**151329 Interviewer:** Would you like to start by telling us your name, where you are from, and where you grew up?

**151337 Steve:** My name is Steve Wentzel, I grew up in the Monfort Heights area which is just a little bit southeast of here, probably about 15 miles. Uh, after high school and two years at the University of Cincinnati, I spent some time in the Air Force in fire protection and crash rescue. I was discharged from the active and I stayed in the reserves. Uh, after I was discharged from the active I started employment at Fernald, which at that time was National Lead of Ohio. I was married the year after in 1975, we built a home in the Okeana area which is about 7 miles west of the plant. So, I have been part of this area and the community essentially since 1975.

151445 Interviewer: How did you find out about the job at Fernald?

**151447 Steve:** There is some rather odd circumstances. The Air Force at that period of time, late 1971-1972, was going through a lot of resizing and the Vietnam War was winding down and a lot of people were coming back, the draft had ended, and so the reserves were really hurting for people in some specific career fields. Fire protection and crash rescue was one of those. So they had a program where you could opt to leave the active duty early in return for going into the reserves for X number of years. I signed up for that program and I was accepted and so in doing a job hunt while I was still in, two jobs I found out that were open. One was at the Greater Cincinnati Airport, the other was out here at Fernald. And I found out about this job through my then, to be father-in-law, who happened to be on our bowling team, was the manager of fire and safety that worked out here, that they were looking for someone. And so I fit the bill and this job paid just a little bit more than the one over at the airport did so I ended up out here.

## 151610 Interviewer: What was your title?

**151613 Steve:** When I started I began my career out here as a fire and safety inspector. Fire and safety inspector was kind of a catch-all for the safety field at that time. We did all the safety surveys or safety inspections for the plants. We did a little bit of the industrial hygiene work and we also covered the radiological monitoring on the off shifts. It was kind of a Jack-of-all-trades, but all related to the safety field.

**151647 Interview:** Can you tell us a little bit about what the first day was like when you came to work? Do you remember ...?

**151701 Steve:** That is interesting. I have not thought about that for a very long time. I think in some ways it was intriguing. I guess I'll put it that way. Security was extremely high at that time yet. I had had a top-secret clearance in the Air Force and essentially I might as well not have had anything because switching between government agencies, one did not accept the other. So I basically had to go through an entire clearance process again. Uh, and at that period of time, unless you had the equivalent of a top-secret clearance, which I believe it was called a Q-Clearance, you had to be escorted everywhere. And when I say escorted you basically ... the only thing you could do was to go to the restroom by yourself, the rest of the time you always had to be with someone. There was this mystique about the place because if you didn't have the

clearance there were just a lot of things that you weren't allowed to be told or seen. So it was intriguing and there was always a mystique about it like what am I missing out on. Once your clearance came through and you could actually go out in the plants and see what is going on, some of the mystique was gone. It was all a very interesting process, and sometimes it was hard to understand why a lot of things were classified, but I'm sure it was part of the Cold War aftermath and no one just really understood it at that time.

**151835 Interviewer:** Did you know what they did here when you first started working? Did you understand what the process was? Or what ...

**151845 Steve:** Before I came to work here, during the interviewing process, I think I had a pretty good understanding of what went on at the plant. I did not understand all of the processes at that time, but I understood what was produced, and of course I did not know exactly where it went or anything because that was part of the classification, but basically, what went on at the plant I think I knew. Prior to that, to be very honest, even though I lived in this area, I never knew this facility existed out here. Some of my relatives had heard about it and that was essentially through friends or co-workers of theirs or various other locations. I can't say I grew up knowing Fernald was out here or what they did.

**151939 Interviewer:** So what is it that you did? Can you tell what a day of your job was like back then?

**151943 Steve:** One of the aspects that I left out earlier is that another part of our job was that we ran the fire department. Uh, since the plant was built in 1951, there was always some type of emergency response capability on-site. It had been set up over the years, and as much as everything else was at Fernald, it was self-contained, which means basically there was very little interaction with the communities or the outside world. So there was a quite elaborate emergency response set-up already in place. So an average day, or the typical day would amount to when you came on shift, since there would be one fire and safety inspector on each of the shifts 7 days a week 24 hours a day. When you would have a shift change over typically you would inspect the emergency equipment, make sure that the fire brigade was properly staffed. Which those members came from the plants whatever happened to be operating, and it was usually a routine of checking through the plants, possibly issuing permits if there was some special type of work going on. But basically just taking tours through the buildings and making sure people were working safely and the conditions were okay to be worked in.

