

ASHRAE Leadership Recall (formerly Leadership Recalled)

Transcription

Video Interview of: George Briley

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Interviewed by: Dan Dettmers

Dan Dettmers

Hi my name is Dan Dettmers and on the occasion of the ASRE Centennial I'm here interviewing Mr. George Briley who became an ASHRAE member back in 1953. So Mr. Briley, or can I say George?

George Briley

Sure. Why not.

D.D.

All right George. Would you give me a brief biographical sketch of your life?

G.B.

Yes I was born in a little town in Louisiana, actually lived on a cotton farm most of my early days. And went to school there, graduated from high school when I was 16 and started college, and this was right before World War II. Didn't get many months in until I had to go into the service. I meant I didn't have to because I wanted to.

D.D.

Which branch?

G.B.

I was in the Army, Corps of Engineers eventually I started off in infantry basic and I was lucky enough to get transferred into something where it was not quite so restricted as the infantry was. And spent about three years a little bit more in the service during World War II, and France and Germany and Austria and Italy and some of those itty bitty places in between. Corps of Engineers which was called combat engineers in those days, we picked up mines, laid mines, built bridges, blew up bridges. We had lots of fun got to blow up aircraft after the war was over and that was the only time it was really fun. We got involved in the Battle of the Bulge digging foxholes for the infantry in the ice. And the ground was frozen and they couldn't dig a foxhole so if they had to retreat we were right behind the mainline so we dug foxholes for them. So they could, if they needed unfortunately they never needed them. We just left a whole bunch of holes in the farmers' grounds. When I got out of the service was very fortunate Uncle Sam paid for my education after that at Louisiana Polytech. I got a degree in engineering, electrical engineering. When I got out of school and 49 I had several opportunities to go to work for several people. The telephone company guy wanted to hire me in, he was going to pay me a lot of money but I asked him what I had to do to start. He said well you might have to climb poles for a couple of years and I said I climbed enough poles when I was in the service, I'll see you later. Then a guy from the Cities Service refinery in Lake Charles wanted to hire me real bad. I says what am I going to do when

I go to work. He says well you'll be doing drafting boards for about 3 years probably and I said well I flunked drafting and I hate it. I don't want any part of it so I'll see you too. And he offered me a nice salary. And then I had already been talking to York about their college training program. They had an eighteen months college training program, which is sort of like getting your doctors degree in refrigeration. Six months in the classroom and then a year on the job training in all kinds of areas from engineering to even construction in those days worked out, installing equipment. For about one third the salary I was going to get from any of these other people but I figured I can get an education, I wasn't married, I had an opportunity to get, learn what I was going to be doing hopefully for the rest of my life. Turned out that way too. But I went through that training program. They shipped me to Houston to work, to eventually be a sales engineer and you get, you had to go through a little indoctrination and all of a sudden I'm a project engineer for about a year. Followed another old time salesman around for about a year and then I was sales engineer for York. Went to, did some work up in New York for them and then I went to, back to Houston as the regional manager for about ten or eleven states and I survived there for about three, four years. Decided I didn't like what was there and they were changing management and I went to work for the Frick Company in Waynesboro, Pennsylvania. Field sales manager, sounded like a real nice deal and it was. The only thing was we had six presidents while I was there and that sort of turned me off.

D.D.

How many years were you there?

G.B.

Just two.

D.D.

Six presidents in two years?

G.B.

Right. And I had a little problem with this. I was having a tough time educating presidents so Lewis Refrigeration was looking for people and I knew all the folks, they were old York people. Couple of them I had worked indirectly with them when I was at York. So I wanted to get into the contracting business anyway, design build type stuff. So I went to work for Lewis, worked for them for oh, out of Houston. I started an office down there. Did all kinds of food work and also sold some in the petro chem area. I did packaging and that kind of thing. And that lasted until '76 and Lewis got bought out by Tormont and I couldn't-

D.D.

At that point you were what, about a vice president?

G.B.

