# Interview with Ron Brand re the Underground Storage Tank Program:*

## Introduction

HELGA BUTLER: Hi, I'm Helga Butler, a former colleague of Ron Brand's, with whom we're speaking today about the Underground Storage Tanks program. Ron was a manager in the Environmental Protection Agency from 1978 to 1991, but he's best known for his innovative leadership in the underground storage tanks program, which he started to lead in 1985, when the program had been created by the Congress. If you want to know more about Ron's background, you can turn to EPA Alumni Association's, website, where there's more. But today we just want to hear some of the insights from Ron about how he tackled the challenges, and why it's considered an innovative program and of interest to somebody today, especially in times of small budgets and still large challenges.

## Chapter 1: A New Approach to a Large Mission but Small Budget

HELGA BUTLER: Ron, thank you very much for being here, and we want to ask you right at the first question, why would anybody want to listen to this program that is a technical and mundane environmental issue? And tell us about the challenges and how you overcame them.

RON BRAND: Thank you, Helga. The first notice that we had about the underground storage tanks and the leaks were reports from New England, Rhode Island—that families could not drink their water, cook with their water, shower, and were limited in every way. The cause was traced to a gas station a quarter-mile away from their homes. Three years went by. Progress was very slow, and the TV program, 60 Minutes, featured the problem and the issue. Soon after that, Congress quickly passed legislation calling for EPA to register, regulate underground storage tanks containing gasoline and oil, find the leaks, and get them cleaned

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up. So far, it's a regular environmental problem. The difference was that there were over two million tanks and over 750,000 owners and operators. The sheer size of it scared everyone. What were different were the approaches that we took, part of which we were forced to do by the circumstances. I think that's what would be of interest, the way we went about tackling it.

HELGA BUTLER: And, tell us how you personally got involved at EPA.

RON BRAND: Well, at the time I was running the program evaluation division at EPA. And prior to that, I had been an assistant to the deputy administrator of EPA. The administrator, Lee Thomas, called me and spoke with me, told me about the opportunity with the underground storage tanks and said two very important things. First, that he was going to make it a separate organization, a separate office that could run underground storage tanks. That later proved to be very important. Secondly, that it could not be done in the way EPA traditionally approached environmental problems. It had to be different, but he didn't know how. And that was our job to find out. So, those were the two special factors. I talked to some experienced managers at EPA, some of whom had been approached about the job, and they had recommended not taking it, saying that the limited number of resources and the size of the problem almost doomed it to fail. Despite that, probably with a foolish approach, I decided I wanted to take it on. So, that's how I got involved.

HELGA BUTLER: Foolish it may have been, but it did turn into a success. Tell us about the biggest challenge you faced in tackling this program.

RON BRAND: Well, as I said, environmentally the problem was the sheer number of possible pollution sources, two million tanks, and the great number of owners and operators. Probably our first challenge was not to be forced into the mold of existing programs. A Superfund of hazardous waste dealt with many of the same problems, but they were faced with an unknown gunk when they went into a source, whereas we had, basically, a simpler task that we knew we were dealing with gasoline or oil. So, we had to avoid being pushed into their philosophy, their approaches, and their procedures, which dealt with different types of sources and unknown pollutants. And that was the first challenge that we

had to face. The second one was to keep ourselves from just going along with existing processes and to challenge ourselves to find better ways to get things done.

HELGA BUTLER: Can you tell us more about the approaches that you thought up, essentially, because there was no recipe book. So, how did you figure out how to run this program in a way that would work?

RON BRAND: Well, it didn't happen in one sudden insight, but over the first few months we recognized that there were others who had to deal with this problem, the franchisers—McDonald's, 7-Eleven, Century 21, ServiceMaster—who  had to establish, maintain, and improve operations at thousands of locations across the country. And one of the things we did was we stopped thinking in terms of 50 states, instead kept thinking about 3,000 counties, because that was where the problem was, at the local level. We asked the franchisers to come in, and they met with us for two days. And we asked them all kinds of questions. "How do you determine how you're doing? How do you improve performance? What do you do about poor performance? How do you innovate?" And they had lots of good answers on this. So, we started looking at ourselves as a franchiser as EPA, with the states as our franchisees, and the inspectors, the tank removal people, tank insulation people, manufacturers, and the owners and operators as all part of the universe that we had to work with. Using the franchiser approach, it taught us two very important things.