**152117 Interviewer:** How do you put out a fire, I mean I don't think again when radioactive material, maybe to explain a little bit some of the things that you had to prepare for?

**152134 Steve:** O.k. Uh, fighting a fire with radioactive materials is really no different than fighting any other type of fire. There are some hazards that are unique to it, but the primary extinguishing agent is water. So it was just usually a matter of applying a large quantity of water to it and extinguishing it. Uranium metal when it burns has unique qualities or characteristics in that it is very difficult to extinguish. In addition to water, there is also some dry powder type agents that could be used on it. But essentially when it's a large chunk of metal you can smother

it, but the material would continue to burn because one of the characteristics of uranium metal was that it produces its own oxygen as it's being heated and continues to burn even though it may be covered up. Water typically would, after a period of time it would cool it to a point where it would extinguish itself. But basically, it is no different than fighting any other type of fire.

**152252 Interviewer:** Could you describe for us a fire that you had to put out while you were working? Like in the 70s or....

**152302 Steve:** When I started I guess I was kind of an oddity to the facility because they had recently experienced a rather large layoff. I believe I was probably the youngest person on the site for several years. So operations were at that time were a downhill slide. In probably '74, '75, it probably reached its lowest point as far as total employment. Almost every building was functional and operated, typically, they operated in a batch-type fashion. One building would operate for so long and then they would shut that operation down and move to another building. There may be 2 or 3 buildings operating at the same time but the whole plant was not populated. So there were a limited number of fires. The most common places where fires occurred were usually in the areas where we stored freshly turned chunks of metal. It was basically the turnings from the metal that were being machined, or some of the material that was discarded out in the waste pits. Those were the most common. Uranium metal's pyrophoric, which essentially means it can self-ignite and a lot if times it did because there was a direct correlation to temperature and humidity and the particle size of the metal. If they are all proper, it will selfignite. So that was a large portion of it. Uh, the only other major fires that we had were at the boiler plant and that was the coal bunker and that was spontaneous combustion also. The coal heated up and it was a quite difficult fire. In fact, we had a repeat of that. There was one, I forget the exact dates now...there was one probably in the late '70s and another one in 1991. But other than that there may have been some routine calls, actually I shouldn't say routine but pretty low-key calls to acid leaks or releases and things of that nature. Prior to my arrival or starting to work at Fernald there had been some significant releases of materials that the emergency response team was involved in. But the emergency or the fire brigade at that time for the size of the group and the types of hazards that were out here, we were very well-trained in comparison to a lot of other similar industries.

**152557 Interviewer:** So what did you like about your job? Tell us a little bit about what you liked about.

**152603 Steve:** Looking back it was probably a tremendous learning experience for me. Fernald itself was unique. Half of the facility was a chemical processing plant and the other half was a metal foundry. So the processes that were preformed out there were not...unlike a lot of other industries. I think that the intriguing part was that all of them were performed within one facility. So, you know, if your interest was in chemistry there was a wealth of information to be learned from the people that worked here. The chemists and supervisors we had were very knowledgeable in all aspects of chemistry. The same goes for the metal side. We probably had some of the better metallurgists, especially those dealing with uranium metal, in the world out here. There always seemed like there was a problem with the uranium metal someplace in the

DOE system or at that time the Atomic Energy system, uh Commission system, they usually looked at some of our metallurgists to help resolve the problem. So it was ... to me it was a learning experience. You could learn as much as you wanted to or you could do as little as you wanted to and just go along with the flow of things. So it was interesting.

152738 Interviewer: Was it a dangerous job? Did you ever worry...

**152750 Steve:** I guess danger is a relative word. You know, being in emergency response or emergency preparedness or safety you are always conscious of dangers, but there is always a degree of risk that you say is acceptable versus what's not acceptable. So to sit here and say some of the processes that went on weren't dangerous would be a lie because we dealt with some very volatile, dangerous materials. I think for the most part the systems were engineered and operated to where safety was a paramount interest. Uh, and I can only say that from the time that I've been here that the intent was always there. Now whether everyone applied the same rigor to meet that intent is always questionable.

