

US EPA ARCHIVE DOCUMENT

HENRY LONGEST

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Emergency and Remedial Response

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EPA Interviewer: For the record, this is an interview with Henry Longest, Former Director of the Superfund program and several other key EPA programs until his retirement in 1994. We are conducting the interview on August 10, 2005, for an oral history project in conjunction with the 25th anniversary of Superfund. So Henry, welcome to the EPA conference room here, which should bring back lots of memories, and I figured we'd start getting underway.



Longest: Excuse me, one minor correction. I did not retire in '94; I left Superfund in '95.

EPA Interviewer: Oh, I'm sorry.

Longest: And went to the Office of Research and Development, and I retired at the end of calendar year '04.

EPA Interviewer: I'd like to move through the interview chronologically, at least at first, so I figured we'd start with the time period in the late '70s or early '80s when Superfund first came into being. Henry, you were working for EPA in the years before the Superfund program. Can you tell me a little bit about the work you did, and in your work, did you encounter any of the issues that ultimately ended up bringing abandoned waste sites to public attention?

Longest: The 10 years before I came into Superfund, I was in the Office of Water. And I was running what was known at that time as the construction grants program, which was building wastewater treatment plants to clean up our rivers and harbors, etc. I knew of Superfund. I did not have involvement with Superfund up until 1985, when I moved over, but I think part of the reason that I was asked to move to Superfund was because I did have a great deal of experience in construction and that experience would be useful in Superfund, because Superfund had been around for a couple of years and was starting to get to the stage where all the studies would come to completion and we'd be in the construction phase, so I had experience in managing a large construction program.

EPA Interviewer: In the Water Office and construction grants, I guess you didn't really have much interaction with specific sites, or anything that led to Superfund. I just wanted to go through that.

Longest: That's exactly right.

EPA Interviewer: So, looking back at the beginning of Superfund when you first learned Congress was considering a new law to deal with the problem of hazardous waste disposal sites. Did you have any sort of feelings or thoughts about what the impact this law might have, or since it wasn't really related to you much, it wasn't an area that you were following?

Longest: It really wasn't related to what I was doing. I was aware of it, but frankly I wasn't paying a lot of attention to it. I had as much as I could handle in the construction grants program at that time.

EPA Interviewer: So, let's talk about your first involvement with Superfund. Tell me a little bit about how you came to be Director of the program and what things were like in the program at EPA at that time. I believe Bill Hederman preceded you. Lee Thomas was the Administrator.

Longest: That's correct. Lee Thomas had come in as the Administrator, I guess in 1984. I was asked in 1985 if I would move from the Office of Water into the Director's position for the Superfund program, and I think that principally was because of my experience in running a large construction program, even though it was wastewater. Superfund would be moving into the phase where there would be a lot of construction work done at Superfund sites, so my management experience in construction grants would be very useful in Superfund, and I am quite certain that had a lot to do with me being asked to take over that program in 1985.

EPA Interviewer: So what kind of infrastructure did you inherit? How was the program run at that time?

Longest: There really wasn't much of an infrastructure at that time. I was somewhat surprised. While I understood that Superfund's early years were very difficult because it is not like building a wastewater treatment plant—you know exactly what it is you're dealing with and what you have to treat. There were a lot of unknown wastes and I understood that. But it was clear to me that the sites were specifically being run out of Headquarters. There were no delegations at that time that I recall to the regional offices, so I envisioned myself as coming into a program similar to the early stages of the construction grants program, where we had to organize and set up a management and oversight function from Headquarters to delegate the day-to-day project responsibilities to the regional offices, and that did not exist at the time I came in.

EPA Interviewer: Did they have, within the regions, the infrastructure to start that kind of work, or did they even have the personnel in place or anything?

Longest: Well, it was starting the construction phase, and it seemed like most of the people—I believe that's a fair statement—who moved into the Superfund program were coming from the construction grants program in the regions, as I did at Headquarters, because construction grants were well underway, and I believe well-managed at that time. So there was the expertise and people were looking for new challenges. So many of the division Directors in the water area moved over to Superfund, and many of the Branch Chiefs, etc. So there was that experience in construction even though there was not the experience from

construction in terms of a lot of chemicals we had to deal within Superfund. But the basic infrastructure was in the regions. It just had to move with the times from one program to another.

EPA Interviewer: How about the Hazard Ranking System or the NCP [National Contingency Plan], or the first NPL [National Priorities List] work? Any of those things in place when you came in? Were they well-established? Were there things that you came in and said, "This has immediately got to change," or "This seems to be running well"?

Longest: There was a Hazard Ranking System in place; however, it was recognized, even before I got there, that it had to be revised and that was one of two things taking place. When I came to the program in '85, the first authorization for Superfund ran out, so we were running on continuing resolutions in '85. There were several continuing resolutions. I believe it was not reauthorized until '86. So during that period of time, frankly, from my standpoint, looking on the positive side, it gave me a little breathing room to look at the program and see what needed to be done in terms of management of a large program delegation from Headquarters to the regions. There was a list of sites, a priority list that they had in Headquarters, but it was basically managed from Headquarters working through the regions. There was not an infrastructure in place to handle the projects at the regional level. I'm not saying they weren't capable; it just wasn't there, as in the construction grants program. The projects were handled in the regions, period, and Headquarters was kept informed of the status. In Superfund, the projects were sort of doled out project-by-project from Headquarters to the regions and then they'd begin the work.

EPA Interviewer: Wow, that's really different from what we do now.

Longest: Yes, very different.

EPA Interviewer: That was one of your immediate first reactions, then. Something that needed to be changed was that there was more of a Headquarters focus than a regional focus and that might not work under the types of...

Longest: Clearly. Especially as the program grew, and at the same time, we were looking at the upcoming '86 amendments which we knew would require us to change the Hazard Ranking System. So we also had a team of people looking at a new Hazard Ranking System to put in place as soon as possible, and then the third point was it became clear that the '86 amendments were going to emphasize enforcement much more than in the past. So we were dealing with management of the program, developing the new Hazard Ranking System, and the "enforcement first" concept that was about to come into the program.

