Army Environmental History Project

Interview with

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conducted by

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MOORHUS: I'd like you to start this morning at the beginning, where and when you were born with emphasis on your education and then into the Army. I'll let you tell it your way.

CICCONE: I was born on the 4th of April 1934, during the Depression, in the Bronx, New York, in the Fordham section, which was what was called the "town" surrounding Fordham University. If you're familiar with the way ethnic settlements were, they were basically towns or communities built around the ethnic population. Mine happened to be Italian. Obviously, there was a great concentration of Italian immigrant families in that area at that time.

I attended high school at a local high school named Theodore Roosevelt High School, which was physically located across a main road from Fordham University. I graduated in '51 and then studied at the City College of New York [CCNY] in the School of Engineering. I broke a leg in December 1951, which interrupted the school year, and consequently I lost a year of school. I returned to CCNY in the fall of '52. It was a five-year engineering program, and I graduated in June of '57. I left CCNY with a Bachelor of Civil Engineering degree.

One of the areas of great interest to me in engineering was what we called, at that time, "Sanitary Engineering," which focused on water and waste water. That was an area I found to be of interest and one of the few areas that I was able to get some good grades in [chuckle], so naturally I pursued that arena. But I mention that because of the role it later comes to play in my professional life. I was part of the ROTC [Reserve Officer Training Corps] and took a commission in the Corps of Engineers upon graduation.

I was called to active duty in February of '58 for a short training period with the Corps of Engineers, and that "short" training period ultimately extended to 21 years. It wasn't the intention, but that's the way life went. My first assignment in the active service was with the Corps of Engineers. In '59, we, that is, me, my wife, and a 10-month old son, went to Europe.

During this assignment as a Corps of Engineers officer in Europe, in '61 I became exposed to the Medical Service Corps, which included a specialty called sanitary engineering. That caught my attention, and subsequently I transferred from the Corps of Engineers to the Medical Service Corps. Upon this transfer I was re-assigned from Karlsruhe to Landstuhl, where a very large, 1,000-bed general hospital was located. My assignment to that medical center was further detailed to the Preventive Medicine Group. So you can see that my early interest in sanitary engineering caught up with me in '61 with my transfer within the U.S. Army.

Subsequent to the Germany assignment, we (now me, my wife, and three children) came back to the U.S. in '63. I was admitted to Rensselaer Polytechnic Institute (RPI) [Troy, New York] to pursue a masters degree under Army sponsorship. I completed the studies in '64, a one-year program with a masters degree awarded by the Department of Environmental Engineering. As a side light, Rensselaer at that time was the first institute of higher learning to grant a degree in Environmental Engineering. I discovered that fact later on in life and am proud to be part of that RPI history.

We left RPI in '64 with a Masters in Environmental Engineering and proceeded to Fort Sam Houston [San Antonio, Texas] for another year of military training in what the Army called the MSC Officer Advance Course. Upon completion, I was assigned to what was then known as the Army Environmental Hygiene Agency, Edgewood, Maryland. At Edgewood, I had a variety of assignments but predominately in the area of industrial hygiene.

The following is an abbreviated history of the Army Environmental Hygiene Agency [AEHA] and what role it played at that time. Recognizing this was the middle 60's, and environmental efforts were in a severe upswing, we suddenly transformed from being sanitary engineers to assuming a "new title" of environmental engineers, which made me very happy, especially since I now had this master's degree in Environmental Engineering. The Hygiene Agency, at the time in my view, was probably the only substantial Army organization that was playing a role in the environment, so the early technical environmental efforts were within the U.S. Army Medical organization rather than any other Army branch.

After completing the assignment at AEHA, I went to Bien Hoa, Vietnam, assigned to the 20th Preventive Medicine Unit (PMU). I came back from Vietnam a year later, in December '68. At the beginning of '69, I started doctoral training at Rutgers University [New Brunswick, New Jersey], and I spent three years there completing my Ph.D. degree in the Department of Civil and Environmental Engineering. I was awarded the Ph.D. in '72 and assigned to research laboratories at Fort Belvoir [Virginia] as a researcher and Deputy Chief of the Sanitary Sciences Division.

A function within the mission of the division was the development of mobile military equipment for purifying water in a field environment. It was in this R&D organization that I was exposed to a wide variety of basic and applied research projects, and in return I brought to the organization the results of my research thesis, military preventive medicine (PM) experience, and my advanced engineering education and blended them into an Army Materiel Command organization chartered to develop a wide variety of military equipment. It originally was a Corps of Engineers Research Laboratory which was converted to an Army Materiel Command organization. The philosophy of my assignment there as a Medical Service Corps officer was to place within selected Army organizations people who were formally trained in environmental principles and practices. My role there was to be involved on a daily working basis with other scientists and engineers.

My assignment at the R&D Laboratory lasted for about three and a half years, and I left there in the summer of 1975, reassigned to the Pentagon as the Environmental Consultant to the U.S. Army Surgeon General. I spent about three and a half years in the Office of the Surgeon General (OTSG), and in June of '78, I retired from the military as a lieutenant colonel, having spent a total of about twenty and a half years in uniform.

The motivation for leaving at that particular time was I had decided I wanted to try my hand at being an entrepreneur, and I felt it was a good time to leave. My military career afforded me a depth of advanced technical training and administrative experience, including work at Headquarters, Department of the Army. In summary, that's my educational path, with much gratitude on my part for being offered such education opportunities by the U.S. Army. In between, there were other military trainings.

One of the other items that related to the education and the experience level was that, while I was at the Surgeon General's Office, I was awarded what was called an "A Prefix," which was an annotation to our military specialty. This annotation indicated I had reached the highest level of professional competency. To the best of my knowledge, such prefixes were only awarded within the medical community. So that's the educational path intermingled with some of the career path, and if you'll permit, I will go back in time and describe to you a closer review of my career while in uniform and how that interfaced with the maturing of the U.S. Army environmental program.

In 1961 I transferred from the Corps of Engineers (combat engineering) to the Medical Service Corps and was assigned to the 10th U.S. Army Medical Center, Landstuhl, Germany. That's what it was called at the time [now U.S. Army Europe Regional Medical Command]. My assigned duties were as sanitary engineer for the region serving all of the troops west of the Rhine River, which gave me an opportunity to travel along the Rhine River providing sanitary engineer consulting services, basically, to the U.S. Army installations and field organizations stationed within that part of the Rhine River region.

The specific work was in the preventive medicine (PM) public health arena, within a medical organization where a physician served as the Preventive Medicine Officer, generally an engineer like myself as the sanitary engineer, a nurse, an epidemiologist and several PM technicians; and the spectrum of work covered the medical surveillance of drinking waters through socially transmitted diseases, a very broad spectrum. Because of limited resources, I, as the sanitary engineer, was exposed to a variety of different preventive medicine (PM) issues. This was really my first exposure dealing with the medical community and dealing on the engineering end of preventive medicine, which later became, in my opinion, the basis for the environmental programs within the Services.

MOORHUS: I want to ask about your relationship with the German authorities on some of these issues.

CICCONE: Yes. The relationship with the German authorities was usually cordial and cooperative such that we dealt with them, on many occasions, with PM issues of mutual concern, one-on-one, because they were the regulators dealing with the local German community, and of course, our activities impacted their community. Consequently, there were many situations where there were a set of conditions that might have been contributing to an environmental issue within their community, whether it was their drinking water, disruption of the natural land setting with U.S. Army maneuvers, or whether it was our release of chemicals into the atmosphere. So we frequently dealt with them, and it was an exposure (i.e., a learning experience) that taught me how to deal with not only the technical PM aspects, but also the public relations aspects, especially sensitive since we, the U.S. Army, were operating within a host country.

I can remember very specifically there were some public health issues about water contamination in which I was a principal player. On other occasions, when it was an issue related to a specific disease, the physicians were involved more than I was. My general role, then, was more dealing with impacts on the environment from both sides, i.e., U.S. Army forces and the host German population, as to whether their activities were impacting on us or our activities were impacting on them. For me, it was a great opportunity to learn how to deal with issues at a level that affected a whole population or a sector of the population that was outside of the strict military communities that we lived in.

Such activities occurred not only in Landstuhl, but wherever U.S. Army and German communities were shared—some of them jump into my head—Baumholder, Pirmasens, and all the communities that were located west of the Rhine River. For this discussion you need to note that the important thing was that our role was to provide what was called, at the time, sanitary engineering, or public health engineering, and to me, in retrospect, that was establishing a basis which later took on the much broader picture of "environmental," because public health implied more of disease relation rather than impacts on the environment which

affected other species besides humans. In summary, that was my role and selected experiences while stationed in Germany.

MOORHUS: Did you get involved, in any way, before a facility or an installation was constructed—I mean in a preventive way?

CICCONE: Yes. At the time, most facilities were already constructed. There wasn't much new construction going on. We're talking late fifties, early 60's. We did get more involved when there were military field maneuvers taking place and if there were armored vehicles involved, for example, that could cause damage to the local terrain, at least as it related to the local population. Specifically, we did have some PM inputs with new infrastructure that was being built for the military. For example, if there were new barracks planned, or there were going to be new water treatment plants or water resources, we did provide selected inputs in the process.

But what we were commissioned to do at the time was provide PM oversight, and there were little, if any, inputs that dealt with what might be the future environmental impacts of those facilities. Our efforts were more focused on the daily operational functions of the facility. So, for example, the issue of whether you needed extensive permits in order to release waste water, again in my memory, was secondary to treating the waste water, but the basis for "environmental impact solution issues" was there within the Medical PM Division. The basis was there, and there were some selected discussions related to environmental impacts.

For example, I remember one very specific incident in which a military incinerator that was used for the disposal of carcasses from the veterinary labs or from the operating rooms was not functioning properly, creating an environmental hazard. The local authorities approached us to see what we could do, and I recall being specifically involved in some of the details in helping to resolve that.

There were two items there. One was that the incinerator would emit some contaminates into the atmosphere, but more importantly, there was improper disposal of some of the residuals, and children were being exposed to those residuals, so we had to be involved in its resolution. That was a public health issue exposing the local population through our U.S. Army operations. Those were some of the kinds of issues, along with the day-to-day normal operation of the facilities. My role, again, was to provide the technical input, whether it was a waste water treatment plant, a water treatment plant, or a surveillance program on the drinking waters to assure that, primarily, our basic military population was being protected while also expressing concerns for the local populace.