**152940 Interviewer:** Have the, has the procedures, the safety procedures, the emergency procedures changed? Can you talk about how they changed from the 70s to like the time...(interrupted)

**152914 Steve:** I'll start out first with the safety procedures. I think the biggest thing that occurred was the safety procedures and this is not just unique to Fernald, I think this is throughout all industry in the country and possibility even the world. The biggest thing that has evolved over the years is worker involvement. In the '70s and even the early '80s to mid-'80s, it was more or less things were engineered. I think there was a high degree of attention paid to safety, but there was little opportunity for the worker to be involved in the planning. So it was basically, here is the process it's been designed, we looked at all the circumstances or the parameters of it, it's safe, go do it now. And a lot of times, you know, it's proverbial, it looks great on paper, but when you put it in practice there are a lot of things that if you just take time and listen to the people that are working with the equipment or actually doing the operation, they can tell you what's wrong with it or they can tell you a better way of doing it. I think the industrial world as a whole just never took that into their attention when they were designing something because it's not necessarily cost-effective up front doing that because it will take longer to design a process and you may have to take some extra steps. But in the long run I think history has proven that you would save money if would you listen to people. So from the safety perspective I think that's the biggest thing.

**160024 Steve:** From the health perspective, things have changed. I think there is more of awareness on the workers' part as well on the employers' part of inherent dangers and the long-term effects it can have, some of the exposures can have on your health. As with a lot of things, not only at Fernald, just industry in general I think a lot of that information was known and suppressed. Uh, it's better ... I think the intent was, you know, as long as no one is raising hell about something, it can't be too bad. So again, I think that is not just Fernald it's just all industry wide. There is a lot more emphasis on health effects that the work environment has on a person

now, so I think that is really a plus. And once again a lot of it has to do with worker involvement. Workers have more say so in their own personal safety.

**160135 Interviewer:** Can you give me an example of what it was like before and then now in worker involvement. Is there anything you can think of that ...

**160143 Steve:** Well, I think I had mentioned it before, if you look at any of the processes, typically it was pretty well mandated. Here is the process, go run it this way. If it doesn't work, come back and tell me and we will go think of some other way, other engineering way or production mode of way of doing that. Whereas today, before we start any of the operations, I feel pretty comfortable in saying that the workers have a tremendous say in whether this is the way they think it should be done. And if there is any hesitation, we'll negotiate it out one way or another. Either we'll go back and fix it the way they wanted it to be done or reach some agreeable position. Because probably the biggest thing that's very apparent now that wasn't apparent in the '70s is stop-work authority. If someone feels uncomfortable with the way a job is being done or what's happening they can stop work completely and we won't start it until that problem is resolved. And I think in the previous years there was more leniency towards saying, "I hear your concern, but just go ahead and keep on going."

160304 Interviewer: What about in your line of work, in your job...

**160306 Steve:** Not, not really, because I always felt that as a safety official we had stop-work authority and everyone respected that. If someone came to us and we felt it was a legitimate concern, if we said stop, it was stopped. So it's kind of like we were the mini-gods walking around. Some cases we were the last person some people wanted to see come on the job, basically because we had that ability. And so it was, like things may not have been done wrong, but if they were cutting corners here, there a little bit we were kind of the conscience to get them back in balance.

160403 Interviewer: Were any risks associated with your job in terms of exposure?

**160408 Steve:** Yeah. Day-to-day I would say it was minimal. We typically would not be in the plants for a long period of time. We would get through all the plants, but never one for any extended period of time like the workers. We typically didn't have to come in close contact or proximity with the materials. From a fire perspective, yes. Uh, but to mitigate that, those potentials and exposures, we had the proper equipment, personal safety equipment that could be worn for fighting fires, and self-contained breathing apparatus and things of that nature. The equipment was there to help mitigate that. Uh, probably the most hazardous things were the chemicals, and once again we did have the protective garments for that. But the state of art as far as protective equipment in the '70s is nowhere near what it is now. So some of the equipment was probably marginal in protecting exposures from chemicals and things like that.

**160530 Interviewer:** You know a lot of people have mentioned how much things have changed since then to now, or from the '70s to the '90s or even in ... Uh, can you give any examples of how things have changed?

