he said I just want you to know because you're going to have to take the process to get my replacement. And as it turned out the number two and number three people that on the

worksheet that we had for Region Seven both declined. And now we were in a pickle. So Jim Wolf at the time came to me and asked if I would serve, if I would allow my name to go forward as the director and regional chair candidate that the board had to elect for region seven and I let it go forward. And then after that I was DRC that time for two and a half years. And then went on to become a vice president, treasurer, president elect, and president.

D.W.

What were the highlights of your presidency in ASHRAE? What things would you really like to talk about today?

T.T.

We don't have enough time for that.

D.W.

Well we can start.

T.T.

The thing that impressed me was the dedication that our members have not only in United States but more so even outside of North America. The new members that are coming in from Region Thirteen, the Region at Large, they are so hungry for the technology that ASHRAE has and for the publications that ASHRAE has and for everything that we can provide in HVAC&R industry that they have not had access to in a manner that they have now. And this level of interest, this level of commitment that they are doing and also in having opportunity to speak with leaders of countries and their approach is they're looking to ASHRAE to provide them with guidance of what they can do as a country to become more efficient. And it's much more aggressive goals that they have set for themselves than what we have here in the United States. And that's saddened me to see that these countries that are major oil producing, exporting countries have greater energy conservation initiatives than what we have here in the United States. In fact I was in Bahrain and I asked the minister of construction. I said, you know, I understand what you're asking us what to do and he was asking that ASHRAE develop an energy conservation code, building code for the first time in Bahrain that was more stringent than anything else that we had here in the United States. And that prompted me to say, why? He says: "Well, it's very simple. We want to save oil so we can sell it to you". And he was very honest on this and in other countries I would go and they were initiating when I was there two hundred million dollars just in one year that they were going to spend on energy savings and initiatives and to me that impressed me. The other thing that impressed me is, again, you look at the needs that we have around the world and energy really is the basis for the problems that we have as well for the opportunities that we have. And that's why some people say that I was too aggressive in what I was trying to do last year and my comment was no I wasn't aggressive enough. Because we're dealing with something that has such a global implication that we cannot settle for being the minimum. We have got to do the maximum possible implementation of resource conservation that we can because of what we have, resources are limited. And it's such that once it's gone it's gone. And why do we feel like that we should be the ones to use it up and tell our kids and our grandkids, you're on your own. Figure it out for yourself. And to me that's wrong. So that's why I have such a push to have more stringent energy conservation for 2010 on out to 2030. About why we should have water conservation, why we need to have all of these other programs and integrating our work, our technical activities in with the green building councils around the world, not just US green building council. Or green, GBI green bill initiative or their green globes.

Anybody that has a rating system. They need ASHRAE's technical expertise to make the program stronger. But at same time we've got to be much more aggressive in what we're doing to help people save these resources to.

D.W.

How about energy sources. Do you have a theory about how we should go about providing long term energy sources for the United States?

T.T.

Sure do. I'm glad you asked that question. That's a very open ended question. There's a person that I respect, name Amory Lovins. I don't know if you've heard of him or not from the Rocky Mountain Institute. Amory Lovins is one of these people that he's so smart it almost scares you. And he has come up with saying that if the United States could do this, if we became independent of foreign oil by 2020, that we would produce a minimum of five hundred thousand permanent jobs. Five hundred thousand permanent jobs that would be perpetual. And now there are some other entities, government entities now, have said they could be up to a million permanent, repeatable, sustainable type jobs. But you see there's no one source. It's not just nuclear. It's not just solar. It's not just wind. And it's not wave. It's going to be a combination of all these. But as an organization, I feel like that ASHRAE's got to be on the leading edge of this to promote innovation, to remote this integration. There is a talk now about having the major grids, electrical grids to be converted from AC to DC because Tesla, they said had the right idea. That you could transport DC current a longer distance with less loss than you can with AC. But then you'd have a conversion, you know, for your original grids off of this national grid. And then again Lovins is another one of these that says, we could take 40 percent of our desert that is totally uninhabitable, put panels with a current conversion efficiencies and we could produce the total electrical needs of our country just off of 58 that particular area. But up to the age of 2050. That's just how much potential that we have. In fact there was, a study said that there's enough energy that hits the world in one day to meet the energy needs of everybody on the earth and has ever been on the earth. That's so much energy that we're actually being bombarded with. Well our objective and I feel like our duty is to try to figure out how to harness that in an economical and viable manner so that the public can utilize it. And this is why ASHRAE research, that's why it's so important. Last year or this year I understand that we raised a record amount. People are seeing the relevance of this because what we're doing is that we're taking the member's dollars and converting it into products as well as research that is saying here we are answering your questions. We are answering what the what ifs or what can we, what can we do. So we've got to do more of that. And we have got to be much more innovative. And we got to be much more aggressive. I feel like as an organization as well as a profession. See in the past our organization, not our organization but our members have been considered to be a necessary evil by the building industry. You've got to have this to get a building permit. Well my intent and their leader's intent now with Kent Peterson and Bill Harrison and others that are following, is that we are trying to make the ASHRAE member more valuable to our industry. And we can do that by providing them with the training, with the tools, with the research that they can be much more effective in their activities, whether it be day to day, month to month, year to year. That's what we've got to do.