First, there were no cash registers at headquarters. Now, what does that mean? For the franchisers it meant real events occur out at the local level, at the stores, and that's where the money is made. Well, the same thing is true, we realized, for EPA. Tanks get installed, removed, waste detected, cleanup occurs at the local level. So, all results occur out in the field. The second part of that, or the corollary is, the franchisers taught us, that your job as franchiser is to support the field. The "field" thought of broadly, not narrowly. Field includes owners and operators, manufacturers, regional officers, state agencies, fire departments. But that's your job, to support them to get your environmental job done. And that became an overriding emphasis in the program. We adopted the vocabulary, the nomenclature. People liked it, didn't know what it meant, so we had to teach them that.

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Two critical things happened. When we went to the Office of Management and Budget for our first budget hearing, we spent an hour explaining the franchising approach and how it was going to work and so on. And they bought into it. And only after we sold and explained all of that did we get to any kind of numbers, budgets and people, so on. I should add here that one of the constraints we operated under was that even before I got into the program, the decision had been made that we would have 90 people, nationally. 45 at EPA headquarters, 45 spread among the 10 EPA Regional Offices. Not a lot of people for that size of problem. And that almost forced us to find a different way to tackle it.
The second thing that occurred was, after we were operational for about a year, we were called to the Hill hearing, and when we got there, there were five state representatives there from underground storage tank programs. The senators and the Senate staff questioned them on the franchising approach, and they all spoke well of it. The senator chairing the meeting asked me, "Well, this sounds great, but you must have invited all of the best programs to come in." And I responded, "Well, no, sir. We didn't know who was going to be here. Your staff invited the states." So, that helped us cement it, and from then on people dealt with the franchising, and the franchising name and terminology, comfortably. That was the first unique approach. There were two other elements.

HELGA BUTLER: You mentioned with the franchising concept that you were creating a national program versus a federal program. Can you tell us more about what you mean by that, and why that was different from other programs at EPA at the time?

RON BRAND: All right. I think part of it is more emphasis on recognizing that we could not do the job alone. Now, that's not unique. Every EPA program that I knew at the time said that they dealt with the whole country, they used states, they used local people, and they tried to build a network, and so on. One difference is we didn't first get the program and run it, and then get to delegate it. From the outset, we knew we were not going to have a large federal program to do these direct operations. So, we knew that our job was to help anyone that was going to help us get the environmental job done. So, we built the relationship and worked in a collaborative way with everyone in the system. One example is we took the organization chart and turned it upside-down. Instead of EPA being at the top and the regions being next, then the states, and so on, we put EPA headquarters and myself as director, at the bottom of an inverted triangle. The next level up was the regional offices. The next

level up was the states. The next level up were fire departments and local agencies. The next level up were all of the vendors, the people who sell tanks, make tanks, install tanks, remove tanks, inspect tanks. Because, if they didn't do that work we couldn't get the job done. At the top of the organization chart were the 750,000 owners and operators, because they were the starting point. Until they picked up the telephone and called someone, nothing happened. So, we had to help everyone in that organization chart do their job to get our environmental job done. So, I guess I'd say our viewpoint was more, we had to work together with all of these people to make it happen, as opposed to a "we and they. We're the good guys, and you're the bad guys." And that permeated, out of necessity, the entire program and that's what we called the nationwide program.

## Chapter 2: Applying "Total Quality Management" to a Federal Program

HELGA BUTLER: That was very interesting, and now we can move on to another of your interesting, innovative approaches. And it was Total Quality Management. I'll let you explain what that is. You were an early leader of TQM, as it was known in the agency. So, tell us how it worked, and how you applied it to your program.