**160542 Steve:** Well, I can switch gears just a little bit and talk about the emergency preparedness. Uh, we...when, I guess you could say the line of demarcation of Fernald was December of 1984 when the dust collector leak became public. And as I had mentioned earlier Bhopal and Chernobyl and all those nice things were happening at that time, so it was a natural for the news media to equate one to the other, especially Chernobyl. Uh, so that was the era of SARA or the Superfund Amendments and [Re]Authorization Act that was part of CERCLA, which required industries to do emergency planning and take into consideration what effect their facilities would have on the communities. So at the heights of the publicity, initially, the public's biggest concern at Fernald was the uranium or the radioactive emissions. And we had the dubious honor, I guess, of going public to the community and saying, "Look, the hazards from radioactive material are known and it's a definite, but we have a much larger hazard at Fernald and that was involving chemicals." We had two that in particular that could have cause major off-site consequences if we had a catastrophic failure of one of our bulk storage tanks. One was ammonia and the other was hydrogen fluoride. So prior to that, and again, it was not unique to Fernald, this is nation wide. There really hadn't been a lot of modeling done of what the consequences could have been based on catastrophic failures. So there were some testing done. Uh, the French did some testing and DOE in conjunction with several of the larger petroleum companies did some testing. I don't know, I think ... I believe it was in New Mexico and then the French did some over in France. But they actually started modeling the releases of some of these chemicals and ammonia and HF were two of the primary ones. And they found that the lethal effects of a catastrophic failure or large plume release travel a tremendous distance, much further than anyone had ever really calculated or I guess wanted to admit. So it was easy to postulate that if we would have had a catastrophic failure of one of these tanks, which was approximately 20 thousand water gallons in size, on the site that we could adversely effect the health and possibly even kill people outside the boundaries of the plant. So once we started educating the people to this fact there was much more heightened awareness to the hazards of Fernald. So as a result of that we had to do a tremendous amount of emergency planning.

And once again I had to tie this back to the dust collector release, there was a lot political sensitivity to what was happening at Fernald. There was a lot of public outcry. Basically, the community was enraged. The workforce really did not know what side of the fence they were on, but they were involved also. So, as a result of this, of all this attention we received quit a bit of help from the Ohio Emergency Management Agency, the Department of Energy and we developed a very elaborate emergency response and preparedness plan both for the facility as well as for the community. We helped both Butler and Hamilton County write emergency response plans for hazardous materials and this all occurred over approximately 11- to 14- month period from, uh like mid-1986 through 1987. And the whole process kind of came to a head, I guess you could say, in April of 1987 when we conducted our first multi-jurisdictional emergency response at Fernald. As I said earlier, prior to that time, everything was mostly self-contained. If there was an emergency on site we would deal with it ourselves with our own equipment. There was just very little thought given to the community. In 1986-1987 that changed, we realized that if there was a major emergency we wouldn't be able to do it all by ourselves with the release of chemicals that would require the communities to get involved. So

DOE allowed us to install an off-site emergency warning system. The whole program was closely parallel to the programs that were in place at the nuclear power plants. So rather then having a nuclear power plant, we just adapted a lot of that information and put it into place for a chemical plant. And I think the success of the program can be noted in the fact that Ohio adopted our program as a model for the entire State of Ohio as an example. But anyhow, I'll have to iterate, it just wasn't one facility or one group. It was a teamwork type effort. Hamilton County Emergency Management Agency, Butler County, the Ohio Emergency Management Agency, it's easier to say OEMA, were all involved. But as I said, there were a lot of political interests so we were receiving oversight from Congress, the governor's office, as well as the local officials. So we were able to get a lot accomplished in a very short period of time.

**161229 Interviewer:** Uh, it seems that ... and then you have to involve the community and that is a real shift from the Cold War period where it was secretive and you didn't really know, you know, the community didn't really know what was going on. As you said yourself you didn't know. Do you think that in the future, since this is for the students, say 10 or 20 or 30 years from now, do you think that that is something that will still be important, that kind of community involvement, and what kind of advice can you give?

**161304 Steve:** I think that it is a necessity. If you can watch some of the early clips in 1984 when the dust collector event occurred, it's a perfect case study of management being unprepared to deal with the media or the public. In fact, if you look at some of the comments that were made, they're quite comical at this point of time. It was almost like the entire system, and this includes DOE, were totally ill-prepared. One segment of the government decided we are going to be very open and tell everything and they made that as a snap decision and the rest of the system was still geared toward secrecy. There's always spies watching, so you didn't want to tell anything. It was an interesting conflict of cultures at that time. But during that period, we probably had daily media attention, and that being either one or two of the local television stations on site and quite often the national media to do interviews and things of that nature. But you have to involve the community. I think you are just kidding yourself if you think you can hold secrets back from people any longer. I think it's been proven time and time again that if you just come forward with the truth it is much easier to deal with than beating around the bush and trying to make excuses or cover things up. It just doesn't pay. Typically, you get the problem out in front of people, show them that you are aware of what the problem is and you're knowledgeable and know how to deal with this problem, and tell them what steps you are going to have to take to mitigate it, it usually works out much better.