I was a vice president and on the board of directors and all of that kind of good stuff. But anyway the guy who was running the company at that time, Tormont that bought Lewis, he was one of these guys he wasn't like having a new president all the time but he changed his mind about every three months. And that didn't work too well so I eventually ended up working for Refrigeration Engineering San Antonio in 1976 until they sold out to York in 89. I was the vice president of that company also. I was in charge of marketing and actually research. Those two don't sound like they go together but that's what I was doing. When York bought Refrigeration Engineering they didn't think the guy 65-year-old should be working there I guess. They sort of, they didn't tell me I had to go but they made things such that I

felt I'd better go. It was - I thought I was going to retire. Well after about three months my wife kicked me out of the house so I had to go back to work. That's when I started Technical Services and that's where I am today, a consultant in industrial refrigeration.

D.D.

Ok. When did you get married?

G.B.

In 1950. I married a girl from York that I met when I was up there in the training program.

D.D.

What did she do there?

G.B.

She was a schoolteacher, middle school. And she taught a little bit after we moved to Houston but all of a sudden we had a little boy and a little girl as she quit working. So she hasn't worked since. She says that's not true that she works all the time of course you've been down that road too.

D.D.

Yeah, I'm going down that road right now. Yeah.

G.B.

You bet. I have two kids, boy and a girl. The boy has two children, my daughter has three boys. So I've got quite a few grand kids. Some of them are in Denver but the others are right down the street from me in San Antonio, so I can see them all the time.

D.D.

Did any of them think of going to refrigerating engineering yet?

G.B.

Nope. I haven't done very much good at that. Tried to get my son into it but he didn't care for this engineering stuff. That didn't thrill him a bit.

D.D.

Not surprising. My dad was trying to get me to become a veterinarian and here I am.

G.B.

Right, I can understand that one too. It's funny a lot of kids can follow their parents very well. Some of them just don't like what they see. My son held in the office he could do, he was pretty good little draftsman. He was doing a lot of drafting work for the guys, he worked in the shop some and that wasn't a problem in the summertime but making that permanent, he wasn't too happy about that.

D.D.

What attracted you to refrigeration in the first place? Not having to blow up airplanes, not having to climb up poles...it was a good, was it just a good alternative?

G.B.

What did attract me, that was interesting. One of my best friends at, in college, in fact it was my best friend in college. When I was talking about what we were going to do when we got out of school and he said, you know there used to be a guy who lived in Shreveport, Louisiana, where we lived and he worked for York Corporation and he was talking about what great programs they had for training people, he says. Maybe you ought to check into it. I actually checked into two or three people, GE, Westinghouse, and others but they didn't thrill me a lot. I had got a lot of information from York and they sent somebody to see me. I didn't even have to go see them.

D.D.

Okay.

G.B.

So I felt like they were interested. That's how I got there and I said okay this sounds like a good way to make a living. It was an easy choice really. I wanted to be educated before I got out and tried to sell somebody's products or installed it or any other thing.

D.D.

It made that easy for you.

G.B.

That made it easy.

D.D.

Alright. So what about, back in, you started in ASHRAE in 1953. What got you involved there at that point?

G.B.

Well, at that time I was selling York's products, both air-conditioning in refrigeration and most of the people who were involved in the industry were in ASHVE in those days. And it was just a logical place for me to go and ASRE wasn't strong in Houston exactly I mean they were there but not that strong and we could join one organization at the time, budget problems you know. I just picked that because I've thought it made sense. They had excellent texts by then that they had inherited from the ASRE days so that helps a lot too. I was really impressed with it.

D.D.

Did you first get started at the local level?

G.B.

Absolutely. I was at all the meetings and I think I was an officer at one time a vice president or something of the chapter at that time I wound up in Rochester so I never really went any further than that in the local. Actually I haven't been very active in local groups. I don't know I got involved in the national and felt like that was the place that I wanted to be

D.D.

Too busy educating all of us across the nation to educate the local. Well when did you get involved at the national level?

G.B.

Like 60s. I went out on my R&T, which is Research and Technical and now it is broken into three groups I think.

D.D.

Sure.

G.B.