I think that's great. We've got to have a long term solution. And, you know, just trying to open up off shore oil reserves is not going to do it in my opinion. And it's still going to be sold to foreign countries. It's going to go to the wrong marketplace.

T.T.

Yeah, it's going to go to the world market.

D.W.

Absolutely.

T.T.

Well. Look at this way. About 2030 the projection is that India, India's population is going to be greater than China. See China's got birth control. India doesn't. Okay now what is the objective of the people that are gaining more income in China and India? They want to be like the Americans. And so that means that there's going to be more and more of a demand for all of our resources whether it be oil, whether it be food, it be water. There's going to be much more demand. We cannot wait and have a crisis management approach to how we're going to solve this. We've got to start now. And do it in a manner, you know, what I say that we ought to have is somebody that has enough courage to say this is where we're going to be, just like John F. Kennedy said, this is where we're going to be at the end of the decade. But today I don't see anybody that has political savvy or the intention of ever doing something like that. So it's going to have to be market driven. And form follows function on this and the function is going to be the people saying this is what we're going to do. Now governments you're going have to support this or we're going to fire you. You're not going to be elected. And if you don't do it we're going to find somebody that will do it. And so the engineers are going to have to be much more proactive in the process. The citizens, John Q Citizen, is going to have to be much more proactive and say this is what I want, this is what I need, and you're going to have to provide it for me. And ASHRAE is really on the threshold of being able to provide this for people, not only in North America but around the world. Now what we have to do is take the initiative and go through that threshold. We can just stand there all we want to and talk about it. But until you put it into action you don't get results. You just get more plans. You have more paper that's put up on the shelf in terms of reports. I'm saying take the recommendations of reports and say here's what we're going to do and this is how we're going to do it. Other than that I think we're in trouble as a nation and as well as a profession.

D.W.

If you had your year to do over again, is there anything that you would try to get done that you weren't able to accomplish as president?

T.T.

Well Dick I tell you, the year was fantastic and at the end of the year I had set up for myself objectives. And on the Wednesday board meeting when I left California the board approved my final objective. No there's nothing else I would do. I guess if there was anything that I would try to do would be to be more motivating to people. To say this is what needs to be done, now figure out how to do it. And let's move forward. I'm mean we're always constrained with money but we need to increase the income streams. If I could have done something maybe to help us to succeed in doing that more rapidly, of increasing the income streams so that we are not having to be restrictive in our activities. Maybe I should have paid more attention to that. I was, some people said that I was really, I shocked a lot of people with what I called for. Well I had to. Because we had to shake ourselves out of this level of complacency that we

have gotten into as a profession. I mean why are our numbers growing much more rapidly outside North America than inside North America? Because again I think people in North America, we've been around 117 years. And so it's just like anything else has been around for that long, you usually become complacent with it. We don't see the relevance. The owners of the engineering firms don't see the relevance of it. And they're telling their employees now, I'm going to fund one organization for you to participate in and if you don't participate in the others that's up to you. Well that one organization needs to be ASHRAE. It doesn't need to be other groups that they could pick up. We've got to have that relevance. You know again established with the people that make the decisions. I'm talking about the senior leadership. If you get the senior leadership then the young engineers coming up, they're going to participate. Because the seniors are saying you're going to be there. Just like when you and I started. We didn't have a choice in many cases. The owner of the company says you're going to go to the ASHRAE meeting. And so you did or you didn't have a job.

D.W.

I was required to join ASHRAE but I was not required to attend the meetings.

T.T.

Oh we were required to attend.

D.W.

And I didn't do that for a while and when I did I was glad that I did. It took a while, about 11 years. One of the people being inducted for one of the major awards got me involved in '84. And I've been involved ever since.

T.T.