EPA Interviewer: I think that's really fascinating. During the years that you ran the program, I've read that there came to be a realization that the environmental problem that was to be addressed was perhaps bigger than anybody expected. Was this the case, and how did this play into the way you ran the program as time went on?

Longest: I think that's true. I would only add to that that I believe people really did not have an understanding of the significance of the problem. Not that there was not understanding of a lot of sites, but the difference in the sites, from a lead smelter to a chemical plant, a

petroleum plant, there were just so many different types of sites that had to be dealt with. And the other thing was that there were so many sites that people were unaware that they existed. The thing that surprised me and I found very interesting was a lot of the sites were discovered from going back and looking at early photographs taken by the USGS [U.S. Geological Survey] and others of sites back 20 to 30 years ago. I guess flyovers by aircraft to take photographs of the U.S. for USGS and others for various reasons. You could go to a location and you would find a photograph and you'd see all these open pits, but then we would go out to the site and there were no open pits. They were all covered, and so we had to identify about where they were, dig down and find out if waste was treated, removed, or was that just covered up. And of course, in many cases we found that there were previous pits that were just covered up and buried, and sometimes the particular facility really didn't exist anymore. They closed down, left town, what have you.

EPA Interviewer: What prompted folks to start looking at those flyover photos in the first place? I mean, you must have suspected something was going on at a particular area.

Longest: I take no credit for that because that was underway and starting to materialize when I came into Superfund. I couldn't say what individual; you'd have to ask others about that. Are you interviewing Paul Nadeau?

EPA Interviewer: No. Unfortunately, we're not.

Longest: Russ Wyer was the Division Director at that time, but I haven't seen Russ in many years. Paul's been around. He may have just retired.

EPA Interviewer: He did just retire.

Longest: You might contact him and ask. He would probably have an idea and answer that question: whose idea, who started looking at these old photographs taken by other agencies for other purposes?

EPA Interviewer: Tell me a little bit about relations with Superfund stakeholders during the time that you ran the program. By stakeholders I would mean the Hill, communities, state and local governments, PRPs [potentially responsible parties], EPA's own senior managers, our 10 regions, and others with an interest in the program. What was the role that these types of groups played in the program in the years, early years, that you were there?

Longest: When I was there, the reauthorization was taking place in '86. The reauthorization moved the program to an "enforcement first" concept. The enforcement office at that time was gearing up, and they had all the contact with the responsible parties. They would look at a site first, see if there were responsible parties. We had to determine that there were no responsible parties before the Fund side or my program got involved. So I had very little dealings, in fact no dealings, with the responsible party issue. Now, I did deal with some of the site folks, as I would go out just to visit sites, to get an idea of what was going on out there. I recall one mining site, I can't recall the name of the site, but I do remember going to a site in Colorado. It was a former mining site, I believe it was a lead mining site, and I was going to sites to just kind of get a feel for what was going on and I'll never forget when we went to the site, they heard we were coming and we were invited to one of the activists'

homes. Several of us went to her home, and she had other people in, and I'll never forget sitting in her kitchen drinking coffee, and I expected her be ranting and raving, but while she was very concerned, she was very hospitable, very pleasant, and we had a really good discussion about her concerns, particularly the lead from the mining operations around the community. You could literally see it around some of the homes that were near the site, including her home, so that was one of the first situations I had to deal with on a personal basis. OK. So the point I'm making is there were several sites where I did literally go visit the sites, and there were people that were interested. I talked with them, and that gave me a real feel for what people were facing who lived near these sites that you could never get from Washington. And so that gave me a completely different perspective, and I must admit from that time on, I think I felt a more neutral role in terms of understanding what some of the people were going through, even though we were getting beat up, so to speak, by a lot of the press and so forth. Sure, I didn't like that, but at the same time, I could say to myself, "I understand the situation they're in," and, as you can see, I never forgot that.

EPA Interviewer: Oh, yeah. Absolutely. How about the regions as you implemented your plan to give them more and more authority on the day-to-day running of operations of specific sites? How did that work?

Longest: There again, there were some at Headquarters, particularly in the OSWER [Office of Solid Waste and Emergency Response] program and then Superfund, who were not necessarily keen on that, because they felt that this was a program that should be run at Headquarters, and the regions didn't understand, etc., etc. But having dealt with the regions, I knew all the Division Directors out there and several of Water[s] Division Directors, such as Bill Muszynski in New York, moved over to Superfund so people that I knew were moving into the Superfund program, as I did, from a construction perspective—not the enforcement—but cleaning up the sites, and so I think that made an orderly transition. There were naysayers questioning the delegations from Headquarters in the beginning, but I think they saw that people were coming in the program who were understanding and aware of construction and actually would be a help in the program. So if there were any remaining tensions there, they were particularly between enforcement and Fund, what we called them, Fund-funded projects. Some of our people got frustrated because they felt that enforcement was into them for so long before we would get involved. The only tension I believe that remained was "enforcement first" versus Fund-funded projects. Once they were distinguished—this is enforcement, this is Fund—I didn't see any issues.

EPA Interviewer: What about the states and locals? Did they have a role at that point in time?

Longest: The states really were not very much involved in the program. Now again, I can't speak for enforcement. From in my former construction grants program, we moved that not only to the regions, but to the states, where many states were delegated and ran that program. There was not an attempt to do that in Superfund, I think principally because of the enforcement aspect, so we really didn't, I really didn't, deal with states in Superfund, as I did in construction grants, at all. I just dealt with the regions.

EPA Interviewer: Was there any feedback from folks on the Hill that had been involved in drafting legislation or anything as programs began to mature and be implemented in that way? Was there any more feedback from the folks on how things were going, that was....

Longest: Unlike the construction grants program, and I think the majority of the feedback dealt with the enforcement aspect, because that was what the Hill seemed to be most interested in changing.