Something like that. But before that we did everything I mean the whole big research project came in and you went through the whole routine you know. Which you don't do today, it's totally different.

D.D.

It's broken up among many different people.

G.B.

Yes, it was a different kind of situation most of the people who were on that committee for professors are somebody like that. I was the first business person that ever served on R&T.

D.D.

Bring an entirely different perspective?

G.B.

I'm sure that's why they did it. I gotten to know some of the people.

D.D.

Well, so why are you still active in ASHRAE? I have to ask that.

G.B.

Well, I'll put it this way, I think I owe the industry something.

D.D.

You've been pretty good to the industry, I have to say.

G.B.

I've been, no, it's... You get involved. I've made my living at this, I'm trying to pay back some of it. It's been good to me.

D.D.

That's good. Well we appreciate you - still being here.

G.B.

Well, thank you.

D.D.

So what about someone, somebody new, someone young coming into the industry, some kids coming out of you know mechanical engineering school. Why should they go into refrigeration?

G.B.

Good place to be. It's interesting. The good part about refrigeration area rather than air-conditioning area is it's usually a one-of-a-kind kind of thing and it's something they'll make you think and keep you busy if you like being an engineer so to speak. There is a place to go. You don't want to go out and work with guys who sell packages and draw packages on a piece of paper. If you want to be an engineer it's a place to be.

D.D.

Good place to be thinking every single day.

G.B.

Darn right, it'll keep you busy. You bet.

D.D.

And what about, what would you suggest for a career path for someone younger? What should they start, where should they progress?

G.B.

Well, not many people have those neat training programs like York had, they can't afford to do it I'm told. They give you six weeks and throw some books at you and say go get them. It's pretty, not very good in my opinion. Best place to go is probably with a good contractor who's got a good in, who's had a design build contractor who understands the refrigeration, has some sharp engineers. And that's how you can learn. You can start off at the bottom working a gofer and then work yourself up through the project engineering work and on to design and that kind of thing. And so, it's a, you got to start a lot

lower than I had to start. I started way up there when I got out of the training program and that was the whole idea of the training program obviously. Most of the people that were in my class, from the time that they had been out in the field for three or four years were in the top ten sales engineers at York.

D.D.

Wow! First class! So what about ASHRAE for young people? How much should they get involved, where should they get involved?

G.B.

Get involved locally. Get the feel of the industry there and a lot of the chapters have some little training for young folks. I know the one in San Antonio they have a little class in basic refrigeration or air conditioning before the meeting. And if you let's say participate, you can learn something there. Some, a lot of chapters have excellent programs, I mean you can learn a lot there if you want to learn, want to pay attention.

D.D.

Let's see. Going back to the industry, so when you first started getting into the refrigeration industry coming out of the war, what were some of the major issues facing the industry at that time? And have we solved them yet?

G.B.

Growing pains.

D.D.

Growing pains, sure I suppose right after World War II.

G.B.

This was '49, of course that has been about three years, still all of the companies I don't care which one, was having growing pains. And all of a sudden about 1954-55, the refrigeration business, I'm not talking about air conditioning, refrigeration business just went booming in the petro-chemical area.

D.D.

Okay.

G.B.

And I can remember eighteen months shipping times. So that tells you something about this growing pains thing. Oh yeah I saw that in spades. York was only selling \$80 million worth of equipment, today they're \$4 billion.

D.D.

Yeah.

G.B.

I mean you were looking at small companies in those days, Carrier was bigger, not that much bigger. You know, it was just one of those things.

D.D.

What other issues have you faced over the years? Or what major issues do you think the industry has faced?

G.B.

I think, you mean changes or?

D.D.

Yeah, big changes.

G.B.

Big changes came about in the-

D.D.

Either from regulation or market-

G.B.

Well that's later but that started back in the 30s when the halo carbons, fluorocarbons came in and it changed, it changed the whole situation for just about everybody. That was a major, not upset but a change, progressive change in the industry. And of course most of those refrigerants came along, 12, 11 in the 30s, 35 somewhere along there. 22 didn't come around till about 1950. And that changed things too. But I think refrigerant changes, which we see today even worse, caused by all the, well I won't say that. Caused by some-

D.D.