Many U.S. Army sites were located throughout the countryside, such that our drinking water was provided by the local German community, and since they did not practice chlorination of the water, and we practiced it, then the military policy was to inject chlorine into the purchased water so we'd have a residual to protect our military population. Part of our PM program was to assure that the water operators, whether German or U.S., were providing the right levels of disinfection and maintaining the equipment, et cetera, et cetera That was the day-to-day routine sort of stuff.

But all of these issues then, to me, became—remember, we were the medical community, but the engineers operated the system. We, the medical community, had the responsibility for surveillance. So the structure was engineers and medical community working together to make sure there was adequate water supplied (engineers) which was safe to drink

(medical). That was how the basic structure was. Within the medical community, we had the laboratories that would do the analysis, from very simple bacteriological analysis, very simple field testing, all the way up to some very sophisticated toxicological examinations, if necessary. The medical lab was there at Landstuhl. All of this was personal professional PM exposure, for me, that later on played a role in my life in the Army environmental program.

Now, having said that, I went to school (master's level degree) and got the next level of technical education and subsequently to the Army Environmental Hygiene Agency where we now were involved in a much broader picture. In the history of the Army Environmental Hygiene Agency, it was originally set up during World War II, and I don't know if you've spoken to anybody—have you spoken to anybody from what is now CHPPM [U.S. Army Center for Health Promotion and Preventive Medicine]?

MOORHUS: Lee Herwig.

CICCONE: Well, Lee Herwig was one of my contemporaries. He was a couple years ahead of me, so ultimately, Lee and I ended up working together at the Surgeon General's Office. But Lee's path—I don't know if he gave you similar background—

MOORHUS: It was different.

CICCONE: Okay. So the Environmental Hygiene Agency was established, basically, in World War II when there was this massive expansion of the industrial complex to support the war—ammunition plants; make the bullets; make the bombs; make the basic ingredients; build the tanks; and build the airplanes.

As part of that massive expansion program, there was a need to exercise medical surveillance over exposure of the workers, whether it was a person grinding something or someone exposed to the chemicals going into the munitions manufacture. There was somebody painting or spraying or some other industrial process, and the primary interest at the time was get the product out the door. The U.S. forces had to have more military products going out the door than were going down in destruction, and obviously, it was our national war materiel production capacity which had an impact on the ultimate victory.

So these plants were at full capacity, and since the government was—at the time basically, the Army, the responsible agent for operating munitions plants—which may have been operated on civilian contracts, they were facilities owned by the Army. So there was a need to provide basic, day-to-day occupational health services for those workers. The physicians would provide medical services and make sure that they stayed healthy, because production manager needed to keep them on the production line [chuckle], and then the scientists, the engineers and the chemists were primarily interested in the physical exposure these people had potential of being exposed to.

For example, if somebody was working with a highly volatile chemical, and was breathing it all day long, well, it wouldn't be long before they were affected. So the physicians in the Preventive Medicine Office would say, "Well, they can't tolerate too much of this situation. What do we do about it?" And the engineers, the scientists, and the chemists were subsequently involved in the physical measurement of the exposure and the physical design of how to minimize the exposure. I think the Agency at the time was called the Environmental Hygiene Laboratory. EHL, I think, was the original organization, and I can confirm that if necessary.

So you see, there was this wide occupational exposure going on and lots of people being exposed, lots of basic science principles being applied, and the textbooks are full of documents that support this view. Again, to me, this was the beginning of a sincere, significant effort on the military's part to protect not only its military population, but also its civilian workforce. Now, having said that, when the war ended, and we move on into the future—by the time I got to the laboratories (1964), it was in a state of transition, from being in old converted barracks into sophisticated, permanent type facilities.

When the Army Surgeon General reorganized the EHL to the Army Environmental Hygiene Agency, it assumed a much broader preventive medicine (PM) role, and within that, an expanded environmental role; it wasn't focused only on occupational health. Now, we (i.e., the Army Medical Community) started to think about air, water, and land pollution, and the engineering aspects of occupational health became the Army Industrial Hygiene Program, which was a pretty well-established field. The expanded environmental role started to come into the areas of air pollution, solid waste, ground water contamination, drinking water issues, in addition to the classical industrial hygiene issues.

Again, this is my view. Within the Army, the only organization that had the manpower and the technical knowledge as a base for taking it into the much broader role was the U.S. Army Medical Corps. What we saw then was the development of these environmental responsibilities being given to the Medical Department. Then the technical-minded young people, like Dave Knessey, John Piercy, Lee Herwig, Vince Ciccone, Nelson Lund, and many others that were coming along in this new career field, they who had the basic technical background formed the working force, while our predecessors, people like Colonel Bob McCall, Johnnie Redmond, and Colonel Bernie Goldstein were the gentlemen with the vision for setting down the basis for expanding the Medical Service Corps into this new era of "the environment."

You couldn't go, for example, to the Corps of Engineers and ask, "How many environmental engineers do you have?" The response would have been, "What are you talking about?" So either by default or by assignment, the Army Surgeon General took on that role and moved it into the future, using his own resources plus gathering others. I look back and say, well, that was a great entrepreneurial move, because they could have said, "That's not my responsibility." However, at the time, I think [Lieutenant General] Leonard Heaton was the Surgeon General [1959-1969], and I don't recall who his deputy was, but they took that role on as an expansion and saw it as a wise "business" move. I relate that, then, to business terminology.

The Agency, then, grew very aggressively and grew to the point where, suddenly, there were new modern facilities and laboratories. While I was there, the new facilities were constructed, new buildings, new laboratories, new equipment, new technology, and new faces; and the forefathers, some of the people I mentioned—and I can come up with other names—were the people who set the basis for people like myself, then, to follow their leadership and help build on it.

My specific role at that stage of my career at AEHA was in the Industrial Hygiene Division, but the Agency was organized into a Water Quality Division, an Air Pollution Division, a Solid Waste Division, and a Radiation Division. So now, there was this whole structure in place that was ripe for—because by the time the middle 60's and later the 70's came along, and although we were fighting a war in Vietnam, we had started to transition within the military into an era of limited conflicts, and civilian communities (where production facilities were located)

started to say, “Well, now look, we’re not producing large quantities of munitions any more at this plant, and since you (the U.S. Army) polluted our river, you are now responsible for cleaning up our river. You have put your waste products into the ground for the last 40 years, and those waste products have deteriorated, and now, they’re contaminating our ground water, and now remediation is necessary.” All of these issues then became major environmental issues which needed attention.

The Environmental Protection Agency (EPA) suddenly had all this muscle, and it started to press on not only the private sector industries, but to press on the federal facilities, because the private sector would say, “Mister EPA administrator, please back off, because I’m living here outside of, for example, Rocky Mountain Arsenal [Commerce City, Colorado], and you’re pressing me to do this (remedial action), but you need to clean up your own federal facilities first.” So the requirements became huge, huge requirements.

Suddenly then, we saw that, within the Services, there were environmental offices starting to develop, and within major commands, there was a birth of similar environmental offices. Also, at the installation level there were environmental offices. Some of them were separate headquarters staff offices, or some of them were within what was known at the time as the post engineer function, which later became the facilities engineer or Directorate of Public Works. So, it all started to filter down with EPA pressing on DOD [Department of Defense], DOD pressing on the Services, the Services pressing on, so it filtered down. Suddenly, there was a large, environmentally trained manpower requirement. The Services found that they were a little bit short of personnel to meet the needs.

Around 1975-1978. I had left AEHA, been to Vietnam, completed my Ph.D. training and a four-year assignment in R&D, and was now stationed at the Surgeon General’s Office. I recall very specifically there was a requirement to put something like 30 or so manpower spaces into environmental positions. Now, you must understand I was Medical Service Corps and had been assigned to an AMC [Army Materiel Command] chain, so it gave me the exposure with the people who were the shooters, the people who were the doers, the people who were the mission executors. So when I went to the Surgeon General’s Office, previous assignments had given me a little better appreciation of what some of those operational requirements were.

I can recall very specifically at the time—I don’t know if Heaton was still the Surgeon General, but a gentleman by the name of Major General Enrico Mendez, M.D., was the Deputy Surgeon General, and I knew him from my assignment in Landstuhl. At that time, he was the Center Radiologist, but he also worked with us in Preventive Medicine, so there was a little personal relationship which made our communications a bit easier.

I recall that he called me up one day, and he said, “Vince, look, I have an opportunity to pick up 30 to 33 spaces to put environmental people in these different organizations within the Army. What shall we do?” and without a question, I said, “General, I’ll take them.” He said, “Well, can you fill them?” [chuckle]. “We’ll work on filling them, sir.” “I will take them,” was his reply, so he did and the rush was on!

What happened then is we suddenly found that we had additional Medical Service Corps allocations within AMC, within other research laboratories, at the Corps of Engineers organization and at the Office of the Assistant Secretary of the Army. So it then put Medical Service personnel assigned to positions that would normally be Corps of Engineers spaces. You must also understand that a lot of these spaces within the military were “treasured items.” Given this little personnel tradeoff at the General Officer level between the Chief of Engineers

and the Surgeon General, it permitted the placement of environmental talent distributed throughout the Army. I don't know what the Surgeon General gave up, but he got 30 spaces, you see.

MOORHUS: Can you give the approximate dates for that, what year that might have been?

CICCONE: Yes. I was in the Surgeon General's Office from '75 to '78. That occurred about '76.

MOORHUS: Okay, thank you.

CICCONE: Now, let me relate to what the Corps of Engineers was doing at the time. At the same time, the Corps was actively recruiting people and was actively training people in the environmental arena, and you must remember I was a Corps of Engineers officer that went to the Medical Service Corps, and that was back in the 60's. Well, in about '75, '76, there were more and more Corps of Engineers officers leaving the Corps and going to the Medical Service Corps to be environmental engineers, and so there was a host of people that made this career shift. I was about the second or third that made the transfer in the 60's, and within ten years there was a much larger number of people who followed.