EPA Interviewer: You have mentioned the 1986 Superfund Amendments and Reauthorization Act a few times. Can you tell us a little bit more about how that affected how you ran the program that brought about, I guess, the ARARs [Applicable or Relevant and Appropriate Requirements]?

Longest: It was part of the revised National Contingency Plan, which brought in clearly the "enforcement first" concept. The major change was that every site was looked at first by enforcement from the standpoint of "Are there any responsible parties?" If there are, enforcement took the site. If they found out that there were no responsible parties, it was turned over to the Fund. So to me that was the major difference. It was designated as "enforcement first," where no responsible parties existed, it was moved to a Fund project.

EPA Interviewer: Did that cause delays or other operational-type problems?

Longest: Oh, yeah, I think it caused delays at some sites, but I can't say they were unnecessary, because it took time, I understood, to go back and search records and try to find out if there were responsible parties. I mean it's just one of those things that had to be done. And besides, we had plenty to do on the Fund projects.

EPA Interviewer: There were enough sites to immediately be there. If you had to sum up your work with Superfund by picking the most significant issue you've dealt with, what do you think that would be? And how did it arise?

Longest: I think the most significant issue was when we developed SACM, the Superfund Accelerated Cleanup Model. There was some resistance to that because some people felt that we were trying to go in and start to do things before we knew exactly what needed to be done. The idea behind SACM was, if you went to a site and there were leaking drums, it made sense to use the same concept used in the removal program. Go in and remove the leaking drums and stabilize the site. Then follow on with an engineering plan and design of what to do. For example, if you are going to remove soil, how much, what were you going to do with it, and what and how were you going to treat it. So there was a lot of tension between the removal program and the long-term remediation program. However, it was eventually accepted. It just took time to draw the line, where in a concept like SACM, where do you go in and how far do you go with that cleanup before it becomes a long-term remedial action under the Fund program.

EPA Interviewer: Let's go back for a minute and say in a little more detail what the specific idea was behind SACM. It was an approach for...

Longest: Well, it was an approach for immediate cleanup of things that you could go out to a site and you could see there was an immediate problem. Why wait until you go through a year of engineering study to develop the facilities plan, then you develop engineering plans specifications, and then you issue a contract to clean up the site. The concept of Superfund Accelerated Cleanup Model, if we go on a large site and find a lot of leaking drums, why wait until you've gone through that three-step process and take several years? Why not go in and remove the immediate threat, and then what was remaining in the soil or groundwater or what have you would be part of the long-term study, and then come back later with a solution. There were some tensions about, well, how much do you do on the immediate removal versus long-term cleanup of a site.

EPA Interviewer: Where do you stop?

Longest: Do you just take the drums? Or do you take two feet of soil or what do you do? We worked through that. I understood the concerns, but it certainly made sense to stop whatever was taking place that was causing the problem at the time.

EPA Interviewer: It seems like SACM was initiated as a result of your observations that something within the way the program was running wasn't quite working right, and you wanted to come up with an immediate way to start changing the way things were done to address it.

Longest: And quite frankly the pressure to accomplish. People were saying, "You're not doing anything. You're not accomplishing anything." So candidly, one way to respond to this is to say, "Look, we're cleaning up the immediate threats." So that was only one part of it. The other part of it was it makes sense to do this. Again, why wait for three to four years to come up with a construction program and let leaking barrels continue to leak into the ground? And in fairness, the removal program had good credibility. The removal program was doing a good job. So here we had a valuable resource that could go out there and do this. So why not use the removal program? It was a combination of stopping the immediate threat and using a program that had a history and had the expertise to go out there and stop the immediate threat.

EPA Interviewer: Did you ever mention what year SACM was initiated?

Longest: Yes, there's an article there, I think it was around '86, I think I gave you. [*Refers to papers given to the EPA Interviewer prior to start of interview.*]

EPA Interviewer: I think you might want to put that in as an exhibit.

Longest: Yes, definitely.

EPA Interviewer: Henry's got a great article here about the SACM concept.

Longest: The article was in '92, but it was put in place before that. I would say it was at the end of the '80s decade.

EPA Interviewer: We can always go back and insert the date.

Longest: Yeah.

EPA Interviewer: Another thing that you brought, Henry, that I thought was really interesting, and you may want to talk about and put in as an exhibit is this pipeline chart. And just to describe it to folks, I think it helps visualize the progress that was accomplished during your tenure. Because I think the dates pretty closely correspond to your time in the program

Longest: Yes, they do. In fact, purposely I asked that this be done after I realized I'd been in a program about 10 years and people were constantly saying, "You're not doing enough. You're not accomplishing anything." So one of our staff came up with the idea, I don't recall who it was, but being an engineer, it made sense to me to come up with this diagram showing the progress of the Superfund program. What we did was started with 1986, right around the time of the amendments to Superfund when we moved to "enforcement first," etc., and said "OK. What was the pipeline in the Fund-related projects, not enforcement projects, Fund-related?" We made this chart to show how many projects at that time, in '86, did we have in remedial action, how many had studies underway, and how many begun construction. Well, in '86 we only had 32 projects with construction underway, and we only had 24 construction completions in 1986, but we had over 300 studies underway, and then we had almost 300 we hadn't even gotten to the study phase.

So the point was, now in the late '90s, we said, "Let's look at what has taken place over this roughly 10-year period from '86 to '95," and if you look at the chart, the studies underway were less, 213 from the 322. However, a lot had moved through the process, but the big change was, we went from 32 constructions underway to 472 constructions underway. We went from 24 completions to 346 projects completed. So in that 10-year span, there was a lot of work accomplished, even though there were many people you would talk to at that time who'd say we hadn't done very much. So this was just an effort to say, "OK, since the '86 amendments, the new NCP, the "enforcement first" concept, what has the Fund portion of Superfund accomplished?" And this was our way, a visual way, of showing exactly what had been accomplished, in addition to what was taking place on the enforcement side.

EPA Interviewer: I think that it would be really interesting to take the most current version of this chart and take a look at it.