I can imagine what you're going to say.

G.B.

Anyway so that's the problem, we are now sitting here facing OSHA, EPA, the ozone layer. Those were major things, that's 15 years ago, I guess, this got started. That's been a monster change in our industries. All of them. Air conditioning and refrigeration. But it has bothered refrigeration people more because of the OSHA requirements for our food operations.

D.D.

Okay. I've got to ask this question then. What's your favorite refrigerant?

G.B.

Ammonia. I knew you-

D.D.

I just wanted to get that on tape.

G.B.

You know any way, and I can tell you the next one too, CO2.

D.D.

Okay. Condition then.

G.B.

I'll tell you why I like that. In my days in the refrigeration industry I got involved in the merchant carbon dioxide business because I went out and saw how they were producing merchant carbon dioxide which was pure carbon dioxide. They were pumping CO2 with these great big compressors with four stages in them and pumping them up to real high pressures and condensing it.

D.D.

Is that a bunch of the petrochemical refrigeration you talked about?

G.B.

Yeah, you saw some of the stuff today, that was an interesting project and I looked at one of these and said my gosh I can do this for a lot less horsepower. So I started pumping CO2 with, actually all three compressors early in the game, this is a late 60s. And condensing it to 250 pounds which was the pressure they were moving it around the country at the time in the trucks. So now this is silly - why do we want to go all the way up to six or eight or thousand pounds to condense the CO2, this costs money. So we built one in Chattanooga Tennessee in that started all this and we used reciprocating. For a while. And

we were getting into big plants and they were horizontal compressors that big time petrochem type. They were every six months having to take, change the Teflon rings in them and that was a week, two weeks of production loss. And one of our good customers says to me one day I want you to put screw compressors on our CO2. It's wet, saturated so what happens, call all the manufacturers of screws that I knew at the time, I says can we do this? And they says no you can't do that. I says yes we can so once I got our boss to agree to maybe costing \$50-100,000 we were going to try this. The first plant we built is still running in Oklahoma.

D.D.

Yeah.

G.B.

It's 18-19 years old. Never had a problem with rust or anything in the compressors like they told us they were going to do because when we shut the CO2 compressors down we just purged it with dry CO2. Got all the moisture out of it, never had a rust problem with the CO2 compressor period. Never. We did about 50,000 hp worth of CO2 compression out of Refrigeration Engineering. And we had no guarantees in the early days, they wouldn't guarantee the compressors. We had to guarantee the compressors. Now they'll sell you one any time of course after we prove that it would work.

D.D.

Right. Was this with Lewis Refrigeration?

G.B.

No, this was with RECOLD Some of it was with Lewis but we weren't in with the screw compressors until I got to Lewis.

D.D.

Okay.

G.B.

We had used screw compressors on the high side of those but we were still using recip. When I was at Lewis. We were selling the units in those days to. We were packaging them and shipping them out in two or three packages, interconnecting them in the way they went. Yup, that was a real interesting process.

D.D.

What other large projects did you work on, revolutionary or evolutionary projects?

G.B.

While I was at Lewis and I wasn't, I was involved in installing the stuff and I helped him put it together but there was a great big freeze dry system. It had 10,000 hp in it. Ten 1000 hp centrifugal compressors running at minus 70.

D.D.

Wow!

G.B.

It was a nice system. It had 220,000 pounds of R 12 in it.

D.D.

What were you freeze drying?

G.B.

Coffee. Freeze drying coffee from Maxwell House in Houston. It was some kind of plant.

D.D.

Wow, any other ones?

G.B.

Well, lots of big plants. RECOLD did a tremendous amount of work in the chicken processing area, poultry. And we had plants that had five different temperatures and 12-15,000 hp. They were big. And we didn't do one of those, we did several. I think there were five or six like that. And of course with Tyson, whose the biggest business and you know. I was just in a Tyson pig plant last week and they had 15,000 tons of refrigeration in that plant. Screw compressors everywhere you looked.

D.D.