**161500 Interviewer:** Was there ever a period of time where you didn't have that point of view? Did you point of view change since you worked here during a time of Cold War? How did you make this change?

**161511 Steve:** When the dust collector event occurred I was a supervisor in production at that time, it wasn't in that particular building, but in one of the neighboring buildings. And we had, oh Jiminy, probably 15 dust collectors that were similar in type in out building as the one that leaked. I guess it was one of those things as I when you have these feelings like, "Why is everybody getting so excited?" You know, "What's the problem?" And it's ... you had to go

through this educational process. To basically say, well, take a step back and you can understand why people have this outrage. I can't say I always agreed with all the statements that were made and what people thought the facility was or what it produced. But when you step back and take a look at it you could see how it could be misconstrued. The terminology that was used was not meant to be deceptive, I don't think. It was just terminology that was very descriptive of what the material was used for within its context. But to the average citizen it just appeared to be totally different. So, yeah, I'd say my perspectives changed. I guess I always looked at it, especially looking back now. You couldn't have asked for a better education, public relations or emergency planning or even safety, than you still can get or I was part of that out here. I was very fortunate because a lot of people could only either read about things like this, but we actually went through it and participated in it. I was fortunate to be in the position where I was just kind of right in front of things.

I guess the most humorous event when the emergency preparedness started receiving all this attention was just about the time Westinghouse took over the operation of the facility. My task was starting the emergency preparedness department. I believe that Westinghouse took over in January of 1986 and March is when the political heat really started coming down. So we reorganized and a vice president was assigned to run emergency preparedness and he had a total group of one, being me, at first. And his background was primarily public affairs. I added the emergency planning, emergency response knowledge to the side and he had the public affairs side. It was a very good marriage I think because emergency response, emergency planning can be used as an effective public relations tool for any industry. If you can convince the community that you know what your dangers are, you know how to deal with them and the plans are in place to deal with them, I think their comfort level goes up considerably. Versus going out and saying, "Well, we're really not sure what we're doing."

Part of this emergency response effort also involved strengthening ties with our community emergency response groups; our local fire departments. As far back in history as I have been able to trace it, there have always been formal mutual aid agreements between the local fire department and Fernald. In the fifties and sixties, basically the extent of mutual aid was that we would send a water tanker out when they needed water or fill their self-contained breathing apparatus bottles when they were empty. There was never really any plans to have them come on site. So, in the '80s when we started going through this upgrade we really started looking at the mutual aid agreements, and finally in the early 1990s we changed them to where we had upgraded our emergency response considerably. So we made automatic mutual aid response agreements with the communities and that's functioning very well where our emergency equipment now goes to the scenes of emergencies out in the community on an automatic response. So if Crosby or Ross Township get a house fire alarm our equipment will respond automatically with them. And that probably accounts for 70-80% of the runs the emergency group makes now. It has almost switched to where rather then viewing us as a problem, they have become very dependent upon the emergency services to help the community. And once again tying it back to public relations, I think it's a very effective message that you send to the community when they see a piece of emergency equipment pull up in front of their house and it has Fernald on it and they see very well-trained individuals dealing with the emergency. Uh, we even went one step further when we upgraded our emergency equipment, rather than just having

the typical red equipment, which is common in this area for the fire trucks and ambulances we went with lime yellow. Some people call it slime green, but it is noticeably different. And we did that consciously so people would begin to recognize our equipment out in the community. So it's not a PR ploy, or cover-up or anything, but it's one way to strengthen our ties with the community to show the community that we are not the bad neighbor that everybody perceived us to be.

**162124 Interviewer:** Let me ask you this question, so there ... this is a great example. Could you tell us today, in 2000, almost 2001, what are the emergency issues that you are working on now and how are you working with the community?

**162146 Steve:** Well it's almost an inverse of what it was in 1986. The hazards at the site have gone down tremendously. We no longer have the bulk chemicals that we used to have. The majority of the radioactive material has been removed from the site, so the hazards are dwindling. So the phase we find ourselves in now is helping the community prepare for life after Fernald, much like we're trying to deal with in employees. We're currently working with Ross, Crosby and Morgan townships, preparing them to start thinking of what life is going to be like when we stop providing emergency response services. Ideally, what we would like to get to in the next couple of years is get our emergency response services turned over to the communities and contract with the communities to respond on site. That's probably still a couple of years out, but we are working toward it, so it's another educational process we're going through with them to get their systems up to the level that they feel comfortable responding without any hesitation to anything that would occur on site.