Longest: Yes, it would.

EPA Interviewer: We have more on the further end of the pipeline.

Longest: Well, the interesting thing is, that was 10 years. Today is 10 years from that timeframe, so my suggestion would be give those people a copy of the chart and say, somebody will probably remember it, and say "Hey."

EPA Interviewer: Yeah.

Longest: How about doing the chart? You got '95 and '96. How about doing the '04 chart?

EPA Interviewer: Yeah. I would like to see that.

Longest: And you see, you would have three decades of progress, starting at a very appropriate time, '86, when it came in with "enforcement first." I think that's when the program first took off. I mean the program started what? Five years before? Whatever. But Superfund really didn't start until the 1986 amendments, when the "enforcement first" concept came in. We revised the National Contingency Plan and we really started moving out using the concept of SACM, the Superfund Accelerated Cleanup Model. So to me '86 was when Superfund really started and really took off as a program, and I felt very comfortable where we were in '95.

EPA Interviewer: That's interesting, because when I looked back at the history, because I wasn't here at the time at the time of SACM, of the SARA amendments, I didn't grasp just how significant that big change was in terms of how the Fund-lead cleanups were managed.

Longest: Uh huh.

EPA Interviewer: Because when you read it, it looks like it has much more to do with the other side of the funding.

Longest: Yeah.

EPA Interviewer: I guess it just had a profound effect upon every aspect of the way the program was run. What is, speaking of the dual-funding type, what was your view on that? Do you think that that was a successful way to handle the way sites were addressed, to have it be broken out that way?

Longest: Enforcement and Fund?

EPA Interviewer: Yeah.

Longest: It was difficult, and I know a lot of our folks in the program felt like it was slowing us down, and in some ways it probably did, but actually I think it was the right thing to do. Because that way it really put industries on notice, particularly the ones that knew they had problems.

EPA Interviewer: Uh huh.

Longest: And those, as I mentioned about the overflights from years back that showed where people had walked away from real problems and literally covered them up by putting dirt in lagoons, and so forth. So it, I think it got the industry's attention that, "Hey, if you've got something out there that you've walked away from, maybe you'd better go back and look at it, because somebody's going to come after you anyhow." And so it took away the idea that, "Well, the Federal Government will clean up all these sites, and the people that caused this to happen get a free ride." So on one hand, it was very difficult between enforcement and the Fund, sorting out the sites, and people got frustrated, but looking back at it, I think it was the right thing to do. And I think the history shows, at least from the standpoint of the Fund, that it may have slowed us down a little bit, but we accomplished a great deal.

EPA Interviewer: On this concept of joint and several liability which—I didn't know that that appeared in too many environmental statutes.

Longest: I didn't know of any.

EPA Interviewer: How was that perceived within the program when it was being implemented in those years?

Longest: Yeah. You have to ask a lawyer. I'm an engineer.

EPA Interviewer: No, but I want your perspective, too.

Longest: Well, if you heard the outside, and people I knew on the outside, they felt it was terrible. Joint and several. My interpretation, non-lawyering, is it means I can't get away from a never-ending responsibility. You know, if I had one of these sites, or if I was one of these companies, here's what I was hearing: if I was Company B who bought Company A, I would not want to take on unending liabilities from Company A. Today, we have a lot of mergers, building larger companies. Company B who bought Company A and all of their sites and their liabilities and so forth. They were the ones that I think felt like it wasn't fair. It was like, "Wait a minute! You know, I'm the owner of that Superfund site because I bought out that company, but I didn't cause that problem." So that's maybe an oversimplification, but I think that was about the simplest way to look at it, and we continue on even today. Companies buy other companies out. I'm sure they are much more careful about hazardous wastes and things like that today, but in years gone by that wasn't a thought, I don't believe, in buying out other companies. At least prior to '86 it wasn't too much of a concern.

EPA Interviewer: Did anyone at the time grasp that that concept in and of itself might change the way property transactions occurred in the future?

Longest: Oh yeah. Well.

EPA Interviewer: Was it anticipated?

Longest: Well, I'm sure there were some people that knew when you start "enforcement first," and looking at the '86 amendments, realized that that was going to happen. I'm sure there were companies out there with very sharp lawyers that saw what was taking place, and I think that's one of the reasons for the '86 amendments. I don't remember the exact amount of time, but they took significant time. In fact, I mentioned earlier '85, I forget the exact date that the first law ran out, but we were on continuing resolutions for quite a period of time. Well, I'm sure a lot of that was related to the enforcement aspects, the new enforcement portions that were put into law for the very reasons you asked, because there were a lot of companies that saw, "If this goes in, we bought company A, B, and C, and we're going to have a mess to deal with that we didn't create. Why should we ti da ti da ti da?" So I think that had a lot to do with the delay in the '86 amendments. That is what happens with this "enforcement first" concept, and the liability issue.

EPA Interviewer: You spoke earlier about managing the program through this period of continuing resolutions, and I didn't give enough follow-up to you on that. How is it to run a

program of this nature with large construction projects during a time when you have the kind of financial uncertainties? And of course, you didn't even know at the time that it was going to be reauthorized.

Longest: That's right.

EPA Interviewer: You don't know what's going to happen.

Longest: Right. Well, what's difficult is you can continue with things like studies that don't use a great deal of money, but you could not start new construction. So if you had a project where you had done the study, you had done the engineering design, and you were ready to actually do the cleanup, we couldn't start new cleanups, because the money available wasn't enough in the beginning. We were having to use money to do the study (step one), and then go into the remedial design (step two), the design portion of what it is we're going to do in the cleanup. It was delaying the construction program, which was just getting to the point where we had a significant number of construction projects to get underway. That's where the big money was needed. So it was delaying construction projects or the actual cleanup. And then it was putting more pressure on the removal program, because as we found really bad situations, the removal people were the ones that would have to go in and, of course, it would also limit what they could do dollar-wise. So the actual cleanup is what suffered at that time.