Later the Chief of Engineers' Personnel Office had to ask the Surgeon General's Personnel Office to stop accepting such transfer applications, but in between, we were able to get those 31 or 33 spaces, something like that, and we filled them. So now the Army is enjoying a distribution of environmentally trained people—it wasn't only engineers; there were scientists and environmental science officers—into working on a day-to-day basis in the environment, not only consulting but doing, being responsible for it, so there was significant impact. There was an impact, I think a very positive impact, and it allowed, then, the other major commands in the other branches to start preparing some of their people, predominately the Corps of Engineers, for environmental assignments.

Now, some of the people, like Tom Magness, who was, I believe, an artillery officer, who had a great deal of interest in the environment, wanted to come over to the Medical Service Corps. At the time, I was in the Surgeon General's Office, but we couldn't get him, because at the upper level, it was taboo to do that any more. But Tom Magness and people like Tom Magness related back to what the Corps of Engineers was doing to enhance its presence in the environmental arena. One of the things they did was establish, at the Assistant Chief of Engineers' office, an environmental office, and the gentleman that was given that task was a gentleman by the name of Colonel William P. Gardiner, COE.

Physically, we were all in the Pentagon. Bill went over to establish this new Army Environmental Office. The Medical Corps environmental people were at the Surgeon General's Office. We were at different levels in the building, but we had an open dialogue with Bill Gardiner's office, the Army Environmental Office, and we had an open, working relationship. In addition, Bill's charter was to enhance the environmental program within the Corps of Engineers—keep the program fed, and keep it well fed. But in the mean time, his resources were relatively limited.

MOORHUS: So he was an Engineer officer?

CICCONE: He was an Engineer officer.

MOORHUS: What kind of training did he have?

CICCONE: Bill was a [U.S. Military Academy] West Point graduate, Class of '45, as a matter of fact, so Bill had been around quite a while. You understand, by '75, he already had about 30 years of service, and he had been a combat engineer but then had also been at the DA level and had had advanced schooling. I think Bill, while he was still on active duty, went to GWU [George Washington University, Washington, D.C.] and got a degree in environmental sciences or something related to the field.

So Bill established that office. He retired probably in '77, and a gentleman by the name of Colonel Charles Sell replaced him. Then I retired in '78 and left the service. Lee Herwig came into the OTSG about—I think it was about the beginning of '78 or late '77 he came in—he was an O-6 [colonel]. I was an O-5 [lieutenant colonel], so he took over most of my functions, and I left in June of '78.

By then we had a good working relationship with the Corps of Engineers at the DA level and with the Corps of Engineers at the research labs, because of cooperative research programs. When I was in Belvoir, we had a wonderful working relationship with them, because one of the things that we were doing at Belvoir, specifically, was while the Medical Department was trying to establish the health criteria necessary for setting limits on the discharge contaminants like TNT [Trinitrotoluene], nitroglycerin, nitrocellulose, and all of the compounds in munitions, which were being discharged into many rivers throughout the U.S.

The Army Materiel Command was responsible for operating those plants, and within our AMC Ft. Belvoir laboratories, we were responsible for trying to develop technology to treat them—so you can see where there was this big, cooperative effort going on. There was a lot of "environmental" money available at that time. AMC was making money available, and EPA's position to the Army was, "That's basically your problem since it's military-unique wastewater. There was no other industry that generates that, so you must establish your own criteria, and we will approve or disapprove of the related technology, et cetera"

So the Services, then, made a lot of money available in order to quickly fund remedial solutions. The Medical Service Corps was responsible for setting the health effects numbers. The AMC was responsible for developing the equipment. The Corps of Engineers was ultimately responsible for technology implementation while also doing their own research, so CERL [Construction Engineering Research Laboratory, Champaign, Illinois] was involved. I mean we did a lot of work together. I got to know a lot of the people at CERL, because we were exchanging a lot of work and results of those efforts. People like at the Munitions Command and Picatinny Arsenal [New Jersey] were involved, so there was a lot of that sort of cooperation going on.

You can suddenly see how the Army Environmental Program grew into this much, much broader effort. The Corps of Engineers then found itself establishing the Environmental Office at Army Headquarters and establishing bigger and bigger environmental staffs at the major command levels, where environmental offices were established. Ultimately, at Headquarters, Department of the Army, there was an Environmental Office. Ultimately, at DOD, they also established an Environmental Office, which now is a Deputy Undersecretary of Defense office. Back in those days, it was a staff function.

You can see, then, how this whole "idea" of the environment grew from a seed to a small tree or bush. Now, it's a very well-established program, and the Medical Service Corps people still continue to provide some great technical input. The CHPPM continues to be a very highly regarded organization. But the CERLs of the world and the CRRELs [Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire] and all of those, the WES [Waterway Experiment Station, Vicksburg, Mississippi] now have a "major" role, but I'm not as privy these days as to what their specific roles are since my active participation was back twenty years ago.

Some of the end results were—to get into the big programs of remediation and clean-up, where some of those technologies mentioned earlier were applied, to include long-term monitoring and long-term effects measurement. As I understand it now, the Army environmental organization exists as a joint responsibility by the Medical Service Corps and the Corps of Engineers. To meet its responsibility, the Department of Defense has a large organization with each of the Services' organizations staffed from the installation to the Secretary level. So program management staff went from some scattered GS-12s to GS-15 up to SES [Senior Executive Service] at the Secretary level. Some of these are now political appointees, and some of them are career SESs, introducing new ideas, new changes, to meet constantly changing requirements.

A big environmental requirement coming up now—with each BRAC [Base Realignment and Closure], there's been a major impact. So the program now is very, very broad, in which it's not only what has taken place in one little installation but what has taken place across the whole U.S. and overseas in the clean-up program. The budgeting is close to approaching $5 billion a year, which is a lot of money. The program, and as any program that's skyrocketed, grew exponentially, leveled off, and now in my eyes, it's starting to come down, because some of the requirements have been met. In addition, environment is now seen as part of the day-to-day business. It's as important to have an environmental engineer on the staff as it is to have an electrical engineer or as it is to have a mechanical engineer. It's part of the team.

Early on in new construction, the environmental engineer now has an input, and therefore, you try to bring them into the total process. Where we are now, in my eyes, is that there was a massive growth in the Army's environmental program and very much on the positive side. Unfortunately, there are still some skeletons in the closet that keep coming up. For example, locally, we had the one at— [pause]

MOORHUS: Spring Valley [Washington, D.C.]?

CICCONE: Spring Valley, and they'll continue to show up from time to time, and now with the new BRAC '05, they'll show up again. The really important thing to me is that it has been recognized as part of the cost of doing business, and so you don't have a commander who will risk ignoring environmental impacts. Imagine a commander saying, "Oh, I'm not going to bother with that. I'll put it on someone else." Commanders now at all levels, from an installation all the way up to the flag officers and Secretaries, now see how important it is to have that kind of capability within their organizations.

In my eyes, part of it was because back in the—I'm going to say I think I was still in uniform—there were some EPA regulations passed, and then some legislation passed which made the commander of an installation personally responsible for environmental insults and environmental damage, and therefore, that really got their attention so that, within his organizational responsibilities, he can no longer afford to ignore those issues.

It also became an item on their efficiency report as to how did this command, or how did this individual, respond to environmental responsibilities? There was a checkbox, and nobody wanted to see that be blacked out or not filled in properly. Those were some of the motivators. In addition, I believe it gave the local commander an incentive. Many said, "At the same time we're doing that, and our resources are limited,"—there are always limited resources—"if you have a recycling program, for example, that generates money by selling the recycled materials through whatever channels, the monies that are generated from that will not go into a general fund but can be used at your discretion for enhancing the environment on your installation." So he now has, not only the motivation, he has the resources. You have to not only point the finger at him for the responsibility, but you have to give him motivation, and you've got to give him the resources. The program has really matured. As the time has gone by, there's been a massive transformation within the Department of Defense, and that transformation is basically aimed at not only the structure, but how business is conducted. It's a different model.

Even some installations and some organizations talk about—it's not their staff any more, but it's the commander's "Board of Directors." Well, that was unheard of 25 years ago. The commander dictated more than he directed. But now there are different ways to do military business, and we see that more and more, because we see that the functions of the military, of the people in uniform, are being focused more and more on doing the military activities, whatever they might be, and those operating functions, housing, cleaning the streets, and keeping the post looking pretty, are being outsourced. So it takes away from the military. You don't see soldiers any more picking up cigarette butts so to speak. What you see, for example, is DynCorp [International, Reston, Virginia] people out there performing the base operational functions. So good, bad, or indifferent, I'm not judging, it is a different model.

At the 50th anniversary of AEHA, I had the honor—by that time, I was in business and had been in business for several years—to be asked to speak. My charter was to look at what the future AEHA might look like. What would it look like 50 years from now? By that time, I had been deeply involved in private business. I had been in and out of several companies. I chose to speak on the "new" model. What would be the business model of the future AEHA. And to use those exact terms, I suggested to the audience that you may not have a "commander" any more. Rather, you'll have a "director." Be prepared that you won't have a staff as such, but a "Board of Directors." The model will change, and I think—now, this was back in—

MOORHUS: Fifty years—it would be '95.

CICCONE: '95. It was about that time, and I had the honor, along with Dee Walker (former Assistant Secretary of the Army for Environment, Safety, and Occupational Health) to be a speaker. There was one other gentleman who spoke about the past fifty years. Dee spoke about the relationship within the total Army, of course, since he was the Assistant Secretary at the time. I spoke about what Vince Ciccone sees as the future of AEHA. I've never gone back to check, but it's a different model. It's a different model.

Now, how does that impact on the environment? It impacts all the way across—how we procure materials, how we stock them, and how we store them, but even in procurement, there's a program of "green procurement." Green procurement, green disposal, green storage—it's now, from a humble beginning, into this massive network that hopefully prevents the sins of the past. Those sins will keep coming up, because you just can't—but I even saw something in a journal I was reading the other day. Yesterday, or the day before, I was reading a technical journal that showed how some of the environmental research, not only dealing with the physical, but with the biological, to plants. There are plants that are more resistant to abuse

by maneuvering tanks and maneuvering vehicles. Well, I think that's a real positive effort, and it's money well spent.