So what major events or technological changes do you think have really changed this industry over your lifetime?

G.B.

Well I think the biggest change, which was forced by the growth of frozen foods I would have to say, was the screw compressor. Ignored my American manufacturers for years, and had to go to Europe to get one. Or Japan. And that's what we did at Lewis, we brought the first screw compressor for ammonia into the United States from Scotland.

D.D.

What year was that?

G.B.

'67.

D.D.

Okay.

G.B.

And that was when things really changed. Dramatically. Because there were demands for a lot more tonnage. We were freezing 100,000 pounds of French fries and now we were in these kinds of things. Rotary boosters and recip. The engine rooms would have been bigger than the manufacturing facility. So as we came in with 500, 750,000 hp machines we could give these people refrigeration for a lot less money number one and a lot less space. And that was what really was a major change in the industry. Started in the 60s, really got going in the early 70s, when ? got into the packaging area and then Frick got into the packaging area and it was way into the late 70s before Frick really got into the manufacturing. I finally got into the screw compressor business.

D.D.

Okay.

G.B.

They were packaging other people's screws for a while.

D.D.

What about people wise, what people do you think influenced industry, what people influenced you? Who would you consider a mentor?

G.B.

Well I think, well I don't know if he's a mentor or not but a guy name Joe Chamberlain who used to work for York for many years, our chief engineer. He was a real influence. He and I used to go at it all the time.

D.D.

In a friendly way?

G.B.

Well yeah sure.

D.D.

Okay.

G.B.

He used to get mad at me when I didn't want to do this exactly like he wanted to do them but he had real good ideas and he was a sharp cookie. He put a little imprint on ?

D.D.

Yeah, how so?

G.B.

Well he had to deal with a lot of codes, a lot of the early 15s, missing the name right now but they had a lot to do with 15. When 9.1 or something like that at one time you know way back there yeah.

D.D.

Okay, when did he work at York?

G.B.

Oh, he was there when I worked there. He, gee whiz, he was there until the late 60s, maybe into the 70s. He retired an old man, I think he stayed there well past his 65. He was one of those guys who came to work early in the morning and left late.

D.D.

So, as a side question, what do you think it is about refrigeration engineers? Why do they keep working so long? You, Milt Garland.

G.B.

We don't want to die. We figure if we keep working, we keep active, we're better off. I've had too many friends who became vegetables after they retired early and didn't do anything but goof off and you can't do that. You got to keep your mind working and keep yourself busy.

D.D.

It isn't just love of the industry?

G.B.

Well, part. It's a little of both. What else do I know? You know I can go out and hit a golf ball or something like that but I get a lot more out of working in the business and I don't work myself to death, I take time off. Wife and I go on two or three, four day little vacations, mini vacations a lot. I don't work 50-60 hours a week. I don't even put in 40 most of the weeks, put in 35 something like that. I'm beginning to take it a little easier.

D.D.

Except for when I'm pressing you to put together a presentation.

G.B.

Yeah, well some of those cost me some time. But that's not unusual. That's to be expected when you say I'll do this, you got to do it, you know.

D.D.

Was there anyone else that had a major influence on your career or would you consider a major influence on the industry?

G.B.

Oh, I had a lot of people that had an influence on my career but it was bad influences and I don't want to mention those.

D.D.

Well what about Lewis Refrigeration, you know I saw that sheet of the people that worked there. It kind of reads pretty much like a who's who of ASHRAE right now. I saw you and what, Jim Shepard was one there...

G.B.

I forget exactly but Overby was not very active in any kind of organization and you know, but he was a power. He was the guy that came up with this idea to high IQF vegetables. He's the guy that really developed it. Now people have been playing around with it for years and pumping air the wrong way and not pumping enough and Bud was a real good engineer although I don't think he graduated from college.

D.D.

Oh, yeah.

G.B.

No, I don't think he ever had. And Bob Lucas was a good engineer too. He was the other partner that you saw the picture of. And he was a good engineer too, was an old Baker person, like the guy who was. He worked for Baker before Baker got burned down in '35, or somewhere in the 30s. But yeah, he was a pretty sharp cookie. He knew the business well. He was great in concrete.