EPA Interviewer: Yeah. That's a shame. Is there a particular site that was a watershed for the program or was otherwise unusually significant to you? I'm sure you probably have toured hundreds of sites in the years, maybe even thousands of sites in 10 years.

Longest: There were several of them. I was not involved in Love Canal, but that was sort of the beginning of Superfund, and most of that was thought through, etc., prior to my coming in, so I knew of Love Canal. The one probably that I found really interesting because it was a combination of situations was the Hudson River. There were PCBs [polychlorinated biphenyls] in the Hudson River, and there was a dam at one time, as I recall, what they call a low-level dam. You ought to talk to somebody in Region 2 about this, but my understanding of the situation was there was a dam and the dam was taken away. I don't know by whom. Well, one of the advantages of that dam, although it wasn't there for that reason, but it had caught the PCBs coming from industry. When they removed the dam, it distributed the PCBs from the upper Hudson River all the way down to the New York City area. That's an example of how something can happen and you don't really understand the ramifications. EPA was not involved in the removal of the dam. I'm just saying this is what happened. This is what we found. So we spent a great deal of time surveying to locate the distribution of, and going into cleanup of, the PCBs in the Hudson River. But I would suggest that you talk to Region 2.

EPA Interviewer: When I think of that particular site, it triggers for me that now, we have a category of what we call mega-sites.

Longest: Yeah.

EPA Interviewer: I don't know if we had kind of system when you were here.

Longest: Yes.

EPA Interviewer: Was the mega-site phenomenon something that was in anyone's mind or imagination at that point that you envisioned that there might be sites that would require this degree of resources to clean up or that many years? Or was—over the program at the time that you first started—there an expectation that you would be able to actually move to a site, clean them all up, and just be done at some point?

Longest: That's an interesting question. Looking back, I think when I first went over to the Superfund program, I thought in terms of the specific industry site where they dug a hole and dumped in the waste. And in many cases that could be cleaned up, where there were barrels, etc. I did realize that any place they dumped wastes in the ground without liners, there was always a potential for groundwater contamination. So the thing that concerned me most was groundwater contamination, and we worked a lot at that time with the Ada, Oklahoma, laboratory in the Office of Research and Development, because they had groundwater experts. I asked them to come up with sort of a primer on groundwater and cleanup, and got to terms like NAPLs [non-aqueous phase liquids] and DNAPLs [dense non-aqueous phase liquids]. In other words, some of them would get into the water like PCBs get into the water; you can find it, in other words, it isn't absorbed into the water itself, you follow me? You can find the PCBs, but there are other chemicals that are absorbed into the water, as with chlorine in your drinking water. You know it's there, but you can't remove it without treating all the drinking water. Something like the dense non-aqueous phase liquids like PCBs, it got into the sediments and you have to literally dredge it out of the sediments. Groundwater became to me the major issue besides the issue of who cleans it up. We spent a great deal of time dealing with that, and PCBs in the Hudson River is probably the best example of something like that I can recall.

EPA Interviewer: It is interesting that you mention having to go and develop the expertise and a primer on how to address groundwater, because it's so pervasive in our program now, but it sounds like it may not have been an anticipated task.

Longest: No

EPA Interviewer: Early on, certainly not. Maybe to the minds of the folks who drafted it?

Longest: No, it wasn't at that time at all. I mean, we knew it was getting into the groundwater. Say, groundwater is getting contaminated, but then you know I start asking questions like "OK. Fine. If the groundwater is contaminated, you have to pump and treat it. What is it you're treating for?" You know you don't treat everything with just a screen, or like a wastewater treatment process. You get to things like, not the NAPLs and DNAPLs, but the PCBs in the Hudson River. You can't go to the Hudson River at some point, and say, "OK, we're going to strain the Hudson River from here on." You can't do that. Well, the PCBs weren't in the water itself. They were down in sediments, so there you could dredge. So you had that decision that had to be made when you talked about drinking water. Was it something that was absorbed within the water, or is it something in the sediments in the bottom and so forth? That became a real issue, especially in groundwater.

EPA Interviewer: I think that's an interesting area to discuss. Another issue I guess that has come up during the time: the concept of environmental justice and the disproportional impact of pollution on minority communities came into broad discussion at some point during your tenure. Was this something that was anticipated? Did it pose particular challenges? What was the background, general feeling, about these types [of] issues when they first arose?

Longest: You know, the interesting thing, there was a lot of discussion about that. I didn't get too much involved in it, but one issue that was brought in, there were those who tried to—I'll use the terminology "roll over"—some environmental problems into Superfund that really shouldn't have been there. For example, the best answer to your question is—I know up in New England, in fact, Boston, specifically. You had public housing that had lead paint in that housing, and then you had children that lived there. They could chew on the window sills and lead paint. There was even an attempt at that time—I don't recall the details—but to use Superfund to clean up lead paint in public housing. So I think that's the type, I mean that's what you're speaking of, how well any federal program that comes into being that has a lot of money, there will be those that try to use that in any way they can, and I'm not saying that's wrong. I'm just saying that's a fact of life. And so that was the first. And the major issue that I recall of someone trying to take that tack and use Superfund to clean up a problem that probably wasn't intended to be a Superfund action. Now, I'm not a lawyer; it didn't seem to me that that was a Superfund issue, but there was a lot of discussion and a lot went on about whether or not lead paint in housing was a Superfund cleanup site. But, again, you could see the ramifications of that. All public housing anywhere in the United States, once you start down that road.

EPA Interviewer: I guess I was thinking as well about the types of different community interactions or setting up cleanup levels or degree of Congressional involvement, or degree of community involvement.

Longest: Sure. Another example would be the same site that I referred to earlier that I visited was a mining site. I believe it was in Colorado. Well, if you have a smelter and that smelter doesn't have proper pollution control equipment, what's coming out of the smelter and then that falls on the lawns of the people that live adjacent to the smelter. Well yes, the fact that those people have to live in that area puts them at harm. The people who can move further out in the suburbs don't have to worry. So that's why many times it seems like Superfund or whatever program would be drawn into something like that. I don't know that it was the intent of the law. You'd have to talk to the framers, but it was an outcome, that if you were talking about cleaning up pollution, and if smelter waste is a pollutant and it's going into somebody's yard and the children are digesting that, however, and that's the real problem like you just mentioned.