The point here is that there is now this big network, and in my eyes, it's been all very positive. Nobody bats a thousand. There were some setbacks along the way, but it's been a very, very positive thing. I don't know what views other people gave you, but those, basically, are my views of how the Army's environmental program developed—my own education, my own experiences, and I'm hoping that, in the future, in the next discussion, I can give you more specifics as to how these events occurred. But in general terms, that's how.

MOORHUS: I have a question about your experience in Vietnam.

CICCONE: Oh, okay.

MOORHUS: What did you do, and how did that contribute to your views?

CICCONE: Oh, wonderful, yes. My tour in Vietnam. Within the military, we had what were called Preventive Medicine Units (PMU). Our role was to provide public health assistance and to address the public health issues for our soldiers in the field under combat conditions. I was fortunate enough to be assigned as the executive officer in the 20th Preventive Medicine Unit, which was stationed in Bien Hoa [Vietnam].

The commander at that time was a fellow by the name of Lieutenant Colonel Joe Smith. I was a major. Joe Smith was a physician. He was a lieutenant colonel at the time, and Joe was a formally trained Preventive Medicine Officer. I was not only the executive officer, but I was also the sanitary engineer [laughter]. We had engineers. We had entomologists, the bug men. We had a veterinarian. We had an epidemiologist. We had nurses, so we had this whole public health structure, and we had a laboratory for entomology. We had a laboratory for veterinary. We had a laboratory for sanitary engineering studies. We had a laboratory for our water and our waste water, and there we were providing, again, oversight on some of these issues of predominately how it impacted on our troops, because under the conditions of battle, we were trying to protect our troops from—and we had then troops. We were about 250 people strong, but we had troops spread out all up and down Vietnam. Part of my role was to run up and see so-and-so up there in Phu Bai or go up there to Pleiku or go down to Vung Tau, so I did a lot of flying around.

An incident that arose at the time when there was an expected big push of North Vietnamese down into South Vietnam. We were stationed in Bien Hoa, and we were stationed on the same compound with the 101st Airborne Division. The 101st was moved out of Bien Hoa and went up country to take positions to prevent this big push from coming down.

We were part of the 44th Medical Brigade and worked directly for them. We were attached directly to the brigade, so we got all our guidance from them. At the brigade level, there was a sanitary engineer on staff, and his name was Colonel Converse Lewis. He was one of the older gentlemen that set the basis for us young guys to come along.

I was a major at the time, you see, and got a call from him one morning that said, "You need to come in. Get on this plane." It was a general's plane. "You can fly up country to go see, i.e., investigate, an outbreak of shigellosis or something." Young GIs of the 101st had diarrhea. They were basically incapacitated. So I went up country, and I spent a couple days

trying to find out what the problem was and what could be done about it. The commander of the 101st was also affected, and they had some 8,000 troops, so this was a pretty big deal.

After doing all the searching, it traced back to a water point—a point where we, the military, were taking water out of the river and treating it for distribution to the troops. It just so happened to be located after a bend in the river. Upstream, some troops that had been reconnaissance troops, who had been in the bush for a couple weeks, came out, and they were bathing in the stream. Personal hygiene—they were taking care of their own personal hygiene, but they had relieved themselves in the stream, which was natural for them. But unfortunately, they were carrying some intestinal bacteria which contaminated the water.

When it came around the bend, the water point people took in some of that water, and they treated it, but unfortunately, they ran out of chlorine, the supply of disinfectant. Instead of holding the water or not distributing it or making sure they got the proper doses of chlorine, somewhere there was a breakdown, so water was distributed which was not free of bacteria. As a result, where it was consumed there was this outbreak.

What's the lesson there? Well, the lesson was no, no, no, don't do that. Who's responsible? Who's not responsible? But ultimately, that issue was, ultimately, the PMU had the responsibility to examine that outbreak, document it, and then recommend action. Actually, we sent that investigation back to the Medical Service School in Fort Sam with the documentation, and it became a case study. So those were some of the PMU activities. In addition, we had motor pools, shops, and all kinds of other industrial type operations going on which also required medical oversight.

But as engineers exercised surveillance of how predominate water was in the day-to-day operations of preventing communicable diseases, the entomologists were concerned with, for example, plague. They collected rats to predict what the incidence of plague might be. Malaria—control of the mosquitoes—and the epidemiologists were concerned about documenting the outbreaks of disease, whether they were communicable, occupational, or whether it was infections within a hospital. It was the practice of public health, the health aspect, and the practice of public health engineering and science within the military community as well as out in the field.

We were cautious about how we disposed of waste in the facility and what the mess hall people did in some basic sanitation, but it was more concerned about making sure you can conserve. This is the motto. Conserve the health of the soldiers. What does that mean? That means you can make sure to keep them fighting [chuckle].

MOORHUS: Did you have any contact with the Vietnamese?

CICCONE: Yes, very much so. We had contact with the Vietnamese. That was also part of the PM programs. There were a lot of Vietnamese working on the compounds. The physicians and the PM technicians provided medical oversight of this work force, predominately to make sure their health was sound. Periodic health examinations were conducted. There was also contact with socially transmitted diseases, because around each camp, there was always this bevy of different little houses that serviced the troops, so that was a big issue there, too.

MOORHUS: What about contact with the Vietnamese government officials about any of these sanitation issues?

CICCONE: I'm trying to think. [pause] I'm trying to think of whether it had—we had some communication going on with the local town officials. I know that there were some experiences where we would buy ice from the Vietnamese, so we would go to the ice plant and make sure that they were practicing disinfection and they were doing the proper practices in manufacturing the ice. Then there would be a local health official, who was supposedly exercising some supervision. Additionally, our own people would do testing of the products that came in from such local Vietnamese ice plants.

Well, now that I think about it, there was a milk factory that was the same way. The margarine and the ice cream were all manufactured locally. Our Veterinary Corps had the responsibility for many of the products that were being procured. But then it was also a PM function to assure that the technology for making the ice cream was also part of the medical surveillance, so there was an interface there. The Vietnamese made wonderful bread.

MOORHUS: Oh, really?

CICCONE: Oh, wonderful. The French taught them how to make French bread, so a lot of French bread [chuckle] got imported into the compounds every day. But surveillance over that bread manufacturer, as I recall, was not as—

MOORHUS: Rigorous?

CICCONE: Yes, not as rigid [laughter], but there, it was more of the public health practice in the broader environments. But those experiences related back to, in my case, how my thinking was involved when we were later developing equipment within the Materiel Command with those people that we served together with, those that followed me, and those that were before me. My successor in Vietnam basically followed my path. He replaced me in Vietnam, went to graduate school in a Ph.D. program, and after graduate school, replaced me at the Ft. Belvoir research lab, so there was a sense of continuity there.

MOORHUS: And who was that?

CICCONE: That was Bob Carnahan, also a Corps of Engineers transferee. We were involved very heavily on the development of water treatment equipment. Are you familiar with the term the ROWPU? Are you familiar with that? That's the Reverse Osmosis Water Purification Unit. That's the Army's basic water treatment unit. I was part of the team that initially put that all in place. Then Bob came behind me and was involved in the production on the first units. Bob is now—I think he's a tenured professor down at the University of South Florida [Tampa]. After leaving the Army, Bob went to the University of South Florida, and basically, Bob has been an educator in the water arena.

Some of the other names I can give you. A gentleman by the name of Jerry Murphy also went on to do his Ph.D. under the Army program. He also went to the University of South Florida, and he has retired since, but he was in air pollution. That was his big specialty, and later on in the private sector, he was involved in solid waste, so you could see—one of the other views I had about those of us that went into the Ph.D. route is we were fortunate. We were selected for the program, we would be funded, and then we gave our talents back to the service for eight, ten, or fifteen years after our graduation.

But then, there was a broader impact on the total economy, because we went into the economy of the private sector, some of us into business, some of us into academia, some into

government, and some into academia. I can rattle off a bunch of names of people that went different places, if that's of any interest.

MOORHUS: That's interesting. So the Army, by educating military officers, had an impact, not just on the Army, but on the broader public.

CICCONE: I think that's an important part of the Army's environmental program. I think that's an important part.

MOORHUS: Is the Army still educating young officers?

CICCONE: Not as many. They do, but not as many. Let me give you an example of what I mean by that. I came back from Vietnam in '69. I went to a university setting. That was right at the time of the height of the riots. I started in January of '69. I came back at the end of '68. The youngsters were burning down buildings and rioting. I went to Rutgers University, and I could see that first hand. But I was in the graduate school. Mostly that took place in the undergraduate level. Now, I spent three years, and my exposure—this is an important item to me personally. I don't know if you want to ultimately include it in, but I think this was important to the whole program.

My exposure then was to the graduate school. I did technical work, highly technical work, but then I did work in different departments. I did some work over in the Political Science Department. I did some work in the Economics Department. Ultimately, my thesis was a sophisticated number-crunching model that addressed how to make decisions on the recycling of water in a community. But that's secondary.

I think the greater part of my education—not my training, but my education—was my exposure to other graduate students during a very tenuous, controversial period. At that time, there was the My Lai incident, so the image of the general student body was that anybody who had short hair and carried a weapon was a baby killer. Our image of anybody that was in school was they were just there to throw bombs.

I left after three years, during which there were a lot of discussions and a lot of free time. Graduate students would gather. Some of us were married, some of us were not married, and we'd have a lot of discussions. One very close colleague of mine was a fellow who also served in Vietnam and came back. He was not very sympathetic to the whole program, but there was a good mix. At the end of three years, the graduate students admitted to each other—I learned a great deal from them; they learned a great deal from me.

What was the value to me? What was it about? The value was that we, I believe, left a little bit of an impression that not all military people are killers, that there's a good part, and that there's a structure. But there's a structure within the university. It's a rigid structure within the university, if you're familiar with it.

MOORHUS: I am.

CICCONE: We would have these discussions. I've retained friendships with some of those people over the years. This exchange was very, very important, not only because I came out of there with a doctorate, and I can come and tell you how to treat water, but because it left an impression on some of the faculty members. It left an impression with graduate students. My exposure to the undergraduate world was very small, but it left me with a better

understanding of human nature. When I came back into the military channels and when I was at the Surgeon General's Office, I was a great supporter of putting people into the civilian schools, and we did. We kept funneling people into them, because I think, ultimately, you have this broader view of differing opinions.

