

ENVIRONMENTAL DATA & GOVERNANCE INITIATIVE

**ETM SBU 007**

Transcript of an Interview

Conducted by

Christopher Sellers

(With Subsequent Corrections and Additions)

INTERVIEWEE: Peter F. Infante

INTERVIEWER: Christopher Sellers

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INTERVIEWER: The first few questions are basic background questions: your age and racial/ethnic identification and gender.

INTERVIEWEE: I'm 75 and I'm white of Italian origin.

INTERVIEWER: Can you summarize your formal education including the years when you got final degrees?

INTERVIEWEE: I went to undergraduate school for three years at a small school in Indiana, St. Joseph's College in Rensselaer, Indiana which was a small, private Catholic school. It's very parochial. From there I went to Ohio State Dental School. After three years, I applied for some various dental schools, got accepted to all of them, went to Ohio State Dental School and I graduated from there, Doctor of Dental Surgery, in 1966. Subsequent to that, I spent the summer in medical school taking courses in nutrition because I was interested in child growth and development. Then, in '66, in the fall, I started a two-year residency in pediatric dentistry at Children's Hospital in Columbus which is part of Ohio State University. I did that for two years and as part of that experience, I took care of kids that had various types of what we called in those days handicapping conditions. Today they say they have various challenges.

This was every morning for two years. I did dental treatment on children with leukemia, children with Christmas disease. It wasn't that far from Lancaster, Pennsylvania. There's a lot of inbreeding in the Amish there so they have a lot of blood disease. Sigafuses and all those like German names, they'd come over to Children's Hospital to be treated for their hemophilia and, of course, the dental work had to be done so sometimes we had to remove teeth so you'd have to do a consultation with hematology and I did. Then we had kids that were mentally retarded for various reasons I took care of.

There was one child who was profoundly mentally retarded from eating paint that peeled off a house when she was maybe a year-and-a-half old. She happened to be a twin and by the time I first saw this patient, she was maybe seven or eight years of age. She came into the dental clinic, was wheeled in, in a wheelchair with a sheet strapping her because she was profoundly retarded. The only reflex, she had a sucking reflex. You could see the bare bone on her thumb just from sucking on it all the time, so she had a terrible malocclusion and she was a twin. Also we treated the twin sister who was a very beautiful young girl at the time and when you looked at the-- This chokes me up still. (pauses) (voice quivering) When you looked at the twin sister, you saw the potential that the other child had and like her life was taken away from her simply from eating lead-based paint that peeled off the house. And we'd known for 200 years before that the problems with lead and paint. It was just so sad. I think that was the final straw that made me want to think of we've got to prevent some of this disease.

It's not good enough to treat it; we've got to try to prevent it. I saw kids with hydrocephalous and kids with cerebral palsy, kids with all kinds of horrible handicapping conditions I did dental work on, but the final straw was this twin and I thought that we need to prevent this. So then I was interested into going into epidemiology to study the causes of disease. I finished my internship in '68 and I did some traveling. I was either going to go to Lebanon or Iran and teach at the time, or Singapore. I had three possibilities but then things didn't work out. I hadn't saved enough money for—I thought all you have to do is pay my subsistence, I'll teach for nothing because I was interested in living in another culture for a while before I went to study epidemiology.

Then I came back in 1970 and went to University of Michigan. I was in the Department of Epidemiology there and got my Master's and then my Doctor in Public Health Epidemiology and I graduated from Michigan in 1973. From there, I worked for the Pan American Health Organization which is the WHO of the Americas. Their headquarters is in Guatemala City. I went down there and I was doing research with a group that was studying Mayan Indians at the time and they were supplementing their diet with atole is the Native Indian drink there, a corn based drink that the Indians in Guatemala drink and they were supplementing with proteins, vitamins and minerals trying to increase child birth weight and reduce infant mortality. They also started supplementing the atole with fluoride, done it for a while, and it was adlib and when you came in, you talk about an experiment, they would record how much atole that the woman took, so it was almost like a laboratory study. They knew the exact amount of vitamins and minerals these women were getting and so they also knew how much fluoride they were getting. So I was down there doing research there in child growth and development because that's the area I wanted to work in. Then things didn't work out there, so I came back in '74 and wrote my reports.

That's a long story why they didn't work out. It's interesting but I won't tell you about that now. Then I was in Columbus, Ohio. I went over and interviewed with State Health Department and they hired me in the Chronic Diseases Department. Also, I was in the Division of Chronic Diseases at the State Health Department in Ohio in 1975 and that's when the vinyl chloride study, the information broke. They found those three workers with this rare angio sarcoma of the liver at I think B.F. Goodrich in Kentucky and it was so rare that you see three cases of angio sarcoma of the liver in a small population that all of a sudden it triggered this concern about, my god, what's going on here. So then Caesar Maltoni came over from Italy and presented information on the experimental studies where inducing tumors in animals with vinyl chloride exposure. They started those studies in '70. Now we're in '75 and I was at the State Health Department, so I said, "Let me look in the communities that have vinyl chloride polymerization facilities and see what's going on there."

So I looked at brain cancer, maybe I looked at leukemias and another cancer and I also looked at the rate of birth defects and I observed that in those three communities with the vinyl chloride polymerization facilities there was this significant increase in birth defects in those communities and I also

pointed out that encephalia and spina bifida which is important because you could have maybe some physician diagnosing club foot more than somebody else, just for example. But when you get encephalia and spina bifida, no one's going to misdiagnose that, so there was a significant increase there. So I did that study and I published that and I was invited to present at a New York Academy of Sciences meeting. After I made that presentation, NIOSH offered me a job.

In 1975, I went to work at NIOSH in Cincinnati. A guy by the name of Joe Wagner, I don't know if you know that name or not, he was the Head Epidemiologist of the Industrywide Studies Branch, a tremendous human being. I worked there for three years with Joe. I mean people would walk on hot coals for this guy or do anything because he was just so concerned about occupational health and put his neck on the line and was into it all the time. When you work for a government agency, and you start to identify hazards, it's like it becomes a social problem because what do you do with that hazard because in order to do something about that hazard, for some public health intervention, you're going to have to cause some change in behavior in the society and when you identify hazards like, well, we need to control it better, so we need to regulate it. Now you're getting involved in regulation and now you're talking about you're affecting companies' economic interests, so things get really tough. I was taught in the School of Public Health you do the study, you identify the problem, you intervene to reduce the exposure, to eliminate or reduce the hazard. Well, it's that third part that's-- Once you identify it, it's not hard to do epidemiology. It's not hard to do the hazard, but now try to implement the knowledge and create some social change, then you start stepping on people's economic ox and, boy, they'll come at you with a vengeance. So, over the years, I've been into it with a lot of the industry.

<T: 10 min>

Because of my benzene study, I've been into it with the petrochemical industry, because of my beryllium study, I've been into it with the metals industry, because of my position on formaldehyde, I raised that issue that IARC study. They weighed formaldehyde and they concluded there was no evidence in animals, so I wrote to the head of IARC because I had been on those working groups. Said 'Look, here's the evidence that's available and they should have concluded that there's sufficient evidence in animals. Here's two positive studies showing a dose response. According to IARC's criteria, this meets sufficient evidence in animals.' So I send that to them and the preface to every monitor says that if you have new information, we want the product to submit it to us. That's what I did. About three weeks later, I'm being removed from the Civil Service for writing to IARC.

INTERVIEWER: So this is 1982?

INTERVIEWEE: 1980, this is right after Reagan was elected.

INTERVIEWER: Or '81.

INTERVIEWEE: '81, yes. In fact, I was invited to be on that IARC working group, but I had a conference so I couldn't go, so I asked one of my subordinates to go and he sat on the working group committee. When he came back, he told me what the results were, so I wrote this letter to IARC and it happened to be on agency letterhead. When the Reaganites came in, in '81, all of a sudden, in 1980 OSHA considered formaldehyde, there was evidence of carcinogenicity based on animal studies. After Reagan was elected, and, in fact, before Reagan was sworn in, there was a joint current intelligence bulletin between NIOSH and OSHA to send out to the occupational health community that there was sufficient evidence that formaldehyde was carcinogenic in experimental animals. After Reagan was elected, all of a sudden, formaldehyde wasn't carcinogenic anymore and the agency is saying because I wrote to IARC on the agency letterhead, they said I was misrepresenting the agency's position on formaldehyde and having done that, that I was also insubordinate because I knew what OSHA's position was and I wrote to IARC saying they need to reconsider their evaluation because I thought the evidence showed there was sufficient –

INTERVIEWER: I want to get to that story in a little bit more detail, but let me look back at you're just entering this new federal agency. I guess NIOSH is what you were into for three years, right?