EPA Interviewer: I'm circling back to another question that I probably should have asked and didn't. How was it, or was it at all, one of the functions that you undertook in the earlier days to talk about how clean is clean and setting cleanup levels and making those types of determinations? How far can we really go?

Longest: Oh, yeah, that was a major issue. In fact, Dave Bennett came over from [the Office of] Research and Development and volunteered to come to work for me in Superfund, and I jumped at the opportunity to have him come in, and he spent several

years developing the Superfund cleanup manual. In other words, going through various chemicals and all, with the support of ORD [Office of Research and Development], to deal with the concept of how clean is clean. And you need to follow up with him on that, but we did a major document that was put out around the late '80s so there is a "how clean is clean" document that deals with hundreds of chemicals. Now that was a major effort and, you know, it's kind of interesting in the many programs I've been in, I feel good about the things that I have accomplished in different programs, but I have to give credit to a lot of people that came up with the ideas. They weren't my ideas. Like when Dave came to me and said, "I'm in R and D." I didn't even know him. "I would like to work on a manual on how clean is clean and cleanup sites." Well, at least I had enough sense to say, "Hey, that's a good idea, Dave. Why don't you do that?" I don't take credit for it. But that wasn't an unusual experience. I mean, I guess that's the thing about EPA and the people. The people that work at EPA—the majority of them—they're interested in not just the job. "Oh, I got a job in Superfund. I got a job here." They're interested in the environment and what can they do to clean it up. And they will step up and say, "Hey, I've got an idea." I just hope that the managers recognize when this occurs. You know the old saying "not invented here"? That was never a concern of mine, because if I had to invent everything, nothing would ever get done. But when I would have people come to me and "Hey, I got an idea," the vast majority of the time I would say, "Run with it." And so whether it be SACM, the Superfund Accelerated Cleanup Model, I can't tell you who the individual was that invented that concept, but however it came about, as soon as it came about, I pushed that and said "Hey, that is great. Let's do it."

[Recording stopped.]

EPA Interviewer: So we are recording again. After a short break, we are back talking with Henry and I think we would now probably move to the latter part of your time with Superfund program and if you had any final thoughts. In your view, what was the high point of your involvement with the program? What was the best thing you were personally involved with? Any particular actions that you take great pride in having accomplished? You may have already spoken about them, but I wanted to give you one final chance.

Longest: I think the thing I look back on is not just the Superfund program, the fact that over the 10-year history that I am familiar with. I believe it came a long way from the '86 reauthorization to the time I left. The program really was up and running and projects were being completed. The priority list was being addressed and the organization was in place in the regional offices and we delegated from Headquarters to the regions, etc., etc. But the thing that I look at most is the development of the people, both in Headquarters and in the regional offices, the Branch Chiefs, the Division Directors, many of whom I worked with in the wastewater treatment program, construction grants. I focused in my latter years on ensuring that we had good people in the regional offices at the branch level and tried to get across to them as much information as I could. Not as "I'm from Headquarters. I'm here to help you," but to work with the regional people, you know, as a team, to accomplish this, a very difficult task, and realizing they were under a lot of pressure because they were the ones that go out and visit the sites. Many of them went to public meetings where they were lambasted and never heard a kind word, and I had to support them and help them understand that we did realize what they were going through and we wanted to help them. We wanted to nurture them. We wanted to develop leadership for the future. So that was my

best memory of the program, the many people I knew in the regional offices who were very dedicated to what they were doing and really wanted to help people regardless of the many “hits” they took that were undeserved, but they just stayed in there and just did their best.

EPA Interviewer: What did you view as the biggest challenge facing the program when you left in '94?

Longest: Well, one thing that was still going on was this concept of “pace of cleanup.” In fact, that’s why I did the chart that we talked about of what occurred in the 10 years I was there in terms of the cleanup. When I left, still the pace of cleanup was a constant issue. Whether it be from states or Congressional, in particular. You know you got all this money; what have you accomplished? So I would say pace of cleanup was still the issue. I don’t know where that is today, but that’s what stimulated me to do the diagram to show, “All right. Here’s what we’ve accomplished since the '86 amendments.” And, of course, my hope was that that would even improve after I left.

EPA Interviewer: I think it’s safe to say we’re still facing that same issue. So, in '94 you moved over to ORD and you served as acting AA [Assistant Administrator] and DAA [Deputy Assistant Administrator] and dealt with many other programs in addition to Superfund. Did your perspective on the Superfund program change, if you had any involvement with it at all?

Longest: I don’t think my perspective on the Superfund program changed, but I did try to instill in the laboratories in ORD that they were there to do science, and they liked to publish scientific papers and that’s how they get their recognition. However, their main objective should be—through these scientific papers and things they learned—to support the program offices. And several of the labs — Cincinnati, the engineering lab— worked with me in construction grants and Superfund, so I think they have always been very supportive of the program officer. The Ada, Oklahoma, lab was known for its groundwater expertise, and they helped me in Superfund, and I believe they are still doing that, but I can’t say that that is true throughout ORD that all the labs have a primary focus on supporting EPA’s programs. Not just Superfund — air, water—you name it. And I think that is always going to be a difficult job to accomplish, because there are so many different labs all over the country.

The last point I would make, however we get it out is: the Program Directors, whether they are in Air, Water, wherever they are, they also have a responsibility to go out and talk to people in these labs to tell them what they can do to help them and to “bug” them, frankly. Not just call them on the telephone. I think they would be pleasantly surprised to go out to these various EPA labs, whether it’s Ada, Oklahoma, or Corvallis, Oregon, or wherever, and see how receptive the lab directors and the people out there are to supporting them in their programs.