Now, what has it done in the long run? There have been critics of the program. Some people critical of the Army's graduate program say, "Why do we need Ph.D.s?" but there's a spin-off. I can name people now in academia. I can name people that are now in the private sector. I can name people in the government. I can name a person who is the president of a university. I'll give you those names, because I think it's important. A fellow by the name of Captain Charles Sorber—Charles Sorber got his Ph.D. under the Army program. He did not stay until retirement. He paid back his obligation but then went back into academics, and Charles Sorber is now the President of the University of Texas at Permian Basin. Bob Carnahan is at a university. Jerry Murphy went to a university. There were several others, and there are several other people like myself within the private sector.

From this humble beginning of being in the field to tell people how to dispose of their personal waste all the way up to the development of this massive program within the Army and DOD —and the exposure to different agencies—I think was a plus. Now, is there a requirement in the future? I don't know. People like Lee Herwig, who then went on to work for EPA, and one of his colleagues—remember I said Bill Gilley—Bill Gilley went to Virginia State Office of Public Health. Bill Gardiner, who established the Army's Environmental Office (Corps of Engineers), later became my partner in establishing our first company, which was V.J. Ciccone and Associates. He was my partner. Unfortunately, Bill passed on about ten years ago, but he left his mark there. Tom Magness, then, was one of the gentlemen who went to the Corps of Engineers' Environmental Office as a successor, I think, to Charlie Sell, so it's really been, as I review it, to me, it's been a wonderful experience.

MOORHUS: That's great.

CICCONE: I'm only hopeful that some of those youngsters that came in afterwards—that we, hopefully, gave them an opportunity to go for more schooling or gave them an opportunity in how to not only deal with a "yes sir" or "no sir" kind of attitude, but to deal with a positive attitude of "you make a contribution." Technically, you make that contribution in how you're represented to the local regulators, and that you only learn by exposure to, number one, some mentor of some sort, but then exposure to dealing with different business models.

Thirty years ago, it was "yes sir," "no sir," and that's fine. I mean it has to be that way, but when you're in the professional arena, it doesn't quite work that way. There, to me, was the spin-off of the thinking by the Johnnie Redmonds, the Bernie Goldsteins, and the Bob McCalls that saw, "Look, here's this wonderful opportunity. Let's not let it get by. Let's not let it get by. Let us take this opportunity, and let us find the right resources," and when Mendez, the Deputy Surgeon General, says, "Vince, what do we do?" and he could have said, "Well, I don't want to bother with it," but it was a good call. It could have flopped, right?

MOORHUS: Yes.

CICCONE: But it didn't.

MOORHUS: Terrific. It covers your career very well, and next time, we can talk about your success in the business world.

CICCONE: I'd be happy to.

MOORHUS: Great.

[End of 12/7/05 Session]
[Begin 2/24/06 Session]

MOORHUS: Why don't you talk about the photographs you have, and then we'll do the interview?

CICCONE: Okay. I have other photographs, which I can give you, but the photographs that we're identifying right now show some of the activities that were related to preventive medicine (PM) and what we were doing as a preventive medicine team. The one specifically here shows myself immunizing children in Morocco. This was in 1963, I believe. It was in the winter, January or February timeframe, of '63. I was still stationed in Germany. I was with the Preventive Medicine Department of, at the time, the Second General Hospital in Landstuhl. Landstuhl is still in operation these days. You see it in the news.

In any case, I was part of a team that went to Morocco. There were extensive floods in Morocco, and we went there to help provide relief from disease, et cetera. This photograph shows me immunizing some of the children. We spent about two weeks there on that operation. It just so happened that, generally when it rains in the mountains, it doesn't rain on the plains and the opposite. That particular year it rained both in the mountains and in the plains. The team was made up generally of a physician, an engineer like myself, an interpreter, and a young medical technician. Part of the plan was to go up into the isolated villages and immunize against a variety of different diseases, including smallpox, I think.

That's what that photograph shows, but it shows what kind of activities we were involved in, in the whole spread of activities of preventive medicine and public health. The overall humanitarian relief, for me personally, was an enjoyable one. We also then provided some relief to the youngsters—not only to the youngsters, but to the total population.

Photograph number two shows that while I was at the, at the time, Army Environmental Hygiene Agency—this goes back to the mid-60's, because I was there from '64, '65, '67; I left in '67—it was the Army Environmental Hygiene Agency. The commander at the time was interested in developing a distinctive crest for the organization. He passed out a memo. I was a major at the time, and I loved to work in the craft shop, so I designed something. It was accepted by a committee, and then that committee picked my design as being the crest. It was adopted by the Agency. Then just prior to my leaving, I hand carved this replica of the crest and mounted it and then presented it to the commander just as I was getting ready to leave to go to Vietnam. This ultimately went to the Institute of Heraldry within the Department of Defense. They made some modifications to it to fit the total standards, and it was ultimately adopted and is the official crest now, not of the Hygiene Agency anymore, but CHPPM, Center for Health Promotion and Preventive Medicine. I'm told that it's still preserved up in the building, and it hangs in the hallway. That's a little sideline.

MOORHUS: That's nice.

CICCONE: Photograph number three again relates back to the Moroccan relief, and it shows the team we had, at least part of the team as part of that relief effort. We traveled around

through the countryside in a military ambulance vehicle. It's myself, the medical technician, and a Moroccan interpreter. Those are the three photographs probably that relate most to the preventive medicine activities. I will find others.

MOORHUS: In this photo of the three people, you are the one—

CICCONE: I'm the one in the center. I believe it was 1963. VJC. I was a captain at the time.

MOORHUS: Great.

CICCONE: This one is a little bit more explicit.

MOORHUS: That's very good.

CICCONE: Then this one. That's the crest; that's me.

MOORHUS: Right. Are there any other photos in this book?

CICCONE: Not that are pertinent. It then goes on to my retirement. This was the beginning of my civilian career.

MOORHUS: What is that? Is that a brochure that you designed?

CICCONE: This was my retirement ceremony. This was when I received the Legion of Merit. I don't know if you want that one or not.

MOORHUS: Sure. We'll take that one, too.

CICCONE: That's me in the center. This was the retirement. From there I then organized the first company, which was called, oddly enough, V. J. Ciccone and Associates [VJCA]. This shows a brochure, the first brochure that we assembled. It discusses a little bit about some of the things that we would do or that we had planned. This was the first, and the first logo we had was V. J. Ciccone, Inc. That's back in 1978.

MOORHUS: Maybe we should start there, leave the photos, and you should start talking about the business.

CICCONE: Okay. Having that introduction into the business, we formed the company with the idea of capitalizing on my military experiences but then also on my professional training. Prior to going to the Surgeon General's Office, I was in the R&D community as a Medical Service Officer, working as a researcher in the Army Materiel Command Research Laboratories at Fort Belvoir. The Laboratories were charged with developing equipment that supported the Army in the field, and the division I was in then developed water treatment equipment for the field army. I had just finished up my doctorate, so I just went there full of ideas and full of thoughts.

One of the big challenges we had was developing the new technology for military water purification equipment. That technology, at that time, was some breakthroughs that were being made in membrane technology. Specifically, it was reverse osmosis, which offered the ability to not only purify fresh water and brackish water, but then also seawater. It was a wonderful

opportunity to apply that technology to a military application. The program was pretty aggressive. We ultimately were part of the team that developed what became the standardized equipment for the military in the field army for treating and producing drinking water. That was called ROWPU. That was the acronym given to the equipment, and that really meant the Reverse Osmosis Water Purification Unit. ROWPU in the Department of Defense became very valued. Even as of today, it's the accepted technology. As advances were made in the membrane technology, then those advances have been applied to the equipment.

When I left the service and was involved in that kind of equipment, reverse osmosis membrane technology was an area of great interest. With the opportunities I had dealing in the R&D community, then my incentive was to leave the service and start an engineering company to capitalize on all of that background. The very first work we did related to the Department of Defense and related to continuing development of equipment for drinking water.

In addition, while I was still in the R&D community, drinking water was one of the areas we worked on, but at that time—we're talking now the '77 timeframe; I retired in '78, but I was at the research labs from '71 to '75. In addition to the military field equipment, the environment and the insults to the environment from military-type operations, specifically the industrial operations—the productions of munitions, the production and rehabilitation of heavy equipment and the armor and the armaments—became a very serious issue within the Department of Defense and the Environmental Protection Agency and the states. So the regulatory agencies started to put the pressure on the Department of Defense installations to clean up the past sins, because the old munitions plants that were built in World War II, the primary interest at the time was to produce munitions, and the production of munitions is a large industrial compound. They're chemical plants, really. It was to meet the objective of wartime production and not so much the objective of protecting the environment. So the past sins. Then it came time to have to pay for them.

What we were involved with at the research laboratory wasn't only the drinking water issue, but also very heavily involved in the equipment necessary to abate pollution from these past operations or from other ongoing operations. We then were involved personally in working closely with the equipment and the Corps of Engineers and the Army Materiel Command in identifying and making application of technology that would abate the pollution or remediate existing pollution.

I was a Medical Service Officer working in the highly technical area dealing with the environment. We brought along there the ability that related to public health issues. We also worked very closely between the equipment development and the medical community, because the medical community was responsible for establishing the standards, what standards should we reach with these very unique compounds that came mostly from the production of munitions. EPA put the burden on DOD by dictating that those were unique military, and they applied to the Department of Defense, and it was an issue that the Department of Defense had to address and not the EPA, except to say, "Do something about it."

The point I'm making is that there was the opportunity to work in the drinking water arena, but there was also the opportunity to work in the pollution abatement arena, opportunities translatable to industry. So when I left the service, I had both these backgrounds, and it made a lot of sense back in those days, if I'm forming a company, to work with both issues. So the company objective then was to organize a structure that could address both the drinking water issues, the public health issues, and the wastewater industry, predominantly as it affected the Department of Defense. That was our focus.

MOORHUS: Did you establish the business by yourself?

CICCONE: Yes. It started with one man and a wife. The thinking was to organize it so that I could have the right talents available as needed, as a beginning, as needed, because we had very little money for capitalization. I was then also affiliated with another group of ex-military people who were nuclear power operators while they were in uniform. At the time the Department of Defense was interested in producing nuclear-powered generators, et cetera, et cetera. These fellows had the hands-on experience in the nuclear industry. I had some academic training in the nuclear business. So we put our forces together to address the nuclear power industry along with the environmental industry.