INTERVIEWEE: Yes, '75 to '78. Then, in '78, I went to OSHA and the reason I did that is I was doing these studies at NIOSH with benzene, with beryllium, identifying these carcinogens, nothing was being done about it, so I thought I'm trained in a school of public health, I think we need to do things that can help identify, help the public, and I thought, so maybe I should go to OSHA where I can help set some standards to regulate some of these chemicals that we're identifying as causing cancer. And I can tell you, doing the epidemiology is simple compared to trying to regulate some of that epidemiological data.

INTERVIEWER: Tell me about this early job you had, starting in 1978 at OSHA. It sounds like your expectations were well now I'm going to really get to apply the kinds of things that I've been studying and bring about the changes that are going to create prevention.

INTERVIEWEE: Exactly, apply that knowledge to help OSHA.

INTERVIEWER: What kind of position did you step into at OSHA? What were your responsibilities, to whom did you report and that kind of thing?

INTERVIEWEE: My first job at OSHA, I was the Director of the Office of Carcinogen Identification and Classification which means the function on paper was to identify and classify substances or agents found in the workplace as to their carcinogenicity but then I also worked on developing the standards as well.

INTERVIEWER: With whom did you work to do this?

INTERVIEWEE: That was the Director of Health Standards, so that's the Director and Federal OSHA that sets permissible exposure limits for toxic chemicals in the workplace.

INTERVIEWER: How big was your office and were there mostly scientists working with you, health practitioners or that kind of thing or did you also have lawyers and policy people?

INTERVIEWEE: That's interesting, because when I got there, they told me I was Director of the office and I had a secretary and I would have to hire the people.

INTERVIEWER: So it was a newly-created position?

INTERVIEWEE: It was there. It wasn't newly-created. It was there. It just hadn't been filled. How long, I don't know if Eula Bingham who was the Assistant Secretary at the time, if she created this health standard with these offices. There were four offices on health standards and I was the director of the one office, Carcinogen Identification and Classification. I don't know how long it had been there and not been filled.

INTERVIEWER: The people you hired, were they scientists?

INTERVIEWEE: Yes. I hired epidemiologists from schools of public health.

INTERVIEWER: So mostly epidemiologists.

INTERVIEWEE: Yes, in my office. I don't know if I had any toxicologists. I think to begin with, I hired all epidemiologists and the kind of prevailing tenor at OSHA at the time was it's called safety and health, but it's really safety, and they hadn't really thought much about health standards. For example, look at injuries and illnesses reporting. It's all injuries and there had been the National Academy of Sciences has meetings over the years, produced documents that they should change the way that the injuries and illnesses are reported to start to report illnesses. Illnesses don't get reported. Of course, one of the reasons was let's say you're exposed to asbestos and you're going to develop mesothelioma, you've already retired by the time-- It's got a long latency.

INTERVIEWER: So it takes a while for the health to even show up.

INTERVIEWEE: Yes, but let's say you work at a refinery and you're exposed to benzene and you develop leukemia, the company's not going to put that down as a work-related leukemia because people aren't exposed to benzene and get leukemia. How do you know what it is? So if it's not a marker cancer, it never gets reported.

**<T: 20 min>**

INTERVIEWER: But this seems like with bringing you in and having at least your wing of the Standards Office developed to carcinogens that they're starting to try at least and build in more health considerations into what OSHA is doing.

INTERVIEWEE: Yes, exactly. Eula Bingham, I think she was the stimulus for that. She succeeded Mort Corn who was an industrial hygienist who was at Johns Hopkins if he hasn't retired, and so all the industrial hygienists, they always think about maybe measuring air, taking air samples or thinking about safety hazards. There's not much focus on health.

INTERVIEWER: In terms of the regulations, you guys had your office, you were classifying various chemicals. What about your work in influencing the standard setting? Could you tell me a little about that in the Bingham time?

INTERVIEWEE: Before I got to OSHA, Eula was there and they started regulating substances. They had the 14 carcinogen standards. One eventually got thrown out, MoCa, but there was one standard which probably comprises about 10 pages of the Federal Register regulating 13 carcinogens to the lowest feasible limit. Thirteen, the one regulation, ten pages, today ten pages barely introduces the risk assessment in the Federal Register. With benzene standard, I suppose it's about 100 and some pages at least, quite a long section on risk assessment, so Eula was interested in, among other things, regulating carcinogens, so there was emphasis on that and what role that I had, I was evaluating the epidemiological evidence. My office was responsible for that, plus I was also working on standards because they'd come from NIOSH, like OSHA had been sitting on a beryllium standard. It was a Friday I think it finally issued.

INTERVIEWER: Yes, they got it out very recently. That was the same one?

INTERVIEWEE: Yes. There had been a proposal at OSHA in '74 or '75 before I got there, so then when I was at OSHA, we issued it. Was I still at OSHA? No. I got to OSHA in '78, so I think OSHA proposed a beryllium standard in '78 while I was still at NIOSH because I testified before OSHA as a NIOSH employee. Then, when I went to OSHA, I was helping with developing that standard, evaluating all the epidemiology and all.

INTERVIEWER: Then you would be in meetings where you would talk about how this translates into what the language of the standard says and you would sort of present the epidemiological—

INTERVIEWEE: We would make recommendations about the exposure conditions based on the evidence.

INTERVIEWER: So your influence on the standards was the exposure levels, right?

INTERVIEWEE: Not the exposure level, but the evidence, the carcinogenicity, because the exposure level gets to the Office of Regulatory Analysis once you determine what that exposure level should-- First of all, up until 1981, for any carcinogen, it was OSHA's policy to go to the lowest feasible limit. That was also NIOSH's policy. But after the Supreme Court decision on benzene which came out in 1980, the whole game changed because the Supreme Court, in a split decision, it was 4-4-1, said that they didn't deny that OSHA had evidence that benzene caused leukemia, but OSHA didn't make a showing of how much leukemia would be caused at the old exposure limit of ten parts per million and then how many lives would be saved by reducing that limit to one part per million.

So it said that the Secretary of Labor had an obligation to make that determination. That's when they said, well, clearly a risk of 1 in a million, you wouldn't do anything about, but a risk of 1 in 1,000, you would clearly take steps to prevent that hazard. Well, 1 in 1,000, that's what OSHA now gets down to. That was like the worst case under the Supreme Court's decision, so OSHA considers any risk of 1 in 1,000 over an occupational lifetime a



significant risk that needs to be reduced, but significant risk, 1 in 1,000, but OSHA has rarely gotten to a risk level that low. With the benzene standard, we bottomed out on economic feasibility and we left the risk at the one part per million limit was ten per thousand. That's one percent. It was OSHA's conclusion that it wasn't economically feasible to go any lower because when you set a standard, it has to be based on what's feasible. Feasibility means both technological feasibility and you have to be able to measure at that level and it means economic feasibility.

INTERVIEWER: There's a whole other set of complications that now you have to figure in.

INTERVIEWEE: Yes.

INTERVIEWER: The Supreme Court reasoning in 1980.

INTERVIEWEE: Yes, so then we had to do quantitative risk assessment after that decision. So until that time, it would go to the lowest feasible limit, so then you also have regulatory analysis determining, look at the economic data. It was always given to us by industry so you're using their economic data and so that way I didn't determine the exposure because I don't know engineering controls that well, so they would have to determine what's the lowest feasible limit based on technological feasibility which is less complex and economic feasibility which is a—

INTERVIEWER: A whole other ball of wax.