EPA Interviewer: I propose we move on and talk a little bit broader about Superfund’s legacy and your view. I don’t know if you have opinions on some of these questions or not. But do you think the Superfund program has had an impact on environmental protection in America generally? Are there specific benefits or impacts that you can speak of that came from the Superfund program that would not have otherwise been there?

Longest: Oh, yeah. There's no doubt in my mind that even though people may not admit it, companies may not admit it, but I think whether you consider the concept right or wrong, not being a lawyer, this joint and several liability concept and because of the enforcement actions that were taken against companies. Now, I am sure they felt it was unfair because it was a waste that was disposed by another party before they bought out that party. I can see arguments on both sides, but the point I'm making is, I believe companies are, they have to be, more aware of how they deal with their waste from whatever processes they have, and so that's definitely going to have a long-term impact on our environment. They are just not going to do some of the things that were done in the past, because they realize that it will be caught up and they'll have to clean it up, so there's no question in my mind that the enforcement aspect of the '86 amendments that many people say a lot of it was unfair. That may be true, but I think that really has changed the way corporations handle their waste streams. Not only handled—I used the words “handle their waste streams”—I'm not talking about just disposing of wastes, but changing processes so you don't have as much waste. And that's probably the biggest long-term impact, I would say, of Superfund. If you're going to have to pay to clean up a waste, you're going to look and see if you can not produce the waste. How can you change your process? Forget about the issue of whether it was fair or not, that a company would have to clean up the waste that somebody else created before they bought them. But I think there is definitely positive impact on the environment long-term.

EPA Interviewer: Among the issues that the Agency deals with now is how to measure the environmental and health impacts that the program has as a benefit, and there's more interest in trying to get EPA to recognize what specific health benefits there are. Do you feel that the Superfund program has benefited public health in the United States?

Longest: I think long-term in the future, but I don't believe there is any way you can measure this. There just is not any way. It's sort of like the issue I referred to about the lead paint in public housing in Boston, which some were trying to turn into a Superfund site. My point is: in many parts of the country, you can't even use leaded paint any more. You'd have to go back and try to determine how many children that became adults, what was their health, what was the cost because they chewed on lead paint on the window sills. It's almost impossible to measure. There are just so many subtle things like that, and it's clear that this made a difference in the future, but you just can't measure that. I don't think you can measure that.

EPA Interviewer: But your general impression is that —

Longest: Very definitely, Superfund made a difference in the long term, which cannot be measured, because it forced people/industries to change processes and how they dealt with residuals created by industrial processes.

EPA Interviewer: There have been some positive health benefits.

Longest: Very definitely. And it mainly comes from forcing industries and communities to change processes and how they handle waste, whether it be waste from the homes, or whether it be waste from chemical plants or any other manufacturing plant. It has caused a change that led to positive health benefits, although it may not be measurable.

EPA Interviewer: And how about in terms of the way resources are viewed within the country's general thinking? Do you think, perhaps, that groundwater was thought of as a kind of valuable resource that it is now, back when the program was initiated?

Longest: I think it was thought of as a valuable resource. I don't know that that changed, frankly. I think what they didn't know is what was happening that was causing the groundwater to get polluted or make it non-drinkable, because they didn't realize the fact that chemicals were getting in there from dump sites. Some people probably did. Thought goes through my mind and I can't think of the chemical—the big one that's going on — Department of Energy — MTBE [methyl tertiary butyl ether] in groundwater in California. Now that came from a product and something that was dumped and didn't realize the impact. I don't even know that people realized or thought, "Well, that's going to get into the groundwater." They probably didn't even give a thought to that; they just dumped it. So that's about the best example I could come up with as something that was unknown to people as a real health hazard. So there again, people have got to be more careful with chemicals and what they did with the byproducts.

EPA Interviewer: Moving to post-9/11 and then the terrorism issues, emergency response type issues. What impact do you think the Superfund program has had on emergency response and preparedness for water treatment facilities or chemical plants or oil storage facilities, or any of the other kinds of facilities that are more vulnerable to the kinds of terrorism that we now face? What role do you think the Superfund program should be having in these types of issues, or impacts that may have had on these sorts of issues?

Longest: Well, it's a resource that's used when these things come about. I know for a fact because being in R and D, we had some involvement working with Region 2 after 9/11. I know specifically our lab in Edison, New Jersey, worked with the Region 2 laboratory in trying to determine cleanup levels, and were things being cleaned up in New York City? I mean, this was the after-effect; not at the site but throughout the surrounding areas in the city. I think EPA did contribute a great deal to that; in fact, the Assistant Administrator of Research and Development had to go to hearings on the Hill with Senators and Congressmen from New York about what EPA was doing to help clean up the aftermath of the dust, etc., that got outside the actual site and into the apartments, etc., etc. Well, I think a lot of the lead that the regional office in New York took, obviously it was cleared by Congressmen and a Senator up there—of course, they were pushing ORD to be involved in the cleanup levels.

So, I think the fact that if we didn't have the emergency response capability in the regional office and the supporting personnel there in the Edison office working with them, I would ask the question, "Where else would the people of New York turn to get expertise to see that a site was truly cleaned up?" The site being, well, I don't know exactly, probably a mile radius outside of the actual 9/11 occurrence. So, yes, I think Superfund, particularly the removal program, has had a lot of impact and for which they probably haven't gotten a lot of recognition.

EPA Interviewer: Can you think of any particular innovations or other types of improvements that could be attributed to the Superfund program that you think might not have come into being without the program's existence? Technologies or areas of business that may not

have existed without Superfund? Anything of that nature? I know I am putting you on the spot.

Longest: It's hard to put your finger on. I'm sure it's out there. I am sure there are consultants that get involved in cleanup and more involved in processes with industry to eliminate wastes at the end of the process. I'm sure it's out there, but I really don't have any knowledge that I could pinpoint specifically.