RON BRAND: All right. I first discovered what they now call Total Quality Management in the end of 1984. No, it must have been '85, because I was in the program by then. It was a book by Mary Walton called "The Deming Management Method." And then I learned about Dr. W. Edwards Deming, who was the guru on this matter. I went through training with Bill Conway up in Nashua, New Hampshire, and was very taken with the approach. I met other people that were applying it, but they were all in the industry at that time. Came back with a lot of enthusiasm, had to sell very hard to convince my staff that it was worth undertaking, and they, with some skepticism, entered into it. We all went through the training, three-day sections, and we then brought in the regions, brought in states, even trained our staff offices, general counsel, contracts, budget, that is our representatives in those offices, so they'd understand what we were doing. The fundamental approach under TQM, or Total Quality Management, is that you only can improve from where you are. So, first, you have to recognize and be truthful about where you stand now. Secondly, you try to continually and never-endingly improve whatever it is you're working on. So, no matter how well things are going, you keep trying to improve them. And it's up to each individual to do that. They teach you techniques, from the use of Pareto diagrams, or cause-and-effect diagrams, and keeping data, and so on. But it's not the techniques, it's the concept of continuous and never-ending improvement that is the magic that I feel is in it. The other thing is it teaches you about value-added actions. Is what you're doing adding value to your customer? Our customers were the regions, the states, the vendors, and the owners and operators. So, it became a lead question in every meeting, discussion, or proposal that we made. Is this adding value for our customers? What's an example of not adding value? Well, requiring a report that you think you need,

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but is not in any way going to help any of your customers. That's not value-added. It may be required or necessary, but it's not value-added. And when you examine it, you frequently can get rid of the requirement in the first place. The adoption of TQM, a lot of ideas came up, many of which were adopted. And each time an idea was adopted, the person or people who innovated, who created it, had a great satisfaction. They had analyzed something, proposed something, and it had been adopted and put into use. And that created wonderful momentum throughout the system. And it gave us a vocabulary, value-added and not value-added, and that's a common vocabulary, a common set of tools, which enabled us, the entire system, nationwide system, to work better.

HELGA BUTLER: Both these concepts, franchising and Total Quality Management, Ron, were private-sector concepts and approaches, tools, whatever. Did you ever get any resistance from inside or the Congressional staff saying, "You can't apply this to the government, to federal government programs." What kind of resistance did you get, if any?

RON BRAND: Well, I got puzzlement and skepticism. I shouldn't say I, we, the whole program, because it showed up at different places. I recognized that problem as we had the training. I attended every three-day training session with whoever we conducted it with. My reason for being there was to help the people, our people being trained, into understanding how what appeared to be a private sector thing applied to their work. So, when the private sector example given was reducing the time to get a product out the door, we would then discuss, "Well, how long does it take us to get our money out to the field or to respond to inquiries from the field?" And those were, and we get thousands of them a year, those two have to be assembly lines, just like in private industry. But the assembly line is, let's say, giving out 2,000 grants as opposed to delivering 2,000 packages. So, we spent a lot of time showing them the corollary. One example that came out of it, a couple of our people saw that as states worked with consultant firms to do cleanups and to plan cleanups. There was a lot of confusion, lost time, conflict, and so on. At the request of a state, they went in to help them. First thing they found was, there was no laid-out procedure, and agreed upon procedure, for processing outside contractor proposals for doing the cleanups. So, our people worked with the state to develop a procedure, to document it, to lay it out so that everybody could see it. They then had the state have a consultant day,

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in which they invited all consultant firms that wanted to do cleanups to come in for one day, and they laid out and explained their procedure. What had to be submitted, how, why. The consultants were allowed to ask questions. They improved the process by the consultant's input. And when they got done, the consultants knew what was required, the state knew what process they were going to follow, and it made the entire process faster, cheaper, better. Other states then came in asking for the same kind of input. We had to do it state-by-state because each state has different rules about procurement, their legislation is different, their organization is different. So, we had to work with them to tailor it to their own individual states. So, that was a way of applying the TQM in the franchising concept.

Oh, you asked about the opposition? The Congressional staff was also skeptical and worried. They needed the program to succeed, and they were concerned about this approach that they didn't understand. One example, I met with eight of them one day at the EPA and they asked about how we were going to set up a national database. And we said, "Well, we weren't planning on doing that," which they were kind of aghast about. And we said, "We can't do it. We've got 90 people nationwide, and you've seen EPA's previous efforts at setting up nationwide databases and have not been too happy with them. We are going to live off of the 50 state databases. They won't be uniform. Some will be good, some will be poor, but the action that needs to be taken is at that level, at the state and local level. No data that we keep will be used to actually go do a specific job." Incidentally, gas station ownership and convenience store ownership turns over daily, so we would go crazy trying to keep up with all of those changes on a nationwide basis for 2 million tanks. So, we said we weren't going to do it, and they didn't like it, but they accepted it.