INTERVIEWEE: But then after the 1980 decision, then the agency at least interpreted that decision as saying we need to do quantitative risk assessment. What is the risk let's say of cancer at the current limit and what is the risk of cancer that would result from the new exposure limit and can that risk be significantly reduced between current and what you recommend? So that's what OSHA's been doing since the Supreme Court decision. It's been doing quantitative risk assessment. So there, like with benzene, it would say clearly based on OSHA's policy, the exposure limit should not have been higher than .1 part per million because at .1 part per million, over an occupational lifetime, OSHA's risk assessment, the final risk assessment, showed a risk of 1 in 1,000 extra leukemia deaths at .1 part per million. So you give that information to the Office of Regulatory Analysis, and they're down there trying to figure out-- So they conclude that you couldn't get below one part per million. So, you see, they come up with the number.

INTERVIEWER: So that's maybe more determinative is their decision based on these other considerations.

INTERVIEWEE: Yes, and the entire, most of the petrochemical, the refineries and all, they were clearly down to .2 parts per million at the time.

INTERVIEWER: I know that the actual exposures, they actually brought the data suggesting it was, indeed, economically, technologically feasible.

**<T: 30 min>**

INTERVIEWEE: In 1987 we finally, it was 10 years before we got the new standard and then we had to be sued by public citizen, so we finally got the new standard of 1

part per million, but that's 1987 and my point is by 1987, and this is even testimony from people that worked for Gulf Oil and others at the hearing, that their average exposures in refineries were like around .2 parts per million or lower, so how is it only feasible to get down to 1 because you know what happened, OSHA did an illegal cost/benefit analysis which they weren't supposed to do that the Supreme Court in the Cotton Dust decision said that OSHA was not required to do a cost/benefit analysis because it wasn't part of the act, so now OSHA decides, well, rather than cost/benefit analysis, we're going to cost effective analysis. That was when Thorne Auchter came up with in the Reagan Administration.

INTERVIEWER: We're getting a little off on this because I'm interested in benzene and that stuff but let me get back to the questions that we're trying to ask of everyone. This has more to do with the transition and I think you've really thought about a lot and written it down, so you have, according to your article, a clear sense of what the transition as like in the Reagan Administration. Let me back up and say you were in OSHA all the way up until 2002, right?

INTERVIEWEE: Yes.

INTERVIEWER: So you saw not just that but several other transitions.

INTERVIEWEE: Yes.

INTERVIEWER: Did you change around in terms of your office or were you always in the same place?

INTERVIEWEE: The office name changed in '82 or '83 to the Office of Standards Review but I was always in Health Standards helping to develop standards, doing analyses of epidemiological data plus looking at the toxicological data, so essentially my job was the same for the 24 years at OSHA in the Director of Health Standards.

INTERVIEWER: That's great because you can really give us some insights into how things changed in the different transitions but let's start with the Reagan transition since that was, sounds like in many ways the most dramatic in terms of changes it brought it what you were doing. I get a sense first of all that you were brought in because of the respect for science in the agency and the commitment in Eula Bingham's administration to have health scientists' input, more of it in the decision-making and so on.

INTERVIEWEE: There weren't any epidemiologists at OSHA that I'm aware of.

INTERVIEWER: You were the first epidemiologist?

INTERVIEWEE: Joe Wagner went there from NIOSH before I did. Joe was my immediate supervisor at NIOSH. He was the head of the industry-wide studies branch and an epidemiologist trained at Harvard, very good epidemiologist. He went there first and I think he was a special assistant to the Assistant Secretary. Subsequent to that, I went to OSHA and then I started hiring epidemiologists. There were none.

INTERVIEWER: So that itself is a change that you arrived and Wagner and so on.

INTERVIEWEE: Yes. We had another one, Bill Lloyd. I think he was at the University of Pittsburgh School of Public Health, then he was at NIOSH, then he came to OSHA also when Eula was Assistant Secretary.

INTERVIEWER: I'm interested in your perceptions or your memories about changing status and role of science as we moved into the Reagan Administration. I'm trying to not exactly ask what you talked about in your piece because we have that, you've written it out, but what about the ways that science and scientists were treated in the wing of OSHA that you were a part of?

INTERVIEWEE: Well, when you say the way scientists were treated, I guess you could say the way science was treated. It's like if the new administration didn't want to regulate anything, then something that was a carcinogen at one time wasn't later like formaldehyde for example. All of a sudden, the agency had a policy that where in 1980 it was carcinogenic, in '81 it wasn't. I didn't know anything about this policy and where did it come up with, the Deputy Assistant Secretary for OSHA, Mark Cowan, who I think was detailed over from the CIA as I recall, he had a meeting with John Byington who was legal counsel for the Formaldehyde Institute and at that meeting, these two attorneys decided that formaldehyde wasn't carcinogenic, so that became OSHA's policy so it doesn't make any difference what the scientists had to say in the agency or anyplace else.

INTERVIEWER: The Formaldehyde Institute being an industry-run institute?

INTERVIEWEE: It was a trade association, the Formaldehyde Institute. At the time, there was all this urea formaldehyde foam insulation being put into homes. Even the Canadian Government required you got a tax break if you put urea formaldehyde insulation foam in your house but then you come out with all this new information in 1980 and '81 that it's carcinogenic, it's like, whoa, that's a big industry!

INTERVIEWER: So with the formaldehyde issue, they decided this and then what was the impact on you in terms of your work? You were looking at the emerging science, and then you have these guys saying-- Tell me a little bit about that. How did that conflict unfold?

INTERVIEWEE: I think I have some of that in the—

INTERVIEWER: Anything you want to add.

INTERVIEWEE: I can't remember exactly what's in there. Like I said, I wrote to IARC and said 'You need to reconsider your evaluation.' That was in '81 after Reagan was in the White House. Since the Deputy Assistant Secretary and the Legal Counsel from the Formaldehyde Institute said that they had an opinion it wasn't carcinogenic, therefore, they thought, you know, Infante's causing problems because the letters-- Then I got this two-week notice I was being removed from the Civil Service for writing on agency letterhead that IARC needed to re-evaluate the data on formaldehyde, which they did in six months and concluded there was sufficient evidence. They've never done that before that and they never have done it after that. Six months later do a new monograph, hasn't happened except for formaldehyde. So I was being removed from the Civil Service for writing to IARC because Thorne Auchter

who was the head of OSHA at the time said 'Well, it was their policy that formaldehyde was not carcinogenic.' So I, of course, fought that.

INTERVIEWER: I understand from the piece that there was a set of hearings that were called by Al Gore, right?

<T: 40 min>

INTERVIEWEE: Al Gore was Chairman of the House Committee on Science and Technology and he just happened to be doing oversight hearings on OSHA at the time, so he sent a letter to Auchter saying that you should be prepared to discuss my proposed firing, saying that if they removed me from the Civil Service, that it would be a clear indication to all of those who did their job would lose their job. There'd be a clear notice to all civil servants that those who do their job would lose their job. So then Thorne Auchter goes over and Gore had held a two-day hearing and the first thing they said at the hearing was that they really couldn't discuss it in public because it was a personnel matter and because of my rights to privacy it couldn't be discussed before the U.S. House. My attorney stood up, he was in the audience, and said I was his client and his client waived his rights of privacy so they could discuss it. So this hearing went on for two days. That's the only reason I would maintain my job was because then Gore had the head of the National Cancer Institute, the head of the National Institute of Environmental Health Sciences, the director of another federal agency, they all testified before Gore that, in their opinion, there was sufficient evidence in animals that formaldehyde caused cancer.

INTERVIEWER: So a lot of it revolved around the scientific evidence from formaldehyde.

INTERVIEWEE: Yes.

INTERVIEWER: That was really the crux of the debate rather than, oh, Infante did X, Y, Z.

INTERVIEWEE: No. What OSHA said was that it was OSHA's policy now, this new policy that no one knew of, that formaldehyde wasn't carcinogenic. The industry wanted me out of the organization because I'd been outspoken. Attached to my dismissal letter is a letter from the Formaldehyde Institute saying 'can you control members of the bureaucracy that seem to be moving freely within and outside of government. Infante testified before EPA at their formaldehyde hearing and went up and testified in Canada,' and that OSHA needed to control members of the bureaucracy. So then they decided, well, I had to go, went beyond the agency.