EPA Interviewer: Then speaking about brownfields and redevelopment-type issues. What's your view on the way that the Superfund program now has moved into focusing more on redevelopment of properties and areas? Was that something that was anticipated when the program was initiated? Did you all think about whether or not in the end these sites were going to be returned to use in some productive way; or were they considered in a different kind of realm?

Longest: Not to the extent that brownfields has moved. I mean that has been sort of a separate issue, an evolution of where do you move from something that was a Superfund site to the development of future use. In other words, if a small town had an area that was contaminated and if they could get EPA to clean it up and think about cleaning up in the context that it was guaranteed not to be a Superfund site, then they could bring in a new industry or something. So I think that was driven more by impacts on local communities and development by local communities. I think it may be a fallout from Superfund cleanup, but I don't see it as something that Superfund was trying to do. You follow me? I think someone, and I wasn't involved in that, frankly, although OSWER was involved in it, but it was sort of happening when I left. It was coming about. I think probably it was communities that were driving that and wasn't our idea. The community was saying, "Hey, if I got the site and EPA cleans it up, how am I going to get an industry in, unless EPA says it's clean; it's OK to go in." Industry isn't going to go in on it and put up a new building on an old Superfund site because they're going to say, "Wait a minute. You got to give me a release from any liability." Well, the city says, "I can't guarantee that," so they come to EPA and say, "All right, EPA, I got this company that will come in and they'll take this whole Superfund site, and they are going to put a manufacturing site there and they're going to hire people, but will you, EPA, give them the assurance that ta da ta da ta da..." I think that's how it came about. It wasn't something that EPA said, "Hey, why don't we go do so and so?"

EPA Interviewer: So, even at the beginning of the program it may not have even been something that was on the horizon as an expectation that we're going to take these sites from polluted lagoons all the way through back to becoming a site that can be used again and has economic value for the community.

Longest: That was not the driving force. No, the driving force was, "Let's clean it up so that it was not a future hazard," and so forth, but not as an economic development. Brownfields took the next step: "Hey, we got an opportunity. Let's make the use of it." But that came more from the outside interest.

EPA Interviewer: You think that in the end that Superfund has had an economic benefit as a program in that way by taking properties that would have been abandoned?

Longest: Yes, I don't think that was the intent. The intent was to clean up these problems, but the result has been, yes, it has done that. And again, brownfields is the extension of that, frankly. It certainly created a lot of jobs doing the cleanup.

EPA Interviewer: Yes, this is true. Can you compare any of the challenges that you think the program may face today with ones that you faced earlier? Any similarities? Any differences?

Longest: I think what we were just talking about, the brownfields, is the principal change from the time that I was in it. Not just, "How do we clean up a site so it's not a problem to a community or health hazard?" but, "How do we turn it into a plus, a development opportunity for a community?" I think that's been the major change.

EPA Interviewer: Do you see a day when Superfund will run out of sites to clean up and we won't need a program any longer because we will have no more hazardous waste sites?

Longest: Well, yeah. Hopefully that will occur, and it will. I've lost track of where RCRA [Resource Conservation and Recovery Act] is in their program these days. Yes, Superfund should eventually disappear, because RCRA should be there to handle—that is, to prevent future problems, because the problems came from industry and what they did with their wastes from processes. The intent of the RCRA program is controlling waste before problems occur. So, theoretically, once all the known sites are cleaned up, etc., RCRA will keep it from occurring again, theoretically. However, I still see an awful lot of huge landfills dumping a lot of waste out there, and only time will tell how well RCRA has been implemented.

EPA Interviewer: And I think the mega-site issue is somewhat related as well. Maybe the types of sites are different than was originally envisioned and may be longer-term type cleanups that we can't walk away from immediately.

Longest: Like mining sites and things like that.

EPA Interviewer: Yeah. Any concluding words of wisdom? If Superfund shouldn't exist, how would life be in the United States? Was Superfund inevitable? Would there be a significant difference?

Longest: I think something like Superfund was inevitable because it goes back to the industrial revolution. That's when it started. When we became an industrialized nation and started building things and developing chemical processes and building machinery, etc., you have waste. And from the beginning waste was considered waste; you take it out back and you dump it, and the emphasis was on producing products and selling products and keeping the economy moving forward. The problem was people really didn't look at the future result of dumping waste. They just thought it was OK to dump it out back and that's the end of it. But that created a complete industry on cleaning up all the waste from the past, so that obviously the challenge now is to be able to develop processes which don't create this waste, or if they do, they handle them in the right fashion.

One example that comes to my mind: "I don't know where it's going to go?" "What about all these computers that we're dumping, wherever we're dumping them?" That can be the next problem, although I have no knowledge. I'm not trying to create fear, but we've

got a lot of computer waste out there, and people are getting new computers so often it will continue to grow. You even see this on the news now. These truckloads of old computers that they're taking out and dumping them, so it could be a completely different type of waste coming from the computer industry. How it's being handled, I have no idea. Talk to people in RCRA, but that does come to my mind. There's an awful lot of waste in just taking computers and dumping them who knows where.

EPA Interviewer: I'm thinking about the changes in the waste stream.

Longest: Exactly.

EPA Interviewer; How there's always some new twist on what's getting considered, something that just gets put out back and you don't worry about it.

Longest: Exactly. Exactly.

EPA Interviewer: Well, thank you so much for coming, Henry. Do you have any other items that you want to mention before we...

Longest: No. I'm glad you all are doing this, because I find it interesting and quite frankly, I was glad that you called, because having retired, it's good to look back, and say, "Gee, did we accomplish anything?" And I think Superfund has accomplished a lot, and I feel good about it, so I have enjoyed the opportunity to go back and re-look at some of this and talk to you about it.

EPA Interviewer: Well, I think you can be really proud of what you have accomplished, in particular during your tenure as Director and heading ORD. I think that you are revered in our program for a reason, and I feel fortunate to have had the opportunity to work with you and to interview you today.

Longest: Likewise, and I've enjoyed it, and I thank you very much, and if you have follow-up needs and want to give me a call or sit down again, just give me a call. I'll be available.