**162304 Interviewer:** But there is going to be ... Two last questions and this is it. Steve said there is a tornado. Tornadoes can occur, uh, Dr. Depoe, in this area. What would be ... could you give us an example of how ... and there is still material that is ... could you give us an example of what a response could be if that would ...?

**162329** Steve: That's always an interesting question that really doesn't have a good answer to it. There's very little you can do to safeguard any industry from a tornado. I think the best response to that type of question is that once a tornado did occur, you would definitely have to go into a recovery phase. One of the redeeming properties of radioactive material is that it's very identifiable, and it's also very easy to identify the amount of risk or danger one is exposed to because it is so easily identifiable. With a chemical a lot of times you can't see it, touch it, taste it or smell it, but with radioactivity as long as you have a meter or some measure you can tell precisely where it is, and what's your dose, or how much hazard you're being exposed. So the recovery phase would essentially be, we would have to send out monitoring teams. Depending upon the magnitude of the tornado, what types of materials or what part of the plant would basically drive the recovery phase. The one nice thing about emergency plans is that you always have the contingencies in place because something of that magnitude would far exceed our resources in order to deal with it. So there would be help received from other DOE facilities, the government's emergency plan would kick into action. And typically it would be no different than in the response you would see to what you typically see the government's response to a

tornado depending on the amount of damage that is done and the resources that are needed. It is an escalating type of thing. It would go through the county, to the state and eventually to the federal level. I would think with something of the political sensitivity that Fernald still has that the government resources would be brought in quite early, but all those plans are in place. There are ways to deal with that and it's just a matter of making sure the telephone calls are made to the right people and getting all these resources turned on. I think you were alluding to how it would be cleaned up. I guess you would have to postulate that there would be bits and pieces of material here, there, and everywhere. Depending on the size of the material, with the proper protective equipment, it can possibly be picked up by hand with a shovel. If there's large areas involved may involve some larger equipment. For the most part, it's really hard to estimate what ... how you would do that but I think you would see anything from a shovel to a piece of heavy equipment.

162645 Interviewer: Anything else you would like to add?

162650 Steve: I can't think of anything else.

**162651 Interviewer:** Oh one other question. People have also asked about how ... Are you involved with the transportation of the waste currently, can you describe some of the other issues you're dealing with now and ...?

**162707 Steve:** Sure, we're currently shipping waste with primarily two methods, one by truck and the other by rail. The rail shipments go from here to Utah. Probably the biggest thing that we do with that is that we track it all the way. The railroads have ways of identifying where the trains are at any given time. The same way with the trucks. They have satellite position identifiers on them so we can pretty well pinpoint where these vehicles are at any given time. We have had some minor problems. Typically what occurs, our emergency center is activated. We are usually in contact with the on-site incident commander. If they have any questions, we try to answer them. If they need any additional resources and request them, we try to help them get those resources. Depending on the size of it, we normally have some people that will respond directly to the scene. In one case, we chartered an aircraft to get people out there in a reasonable amount of time. In all the cases the on-site folks have done a very good job and there are also response teams that are located in various types of the country that are called upon. One of the initiatives that we set out on approximately three years ago is that we provided hazardous materials training for emergency responders and police groups across the country along our shipping routes. DOE has also made that course available via the Internet now so it is readily accessible to anyone willing to download it. The unique thing that we did with this is we took a standardized hazardous materials course and introduced radioactive materials to it. Because dealing with a radioactive hazardous material is no different than dealing with a chemical. It's just a matter of making sure you have the right PPE, personal protective equipment, the right monitoring equipment. And as I had stated earlier, in a lot of ways dealing with radioactive material is much easier than a chemical because you can tell precisely where it is and how dangerous it is.

**162946 Interviewer:** Is there anything you want to add? Do you think you have covered everything? If you had any advice for students what would you like it to be?

**162950 Steve:** The advice would be I don't know, I think the best classroom in the world is experience. You can learn a lot in a classroom, but in a lot of ways you have to get really right into the problem to deal with it. Keep an open mind. There is two sides to every story, and a lot of times the other side is a lot more accurate and correct than the one that you want to believe. So ...

163028 Interviewer: O.k. Thank you.