INTERVIEWER: You were an example that they were going to sort of use to bring the rest of the agency under—

INTERVIEWEE: To intimidate.

INTERVIEWER: To intimidate and it didn't work. One of the questions I have about that is why did you stay on if you're getting all this?

INTERVIEWEE: After Gore's hearing, the head of the agency said it was my immediate supervisor's idea to fire me. My immediate supervisor said it was the agency's idea to fire me, so they're both under oath, so they said 'oh, they

must be perjuring themselves,' so he reported to the Justice Department to evaluate their testimony for perjury and what do you know, two weeks later, I get this letter from Auchter, and I've got all these letters and stuff, saying that they really couldn't find evidence that I was guilty as charged so they rescinded.

INTERVIEWER: So they rescinded but there was this episode and then you talk about other episodes too of pressure that you were under and so I guess what I'm looking for is why did you stay on if your immediate superiors were applying so much pressure to keep you from doing what you thought you ought to do?

INTERVIEWEE: I just kept doing it. I wasn't intimidated by them. It just upset me that they would try to prostitute the science when there was clear evidence of a cancer hazard in various situations and I thought, you know, I'm trained at a school of public health, I've come to OSHA to help them develop health standards to reduce disease and death in the workplace; I'm committed to the blue collar worker. I'm not going to let some political appointees run me out of the agency just because they have a political agenda. I felt if I leave, who's going to help do this. If I leave, it's like they went after me; I was a big fish to fry. It's like isn't everyone else going to put their tail between their legs in the agency and be scared? So I thought I'm going to stay there and develop standards. That's what I went there to do. And if they don't want to develop standards, they're going to hear from me all the time if they make the wrong decisions.

INTERVIEWER: After that conflict played out, it sounds like this was an early episode of conflict but there were others, did you see any trajectory through the Reagan Administration in terms of whether the pressure was lessened or about the same? How did things go in subsequent years? Did back off after that?

INTERVIEWEE: No. They didn't back off. I was a personnel matter. I was someone who was a thorn in the community that should be rid. I was a thorn in their side, just like Tony Robbins, he got fired, there were several people on this supposed hit list that all lost their jobs except I didn't. Thank god for Albert Gore's hearing.

INTERVIEWER: This is in OSHA you're talking about or is this also EPA?

INTERVIEWEE: Yes, in other places. What did they do? Well, of course, then the other thing is they want less focus on engineering controls. Then let's just put people on respirators. That way we don't have to reduce permissible exposure levels. That was a new philosophy that thank god there are decent people in regulatory agencies that are smart and are trying to do the right thing and they just internally argued about these things to the point that it wasn't as bad and there was plenty of deregulation but not as bad as it would have been if you didn't have people that were very conscientious. And, to me, that is the big thing right now in this transition period. How do you protect the conscientious people in the agency? If they express the opinions that they should, how do you protect them, keep them on the job? Otherwise all the smart, aggressive people, they're not going to be there and then how does a regulatory agency function because you leave a regulatory agency in the midst of an administration, like what happens if they fired me, where would I

get a job? I can't go to the National Cancer Institute because I'm a hot potato. I was just fired by the Reagan Administration. I might adversely affect their ability to get grants from the government because they have me there. I can't go to academia and teach because I might adversely affect their ability to get contracts from the government, so where do I go? So I went and interviewed at Georgetown, at dental schools, Howard, trying to apply there for jobs.

INTERVIEWER: So you did look around.

INTERVIEWEE: Yes, well, before I realized I wasn't going to be fired, I did look around, yes, because I thought I'm going to be without a job; I won't be able to function as an epidemiologist because I'm too much of a hot potato.

INTERVIEWER: Did the people underneath you, the epidemiologists that you hired also feel that pressure that you felt during this period, let's say '81-'82?

INTERVIEWEE: They weren't attacked the way I was but there were analyses that they did later on themselves related to maybe chromium and other things that the Assistant Secretary didn't like the results of but they wouldn't go after them personally. They might just refuse to look at it or send it to industry and get another view on it, so I think after they tried to fire me and were unsuccessful I don't think that they wanted to challenge me again or challenge my staff because I would have been right there if they would have tried to do anything to my staff, so you do it more surreptitiously. They got back at me like when they do performance appraisals, this is one way the government can work, they can give you a poor performance appraisal and then put you on a performance improvement plan, PIC you. Then, if your performance doesn't improve, then, 'Oh, we're sorry, we have to remove you from the civil service,' see, not challenge you on the science, get you some other way. So they didn't give me a poor performance, well, I thought it was relatively poor. They gave me a "fully successful." You have Outstanding, Highly Effective, Fully Successful, and then there's one below Fully Successful which means you need to improve your performance. They didn't put me to that but they put me to this Fully Successful and yet other Office Directors were getting Outstanding and your pay, you get merit pay that could be based on your performance appraisal. And, in fact, I appealed. This is a couple years later, kept getting these performance appraisals that were just Fully Successful and other people were getting higher ones, so I appealed it. Thorne Auchter brings in an attorney that he hires to—

INTERVIEWER: Defend it?

INTERVIEWEE: No, to question me about it, to do an investigation for the agency because I'm saying I filed a grievance that I should have a higher performance appraisal because it was just as good as others who were getting Outstanding. Well, he brings in this attorney, guy had retired from somewhere in government. He questions me, talks to other people in the agency, does this report and he concludes that my performance appraisal should be upgraded and he's hired by the Assistant Secretary! So what happens, it gets to Thorne Auchter and so he recommends that Auchter upgrade my performance appraisal. It gets to Thorne Auchter says 'I'm the final decision maker and this is only advisory, so I don't have to accept it,' so

he doesn't, but all the bullshit things for why they gave me Fully Successful, I totally contradicted them with evidence and that's why this guy, it was Auchter's guy he brought in, he agrees with me that it would be upgraded. So, you see, it's things like that they do. I just heard yesterday that there's this new interpretation of some government act that they can reduce a government employee's pay to one dollar. They can't fire you. Have you heard that?

INTERVIEWER: Is that the Holman Rule? I've heard about this.

INTERVIEWER: From the Sixties or something.

INTERVIEWER: 1970s.

INTERVIEWEE: I brought it up recently. I think it had to do with wild horses in Wyoming or something. Somebody just told me last night that they can reduce your pay to one dollar. They can't fire you though.

INTERVIEWER: Was there a union involved when you were going through this?

INTERVIEWEE: Yes, but I'm not part of the union because I'm part of management. I'm not part of the bargaining unit because I'm management.

INTERVIEWER: You were one of the managers, so you couldn't partake of that. What about the epidemiologists you hired, were they a part of the union?

INTERVIEWEE: Yes. They would be union.

**<T: 50 min>**

INTERVIEWER: You were a career person, not a political appointee, correct?

INTERVIEWEE: Right. Yes, civil service. I was not senior executive service. Senior I guess that's still civil service, but once you're in senior executive service, you're functioning as an administrator so they can move you anywhere. I wanted to stay in Health Standards. I didn't want to go be some Regional Director in Alaska or some other place they might have sent me like they've done to other people.

INTERVIEWER: The tradeoff is, if I understand correctly that they can move you anywhere but they can't fire you once you get to that level, right?

INTERVIEWEE: If you're the senior executive service, you're then functioning as a senior executive, so wherever they need a senior executive, they can assign you to that area. That's part of it. So I wasn't at that level. I went in as a GS 15 which is the highest level civil service outside of senior executive service and I stayed that my whole 24 years. That's why I did not want to get into senior executive service.

INTERVIEWER: So you resisted promotions?

INTERVIEWEE: I got step increases. I was at the highest level of the GS15 when I left but no, I did not want to go to the senior executive service, nor the one time they offered me I could be a special assistant to the Assistant Secretary.

INTERVIEWER: That's a political appointee, right?