Other than that, within the agency it was more skepticism than opposition in relation to the franchising or the TQM. First because we didn't have to ask anybody's permission. We weren't changing an organization, we weren't asking for resources, so there was no need to lay it out and go up and say, "May we do this?" We just went ahead and did it. And at this point I should remind, or I'm reminded, that one of deputies of the Administrator gave me some sound advice when I first took the job. He said, "When you have a problem, do not take it to the 12th floor, the Administrator's staff. They will be too happy to tell you how to do your job. Find the answers to the problems yourselves." And I must say, we stuck with that religiously for the next five years.

# Chapter 2: Applying "Total Quality Management" to a Federal Program

HELGA BUTLER: I want to comment here that since I was on your management team that we didn't feel resistance to your franchising or TQM, but we felt, actually, quite invigorated. It was something new to learn, and was something that seemed to work. We got the responses from regions and states and the local governments, and it felt really good. And we were able to listen to each other very well about new ideas and improvements, so from that perspective, we had a pretty active staff in the Underground Storage Tanks Program. Now, what do you think are some of the lessons we can take away from the UST experience? What would you say, how would you summarize that?

RON BRAND: One of the biggest lessons that we learned, as we went through it, we didn't start with this knowledge. We acquired it along the way. And that was, don't start with the constraints. Frequently, when you go into a meeting on anything new, it starts with, "What does the legislation say? What do the regulations say? What do the requirements say?" And we learned to not start there, but to start with what we call "the real work." That is, what is it you actually want to have happen out in the real world? Well, I want an owner-operator to look for leaks, to find them, and to call for help on them. That's what I want to have happen. Working backwards from that, now, what are the things we have to do to make that happen? That's very different that starting with, "The law says we have to identify and detect leaks in all tanks." It also gives you a tremendous edge in your program because everyone else sitting around the table doesn't start with the real work. In many cases, they don't know the real work. And that's one of the powerful weapons you have when you get into negotiations or into disputes about how something should be carried out or what the regulations should say, and so on. Let me give you an example on that. In leak detection, we were writing a regulation that required everyone to detect leaks to 0.02 gallons per hour, a very small amount. But it was certainly a liability. We asked, "Well, how do you do that?" That led to a decision to ask all the people that wanted to, that had leak detection methods, to come into the lab at Edison, New Jersey, the EPA lab, and to try their methods out on a simulation that we had set up, a leaking tank. After two days, we assembled the results and found that none of the methods could test to the level and accuracy and consistency we were going to require in the regulations.

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What did we do? We said, "This is the real world. People cannot do this at this time. What can they do?" We set the regulation for levels that we knew could be achieved, and set a goal of doing additional work with the leak-detection community to improve it, which did happen over the years.

HELGA BUTLER: Yeah, start with the real work but also don't focus on the constraints, right? Is that sort of a summary?

RON BRAND: Don't start with them, because if you start with that, if you start by saying, "The regulations say, the law says that we must prevent any leaks from occurring," you can't do that. It's impossible. And a lot of laws contain things like "fishable and swimmable", things that are tremendous goals, but not something that you can use to help shape your program at that time. And I find that all those barriers push you in a direction that makes your program less effective, or ineffective.

## Chapter 3: Running an Independent Program within a Larger Agency

RON BRAND: Another important aspect of being a separate office was that we were able to work without an intermediary between us and the people we were trying to persuade, sell, and convince. And that is, normally, we would have been working through the staff that served the Assistant Administrator at the next level. In this case, we didn't have that level, we didn't have that person between us and the Assistant Administrator. And the same thing occurred when we went to work with staff offices. We didn't have to go through a General Counsel person in our Hazardous Waste and Superfund Office level to get to the agency General Counsel. We worked directly with the agency general counsel. That enabled us to personally sell and explain, convince, and not work through an intermediary who did not understand or accept the way we were working. So, in a way, it removed one level of barriers for us. And that was really important.