So I guess those are the two things that maybe I would do differently. Is to have more relevance to say in terms of getting it to the people that make a decision on who's going to participate and increase the income streams so that we are not limited on what we can do in a time wise manner because again I am really concerned that time is not on our side. That we have got to act quickly and we have to act in a manner that's effective. Aggressive and effective.

D.W.

Agreed. A lot of people think that once you've been a past president of a chapter or a DRC, maybe even president of ASHRAE, your commitment to the industry tends to fall off a little bit. But from what little I know about you, your also becoming involved in a lot of new...

T.T.

Well they've got me involved with, I'm a chair of a steering committee, building performance steering committee. And we're getting a lot of duties and responsibilities on that and they've also have me chairing up an ad hoc for a net zero conference that's going to be held next spring in San Francisco. And now I'm also engaged with the Clinton Climate Initiative with the C 40 cities. It's the 40 largest cities in the world and what we're trying to do is the energy efficiency building retrofit program. And there are around 40 people with the Clinton Climate Initiative and only three of us are technically oriented. And so the rest of them are needing guidance. And so I'm providing, trying to provide guidance on that as well as trying to get ASHRAE members integrated into the process because technical systems is what we needed. In fact I think I mentioned to you yesterday, I'm traveling as much now as I did last year as president of the ASHRAE. Not necessarily overseas but I'm talking about in the United States. Because there's so much activity that's going on and I'm trying to bolster up this activity in terms of support for

full public and private entities that are trying to save energy. Because with gas going up, electricity going up, natural gas going up, energy is becoming a prime topic of building owners, business owners, etc. So what we're trying to do is provide them with a way or a method which they can reduce operating costs.

D.W.

Well is there anything else you would like to talk about? I'll just leave this is open ended because I think we've been over most of the topics that I wanted to get with you.

T.T.

Well no I think that, again if whoever is listening to this, the one thing I would say is become more involved. More involved not only with ASHRAE but more involved in your community. More involved in the process that has an impact upon your profession. Engineers in the past have always been very hesitant about stepping out. We're not trained to do that. We're trying to solve problems. We are not trained to go out and have interaction with the community or with political people or with business people. We've got to stop doing that. We have got to become much more proactive in this because again the solutions to the problems I feel like of our country are not going to be solved in the courtroom. They're going to be solved by engineering. By technology. By proper application of the basic fundamentals that we learned in engineering. That is going to be the solution to the problems. Now who is going to step up and say okay I'm going to do this. I going to be engaged in this. I going to be a part of this. And the young people today seem to have a different attitude, different approach and some of that's good, some of it is not as what I would like to see because they are not as, some do not appear as dedicated. And again maybe that's a part of the training, I don't know. But they've got to become involved. Everybody's got to become involved that is technically trained. Otherwise we run the risk of our profession being governed by non-technical people for their benefit and to our dissatisfaction. And I don't think we can tolerate that anymore. That's happened in the past and we don't need it any more. So that's one word of encouragement. Is to get out there. Become a part of the process, the ASHRAE process. The political process. The business process. And I feel like that we can turn things around. We can become once again a strong country. Because some people have talked to me today. The economy is weak. This is a global economy. The dollar's exceedingly weak. What are we going to change that? Well what we've talked about today I think is a step toward that. And that is for the United States reclaiming, saying we are going to become an entity within ourselves again rather than being relying upon other countries for our fuel, for our energy sources, etc. We've got to change that. And we've got to change it so that we are in control. When we are in control then we will become stronger and I think regain our rightful position of where we've always wanted to be and where we have fallen from I feel like.

D.W.

Well Terry, I appreciate the time that you've taken with me today.

T.T.

Well thank you very much.

D.W.

It was good as always to talk with you again.

T.T.

I appreciate the opportunity and I hope that this is a benefit to the historical committee. And I don't know what you're going to do with this but maybe it won't come back on YouTube or anything else that might be detrimental to myself or anybody else that provides the interviews. I'm just kidding on that.

D.W.

One of the things we're trying to do, just as a footnote here, is that we were trying to put these kinds of things in front of our membership. We have one already on our website and the goal is to have more there.

T.T.

Fantastic.

D.W.

You know it's not something that we do and then just put in a vault somewhere.

T.T.

Let's hope not. Let's hope not. You've got a lot of interesting folks here. And they've got a lot of information that the membership needs to know about. So the better way we can get it out there, the sooner the better as far as I'm concerned.

D.W.

Thanks again Terry.

T.T.

Thank you very much appreciate it, Dick.