INTERVIEWEE: Right. That's a political position. I said 'No thank you.' 'Well, it would be prestigious.' 'No, that's okay. I'll do without the prestige. I'd rather stay here and do science.' And it's a good thing because then another Republican Administration came in and you knew in about a week-and-a-half before it was expected to—

INTERVIEWER: That was the Clinton Administration leaving that you were offered that?

INTERVIEWEE: Just before Bush. Was that Clinton?

INTERVIEWER: Before Bush two, yes.

INTERVIEWEE: Before Bush two. Actually in Bush one we got some standards out thanks to lawsuits. It's like public citizens essentially set the OSHA health standards agenda by filing lawsuits and they would have the unions also, but they developed a petition and who knows when we would have finished the benzene standard. I just sent you a document on ethaline oxide that was written. I think it's very informative to give you an idea of how government agencies work and the give and take between the staff and the political appointees and this article is written by David [Flaticon], Public Citizens Litigation Group. That was the group that sued OSHA to develop an ethaline oxide standard because we were petitioned for an emergency standard and OSHA responded like it always does, well, they'll never issue an emergency standard anyway, so what we'll do is 6B standard and it can be 10 years later they're still working on the 6B standard for a while and then just assign that person working on it to something else. Never gets anywhere. So public citizen set our agenda during the first Reagan Administration for a lot of good standards that we got out because once we were allowed to work on them, I think the staff did a very good job.

INTERVIEWER: The next question I was going to ask you is about survival strategies. How do you keep your sense of agency mission going in the face of this kind of pressure? It sounds like one of those ways would be the lawsuits that come along that spur the agency to go ahead and set standards.

INTERVIEWEE: Exactly. Then the judge gives court-ordered deadlines; we have to get this stuff done by this date.

INTERVIEWER: And the lawsuit is setting the deadlines.

INTERVIEWEE: Yes.

INTERVIEWER: As opposed to delaying which seems to be one of their tactics.

INTERVIEWEE: Right. Then there's a deadline; you can't slip it.

INTERVIEWER: Other sort of survival strategies for agency mission in the Reagan period that enabled you to keep doing your job? Other things occur to you about how the support you might have gotten outside or inside that mattered?

INTERVIEWEE: Also, the unions. For example, when Reagan came in, we had this informational bulletin. We had 10,000 copies to distribute to the occupational health committee on byssinosis, talking about cotton dust, chronic lung disease, and on the cover of the pamphlet was a worker with byssinosis. So when Thorne Auchter comes in, in the Reagan Administration, he embargoes the 10,000 copies, says we are not to send them out because it was like we shouldn't be sending out a picture of this individual that had



cotton dust disease. It was being too much of an advocate for the agency, so he embargoes the 10,000 copies. So what happens, finally I think there was, was there a lawsuit about that? It finally came to be that it was the government printing office that printed all these and he didn't have a right to embargo them.

INTERVIEWER: There was lawsuit proceeding?

INTERVIEWEE: I can't remember how it came about. It might have been a lawsuit. I'll tell you who to talk to about it, Loretta Shuman. She'll remember that. [...] She's retired. She worked with me in OSHA also and you can tell her I referred you to her and what you're doing.

INTERVIEWER: Let me understand that just a little bit better. A government agency printed out all the flyers.

INTERVIEWEE: The government printing office prints out all the documents, Federal Register, Final Standards proposals.

INTERVIEWER: And there's no authority to monitor them in how they distribute it?

INTERVIEWEE: OSHA was going to distribute it but he embargoed them and wouldn't allow the office at OSHA that distributes these things to mail them out. I guess it was being too much of an advocate for occupational health.

INTERVIEWER: Raising too much awareness or something.

INTERVIEWEE: The other thing when Reagan came in was that they wanted to have more standards rather than, like I mentioned before, rather than engineering controls, workers in respirators so we even had these badges. What did they say? I'll have to look for some.

INTERVIEWER: Was that a matter of some of the rules that were made or standards that were put out?

**<T: 60 min>**

INTERVIEWEE: Policy. They wanted to do that but the general OSHA policy was through engineering controls, protect every man and woman in the workplace to the extent feasible. Feasible meaning the technological and economic feasibility, to the extent feasible, and OSHA has always interpreted that feasibility through engineering controls. It was changing the policy to now just put workers in respirators but there's so many situations where workers can't communicate with each other in respirators, can't wear them in confined spaces. It's not the way to operate. There are a lot of people who can't wear a respirator, can't get a good fit so they had to change that policy.

INTERVIEWER: It also puts the burden, a lot of it, on the worker themselves as opposed to the people who run the workplace.

INTERVIEWEE: Yes. Then there were other standards that were promulgated at the end of the Bingham Administration, so this is Carter that when Auchter came in, there were some of them that had effected implementation dates after, because a lot of times they don't take place for 60 or 90 days after published

in the Federal Register and I think he stayed some of those standards too. I can't remember.

INTERVIEWER: The Reagan Administration.

INTERVIEWEE: Reagan Administration, yes.

INTERVIEWER: Auchter, when he came in, or I guess there was a transition and then Auchter —

INTERVIEWEE: No because of when Auchter came in.

INTERVIEWER: Just to throw this in the mix also, one more question on Reagan times. In EPA, we understand there was a kind of reversal after a couple of years and Ruckelshaus came in, they brought the guy who headed the agency initially, and the mission of the agency was kind of restored to where it had been in a lot of ways, but I get the sense from what I've seen and from what you've said that this didn't really happen at OSHA, there was not this kind of sense that suddenly now we've gotten back to where we were, that OSHA, through the entire Reagan Administration, was kind of under—

INTERVIEWEE: Siege, yes exactly.

INTERVIEWER: Is that correct?

INTERVIEWEE: Yes.

INTERVIEWER: Let me then just ask about your sense of changes that happened once Reagan left and I'm thinking both Bush one and the Clinton Administration. How do you see those two transitions as affecting the kinds of considerations we've been talking about, the pressures on you in getting the standards written and getting the science assessed?

INTERVIEWEE: In the Reagan Administration, I think Auchter left the agency around '83 or '84. Then a guy by the name of Roland came in. He was an interim appointee meaning that he didn't require senate confirmation. You could only serve a year as an interim appointee and when it came up after a year that he would have had to undergo senate confirmation, he stepped down. In fact, he held a lot of stock I believe in petrochemicals. He was from Texas or somewhere. The petrochemical industry was big and that's probably why he got appointed, right. He was probably anti OSHA regulation so things were terrible with him but the staff just fought hard and my point is that there are these people and regulatory agencies that are totally ignored by the public that are good scientists, work hard, want to do the right thing, and they have no protection. I mentioned the one guy that issued citations at Coors and he got removed. He was a compliance officer and he was removed from his job essentially because Joe Coors complained to the Deputy Assistant Secretary that I don't know how many thousand dollars' worth of citations at the Coors brewery out in Colorado, so that we'll take care of him, we'll fire him. That's what they did.

It took like two years for him to get reinstated and I've seen these letters from Joe Coors or was it from the Deputy, the guy that came from the CIA, Mark Cowan, to Coors talking about what a truly great-- They wanted to thank him for wining and dining him out in Colorado and what a truly great American he was and all this stuff. It was sickening. Then, after that, this

guy, he's not a compliance officer anymore; he's fired and he finally got his job back but after two years. What do you do? You've got a wife and family and no income. What do you live on? So my point is if you do the job that you think you should do, and if you're outspoken about it, you're a fly in the ointment, they're going to want to get rid of you, and they have no protection really. Now with this new thing about you could reduce their pay to a dollar is only supposed to be used judiciously, just part of the further aspect of how government employees can be intimidated into doing what the master wants them to do rather than functioning as an agency scientist saying we need to advise the Assistant Secretary so that he or she can make the right decisions or have information and we'd always show both sides of the coin. We would present these action memos to them.

INTERVIEWER: Pro and con kind of thing.

INTERVIEWEE: Yes, exactly. We did it on a lot of different issues but if you're outspoken about it, then you're kind of like a pain in the side, so what can we do to get rid of you. Why don't we transfer you to another office? Why don't we give you a poor performance appraisal? That's the intimidation that happens and how is public health in this country practiced? Well, if it's through regulatory agencies, through what EPA does, OSHA does, FDA does, you can just intimidate these employees and now through Republican controlled House and Senate-- With Gore the Democrats were the majority in the House. He was chairman and he could hold a hearing on it.