We were still capitalized at a very low budget, but I assembled in my company, V. J. Ciccone Company—the other company was called Nuclear Support Services Company, and their primary interest was to focus on the nuclear power industry. My primary focus was to focus on the environmental industry. The two were related, but one was more related to the internal operation of a nuclear power plant, and ours was more related to the outside environment.

Within VJCA we assembled what I thought would be the right powers and the right forces. So there were some engineering people, there were some scientists, there was a lawyer, there was an accountant. We brought these people together, and we tried to incentivize them by saying, "I don't want a lot of money from you, but what I want are your talents." That concept seemed to have worked, because within ten years we had grown the company to be about 65 people. We were doing a fair amount of business with many federal agencies.

That was in about 1988, and right about that time, out of the woodwork came many large national firms looking for hot, small environmental companies in the Washington, DC, area that were working with the federal agencies. So we found ourselves in discussions with six major companies with respect to either a merger or an acquisition. We by the end of '88 found ourselves being acquired by a large national and international engineering company. Then VJCA became their Washington office with respect to environmental business.

MOORHUS: What was the company?

CICCONE: It was Law Engineering. They were an Atlanta-based company. Then part of my role with them was to operate the Washington office. I became an officer in that company and operated the office for a while here. I had a three-year commitment with them. But after about a year and a half, there was some discussion with respect to our equipment development capability and our shops dealing with equipment, our physical structure. Law Engineering was not interested in continuing that operation further. So in some discussions then, we were able to make an arrangement in which I reacquired that part of the business back. In doing so, we then reorganized the company, another structure, and we called it RASco, which really is an acronym for the ROMEM Aqua Systems Company. ROMEM is spelled R, O, M, E, M, which was another acronym for Reverse Osmosis Multi-Element Module, which was a device we patented.

We were able to capitalize on that patent, and that patent really came about under the Department of Defense's Small Business Innovative Research (SBIR) program, which was started in probably the middle 80s. At that time, it was an infancy program. The Department of Defense solicited for proposals. In that year they gave 97 awards, and we were one of those 97

from about 1,100 submittals. It was a three-phase program—a conceptual phase for about six months; a developmental phase for about another year and a half; and then a commercialization phase. It was phase one, two, and three. We were fortunate enough to go through all three phases, and then we ended up commercializing the ROMEM. It ultimately became our patented device.

MOORHUS: So this contract and the award of this developmental money was given to VJCA, and then it was taken over by Law, but they decided they didn't want to keep that part.

CICCONE: It was an asset that was acquired by Law, and then we reacquired that asset back.

MOORHUS: When was RASco established then?

CICCONE: RASco was then actually established in the fall of 1990 as a sole proprietorship. By February of '91 we incorporated as RASco, Inc. So we were back in business. That was in 1990. When I got back in business, it was just me. I bought back the assets. Then when we reincorporated, we reincorporated with some of our old partners again who came back and reestablished the new company. There we are. That was fifteen years ago, in fact, this month, February. I think it was the 19th of February we incorporated in 1991, so this is fifteen years. If you remind me I'll give you a little pen that celebrates that. [Laughter]. RASco then was an entity, and many of our old clients came back to us, and we acquired new clients. We then grew that again, servicing many of our old government clients in addition to our continuing relationship with the private sector clients.

MOORHUS: Do you remember your first government contract? Not with RASco but with VJCA?

CICCONE: With VJCA, the first government contract was a $20,000 task order issued to us by the Fort Belvoir Research and Development Laboratories. That was to apply my doctoral thesis, which was a computer model to assess different alternatives in recycling of waste water into reusable potable water. At the time, this munitions business I was talking about earlier attracted a lot of interest in being able to apply technology to treating the munitions wastewater and then using it for other non-potable uses, like irrigation or recreational use other than drinking water. The research labs had this requirement, and so they gave me a task order, a $20,000 task order. That was the first contract we got as VJCA. It grew from that little task order. When we sold the company, we were doing, I'd say, about $3 million a year of business.

As we started RASco, many of our old clients then came back to us or we were able to acquire new business with our old clients and new clients. Then we grew that to be about 35 people or so. The list of clients—I'll give you a flyer sheet that gives you a little background as to some of who those clients are, because it's numerous. Some of them are government agencies and others are private sector industries.

But we had established a relationship with many of the large engineering companies, including Law, so we were able to continue doing business with them also. We grew then RASco to about 35 people or so. We were servicing the Corps of Engineers, and we were servicing some EPA clients. We were servicing the Department of the Interior.

MOORHUS: What were you doing for the Corps of Engineers?

CICCONE: The Corps of Engineers—we had what is called an open-ended, indefinite delivery, indefinite quantity contract with the Baltimore District, Corps of Engineers. That contract we had—actually we had that contract as VJCA, and then when Law got it, that contract expired. But then as RASco, we won it back. That was a very extensive contract for us.

We, in essence, had continuous operation with the Baltimore District and with what at the time was the Center for Public Works (CPW), which provided direct assistance to the military installations around the world, so it was a worldwide contract. We did a host of work for about fourteen years, when you include VJCA and RASco, fourteen to fifteen years' worth of continuous work under that contract. The fact that it was repeat business was good. The Corps of Engineers personnel at CPW who were instrumental in this contract work were Bob Lubbert, Malcolm McLeod, Bob Fenlason, Stanley Childs, Brian Perkins, Bob Ross, and Greg Jones.

MOORHUS: Give me an example of what exactly you were doing for an installation in Japan or Europe or somewhere else.

CICCONE: Sure. Our work focused a great deal on the environmental issues at the military installations—for example, drinking water plants. Many installations have their own plants for treating drinking water and for producing that drinking water from a river or from a lake or from a reservoir and then distributing it across to the installation. The large installations—the Fort Rileys, the Fort Hoods, the Fort Gordons, the Fort McPhersons—all of these large major military installations operated their own utilities, both on the drinking water end and the wastewater end.

Our contract was part of the Operator Assistance Program within the Corps of Engineers, which meant the Corps of Engineers was providing assistance to these installations in the operation of facilities, such as their water and wastewater utilities. Or it could have been their waste handling facility or their solid waste. During that period of time, we covered approximately 120 different work orders that were awarded to us, covering a whole spectrum. What you see along this wall is only a partial example of some of the reports that we produced based on that work.

A specific example might have been at, let's say, Fort Riley, when it was going through an expansion of its facilities. The work we did focused on their wastewater treatment facilities, which included three separate plants accommodating the wastewaters generated at the installation. The studies we did were what we called at the time diagnostic evaluations. We would evaluate the condition of the equipment and operations at those plants, and so we called it a diagnostic evaluation. We would assess the condition of the plant, its operation, did it meet its permit, wasn't it meeting its permit, manpower requirements, the stock leverage requirement for chemicals, operator training, documentation with respect to manuals. We were kept very, very busy doing that around the world at different installations. It was a wonderful contract, and the CPW personnel provided the installations a great service through this contract.

We as a contractor then—me personally and our staff—were providing the assistance to military installations that we were very, very familiar with based on our background, because many of our staff members were also ex-military, some at the officer level, some at the enlisted level, the technician level. So we provided this wide spectrum of services all the way from how to handle drinking water, how to handle the wastewater, how to handle the solid wastes, how to handle pollution abatement, prevention practices in the industrial-type facilities that the Army

was operating, in which the installation would ask the Corps of Engineers for assistance, the Corps of Engineers Center for Public Works.

We had the contract, and so it flowed through this Center for Public Works directly to the installation. At the time, the installation had the ability to call on the Center for Public Works and say, "Here is my issue. Help us." We were the primary contactor and we helped them. It was, again, an application that goes back to my personal relationships while I was in uniform performing at installations that then translated to a knowledge we had, an institutional knowledge, that translated into an end product that helped the installations.

MOORHUS: What kind of observations do you have about the way the Army changed over that period of 25 years that you've been providing services?

CICCONE: Some of the changes—major changes that took place that we then, as a corporate structure, participated in, was that the Army adopted the concept of industrial-type activities called CIA activities, commercial-industrial activities. The Department of Defense said, "We as an organization should focus on our fighting forces, and we should not be diverting our resources into having our military people operate shops. We should find those activities, identify them, and then outsource them." So it became a process of first contracting those activities, have a contractor operate the water treatment plant, for example, so that it would preserve the money and the resources, focus more on the fighting forces. The concept was a pretty good one. Get out of maintaining the roads, get out of maintaining water treatment plants, get out of the utility business. Let those people who know how to do that best, for example contractors, come in and operate them. What we saw then was many large contractors came in and assumed the duties of the public works offices. That was an engineering function.

With respect to utilities—water, wastewater, steam plants, heating plants, housing—the Department of the Army then said, "We should privatize those," which meant not only contract it out but privatize it. The big difference there is that in contracting them out, the Army still maintained the responsibility for the assets, the physical structure. In privatization, they actually give up the asset.

One of the assets that translated and fit that concept very nicely was housing. One of my observations in the housing arena was that the resources in maintaining housing and building new housing was a tremendous drain. So the privatization of housing actually meant that they brought in developers to build the housing on military land and operate it. The agreement is that the Army would put tenants into those residences and that the private sector would operate them at a profit. Their incentive is to keep them up, but they're assured of a certain amount of income.

My observation: The program has been very successful. A great example is just recently at Fort Belvoir, which is that they've put in thousands of these units. What used to be very dreary-looking military housing is now a very pleasant community that has the amenities on parity with the civilian community. That program has been successful.

The arena that VJCA and RASco participated in mostly was the utilities arena. Many of the utilities, unfortunately, that were operated by the Army—water and wastewater treatment plants—and I say this with some degree of hesitation—were not the highest priority for funding. As a result, my observations were there was a lot of Band-aid work done on them. When there was an effort to privatize those utilities, the marketplace did not respond, because the private

sector, the investors, did not want to come in and take over a plant and take over all the liabilities with that plant if it was a dog. Now I'm speaking in my institutional memory. The privatization of the utilities—for gas and electric and steam and heat—worked fairly well. For water and wastewater, there were too many complications and liabilities that the private sector market did not respond as well. Those were my observations.