At the time we started, we did not realize this. It was only as we went along that we learned what we had been doing. In about 1991, Clayton Christensen wrote a book called, "The Innovator's Dilemma." It was about how and why many new organizations, people that are starting new programs, new products, fail. And what he explains is that when you want a new product or a new program, and you place it in an existing organization, the better that organization is, the more likely the new program or product is to fail. How can that be? Well, he points out that the better a program is, the more things they think of to do and to improve in what they're presently doing, your present product or service. They always have an abundance of ideas, more than their budget or their personnel can handle. When you give them a new operation and say, "We want you to do something different," they are so involved in carrying out the existing program that they continually rob the money, the people, the talent, that's supposed to go to the new program to further improve their present program. They almost can't help themselves. And it's not negative, it's just because they're so good at what they're doing, and they're so busy trying to keep on doing that, that they can't pay proper attention to the new program. By setting it up as a separate operation, a new program, and even in a separate geographic location, the new people have to find a way to get things done without all the resources and history and services that the old program had. Christensen further helps us out because in about 2000, he wrote a sequel

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called "The Innovator's Solution." I recommend both books very strongly to anyone who's interested in this area.

HELGA BUTLER: Now, if you hadn't come along, Ron, with your innovative ideas, could this program have been run in a traditional EPA manner?

RON BRAND: I'll have to say yes, only because we always found a way, but I think it would be very different, obviously. It would align more with the traditional way we did things, and I don't know that we could have made the rate of progress that we made using the franchising and TQM and nationwide approaches. I recently went to a meeting on the program for the first time in over 20 years, and found that they've made tremendous progress. The 2 million tanks are now down to 700,000 tanks, as many of the leaking ones have closed, and other people have decided to get out of the business because they didn't want the liability having underground storage tank programs. The number of leaks detected on an annual basis has gone from over 100,000 a year to less than 7,000. So, I see that they have made and continue to make a lot of progress. So, I don't know that the traditional way could have gotten us there, to the extent and in the time frame that the program has progressed. In addition to the constraints, though, and going back to your earlier question about what are the lessons learned, I can't emphasize too strongly the starting with the real work. Getting people to talk about, not abstractions, but here's an owner and operator in New Jersey, and the way that he detects leaks is he has a 17-year-old boy go out at 6 o'clock in the morning, in the winter, take a, what is called a stick, about 16 feet long, insert it in a hole in a tank, read it with an accuracy of within an eighth of an inch, take the stick out, carry it inside, and record his reading accurately in a ledger. All of those steps are fraught with mistakes, might give you false readings. Our more sophisticated methods also have plenty of places to make mistakes. But you can see that it paints a different picture of what's going on in the real world than simply talking about leak detection. You need that understanding. To bring that about, when we went to the Administrator and the Assistant Administrators to give them a proposed regulation that we had come up with and worked through the agency, we realized that many of them did not understand this underground tank world. How were we going to educate them when, one, like all of us, they think they know a lot. Two, it was not an area they had dealt with. Someone on the staff, our staff, came up with the idea. We got models, two and three foot models of each of the different types

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of tanks and the tanks closures, and brought them up to the 12th floor to the meeting. Again, we didn't ask anybody's permission, because I'm sure we would have been told, "No, you can't do that." We brought them up on a freight elevator and in advance of the meeting, placed them around this giant conference room, in which the Administrator holds these regulatory proposal meetings. At the point in the session where we had to explain the different methods proposed, and how they would take place, we asked all of the people at the table, the Administrator, the Assistant Administrators, their staffs, to get up and walk around the room to the various stations, at which we had a technical person explain how the tank operated, how the cleanup would take place, how a tank would be closed. It went across beautifully. They had a much better understanding than a diagram on a slide or than words on a screen. And again and again, we tried to bring people closer to the real work, the real world. And it changes the entire dialog.

HELGA BUTLER: Ron, it is now 25 years later, and you spoke about the results that the program achieved in closing tanks and reducing the number of leaks greatly. What would you say how the program is still today? Many directors have followed after you in leading this program, and you went to the UST conference and talked to some state programs and to some manufacturers, and whoever you talked to. What sense did you get as to how much of the original approach was still alive in the UST program?