INTERVIEWER: The difference today is you don't have the Democrats in control of the committees so they can't call the hearings or it's much harder for them to do that.

INTERVIEWEE: Right. Yes, they won't do it.

INTERVIEWER: Before we get on to more general discussion about today, I did want to ask you about the Bush two Administration since that seems to be when you had had enough, when you did leave so I'll ask how did you see the transition there from Clinton to Bush two as differing from the Reagan transition?

INTERVIEWEE: Well, I think it was a cumulative thing by that time.

INTERVIEWER: For your own perspective of it.

**<T: 70 min>**

INTERVIEWEE: For me, why I left. It was a cumulative thing but one thing that really irked me was that for the agency I had developed this hazard information bulletin on beryllium exposure in dental laboratories because I think it's the most toxic substance that we know of in the occupational setting. They just lowered the standard but until they did that, it was two micrograms per cubic meter. That's what it was. Put that number in your head. There are workers that have exposure, their cumulative exposure to beryllium was 2 micrograms per cubic meter days, that means you multiply, let's say it was .2 and they were exposed for 10 days, that would be 2 micrograms per cubic meter days, .2 times 10. There are cases of chronic beryllium disease

reported in workers that had only 2 microgram per cubic meter days of exposure and less, so I thought I know of no substance in the occupational setting or anywhere else where when you're exposed to an amount that's allowed in one day of the standard you can develop a potentially fatal disease. I published a commentary in the Lancet on that the year after I left OSHA because I was so upset.

So anyway, I'm doing this current intelligence bulletin. I have NIOSH review it. I thought, gee, I got a lot of compliments back from NIOSH on it. I thought, god, I couldn't believe OSHA did this so fast. So I incorporated all of their comments, so thing's ready, as far as I'm concerned, it was ready to be published. Well, they have to show it to the sole manufacturer of beryllium in the United States, Brush Wellman, at the time. They showed it to their industrial hygienist in position. Well, they have all kinds of issues with it, so they talked to the Assistant Secretary or his deputy and then they send the stuff back to me and I have to defend it, so I do and I rebut it all. But then the final straw was that there's one test that can identify beryllium sensitized individuals, this is people before they have the beryllium disease because before you develop beryllium disease, you have to become sensitized to beryllium. So if you do the screening test to identify beryllium sensitization, you can remove those people from further exposure and you can monitor them periodically to see if they start getting to a point where they're having difficulty with their lung function because that means then they would be going into chronic beryllium disease because you've got all these granulomas in your lungs so you can't exchange air real well.

You can start maybe treating them with the best available treatments like steroids or whatever, so you monitor them to see. Well, when the Hazard Information Bulletin is all finished, and I think it's ready to go, then the Brush Wellman sends more comments to the agency saying that 'Well we don't want OSHA to recommend that the beryllium lymphocyte proliferation test be used to screen people exposed to beryllium because we think there's no public health efficacy that's been demonstrated for that test.' And why did they want us not to recommend the test is because they didn't want people with beryllium disease to be identified because once you move away from the place you develop this choric disease later, many physicians say that they wouldn't know you have chronic beryllium disease. Quite often it's diagnosed as being sarcoidosis which is another granuloma that's lung disease.

INTERVIEWER: So you lose all trace of all these people who have already been sensitized to it.

INTERVIEWEE: Yes. So the company obviously didn't want OSHA to recommend this test. I was recommending that dental lab techs that use beryllium alloys be offered this test. So they said no. And they said it lacked efficacy. What's that based on, the lack of efficacy? It's based on an article that was published by Brush Wellman's corporate medical physician with no analysis for how it lacked efficacy but that was his opinion, so they're only—

INTERVIEWER: They said it in print that it lacked efficacy.

INTERVIEWEE: Yes. It was an article that he published, said 'we don't know because there are some that are positive and later on they're negative so there may be too many false positives with it,' but not really rigorous analysis, nor defining what sufficient efficacy would mean in the paper. So I called, there were only three people at the time in the United States, the three major researchers on beryllium and chronic beryllium disease, Lee Newman, at the time, National Jewish, Kay Christ, Morgantown, and a third guy who's at the University of Pennsylvania whose name is escaping me right now. I called these three physicians and they were doing research for Brush too in their facilities, and they said 'absolutely we all recommend that OSHA recommend that this test be done.' But then before OSHA will release the Hazardous Information Bulletin, I have to put a footnote that there is contrary opinion about whether or not the beryllium lymphocyte proliferation test is really efficacious, otherwise they won't allow the bulletin to be released. There were dental lab technicians been diagnosed, there were case reports with chronic beryllium disease so I was livid about that. So I put the footnote as they do and I say there's one report by the corporate medical director for Brush Wellman, I thought let's be up-front, put it in there, that says this test shouldn't be offered. I attribute it to him and I didn't like having to put that in but they never would have released the bulletin.

INTERVIEWER: The timing was the early 2000s?

INTERVIEWEE: 2002. And then here's the thing, the reason that disturbed me is because let's say you're a dental lab technician, some of these are just mom and pop shops. They're not big places and if you look at, gee, if you're exposed to beryllium maybe you should have the beryllium lymphocyte proliferation test which may cost \$300, that's a lot of money to some of these small places. Well, I'd do it but look, here's a report that says it really isn't beneficial. So what are you going to do? You're going to spend the \$300 or not. Some people would say 'well, you should use it and here's another group that says you shouldn't.'

INTERVIEWER: That gets into the whole it's not really conclusive.

INTERVIEWEE: Exactly. Well, I don't see any sense then in spending the money. That's what it amounts to and that's what I was furious about.

INTERVIEWER: That was the main reason?

INTERVIEWEE: It was the last straw. Well, there were two last straws, that and then there was this whole issue about OSHA I think not doing enough inspections and workers that were exposed to asbestos who were doing brake linings and so the woman from public affairs would come down and ask me about the data and all that and I'd tell her what it was and she was very good at putting out two half-truths to the public because there'd be press inquiries about it that when you put the two half-truths together it was a lie. Bonnie Friedman was her name. It's all on record.

INTERVIEWER: Some of this is in your article I guess.

INTERVIEWEE: No.

INTERVIEWER: It sounds like also in this time there was sort of a public affairs office that was a part of what they were trying, the kind of manipulation of your

scientific process and recommendations, that it was not just the administrator. It was also this public front from the agency.

INTERVIEWEE: Well, the public front was operating under the direction of the Assistant Secretary, so they've got the PR person in there to spin stuff so that when OSHA would be asked about 'hey, is this a hazard,' by the press it's like 'well, it's really not so bad. We don't have enough information.' They just put out information that was just wrong and misinforming the public and I would say between those two things it was like I couldn't take it anymore. I wanted to stay at the agency until we finished the beryllium standard because I felt obligated to those workers exposed to beryllium because it's so toxic. You see now, what is it, 2017, it just got out. That's 15 years ago I left. And that's why I felt badly to leave but I thought I just can't. I just couldn't take the misrepresentation of the science to the public.

<T: 80 min>

INTERVIEWER: It seems like that's a little bit of a different concern than what I heard from the early Reagan times, how they were actually writing the regulations less than sort of misrepresentation of public. Am I correct in hearing that?

INTERVIEWEE: That's a good question you asked me because when Reagan came in, OSHA and the Bingham

Administration had done some real good standards. They did coke oven emissions, they did lead, they did benzene, Eula Bingham's. Let's go after the whales and leave the minnows alone. Let's go after the big problems. And there was a lot of stuff in the works, so when the Reagan Administration came in, it's like, hey, we want to stop all this. By the time it got to the second Bush Administra-- Well, during the Carter Administration, we didn't issue one proposal in eight years for a new standard, not one.

INTERVIEWER: You mean Reagan Administration.