D.D.

Oh, yeah.

G.B.

We did a lot of that kind of thing at Lewis. He did most of it himself.

D.D.

Explain that.

G.B.

Well, when you pour concrete in mass, like you do in a great big dam, you can either put pipes in it and pump water through it like the dam out there by Las Vegas, still pumping water through there and it's still has about a half degree rise and that was put into a (interruption). Anyway so most of the structures were built, the bigger ones with concrete being cooled 40 degrees and they used air to cool the rock. They use types of devices to cool the sand and they put ice in where they would normally put water so that they could get to 40 degrees to pour it. They can pour the concrete. There's a lot of BTUs coming out of every pound when it sets so when they pour it at 40 degrees it doesn't crack and they don't have to have the water pump through it and that kind of thing. There's still some people using that process, aren't many places to build a dam today unfortunately

D.D.

Not here in the US at least.

G.B.

That's right. Even when they were building that big dam in China, they were doing that with rocks and granite and soil. They're not using any concrete at all and that would sort of bother me but that's not neither here nor there. It would probably kill 2 or 3 million people if it ever breaks up. A real good earthquake would be some fun there you know. That's what I worry about when you see some of these dams that are made with rock. Some of them have a little cement in them or have just rock and they try that deal. I was involved in a whole bunch of the smaller dams in Arkansas and Louisiana where we just needed ice. They didn't have to pour it at 40° like the big structures, they poured out at 50 or 55 but he still had to use some ice so we sold them ice and some cold water.

D.D.

Wow, is there any industry you haven't touched?

G.B.

Somebody is always asking me that question. I'm sure there are but I don't know what they are.

D.D.

So let me get through the some of these other questions. So what do you think the ASHRAE has done as far as the industry's growth as far as aiding the industry? Is that a-

G.B.

I'll tell you what, I always look at ASHRAE like this, it's part of the wheel. You got to have manufacturers, contractors, owners, everybody I would say ASHRAE is one spoke on the wheel. They are part of the business and they done great things for the business. The data books, very important to the industry. There's an awful lot of engineering that comes out of the ASHRAE organization. So sharing wealth kind of thing which is hard for a lot of people to believe but that's what happens when people don't mind sharing their knowledge and that's what makes the world go round.

D.D.

Let's see what other questions have they have given me. (You're about a half an hour.) Okay well I'll just leave it at any other parting thoughts or statements, ASHRAE's Centennial, where do you think ASHRAE should go in the future? Are we on the right track?

G.B.

I think were on the right track, need to keep going in the direction we're going in. I spent a lot of time with various and sundry portions of ASHRAE , I think probably the thing that I spent most of my time is with the ASHRAE safety code 15 which was very important to the industry, very important to the industry.

D.D.

Yes, I'd agree.

G.B.

And also all of the refrigeration TCs and refrigeration groups. I hope I can continue to do that.

D.D.

And let's see here you've written 29 articles so far.

G.B.

I have been writing an article every month for the ASHRAE journal. It's called refrigeration applications and they allow me about 900 or a thousand words. And I try to condense application into that and that isn't always easy but it seems to be informative. I get an awful lot comments about it when I get like it's on it, they say so I guess it must be working because they keep bugging me to keep it up.

D.D.

How many more you going to write?

G.B.

I don't really know but I'll tell you when I got to about 25 I started, wait a minute I better start looking back and see where I am, I better go back on all these so I don't do it again you know. And that's number one and number two running out of certain things that I have written for other reasons and I have all the information there, I'll let to do his condense it down to the thousand words or something like that and make it readable. It sometimes not that easy when I take something that has 24 pages and I'm trying to make one page out of it which is a real, it's a challenge is the right word for it. So yeah I hope I continue, every once in a while someone gives me a good idea like I got a couple while I was here.

D.D.

Well keep writing and I'll keep reading.

G.B.

Will do it.

D.D.

Well thank you much George.

G.B.

Your welcome. Enjoyed it, it was fun.