That might have changed over the last couple of years, but I'm not aware that it changed dramatically. I think the privatization program worked very well in certain arenas. With water and wastewater utilities, the one we played in the most, I think there was some serious glitches. Whether or not that's been resolved lately, I'm not sure.

We were, as a corporate structure, recently involved in the potential for being involved in a privatization effort with a Service other than the Army, and it just got to be so complicated that I think the Service and the private corporation that was willing to take it over have been at the negotiations table for two years. I still don't think they've resolved the issue. There were serious—we're talking about a fifty-year contract, for example, for operating that utility. The guarantees and the liabilities and the issues, for example, as to who owns the asset. For a private sector company to have to deal with an asset like a wastewater treatment plant, there's a lot of money involved. We may be talking hundreds of millions of dollars. Who gets that asset and how is it handled accounting-wise and where does it go and how are major issues that I don't believe were resolved as easily as they might have been with the housing. That's my observation with respect to it.

Overall, the outsourcing of functions within the Department of the Army has gone all the way from cutting the grass to operating the utilities to replacing staff within the environmental offices of the installations and the major commands with contractor personnel. That trend has gone on. It's a transformation that has taken place within the Department of Defense. Whether that's going to be good, bad, or indifferent—I know for those of us in the contracting arena, we think it's not bad. But again, it goes back to how business was conducted thirty years ago when I wore a uniform versus how business is conducted now within the Department of Defense.

I'm going to lead you to a document here, back in '92, to give my observations as to what I saw in the future. Part of it was the transformation of corporate structure within the Department of the Army in '92 versus what it would be in 2020 or 2015 or 2005 or 2006. There's been a complete transformation. Part of it has been focused on making the fighting individual, the fighting units, more efficient. My suspicions are that's happening because it diverts away from not having to worry. You don't see young troopers these days out cleaning up, policing the grounds—maybe immediately around their own house or their own quarters. But the idea was make quality of life more pleasant for a soldier and his family so that they can focus on his job as a soldier. Those were some of my observations.

How does it relate to my own personal experiences and the corporate experiences? I've seen that is has opened up opportunities to us, as a corporate structure, to be able to function and be able to have more opportunities. It's not only within the Army. The same transformations have taken place within almost every federal agency. In some cases, it has been very successful. In other cases, there is a lot of dissatisfaction among career people, political appointees. But the whole way of doing business has changed so dramatically.

MOORHUS: Did any of your employees ever go to work for the government?

CICCONE: I think we had—I can't remember the case of anyone specifically saying, "I'm going to leave Ciccone and Associates or RASco, and I'm going to work for the Corps of Engineers." I'm biting my tongue on that because I'm trying to reach my memory bank. I know I had employees who we put on site working for EPA, for example. I don't recall losing them to EPA. Again, it goes back to the personnel policies. Part of this whole privatization and part of this whole contracting mindset is that it supposedly reduces the overhead costs associated with personnel. Example, retirement benefits, medical benefits. Supposedly it's more efficient if you bring in contract personnel, and budget-wise there's got to be some benefit in there which says in the long run we're not responsible for paying the Ciccones of the world retirement benefits for the rest of their lives.

MOORHUS: What kind of backgrounds do the people have that you have hired?

CICCONE: Even as VJCA and as RASco, but more specifically as RASco—we actually have two companies. We have RASco, Inc., which is the professional services company, in which our people are predominantly engineers or scientists or chemists. They require the background of academia. Often they'll have either advanced degrees or at minimum a bachelor's, but most of our people have advanced degrees.

Then in '97, as RASco, we wanted to be more diversified in our business, and we wanted to be more involved in the private sector. At that time, about eighty percent of our business was coming from the federal sector. A great deal of it was from the Corps of Engineers' contracts. So we had an opportunity to acquire a small company that was involved with the hands-on equipment services for water, predominantly drinking water, in residential, commercial, industrial, and medical markets. We acquired them. Their primary client base was the private sector. We incorporated them into our structure, and we named that company then RASco ESI, which means Equipment Services Incorporated.

What we have in that part of our company is technicians. We put our shop—did I show you our shop when you were here last?

MOORHUS: No.

CICCONE: I'll show it to you. I think you'd be interested in seeing that. It's more related to hands-on mechanics and technicians. We have a fleet of trucks that go around servicing homes. We provide water softeners, and we provide reverse osmosis units. We provide neutralizing units, just like the Culligan man does, where we compete with them. We do it on a much smaller scale. The total corporate structure is made up of those two companies. Although we're matrixed, so when we have to do some design work in the ESI company, our engineers do the design work there, and when the engineers need the hands-on technicians, then we literally design, we build, we install equipment, and we in some cases operate that equipment. That's how we're structured within RASco. Actually, we did that within VJCA but not as formal as we do it now.

MOORHUS: Do you have a lot of former military?

CICCONE: We were getting back to the kinds of people. I'm sorry. In the professional services, we hire people that are registered professional engineers or chemists. Yes, there are several of us who have retired or former military background, because it fits in there. In the equipment services end, we use both. If we have the opportunity—this is my corporate view—to hire military, retired or otherwise, that have had training around military

equipment, we look upon them very favorably, because we think they come with a culture that fits our own corporate culture.

Just with respect to people, right now we have about twenty people—that includes accounting people, that includes our corporate offices—but we have very little turnover, which to me is a sign that people are happy with what they're doing. Maybe I'm just too soft with them. I don't know. [Laughter]. I make life too easy for them. We're not a production-type organization, so we don't turn out widgets every day and we have no production schedule. When our technicians are out in the field working, we have a host of clients, and some of those are on a long-term contract basis. Some of them are government agencies—for example, Bethesda Naval Medical Center, the Armed Forces Institute of Pathology. Those are examples of some of those clients that we service.

Others are like Applebee's or they're like Joe Regan's Coffee. There is a wide spectrum. Many of them are residential clients, and the residential clients have become so concerned these days with their drinking water. That has been a pretty good market, which we got into by acquiring another corporation.

We all work—on a day-to-day basis, everybody matrices. I don't make distinction between them, except for accounting purposes. The professional services—we account for our people and our time a little differently than we account in the equipment services arena.

What has happened recently is that Congress saw fit to pass some laws which offered to Service Disabled Veteran-Owned Small Business (SDVOSB) an opportunity to have a better chance on getting government contracts. That law was passed about maybe three or four years ago. RASco, Inc. falls in that category. That has stimulated a lot of activity around here, especially within the last year or so. The law, like most laws, took some time to be implemented. Initially when we became aware of it, we quickly jumped up and applauded, but then we also saw that the contracting offices, the procurement agencies within the federal government, there was inertia. It took a while for them to be pushed. Once they did and once it got into the Federal Acquisition Regulation, the FAR, there's been an outflow of opportunities.

We find ourselves now facing some wonderful opportunities which might mean—back to your question, what kind of people do we look for—we're already identifying, because we've won some contracts under those set-asides, we're focusing on looking to increase staff. Most likely, it appears to us right now, that staff will focus more on the professional side than it will on the other side. That's good news/bad news. The good news is that those opportunities are available. The bad news is, if you get them, then you've got to live up to them.

MOORHUS: I see from your résumé that you are a registered professional engineer in several states.

CICCONE: Yes, about seven, I think.

MOORHUS: How do you go about doing that?

CICCONE: The original registration came upon graduation from undergraduate school. There's a little bit of story on that. I graduated in June, the middle of June. I got married three days later, and we went away on our honeymoon. I had a job with a large national firm. I came back from our honeymoon, and I was in no mood to take an exam for registration. This was in the state of New York, and New York has a pretty rigid schedule. I

wasn't going to take it. A gentleman with the firm I was working for—I had only been there two weeks—came over and put his arm around me and basically said, "Vincent, don't be foolish. Just go take it, the experience of taking that exam will be good."

So I followed his advice. The company was gracious, because they paid my day or my two days of pay, and they gave me some time. I passed it. So that was the beginning of it, and that was back in 1957. Then later on I just took the follow-on exams. That was in the state of New York. There was an interesting follow-on there, because they had a very unique exam process, which I didn't fully understand.

Then later on when I was doing my graduate work in New Jersey at Rutgers, I took the third part of the exam for the PE portion and got my license there in New Jersey. Then later on I found out from New York State that once I had passed the exam back in '57, if I practice engineering for five years I automatically got the PE portion, so I didn't have to go through that one.

Anyway, once you pass the exams, then in most cases it's by reciprocity. If we want to do business, for example, in Kansas at Fort Riley, where we did, we applied to the state and they accept the credentials from the other states.

MOORHUS: How much of your work is outside the Washington area?

CICCONE: When we were doing that active program with the Corps of Engineers, it was quite a bit. Now we are working—I'd say within the last two years or so most of our work has focused within the Washington area or within a couple of days, maybe a one-day travel or a two-day travel. We have not gone overseas, or I have not sent people overseas, probably in the last two years or so.

We recently were awarded a contract with the Department of Homeland Security. We are just outlining the scopes that we anticipate. That will take us around different parts of this country at different locations. Within the last two years, a great deal of the work has either been in designing equipment, building equipment, and then shipping it within the region, about 150 miles or maybe 200 miles, generally a one-day drive or something like that.

That's part of our corporate life, and it's been from the day we left the military to where we are right now. Other credentials, as such, have been—there's an organization called the American Academy of Environmental Engineers. I'm called a *diplomate* of that. That's really a board certification, just the way physicians get board certified. That's the same thing here. I'm a member of that.

Here recently I was happy to say I was asked to be on a World Health Organization committee dealing with the long-term effects of drinking water after it has been demineralized. In other words, when you take water that's run through reverse osmosis, you demineralize it. That denies the body of certain minerals—for example, calcium or magnesium. So we're part of a working committee of the World Health Organization, looking at what those effects are. Not being a toxicologist, we have toxicologists on the committee. My role is to be part of a work group that deals with what do we do from the technology viewpoint to add minerals back into the water after we've desalted it. It seems a little bit strange. You take everything out and then you put it back in.

Our own corporate practices over the years have been—those systems that we've designed and built in which we demineralize water, we add the minerals back, because I think there is a significant health effect if you don't do that.