INTERVIEWEE: No. I mean Clinton. Robert Reich is a great talker. You hear him now talking about stuff. We didn't issue one proposed regulation on standards during the eight years Clinton was the President and Reich was Assistant Secretary for OSHA. That's why I think the guy in my opinion, he gets up and boasts and talks a lot. I don't even think he's an economist quite frankly, not by training. Why didn't they do something to help workers. We had eight years of a Democratic administration. So when Bush two comes along, I'd say this, during the Clinton Administration there were standards that were already in the works that we completed, so we did complete some standards but we didn't initiate any new standard.

INTERVIEWER: What was that about? That is kind of surprising I think, given that it was a Democratic Administration. I know they had a Republican Congress. That's maybe a part of it but not all the time.

INTERVIEWEE: I just think it wasn't of interest. It wasn't a high priority regulating to try to improve safety and health, particularly the blue collar workers, wasn't an

interest. Ask Robert Reich about it. Why don't you contact him? Ask him why they didn't issue.

INTERVIEWER: Who was the OSHA person in those years? I need to get a list and bring it with me, all the OSHA Administrators.

INTERVIEWEE: Who was the guy? The last one was Jeffers. He was the last one in the Carter Administration. He was from North Carolina. I think he came from the State. Jeffers was the last one in the Clinton Administration. So I think to answer your question, that was a good point, is that there wasn't as much to undo. There was not a whole lot of stuff in the works when Bush two came in. But I'll tell you what Bush two did. It was there, and this was another reason I left actually, they didn't want to regulate anything so they changed the directorate of Health Standards Programs to Health Standards and Guidance meaning that we don't need to develop these, just put out guidance documents which are unenforceable by law.

INTERVIEWER: So it was like voluntary or something.

INTERVIEWEE: Yes, exactly. I thought I'm not going to stay at a place that's only guidance. They have no teeth in them. That assumes the goodwill of companies to comply with them and some will, many won't. So Standards and Guidance, that's what it's called now.

INTERVIEWER: That's interesting that they had already made that shift by that time. Sounds like the way you see it, the groundwork was already being prepared by the Clinton Administration wasn't itself pursuing standards.

INTERVIEWEE: Yes. I don't think they were less opposed to some standards but they weren't certainly aggressive at all and I don't think that was a high priority in that administration.

INTERVIEWER: Let me get to some wrap-up questions because you may have a lot to say about these. How important would you say presidential transitions have been in shaping the work that you saw at OSHA, at this agency?

INTERVIEWEE: Obviously, it's very important because the White House is going to influence all of them, White House and Congress are going to influence all of the regulatory agencies and so it has a tremendous influence and now that you've got both the House and the Senate controlled by Republicans, they don't want any regulation and for some reason which is beyond me, it seems like they've been able to influence a large portion of the public to 'We need to get government off our backs. We need to get government out of the private sector.' Well, if government, if the EPA doesn't reg-, that's public health. Whatever EPA regulates helps the average person in our society in terms of their health and yet you see some people that don't have a clue about that or don't think about it, 'Yeah, we need less government regulation and that's good. I'm gonna vote for them.' Well, look at the money the taxpayers pay that goes to the regulatory agencies to regulate and then the regulatory agencies don't regulate. That's terrible. And it isn't that the people in the agencies, the career staff, aren't interested in regulation because they are interested in doing the right thing.

INTERVIEWER: Right. It gets back to the politics and really a lot of that tension between the career people and the political.

INTERVIEWEE: Yes, exactly. And who goes to bat anymore for the career people? These are people in the bowels of the regulatory agencies and, hey, they can do what they want to an individual that's too persistent if the philosophy is not to regulate. It's that simple. It doesn't take a lot to figure that out. But they're un-thought of by the public. Just like 9/11, look how the police and the firemen helped out, they've got those same civil servants working in regulatory agencies but it's not as spectacular. The people at EPA, they're trying to protect us from long-term, chronic, low-level exposure to pesticides, to petrochemicals, to pollution of the air, the water and as a result of that, you're trying to prevent chronic disease which is long-term, irreversible disease. Well, that's not as sexy a topic as an evident 9/11 when you see all of a sudden in one-day boom, all these people are killed and it's terrible. Think how many more people were killed in a year from chronic disease from pollution. It's not as spectacular, so it goes unnoticed. It's not as sexy. Look at the new program that you just read about in the newspaper, Biden, his moonshot on cancer. How much of that's about prevention? Not much. The only preventive part of it I could see is let's look for gene variations in people so we'll know maybe is there some particular treatment where we know about their susceptibility? I don't see anything in that about prevention. That's the problem.

INTERVIEWER: That's pretty classic actually in terms of overseeing the environmental piece to cancer.

INTERVIEWEE: I think with the new administration you know the Republicans are hostile towards any public health or regulation. Why? I don't know. You think they have the same children like the rest of us.

**<T: 90 min>**

INTERVIEWER: What do you see as the best achievements of this agency, OSHA, during your time there or just generally. Your time there coincides with a good deal of the agency's history.

INTERVIEWEE: I think OSHA, they've done a good job of the standards that they've developed I think were the very best that could be done and they're documented ad nauseum. The government does anything, it's like living in a fishbowl. So I think they've done a good job on the standards that they developed. The compliance people, they do a good job of enforcement of the standards that are on the books. They've done a good job and they do a good job of I think training, and education and hazard communication, standard ethics is very important, which I think has just been changed recently and I haven't kept up with that.

INTERVIEWER: What about your own career there? What are you most proud of in terms of your own work and achievements?

INTERVIEWEE: I'm proud of doing the benzene study, then following through with that to see that workers were protected from benzene because up until 1977, workers in these refineries were washing their clothes with benzene. They'd get grease on them, they'd wash them with benzene, hang them out on the line to dry,



put them on the next day. They were cleaning their hands, their tools with pure technical grade over 98-99% benzene. I'm totally shocked. How do I know this? Because I've been involved in litigation and I get the information and only specific cases of these guys said 'what were they doing between 1970 and 1976,' and I'm just I'm just shocked and I call Eula Bingham and say 'Eula, you don't know how good you did in issuing that emergency standard because even though it was stayed, it took ten years for the final standard, the industry reduced exposures on a lot of products, and they sneaked back up a little bit in the early Eighties but they stopped that practice for the most part of cleaning with benzene, their tools, kinds of stuff. It had a tremendous effect I think because now we know that benzene causes not only leukemia but essentially all the non-Hodgkin's lymphomas so it was well related to benzene exposure in the NDS which a myeloid malignancy.

So I think it's important that, not only did I do the standard that I went to OSHA to try to help to implement the standard because that's what's really tough. I think that my testimony before the World Trade Association on asbestos was really important. That was around 1999 when the European communities wanted to ban the importation of chrysotile asbestos from Canada because they were-- But then Canada was claiming it was an unfair trade practice and took it to the World Trade Organization, so then there were four people from around the world, experts in epidemiology, selected to write a report and go testify before the World Trade Organization and I was one of the four. I was the only one from the United States. The other three were from Australia. My testimony was that chrysotile asbestos could not be used safe and that the risks from chrysotile for lung cancer was just as great as any of the other forms of asbestos and that the whole issue of why you didn't see as much mesothelioma is because exposure were lower. It was like a dose/response issue but now you're seeing a lot more. And the substitutes, Canada was arguing the substitutes could be just as dangerous and so Canada, in fact, selected me to be one of the experts because I'd written a paper about fibrous glass carcinogenics, but not getting into all that.