RON BRAND: Well, that's a good question. It's one that concerned me. As you mentioned, I was invited to speak to the UST Conference about a year and a half ago in St. Louis, and there were over 700 people there—state and local agency people, EPA people, vendors, insurance people, tank manufacturers, tank inspectors—the whole gamut. And over the three days as I roamed around I kept asking about those questions. "Is the program different than other EPA programs? And if so, how?" And the answers I got, pretty uniformly, were, "Yes, it's different in that it's more collaborative; they work cooperatively with us as opposed to being 'we-they'; and that they work closely with all other players, anybody in the system that has to make things happen. And they really listen to what we have to say. They genuinely hear us. They may not always agree with us or do it, but they do hear us." So, that was reassuring.

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On the Total Quality Management side, I did not hear a lot about that. And, in some cases, nothing at all, because I didn't prompt it. But during the individual state technical sessions that I went to over the three days, TQM was present in a great degree. There were many beautiful, innovative things that they were doing at the state and local level that used the TQM methods, tools, and language. So, that's what I found.

HELGA BUTLER: Great. Is there anything else you want to touch on because otherwise I'll conclude this interview?

RON BRAND: Well, a couple of things. There were a lot of the things that we've talked about earlier in the interview -- technical assistance, support at state and local people, focusing on the environmental job -- that all programs spoke of, were concerned with, and thought they were working on. The difference, and I can't emphasize this too much, is the intensity and focus that we had on enabling the whole nationwide system to work. We had the benefit of not having to undo a federal direct operations program. So we didn't have people who had been doing it, and now we were saying, "let go," which I think I mentioned earlier.

We also didn't let other things get in the way of it. A couple of examples: we found that about two or three percent of the tanks that we found originally were chemical tanks. And we resisted putting any major effort into that. We said if 97 percent of the tanks are oil and gas, that's where we're going to focus. And except for one small study, which I did as a safety measure in case anybody asked us what we were doing, we stayed away from that. And it turned out it was okay because many of the chemical tanks were being moved above ground, and those underground tanks were being closed.

The second kind of risk, which I didn't appreciate, really, was that the program came first, and bureaucratic and administrative things came second. And one day I was called up to the Deputy Administrator's office and he said, "Ron, the program is doing a great job on program issues. But you're neglecting your EPA job, five-year plans, budgets, reports, and so on. And you've got to improve on that." So, I went back and talked to the staff. And they said, "Ron, we'll take care of that." And they took it away from me, lock, stock, and barrel. And they did all of those things up to snuff and it all went

well. But I really completely neglected it. And so there was a bureaucratic risk which I wasn't recognizing, but even then it didn't remove our focus on the main job.

The, I want to say, almost laser-like focus that we had on developing the nationwide system and in solving the environmental problems got rid of a lot of petty bureaucratic things. We didn't fight about organization. We didn't fight about space. We didn't fight about titles. The whole focus was on getting the job done. And that so permeated the place, and from my years in Evaluation and looking at other programs, I did not see that.

The other kind of risk, we didn't really seek out risk purposely. We were trying to do the job, and we would look at it and say, "Will the existing or standard way of doing it get the job done?" And the evidence showed that it wouldn't. That meant we had to search out something new and different. But that only came after we decided that the traditional method didn't work, or wouldn't work. So, it was more in response to what we found, rather than, "Gee, we're going to do jazzy new things." It grew out of the work and out of the problems that we faced.

It got anxious at times. We worried a lot about how people would criticize us on these new things because we didn't see any other way to go. On the other hand, it was a lot of fun, too. And I remember many days going home and saying to my wife, Margaret, "Wow, wait until I tell you what they've done today." And there were many highs along the way. Now, that's the only thing I wanted to add.

HELGA BUTLER: Anybody who worked in the Underground Storage Tanks program would now chuckle because it happened so often that you came into a meeting, especially in the mornings, and were saying, "Well, I was talking to my wife Margaret last night......" And the upshot was if Margaret didn't understand what you were trying to do or what we were trying to do, it wasn't going to go anywhere. So, Margaret—your wife was very much part of the picture here. And now, I want to thank you very much for making yourself available for this interview. And we hope that our listeners will take away some ideas for how to run a creative program, or to create a creative program, innovative program, and how to take some risks, and how to be daring, and how to run things not along the normal path, necessarily.

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Thanks again, so much.

RON BRAND: Thank you.