MOORHUS: What's your assessment overall of Army installations in terms of their environmental awareness and environmental practices?

CICCONE: That's a wonderful question, really. It's fair for me to say, having been around that long. In the early 60's, it was viewed as part of the Army Environmental Hygiene Agency. We were the Army's core of knowledge dealing with the environment. The Corps of Engineers—I think we mentioned this in our last interview. The Corps of Engineers was working very hard to formulate its own core of knowledge base in the environment. That has occurred over the years.

At the installations, the knowledge back in the 60's and early 70's, in my observation, was viewed more as—I don't want to use the word "as a nuisance" but it was as a cost issue. It was regulation-based. The regulatory agency said, "You must do so and so and so and so." New regulations were coming out. The gates opened and all kinds came, whether it was drinking water, whether it was OSHA [Occupational Safety and Health Organization], whether it was wastewater, the Clean Water Act, the Clean Air Act. So installations had to respond to all of these. I think initially it was regulatory-based.

My observation was that as they became more knowledgeable, and as the different support agencies like the Corps and like the medical community became more knowledgeable, the influence then shifted, and the commanders' mindset shifted from being—other than regulatory it was "go beyond the regulation." It makes good sense to make environment and environmental engineering at the installation level part of your day-to-day business. On the staffs then, you suddenly saw an environmental function. On the corporate staff, up at the top, there was an environmental advisor.

The commanders were motivated to do this for several reasons. One is the realization that this makes a lot of sense. If we recycle rather than dumping all of that waste, there's money in it, and we can recover that money. Initially that money was going off into cyberspace somewhere until the Department of Defense—and the Army might have taken the lead on this—said, "If you recycle and you generate money by selling those recyclables, it comes back to you, Mr. Commander, to use in your discretionary fund for enhancing the environment." So it made a lot of sense. They started to think more like a businessperson. The functions from below and the regulatory agencies from above, it started to just make sense.

That happened in the corporate world, too. The corporate world started to realize that environment ought to be part of your day-to-day business. It shouldn't be something outside.

It's as important to have on your staff an environmental engineer or scientist or whatever as it is to have a mechanical engineer, as it is to have an electrical engineer, as it is to have a civil engineer. Once that was recognized, I think you saw the installations become several orders of magnitude more sophisticated with respect to environment. I think it's paid off. My view of what I've seen is that military installations have really set some wonderful patterns and leadership in the environment. That's the plus side.

The downside is that, for whatever reason, it just has not gotten the positive press that it should have gotten. It always seems to be that you read the press, and if something goes bad

environmental-wise at some installation, it's spread out all over. But when you look at how well the military installations are preservers of the environment, it doesn't quite make the news as well. To me, my observation has been that the Department of Defense, and the Army in particular, because they own so much land, have been wonderful, wonderful stewards of the environment.

I sense that also in the level of sophistication of the training, people who are hired at the installation levels—back in the 60's it was somebody that was told, "Go learn something about environment." As it got integrated into our schools—and I think we talked about this last time—it got integrated into our schools, and then it grew into the culture. My personal observation is that back in the 60's and early 70's and late 70's, you can go to an installation and the level of knowledge was relatively small. You go to a military installation now, and my personal experience is that some of these young people are bright, they have the training, they understand. Given that once they get exposed to the practical aspects of it, the day-to-day how do you deal with the issue and how do you deal with the issue in a military context—the soldier has to train on the range, but the regulatory rules say you can't do certain things, how do you deal with those to compromise so that everybody can be happy? Once they get that, I have found them to be orders of magnitude better.

MOORHUS: Has the BRAC [Base Closure and Realignment] program created any work for you?

CICCONE: The BRAC program has in the past, but I believe the BRAC program is going to create a lot more for us, for several reasons. One is there are opportunities that are going to open up. The other reason is, under our Service Disabled Veteran-Owned Small Business category, we have been able to affiliate with some of the giants, the corporate giants, who have a requirement to satisfy that goal. But also because we've worked with some of them in the past, it opened up the door. We bring something to the table. It isn't just that label; we bring something of value. We anticipate that BRAC will offer us opportunity. As a result, what we're doing is marketing. We're going to be out marketing more aggressively to BRAC. I think BRAC is going to open up a lot of opportunities.

MOORHUS: How long do you plan to continue working?

CICCONE: You sound like my wife. [Laughter]. My sense of how much longer I will continue working is a function really of how much fun I have. I say that you sound like my wife because my family has put that question before me. I hesitate. I currently enjoy the challenges. I currently enjoy the people that I have working with me. If that situation continues, then turning responsibilities over to other people, I'm working on. Being involved is something that I don't see for the immediate future I'm going to walk away from. What does the immediate future mean? I don't know. If I continue with the level of energy, then I certainly would continue. If my level of energy drops off dramatically, then I have to reconsider.

MOORHUS: But the company has a structure that goes beyond your personal involvement.

CICCONE: Sure.

MOORHUS: So the company will continue.

CICCONE: Yes, we hope so.

MOORHUS: If there's a lot of work coming—

CICCONE: If the work comes. Any corporate business is a chicken-and-the-egg situation. If you've got large contracts, then that generates revenue, and you can grow. If you lose contracts or you don't have the contracts, or you lose your people, you can't. That's true whether you're a twenty-person firm or whether you're a 20,000-person firm. I don't know if I've answered your question.

MOORHUS: Yes. One of the names that I think you had mentioned and has been mentioned in connection with you was Colonel Bill Gardiner.

CICCONE: Yes, Bill Gardiner.

MOORHUS: What role did he play in your business?

CICCONE: Bill Gardiner wasn't only a very dear friend but later became a business associate in V. J. Ciccone and RASco. He was a business associate. Bill was the Army Corps of Engineers officer who established the first environmental office at the Corps of Engineers level. He was assigned to the Assistant Chief of Engineers office, and he established what was the first Army Environmental Office. At the moment, I don't know whether they call it that or whether they call it ODEP or they call it something else—so many changes. But he was the first man who was given the challenge of setting it up, and he did. I got to know Bill Gardiner when we were both in the Pentagon. I was at the Surgeon General's Office and he was in that Environmental Office. We got to know each other, not very well but enough to where we knew we could work well together. Later on, he retired before I did. I retired shortly afterwards. Then when I formed Ciccone and Associates, we had the opportunity to do some work together. Then he joined us as a corporate member.

MOORHUS: You talked last time about all of the people that you had worked with and kept in touch with, and one is in a university and one is here and one is here. Are there other people you know who have established a long-term successful business like you did coming out of the Army environmental program?

CICCONE: [Pause]. I'm not falling asleep. [Laughter].

MOORHUS: I didn't think you were. [Laughter]. If I takes that long to come up with a name, the answer is probably, no, there hasn't been anybody.

CICCONE: Well, I'm thinking about how to structure my answer. Organizing a company—I'm careful how I'm structuring this. I have known people that have been individual consultants, and Bill Gardiner was one of those. He was an individual consultant, but then he joined us in a corporate structure. But organizing a corporate structure and having it survive for thirty years is different than being an individual consultant.

MOORHUS: Absolutely.

CICCONE: You have to have a certain fortitude, and I think you have to have a certain passion and a feeling in your gut that you can make things happen. There have been times when I've questioned myself about that. Over the years, there are different corporate cultures, there are different corporate businesses, there are different objectives. I think that one

of the reasons that we've survived over all these years is that the personal philosophy wasn't one of having money as the sole objective. Not everybody thinks that way. My own personal experience was that that wasn't the overall objective. The overall objective was to organize, make things happen, and make it happen with people, make it happen with corporate structure, make it happen with the equipment, make it happen with the clients.

Maybe, as I look back, I can, in all modesty, say that there have been financial rewards. There's no question about that. But those rewards didn't come about by sacrificing other people or sacrificing quality. They came about because they came about, but it wasn't the primary objective. The philosophy was, myself and my partners, the other directors, felt that there has to be something here more than making a lot of money, because if we want to make a lot of money then we would have set goals and taken our money and run away.

When I bought back the assets from Law, I was motivated not by—financially the deal with Law was not bad. When the opportunity arose to bring back some of those assets, I was motivated because there were past clients that we had become very close with that weren't being serviced, past employees that had been somewhat discarded in a 4,000-person corporation. They were just basically discarded. There was a different corporate philosophy. When you bring it back—the money issues take care of them, but you can't run a business without having adequate financial resources. You just can't. But if you want to do that—when times are good, everybody is happy. When times are bad, people have got to be willing to sacrifice.

I think what has made this company successful is that about five years ago there were some tough times. Our Corps of Engineers contract went away, not because we lost it but because the Corps of Engineers reorganized and they did away with the Center for Public Works. Here was a contract that was worth several million dollars to us that suddenly went away. There were some changes that had to be made, and it required some consolidation.

But I get back to it again. Not everyone is inclined to take on the day-to-day business. In my case, maybe it was foolish, maybe it wasn't, whatever. At my age now, I can look back and say that it has been a "good ride."

Now, have other people done that successfully? I can think of other people that were contemporaries and they did it as a one-person consultant and they were successful that way.

MOORHUS: But that's quite different from having a business.

CICCONE: It's really very different. It really is very, very different.

MOORHUS: You have lots of reasons to have a great deal of satisfaction over your career.

CICCONE: And sometimes you wonder—anyway, this was the fiftieth anniversary of AEHA. I'll make a copy for you. This was the presentation, and I was honored. I really was very honored that they asked me to be a guest speaker.

MOORHUS: That's great, certainly.

CICCONE: My role was to talk about what my view was with respect to the future.

MOORHUS: This is the fiftieth anniversary of the Army Environmental Hygiene Agency.

CICCONE: U.S. Army Environmental Hygiene Agency, which then became—now it's CHPPM. If you'd like, I will reproduce this. These were my comments.

MOORHUS: We'll include all of that with the material I will send in. That's great.

CICCONE: That would be wonderful. Will we interview again or will this be the end of it?

MOORHUS: Are there other things that you would like to talk about?

CICCONE: I'd like to find more of the photographs that related to things like this. Would you like to see our shop and get some sense of what I told you about us building equipment?

MOORHUS: Yes, I would. Thank you.

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[End of Session].

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