So I would say, went over and testified and I was very influential for this three-judge panel because I was being cross-examined by the Canadian Government who had Courbet MacDonald. I don't know if you know him or not. He's done all these asbestos studies for the Canadian Chrysotile Industry and he was over there feeding questions to ask me and I really prepared my testimony and at one point the attorney for Canada just threw this big printout down on the floor and started yelling at me and it felt good. And I was very outspoken at the beginning of the hearing and some of the other guys weren't saying a whole lot, so at lunchtime I said 'do you disagree with me on some of these things I testified to or what.' They said 'no, we agree with you.' I said 'well then you need to offer your support. If you do agree with me, then you need to state it. If you don't agree with me, you need to state that, because when this hearing is over, they're going to say one expert felt this way and the other three were silent on it. That's what the record's going to show.' So they spoke up more when I would testify and

added some good testimony. As a result of that, the importation of Chrysotile asbestos into like 17 European countries was banned, so I think that had a big influence. I think this whole brouhaha on formaldehyde was really important from the standpoint of just a scientist being able to stand up in an administration that wanted to change science for political reasons. I thought that was real important. I thought my vinyl chloride studies were really important. And I think it's important that the public be informed about answers because who do they know to believe; they're not scientists. They hear one thing from one person, another thing from another person, and anytime I've been requested to give an interview, I have always done it and if the agency didn't want me to do it, I've done it anyhow and explained to them why I was doing it and never turned down anything. In fact, even during the end of the Clinton Administration, I was going up to Canada to testify about gasoline exposure and leukemia because it was an issue in terms of worker's comp up there in Canada, and I sent in the paperwork to go there and the word I got back was they didn't want me to do this TV interview and the Assistant Secretary was in kind of a little bit of hot water from some other things, some compliance memo he sent out, so I said 'if you don't want me to do the interview, if you ask me not to do it, I won't do it because I understand the situation.' The Assistant Secretary said 'no, I think it was a x' I said 'but if you're telling me not to do the interview, then I have to protect my First Amendment rights and do the interview. Which is it?' So I'm at home because I'm going to go into the studio in D.C. where the Canadian Broadcasting is. I get a callback and he said 'it was very clear that they do not want you to do the interview. It came from the Secretary of Labor, from Reich's office.' I said 'you're telling me not to do it?' He said 'yes.' I said 'well then I have to do it,' so I went and I did the interview and then, when I was finished with the interview, I sent a three-page memo explaining what I said and I said 'it was my understanding from the Gore hearings and all that's happened since then that as an agency scientist, as a public health practitioner, I have the right to express my scientific opinions. I don't sacrifice my knowledge because I'm a government employee.' I said 'if now there is a new department policy that government scientists cannot express their scientific opinion, please inform me.' Do you think they're going to respond to that in writing? No way! And you know why, right? I'd be on the phone immediately talking to the president. That's suppression of science. So I've always been outspoken and it's caused some difficulties that I would rather not have gone through, but at least I feel I have a clear conscience at the end of the day.

**<T: 100 min>**

INTERVIEWER: I neglected to ask you this. One of the things that we are inviting people to do is to make a public statement, either your own written version or we can curate your interview. This is not going to happen soon, but maybe at the end of the first hundred days or something like that. Would you be willing to consider that as an option?

INTERVIEWEE: Sure. I would if you could send me something. You can send me a draft of it and I can revise it or something.

INTERVIEWER: Of course, and the other thing is would you like to receive a copy of the transcript of your interview?

INTERVIEWEE: I don't need a copy of the transcript. If you want to send me one-- I don't know if it'll come up. I get involved in, I testify for workers exposed to benzene who develop leukemia and lymphoma on the job and I don't know if any of this interview will come up in deposition or trial.

INTERVIEWER: We'll certainly—

INTERVIEWEE: I don't need to have one. I hate reading any testimony I've ever done. It's the most boring thing in my life! Oh no, please, let me waive my review, so I don't really need it but I'm glad to look at anything you send.

INTERVIEWER: In terms of before we put it out there on the website or something.

INTERVIEWEE: Yes. I would like to do that.

INTERVIEWER: I have not asked this. What change in the agency do you feel might improve what it does or is supposed to do, make it healthier or more fully functioning?

INTERVIEWEE: Are you talking about OSHA, NIOSH?

INTERVIEWER: OSHA. I know that most of our questions are about sort of suppression of the agency's activities and the possibility for that, but we're also trying to use this as a moment, you know, the pendulum always swings back and so to gather people's thoughts on what this agency should be doing and what it could do better.

INTERVIEWEE: The first thing I would say is the agency, ever since its inception, has been tremendously under-funded. If you compare the number of workplaces in the United States to, let's say, Finland and how many compliance officers they have, it's like god knows how many times more. I think the future, I've seen that OSHA compliance, there are enough compliance officers that they could visit every establishment once every 82 years or something like that, so we don't have the proper inspection that we need to have. You can only do that if you have a larger staff. So I think that's important. And the same with NIOSH. Their budget's puny. There's not a real interest in worker safety and health because it kind of adversely impacts on production to have to do something to protect workers from getting disease and dying. So I think even though the Occupational Safety and Health Act was created in 1970 and that was a tremendous thing, it's never had the subsequent congressional support in terms of funding and staff to be able to carry out its mission adequately, so that's a big thing.

Then, the second thing is I really feel that there's just no recourse when you have an administration that does not want to regulate, an administration that wants to misrepresent hazards to the public. I was just talking about occupational hazards and when you have that situation, there needs to be protection of people within the agencies so that they can offer different opinions, might offer opinions, different factor, based on their knowledge and experience and scientific evaluation because without that, we just couldn't

have run the strong people out of, they won't stay. And career civil servants, they have to constituency in the country to support them and you and I can do our thing in occupational health now but if you want something implemented in terms of reducing a hazard in the workplace, career civil servants have to do it.

INTERVIEWER: Because that's how it happens.

INTERVIEWEE: That's how it happens, yes. And people in academia, they don't have a clue. They still think like I was taught, which is what you would think, in terms of public, you do the study, identify the hazard, then you implement the knowledge so that step two has been very difficult to do.

INTERVIEWER: There's a final set of questions on what you're foreseeing in the next few months/year. What work do you think is most vulnerable within the array of things that OSHA does? I'll say OSHA but you can throw in NIOSH if you wish.

INTERVIEWEE: It's difficult for me to speak on specifics because I don't know what OSHA's doing right now, but I think the general tenor will be, one thing, to weaken the enforcement and surely if OSHA does anything, they'll put out guidance documents. They won't put out any standards to reduce exposure unless there's some catastrophe that happens that might stimulate that. I wouldn't be surprised if they, at best, freeze the agency staff so that by attrition they'll lose people to shrink the size of these public health agencies. You know you heard him boasting during the primaries about getting rid of the Environmental Protection Agency, so that's what I see. I see very, very bad times approaching and hope that citizens can get active about it like Meryl Streep last night.

INTERVIEWER: What about any data that's collected at OSHA? A know you're a few years out now from actually being in the trenches there, but in terms of databases or that kind of thing you think might be vulnerable or tucked behind low processes now that we have a new administration coming in. Part of our initiative is sort of data rescue and that kind of thing, so we're looking for people's insights into where the most vulnerable data might be within these agencies.

INTERVIEWEE: Right now today I don't know. I don't know the answer to that question. I have to think about it a little bit. You should talk to David Michaels. Hasn't he left?

INTERVIEWER: We've got a couple inquiries out to David Michaels and we haven't really heard back.

INTERVIEWEE: He's not staying until the 20th.

INTERVIEWER: He's not staying all the way to the 20th?

INTERVIEWEE: No because he starts at, he was going back to GW.

INTERVIEWER: He started the new semester.

INTERVIEWEE: Yes. It's this week, isn't it? So he's left. He called me last week and told me. I said 'well, you're staying.' Usually, like in the Bingham Administration we worked up until like midnight of the night before the inauguration to get

midnight standards and there's some kind of congressional act or something that something stays midnight standards.

INTERVIEWER: So there's no sense of even trying. We will definitely follow up.

INTERVIEWEE: They did just do the beryllium standard but I don't think that will be challenged because I think the beryllium industry is happy they got a new .2 microgram per cubic meter standard because no amount is safe for a susceptible individual. That's why it used to be called Brush Wellman. Now I think they're called Materion and they're out of, where is it in Ohio. I forget the town around Lucky, Ohio and that area. They'll be happy to get this. They had their workers in space suits and supplied respirators at their own facility. At the same time, they were recommending to downstream users of their beryllium that as long as they were below the 2 microgram limit it was okay, so they could operate within, go ahead and buy our beryllium alloys and all that stuff, and at the same time, they've got their own workers doing the same things wearing space suits with respirators and their exposures are way below 2 micrograms and they still have them functioning that way. They have night watchmen outside their plant in Ohio that have been diagnosed with beryllium sensitization, chronic beryllium disease.

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